

BODY IMAGE, HEALTH, AND PHYSICAL
ACTIVITY IN PREGNANT WOMEN:
A COMPOSITE ANALYSIS.

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ABSTRACT

Women's appearances are often judged by stringent, societal expectations, notably that of the thin-ideal. Pregnancy presents a definitive, yet naturally-occurring deviation from this norm. Research findings on how pregnant women cope with bodily changes however, are equivocal. Some feel protected from appearance-related concerns, whilst others experience increased body dissatisfaction. The aim of the present research was to build a composite understanding of factors that have an influence on body image attitudes and coping strategies in nulliparous women. Underpinned by a new realist and pragmatic approach, the research comprised of qualitative and quantitative components. The first aim was to explore messages about the pregnant body, and the role of exercise in UK magazines and online news sites. A qualitative, thematic examination of articles revealed a stark "invisibility" of the pregnant body in fashion magazines and a disparity in exercise messages and bodily portrayals among news and magazine publications. Overwhelmingly, beauty equated with the thin-ideal, not the pregnant body in news sites and fashion magazines. Study 1's findings and existing pregnancy research guided Study 2; an exploration of women's thoughts about their pregnant bodies, the role of exercise, and media-related, bodily descriptions. Semi-structured interviews were conducted with nine pregnant women. Thematic analysis revealed that although women accepted their pregnant bodies, they experienced unwelcomed appearance-related comments, comparisons, and physical contact by others. Their pregnant bodies were perceived as being persistently scrutinised. Finally, a quantitative exploration of appearance-related experiences was conducted, using an online questionnaire administered to 181 pregnant women. Guided by Cash's (2011a) theoretical model, a multitude of complex factors were examined using path analysis. The model revealed that body appreciation / acceptance, body shame and surveillance, fitness / health attitudes, and appearance evaluation / investment were influenced by historical (e.g., self-esteem, public self-consciousness) and proximal factors (e.g., social comparison). Exercise participation, clothing for concealment, and avoidance / fixing behaviours were associated with shame and surveillance, appearance comparisons, and physical discomforts in pregnancy. The present research indicates that women experience complex appearance- and fitness-related issues in pregnancy. The research concludes by highlighting the importance of nurturing self-esteem in pregnancy to increase body confidence and protect against negative coping strategies through the transition towards motherhood.

DECLARATION

This is to certify that:

- This thesis has not been submitted for a comparable academic award
- This thesis is the candidate's own work.



Signed:

Candidate name: Nova Deighton-Smith

Date: 10th April, 2014

This is to certify that, so far as I am aware, the work was undertaken by the candidate.

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Date: 10th April, 2014

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DEDICATION

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GLOSSARY OF ABBREVIATIONS

<i>NICE</i>	<i>National Institute for Health and Clinical Excellence</i>
<i>ACOG</i>	<i>American Congress of Obstetricians and Gynecologists</i>
<i>RCOG</i>	<i>Royal College of Obstetricians and Gynaecologists (UK)</i>
<i>RCM</i>	<i>Royal College of Midwives (UK)</i>
<i>BMI</i>	<i>Body Mass Index</i>
<i>EGWG</i>	<i>Excessive gestational weight gain</i>
<i>ED</i>	<i>Eating disorder</i>
<i>BD</i>	<i>Body dissatisfaction</i>
<i>SEM</i>	<i>Structural Equation Modelling</i>
<i>MLE</i>	<i>Maximum Likelihood Estimation</i>

CHAPTER 1

OVERVIEW OF THESIS

INTRODUCTION

This chapter is intended to introduce current research and present an overview of the remaining chapters that form this thesis. Before the overview is outlined, it is first necessary to provide a brief history to research in the field of body image and appearance, including a background to current perceptions of attractiveness, an acknowledgement of appearance-related issues in women, and a proposal for why these matters may be pertinent to pregnant women.

The project comprised of mixed methods. When discussing specific methodologies, reflections about the processes involved will appear in the relevant methods chapters. That said, it is also important that I explain my position in relation to the research, document how I came to choose the topic of appearance in pregnancy, and deliver an outline of my thoughts towards the research process. This however has been more appropriately situated at the end of this thesis, as an afterword. In addition to this, I would also like to state that although the majority of the research is written in the third person, my subjective reflections will be in the first person. I have chosen to do this as these are my personal thoughts and I would prefer not to characterise them in what may seem a distant form.

BACKGROUND TO THESIS

PERCEPTIONS OF ATTRACTIVENESS

In everyday life, we seem to be preoccupied by our appearance. For instance, the sight of our familiar appearance in a mirror may do much to reassure us of our self-identity, although this can also discourage us when we (or society in general) perceive our appearance as not conforming to societal standards (Rumsey & Harcourt, 2005). In current Western society, women's appearances tend to be judged in terms of cultural influences and norms. Women are often judged not only in terms of their thinness or attractiveness (i.e., as representing an appearance ideal), but often in conjunction with being perceived as kind, happy, intelligent, and educated (Tiggemann & Polivy, 2010). This is said to be consistent with the 'what-is-beautiful-is-good' stereotype (Dion, Berscheid, & Walster, 1972).

In what has come to be known as the 'Halo Effect', Dion and colleagues found, that having asked 60 participants (both male and female) to rate photographs on level

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of attractiveness, it was concluded that “not only are physically attractive persons assumed to possess more socially desirable personalities than those of lesser attractiveness, but it is presumed that their lives will be happier and more successful” (1972, p. 289). Interestingly however, attractive individuals were not expected to make for better parents. This appearance-cued stereotyping, seen as a cognitive bias, allows an individual to make rapid judgements about others, because physical appearance is i) usually the most obvious and accessible feature within a social interaction (Dion et al., 1974) and ii) has the capacity to convey basic information about that person, such as gender, race, or approximate age (Cash, 1990). It is important however, to acknowledge reviews that have gone on to argue that the ‘beauty-is-good’ effect, may only be moderate and that the process of making stereotypical judgements of appearance is more complex and situational than Dion et al. first thought (see meta-analyses by Eagly, Ashmore, Makhijani & Longo, 1991, and Feingold, 1992).

In their review of 919 published and unpublished studies (including 11 meta-analyses), Langlois and colleagues (2000) set out to understand the cross-cultural role of attractiveness in actual interactions for both children and adults; more specifically related to judgements, treatment, and behaviour. Their findings suggested that attractiveness was just as important for males as it was for females, and for children as for adults and that levels of cross-cultural agreements in these judgements were high. For both children and adults, attractiveness was strongly associated with popularity, and with success for adults. Both attractive children and adults were evaluated and treated significantly more favourably than unattractive children and adults, even by familiar observers. The authors implied that even when individuals have other information (e.g., behavioural cues) on which to base their judgements, people do indeed still ‘judge books by their covers’ (Langlois et al., 2006). This attractiveness stereotype has since been tested in terms of its directionality, again in both children and adults, whereby the results suggest that it is more that unattractive women are seen to be at a ‘disadvantage’ to either those in the medium or high classifications (based on facial attractiveness), rather than being perceived in terms of their goodness (Griffin & Langlois, 2006).

THE ‘THIN-IDEAL’

Despite high levels of agreement about what comprises beauty or attractiveness in current society, the female body shape is evidence of a temporal shift in societal preference (Rumsey & Harcourt, 2005). In the late nineteenth century, the ideal of an hourglass figure was greatly emphasised through the prevalent use of corsetry. In the 1950’s, a fuller-face and figure was popular and seen as the ideal

shape for women. In the 1960's and 1970's, a change in preference moved towards that of a much more slender body shape (e.g., the British model, "Twiggy"). Towards the 1990's, models were increasingly being represented as having pale skin, appearing unsmiling, thin, and frail (Rumsey & Harcourt, 2005). One might associate the thin-ideal body shape as represented by female models of the late 1990's to 2000's, such as Kate Moss or celebrities such as Victoria Beckham. This was the period in which the UK experienced the 'size-zero' phenomenon. Female models (predominantly within the fashion industry) were portrayed as having had a very thin, tall, non-curvaceous body frame. This trend began to filter into aspects of everyday life, at which point, this body shape was not necessarily restricted to the catwalks, but appeared on most advertising billboards, high street stores, and in mass media. Women with this particular body frame were criticised for promoting extreme dieting and looking unhealthily thin (Reid, 2000, as cited in Grogan, 2008).

It could now be argued however, that we have seen a further societal transition in terms of bodily preference since the 2000's. Although the Western ideal for women remains slender, the favoured aesthetic image of a woman's body is now that of a fit, toned (Bordo, 2003), and curvaceous or shapely figure, rather than a waifish, thin-looking body (Grogan, 2008). Yet despite this shift, most magazines still tend to use thin and youthful-looking models (Bordo, 2003, Strahan, Wilson, Cressman, & Buote, 2006) and those who are seen as non-conforming are generally labelled as being overweight (Wykes & Gunter, 2005). The thin-ideal is not only representative of current cultural ideologies but is one that is actively promoted by the media (Grogan, 2008).

THE IMPORTANCE OF APPEARANCE-RELATED ISSUES FOR WOMEN

Physical appearance is stated to be an important aspect of who we are and can be neatly divided into two perspectives: i) '*the outside view*' which is the view of individuals as social objects (developed from social perceptions, interpersonal interactions, and individual development), and ii) '*the inside view*' encompassing an individual's subjective experiences of his / her own physical attributes and aesthetics (Cash, 1990). Physical changes to the body can have a powerful impact on our self-view and the way in which we experience ourselves, although not all appearance-related changes are under our control (Rumsey & Harcourt, 2005). It is argued that due to their biological sex, women encounter body-image experiences that men simply do not (Thompson, Heinberg, Altabe & Tantleff-Dunn, 1999). Changes that occur over their lifespan can precipitate psychological reactions (e.g., those induced by hormones). As part of the developmental cycle, the physical body and our

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perceptions of it go through changes. These temporal variations include that of menstruation (commenced during puberty), pregnancy, and menopause. The 'body' is said to possess three "somatic domains" (and individuals develop body image attitudes towards each domain): physical appearance, physical fitness, and physical health / illness (Cash, 1990). Carr-Nangle, Johnson, Bergeron, & Nangle (1993) found that despite women's perceptions of body-size remaining relatively stable throughout the menstrual cycle, body dissatisfaction (as measured by body-related negative thoughts and appearance anxiety) was significantly highest during the perimenstrual phase (i.e., 7-10 days prior to menstruation). This tied in with somatosensory symptoms such as water retention, autonomic reactivity, a reduced sense of control, and impaired concentration. As women continue through adulthood, Andres (1989) estimated that the average woman gains approximately 10lbs (4.6kg) during every decade of her life. Weight-gain tends to occur concurrently with decreased metabolism, particularly as women enter the menopause (Peat, Peyerl & Muehlenkamp, 2008).

Some changes may be seen as desirable (e.g., changes associated with physical maturation through adolescence or the toning of the body through exercise), whilst others may not be so welcomed (e.g., changes to the elasticity of the skin, associated with ageing or the dramatic physical changes over a short period, associated with pregnancy). It has been suggested however that it is too simplistic to conclude that as weight-gain increases across the lifespan, that body weight dissatisfaction automatically increases also (Siegel, 2010). Having found no significant difference in body weight dissatisfaction in women aged 22 to 65 years, Siegel suggested that it could be that i) dissatisfaction is pervasive across the lifetime irrespective of age or perhaps that ii) women reappraise their evaluations and adjust their ideal weight to correspond with biologically-enforced or age-related weight-gain, because they are aware that the ideal body becomes more difficult to attain.

All of these changes, whether developmental, illness-related, or self-induced, take place within a society that currently places great emphasis on outward appearance (Rumsey & Harcourt, 2005). Irrespective of our personal beliefs, most of us actively attempt to influence the way we look (e.g., through clothing choice, change of hairstyle, or perhaps the use of body art), however such strategies can be attributed to a number of reasons; for example it may be that we have a desire to express our uniqueness or it could be that we (sometimes unwittingly) are swayed by perceived norms of appearance (Newell, 2000). Some attributes are seen to be more valued than others and can differ or change according to social, cultural, or historical influences, some of which have been described above in terms of body shape preferences.

Although there is recent evidence to suggest that children as young as five, when exposed to cultural ideals of appearance, report lower body esteem and a greater desire for a thinner body shape (Dittmar, Halliwell & Ive, 2006), traditionally, much of the research has centred on the transition through the pubertal years over any other biological aspect of being female (McCabe, Ricciardelli, & Holt, 2005; Smolak & Levine, 2001a; Thompson, 1990; Tiggemann, 2004) and it is fair to say that puberty and adolescence presents a time of unique body-related challenges for young girls, that boys do not experience (e.g., widening of the hips, increase in breast tissue). Thompson et al. (1999) argued that this was because girls' bodies physically developed in a way that is not reinforced by prevailing cultural standards (i.e., that is a preference for a thin, non-curvaceous shape). As has been described earlier, a thin, non-curvaceous shape was (at that time) the preferred body shape prior to the 2000's.

Hence, there is increasing recognition from governments, schools, and curriculum authorities that body image during adolescence is a public health issue and that intervention programmes are necessary that focus on media literacy, improved self-esteem, and the influence of peers to help improve body-related concerns (Yager, Diedrichs, Ricciardelli & Halliwell, 2013). Recent evidence has highlighted that as women move through adolescence and into adulthood, that the use of 'fat-talk', in which peers (typically women) engage in mutual disparagement about their body size and shape (Nichter & Vuckovic, 1994), has now become a social norm and correlates strongly with increased body dissatisfaction and internalisation of a thin-ideal body shape (Salk & Engeln-Maddox, 2011). The discussion of thin-ideal internalisation will be explored more fully throughout this manuscript and more specifically, in Chapter 4.

The concept of self-esteem is considered a fundamental aspect of psychological well-being (Rosenberg, 1965) and a woman's satisfaction with her weight is considered likely to form a central facet of her self-esteem (Jenkin & Tiggemann, 1997). Throughout adulthood, the self is said to be fluid and fluctuates according to whether one's self-perceptions move closer to or further away from individual and cultural ideals (Rumsey & Harcourt, 2005). Some changes occur gradually, whilst others can occur more dramatically. The experience of pregnancy is said to present a definitive, yet naturally-occurring deviation from a bodily ideal during adulthood and hence forms the basis for this current research.

Pertinent to self-esteem is the relationship between exercise and the body, as this is argued to be crucial to understanding how women maintain a level of self-esteem, given the strong link between self-esteem and perceived physical attractiveness (Sonstroem, 1997). It would appear equally as imperative to explore

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this relationship as well as a range of other psychosocial factors (such as interpersonal experiences) during pregnancy.

Research findings on how women cope with appearance-related changes in pregnancy however, are equivocal, and this matter will be debated in greater detail within Chapter 7. Some pregnant women, for instance, feel more satisfied with their bodies than non-pregnant women and can adapt positively to the change in body shape, whilst still upholding their pre-existing bodily ideals (Davies & Wardle, 1994). This has often been attributed to an internalisation of a socially-valued change in role (i.e., that of motherhood) (Baker, Carter, Cohen & Brownell, 1999; Rocco et al., 2005). That said, there is a greater body of evidence that suggests women struggle through pregnancy with bodily concerns, where some women report perceiving themselves as less attractive and less fit or strong during pregnancy, or have real concern about getting 'fat' (Earle, 2003; Johnson, Burrows & Williamson, 2004; Kamysheva, Skouteris, Wertheim, Paxton & Milgrom, 2008). The influence of a society in which some bodies are more valued over others has been comprehensively investigated through research in the area of body image (Rumsey & Harcourt, 2005), however the bulk of this research has been less comprehensive in the study of pregnancy.

BODY IMAGE

Body image has come to be conceptually defined as the subjective, inner representation of an individual's external appearance (Thompson et al., 1999). Despite being an umbrella term for different avenues of research, Fisher (1986) argued that the body of scientific literature on body perception should include any study which explores how individuals regard and assign meaning to their own body, although in reality, the study of body image has since become tantamount to the study of appearance satisfaction (Thompson, Penner, & Altabe, 1990; Thompson et al., 1999). Schilder (1950) is often credited with presenting one of the first multidimensional conceptualisations of body image, encompassing neurological factors, psychological self-awareness, with contributions from factors such as emotions, attitudes, and social relationships (Thompson et al., 1999). Some of the earliest scales to examine self-evaluation of subjective appearance were developed by Secord and Jourard (1953; Jourard & Secord, 1955). From these ground breaking studies, much of the work has been focused on body-self relations, and specifically the appearance-based aspects of body image.

That said, much of the research in the 1960's and 1970's was dominated by clinical psychology and psychiatry, due to a large amount of academic interest that has centred on clinical populations with eating and weight-related disorders. Much of this clinical research had a specific focus on a particular aspect of disturbed body

image as a component of certain mental health conditions and eating-related disorders. The body of scientific literature between the 1960's to late 1980's tends to reflect this shift towards clinical study. This coincided with the inclusion of a body image criterion for Anorexia Nervosa in the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III; American Psychological Association, 1980) and Bulimia Nervosa in the revised DSM-III (DSM-III-R; American Psychological Association, 1987).

Despite this specific interest, it became apparent that there were far wider samples than just clinical populations that were experiencing some form of body image disturbance. It was as a result of a body size assessment of 60 normal-weight, asymptomatic individuals that this was recognised. In 1986, Thompson and Thompson discovered that despite all of their participants over-estimating their body size, women were found to have significantly higher levels of body-size distortion than men, which significantly correlated negatively with lower self-esteem scores. It was around this period when Fisher (1986) published his two-volume series detailing the very complex and diverse nature of body image, which then catapulted the study of body image into mainstream psychology (Thompson et al., 1999). A few years later saw the publication of Cash and Pruzinsky's (1990) edited volume detailing the multifaceted and diverse components of body image, including factors such as psychopathology, physical disfigurement, and sociocultural ideals. At the same time, saw Thompson's (1990) text, featuring an overview of theoretical models and interventions, specifically for the treatment of body image disturbance and appearance-related concerns.

In the years that followed these ground-breaking texts, there have been various psychological models of body image proposed. There is a general consensus from researchers within the field that body image is conceptualised to exist along a continuum, whereby levels of disturbance range from none to extreme and most people fall around the middle of the range, experiencing mild to moderate concerns or dissatisfaction (Thompson et al., 1999). Researchers would also agree that body image is both a complex and multidimensional phenomenon (see Chapter 1 of Pruzinsky & Cash, 2002; Thompson et al., 1999) and must therefore encompass elements of cognitive, biological, social, and psychological processes within a complete and comprehensive model of its development. One of the most influential is that of Cash's (1996; 2002; 2011a) multidimensional model of body image development, which proposed body image as a variable state, shaped by an array of contextual factors and events. The first model was originally developed using a cognitive-social learning framework (Cash, 1996) and was inclusive of a number of

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complex processes (e.g., self-schema) and social constructs (e.g., personality) and aimed to conceptualise body image attitudes in terms of disturbance. This original causal framework was revised (Cash, 2002, 2011a) using a model that draws on the interaction among “social learning and conditioning processes and the cognitive mediation of behaviours and emotions” (2011a, p. 39). The most current model can be found in Cash’s fifth chapter of *Body image: A handbook of theory, research, and clinical practice* (Cash & Pruzinsky, 2011) and is discussed in detail in Chapter 10. Hence, the current thesis will demonstrate how body image attitudes and subsequent health-related behaviours among pregnant women can be shaped by a contextual and complex array of internal / external factors, behaviours, and processes. This is in accordance with Cash’s (1996; 2002; 2011a) and Pruzinsky and Cash’s (2002) conceptualisation of body image being a multidimensional phenomenon that involves both individual and social constructs.

BODY DISSATISFACTION

Body dissatisfaction (BD), as perhaps the most notable measure of distress, refers to the extent of dissatisfaction with specific aspects of the body along the continuum of disturbance; for example size or shape (Thompson et al., 1999), particularly the negative subjective evaluation of one’s figure, weight, stomach, and hips (Stice & Shaw, 2002). It is said that appearance-related concerns, whereby individuals are becoming increasingly preoccupied, and in many cases, dissatisfied with the way they look are reaching epidemic proportions in Western society (Rumsey & Harcourt, 2005). The term ‘normative discontent’ is now a familiar one, used to describe the widespread weight dissatisfaction among women (Rodin, Silberstein & Streigel-Moore, 1984). This concept suggests that dissatisfaction with one’s weight has become so prevalent among women that feeling negatively about one’s appearance is thought to be the ‘norm’ rather than the exception. The notion of ‘normative discontent’ has been referenced a great deal in the literature, although it is the extent to which weight dissatisfaction, and its correlates of body image concerns and eating disturbance, that has since become a stereotype for women.

That said, it is important to consider biological, social, and interpersonal factors that may have a significant influence on how an individual evaluates their appearance. For example, in Chapter 4, the sociocultural perspective offers an explanation as to why striving to meet societal, appearance-related ideals can have a negative impact on our body image and, in addition, shape our social and interpersonal experiences.

AIMS OF PRESENT THESIS

To this end, the overall aim of the present thesis was to build an understanding of the determinants and processes that have an influence on body image in nulliparous¹, pregnant women. This was achieved using a mixed-methodological approach and composite analysis, to gain insight into their perceptions of cultural standards and media messages and to assess factors that were not only associated with body image attitudes and adjustive strategies, but that may have predicted a positive body image and promoted women's psychological health and well-being in pregnancy; even in a Western society where the notion of the thin-ideal prevails (Cash, 2002).

The following objective was considered. If body image attitudes and adjustive behaviours (e.g., exercise) are in some way influenced by sociocultural influence (e.g., media), interpersonal experiences (e.g., appearance-related commentary), physical characteristics (e.g., pregnancy), cognitive thought processes (e.g., appearance comparison), and personality attributes (e.g., self-esteem), then drawing on Cash's (2011a) model and elements of the research illustrated above provides a rationale for studying these components during pregnancy. This is particularly timely within the UK as the majority of research over recent years in this area has been conducted on Australian and American samples.

Three studies in total were conducted as part of this project. In order to achieve this thesis' overall aim, the research utilised a composite analysis framework comprising of both qualitative and quantitative elements, the order of which is now presented. In brief, a media text analysis (Study 1) was first conducted to investigate the current messages related to body image and exercise behaviour in pregnancy. In line with previous research (Clarke & Gross, 2004; Fairburn & Welch, 1990; Goodwin et al., 2000; Stein & Fairburn, 1996), semi-structured interviews conducted (in Study 2) and the subsequent quantitative survey (in Study 3) were restricted to nulliparous populations as they had no prior experience of weight and shape change that occurs during pregnancy and postpartum period².

STUDY ONE

First, a qualitative, media text analysis was conducted to explore messages about appearance-related aspects of pregnancy, the pregnant body and the role of

¹ Nulliparous implies that women have not given birth previously, regardless of outcome.

² Whilst this definition implies a first pregnancy, this project has ensured that women who may have experienced miscarriage or abortion from a previous pregnancy were not excluded from participating and therefore both studies included women who may have experienced a miscarriage or terminated a prior pregnancy. Hence, this question was never put to women.

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exercise. This study aimed to investigate the representation of pregnant women in UK magazines and newspapers and analyse the prevailing messages. A qualitative approach therefore, offered the most appropriate and flexible way of gathering introductory data as it enabled the development of further research questions (see Study 2) and progression of theory (for Study 3) (Henwood & Pidgeon, 1992). Hence, the study was founded on current media-related research and contextual understandings. A more in-depth discussion on the project's methodology and epistemological position can be found in the following chapter.

STUDY TWO

Second, semi-structured interviews with nulliparous, pregnant women were conducted. These facilitated in-depth discussions as to how women felt about their bodies and perceived their appearance during pregnancy. In Study 2, prominent themes from the media analysis helped to inform the foundations of an interview schedule. As such, participants were asked questions about their thoughts in terms of how they perceived the pregnant body being represented in the media and their thoughts about the role of exercise during their pregnancy. The aim was not to stigmatise women who failed to adhere to adjustive strategies to maintain health and well-being through their pregnancy (e.g., exercise behaviour) or neglect the social context which can constrain women's choices (Burman, 1994) but to discuss some of the psychosocial issues that may have influenced their ability to, for instance, exercise during pregnancy and allow the women to discuss how media messages impacted on their perceptions about their bodies. The emphasis of qualitative exploration here embraces the more complex and possibly sensitive nature of women's individual experiences. Hence the study was founded upon the findings from Study 1 and research studies that were specific to appearance in pregnancy, rather than being underpinned by broader body image theories. As Henwood and Pidgeon (1992) suggested, this approach later lent itself to a development of hypotheses for the final quantitative study, which was assessed on a larger sample.

STUDY THREE

The aim of the final study was to explore quantitatively the appearance and body-related experiences of a cross-sectional sample of nulliparous women during pregnancy, including those who exercised and those who did not. Specifically, the study sought to identify and explore the relationships among body image and a wide range of psychological, physical health, and lifestyle factors. This was achieved by drawing on dimensions, determinants, and processes in Cash's (2011a) revised cognitive-behavioural model of body image development, together with variables

identified from the qualitative findings of Study 1 and Study 2 and relevant body image theories. Hence the reason for a more extensive literature review presented after the analysis of Study 2 and prior to the method in Study 3.

THESIS OVERVIEW

Chapter 1 has provided a background to research in the study of appearance and body image, in addition to presenting a brief contextual link between body image and pregnancy. Chapter 2 delivers a background to, and rationale for, the choice of a new realist and pragmatic approach as an epistemological position and documents its relevance in addressing the current research aims. In addition to stating my epistemological position, the chapter also takes account of the application of a composite, mixed methods approach. Chapter 3 documents the body of literature pertaining to pregnancy; more specifically this chapter will focus on physical health, physical change, and physical activity in pregnancy. This includes brief coverage of the work conducted on obesity and eating disorders as potential risk factors to maternal and fetal health, in addition to physical activity recommendations and health-related outcomes. Chapter 4 presents a literature review related to the role of the media and physical appearance, thereby acting as a precursor to the subsequent qualitative method of the first study in Chapter 5. This will include material on the sociocultural perspective and concept of thin-ideal internalisation, before moving on to a discussion about sociocultural expectations of appearance and media portrayals. Chapter 5 documents the method employed for Study 1, including a comprehensive description of the study's design, sampling strategy, and rationale for the use of thematic analysis (Braun & Clarke, 2006). A full account of the procedure then follows, before a final rationale for qualitative rigour is presented. Chapter 6 presents an account of the findings from Study 1. This will be discussed in conjunction with existing literature and proceeds to demonstrate how these qualitative findings have increased understanding in this area. The chapter continues to include a discussion of study limitations and implications for Study 2, before offering concluding remarks. Chapter 7 documents a comprehensive literature review pertaining to pregnancy. This differs from that of Chapter 3 in that it concentrates more specifically on body image in pregnancy and the postpartum, including coverage of work on body satisfaction and dissatisfaction, weight management and advice, social support, physical activity, and finally women's perceived motivations and barriers to engaging in physical activity. Chapter 8 presents the qualitative method for Study 2. This includes a detailed

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description of the study's design and aims, use of semi-structured interviews, recruitment, procedure, and use of thematic analysis. The chapter concludes with a discussion about methodological rigour and reflexivity. Chapter 9 documents the findings and discussion from Study 2. This includes detailed extracts from the interviews conducted with first-time, pregnant women. A review of the literature is presented together with a reflexive account of the analytical process. In light of the pertinent findings from Study 2, Chapter 10 acknowledges the body of literature pertaining to theory and research on body image. This includes two theoretical perspectives: Social Comparison theory and Objectification theory. In addition, this chapter reminds the reader of the main developments of the thesis thus far. This will progress to a discussion of the theoretical framework which informed Study 3 (i.e., that of Cash's (2011a) revised model of cognitive-behavioural development of body image). Chapter 11 includes a brief introduction to Path analysis, as a form of Structural Equation Modelling (SEM). In addition, a detailed rationale for the selection of measures employed will be presented, followed by the overall method for Study 3. This includes the sampling strategy, detailed construction of the questionnaire package, procedural details for recruitment and administration of the questionnaire package. Chapter 12 documents an account of the data screening process for Study 3, in addition to presenting sample characteristics and demographic frequencies. Chapter 13 provides a further discussion of SEM, including model testing and development, along with a rationale for adopting path analysis. The findings include the process of model re-specification and subsequent model interpretation. Finally, Chapter 14 presents a discussion of the results, incorporating the findings from both Studies 1 and 2 to aid interpretation. The areas of similarity found between the qualitative and quantitative studies aims to add strength to the overall findings. The chapter then provides an acknowledgement of both strengths and limitations of the research, theoretical implications and practical applications of the findings, finishing with thoughts for future research. The chapter then concludes by presenting a concise summary of findings together with my personal reflections in an afterword.

CHAPTER 2

EPISTEMOLOGICAL CONSIDERATIONS AND METHODOLOGICAL REVIEW

INTRODUCTION

When attempting to address one's epistemological position, a researcher needs to be clear about the kind of knowledge they are trying to generate (Willig, 2008). Methodology is said to refer to a researcher's philosophical framework and the fundamental assumptions which influence the entire process (Creswell & Plano Clark, 2011). To assist in contextualising this thesis, this chapter will therefore present examples of methodological considerations for researching body image and health issues in pregnancy. It is worth acknowledging at the outset that data related to health, pregnancy, and body image cannot solely be looked upon in an objective way. The thesis therefore aims to demonstrate that although the nature of pregnancy is complex and therefore must be investigated carefully, it is imperative that the experience itself is not solely treated as an objective one for a researcher to determine and that absolute 'truths' cannot be established. This is in keeping with a new realist approach (Bhaskar, 1998; 2008) which will be explained within this chapter.

One of the fundamental aims of this thesis was to draw on a mixed-methods approach. Mixed-methods is a research design with philosophical assumptions in addition to methods of inquiry. It has also been regarded as the "third methodological movement", following on from the development of quantitative and qualitative research respectively (Tashakkori & Teddlie, 2003, p. 5). The use of mixed-methods in health research has become increasingly popular, most likely because of the complexity of the many different factors that can influence health (Morgan, 1998). Throughout the process, these assumptions are said to guide the process of data collection and analysis in the mixture of both qualitative and quantitative approaches (Creswell & Plano Clark, 2011). This chapter provides a brief background to the choice of a post-positivist, new realist approach as an epistemological position and its relevance in addressing the current research aims. The chapter then moves to a rationale for combining both qualitative and quantitative approaches, despite the ongoing philosophical debate around whether or not this is possible. More specifically the pragmatic or 'technical' side of the debate will be presented. Finally these considerations will be examined in light of my epistemological position and the advantages of a composite analysis for addressing the research question will be outlined.

EPISTEMOLOGICAL POSITION

PARADIGM CONFLICT

In everyday life, we tend to take our thoughts and beliefs about how we perceive reality for granted and yet these have formed the substance of much

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philosophical debate about the status of knowledge (Wetherell & Still, 1998). In his book, Thomas Kuhn (1962, 1970, 1996) described the notion of 'competing paradigms' and 'paradigm shifts' within the social and behavioural sciences; a paradigm (e.g., positivism, constructionism, pragmatism) being a "worldview, complete with the assumptions that are associated with that view" (Mertens, 2003, p. 139). Much of the conflict was largely due to intense criticism of the theoretical assumptions associated with the traditional positivist paradigm. Those in support of such a paradigm tend to adopt a realist perspective, which would maintain that objects and entities that exist do so independently of our perceptions, descriptions, and theoretical explanations (see Greenwood, 1994). This is a view that is most strongly reflected within the work of experimental social psychologists, whereby scientific method and objectivity are prioritised and the scope for 'true' knowledge is achievable (Wetherell & Still, 1998) through the use of rigorous and controlled testing of hypotheses. Hence, the study of psychology and the enterprise of science are seen to be meaningless if realism and notions of truth are abandoned. That said, the realist view has been critiqued for reducing the activities of individuals to merely biologically-based or conditioned behaviours, rather than treating individuals as active agents (Parker, 1992).

At the opposite end of the continuum, those who support a more constructionist (or post-positivist) view, would argue that researchers individually and collectively construct the meaning of a phenomenon under investigation, hence reality should be viewed as 'socially constructed' and as a 'social consensus', created and represented in language or discourse (see Gergen, 1985). Hence, reality is viewed as being socially constructed and multiple. Those in support of this view therefore would question how accounts (including psychological theories) can ever indeed be 'neutral' or 'value-free' when values are placed upon objectivity and control within research. This, in essence, represents a value in itself.

Lincoln and Guba (1985) developed axiomatic systems, defined as a set of "basic beliefs" (p. 33) to illustrate and separate the conflicting assumptions between a positivist and naturalist (post-positivist) paradigm. These encompassed the nature of reality (ontology), the relationship of the knower to the known (epistemology), generalisation, causal linkages, and the role of values within research. These distinctive belief systems were said to influence how research questions were asked and examined and had a more narrow approach by focusing one's worldviews within the philosophy of knowledge (Morgan, 2007). Their overall judgement had previously been inclined towards a naturalist paradigm as the paradigm of choice (Guba & Lincoln, 1981).

A 'NEW REALIST' PERSPECTIVE

The scope of the conflicting paradigms' account (Guba & Lincoln, 1981; Lincoln & Guba, 1985) however is limiting. Although paradigms, as epistemological stances, do highlight the deeper assumptions that researchers make, they are vague in terms of practical decisions such as what to study and how to do so (Morgan, 2007). In his landmark text, *A Realist Theory of Science*, Roy Bhaskar (1975, latest revision in 2008) argued that the positivist account mis-identifies epistemology (the study of knowledge) with ontology (the study of the nature of reality/being). He critiqued empirical realism for being underpinned by a meta-physical belief that statements about 'being' can always be transposed into statements about our 'knowledge of being' (Bhaskar, 2008). To illustrate this, he claimed there were two kinds of objects of knowledge: an *intransitive* object (e.g., enduring structures and mechanisms of the natural world that exist independent of thought and the conditions which allow access to them) and a *transitive* object (existing theories, material causes, social practices and so on). Transitive objects of knowledge are the "raw materials of science" (2008, p. 11). These include socially-produced facts and theories, paradigms, and methods of inquiry available to the researcher. In contrast, intransitive objects of knowledge do not depend upon human activity. Bhaskar illustrated this further by saying that if humans ceased to exist, sound would still continue to travel and heavy bodies would fall to the earth as a result of gravity, though there would be no-one to know it.

The view of critical (or 'new') realism, as defined by Bhaskar (2008), is explained in that although much of our understanding of the world is determined by language and discourse, there is also a 'real' world which exists above and beyond this. Therefore, if there were no science, there would still be a nature, and it is this nature that is discovered by science. Whatever is discovered in nature must be expressed in thought or perception but the structures discovered do not depend upon thought (Bhaskar, 2008). So for example, the physical sensations of pain experienced (as an intransitive object) by women in labour may be real and exist independently of whether we perceive this or not, but the way in which labour pain (as an transitive object) is socially constructed in terms of attitudes or perceptions, particularly when referenced culturally, is very much determined by language and communication. A new realist takes account of both sets of understandings.

As illustrated in the paragraph above, new realism has more in common with constructionist perspectives whereby the subjective element in knowledge production is acknowledged (Willig, 2008) whilst still reserving a place for realism. In his 1992 text, Parker argued that objects exist within three realms: i) ontological (objects exist independently of thought and language and are therefore real in a physical, material

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sense), ii) epistemological (objects which have 'entered discourse', such as psychological theories, that have developed ontological status), and iii) moral / political (objects of knowledge which have largely been created in discourse and are ideologically-loaded but nevertheless, can be called into being and thus given a reality (e.g., attitudes). Bhaskar (1998) asserted that if some set of beliefs are deemed to be 'ideological', then in some way they must be necessary and as researchers, we must account for the reasons why such beliefs may be held. Ideological beliefs should not be seen as superficial or irrelevant; they form part of the very structures we need to understand (Parker, 1992).

A realist however, would maintain that it is not possible to obtain knowledge about objects within social psychology that only have an intransitive status (see Bhaskar, 1998) without reliance upon the use of pre-existing, positivist knowledge and techniques which exist in a more transitive realm (Parker, 1992). A new realist would accept that mind-independent reality has correspondence with fact and ontological reality, in addition to accepting the possibility of causal explanations. That said, a new realist would also accept that knowledge is the product of history, time, and culture; constructed through social interaction and language. For critical (new) realists, the ultimate goal of research is not to identify generalisable laws (positivism) or to identify lived experience or aspects that lie in discourse (constructionism), but to develop a richer understanding and explanation (McEvoy & Richards, 2006). Hence, the choice of methods should be dictated by the nature of the research problem. In many cases it is suggested that the most effective approach would use a combination of quantitative and qualitative methods or techniques (Olsen, 2002). This will now be discussed in terms of a methodological framework, in which holding a pragmatic view has its advantages.

METHODOLOGICAL REVIEW

DEFINING THE PRAGMATIC PARADIGM

The fundamental barrier to combining methods, so far, appears to stem from epistemological differences that are said to be irreconcilable (see Lincoln & Guba, 1985). Pragmatism however, offers a different way of conceptualising epistemology and the way in which we define knowledge. Tashakkori and Teddlie (2003) defined pragmatism as "a deconstructive paradigm that debunks concepts of 'truth' and 'reality' and focuses on 'what works' as the truth regarding the research questions under investigation. Pragmatism rejects the either / or choices associated with the paradigm wars, advocates for the use of mixed methods and acknowledges that the

values of the researcher play a large role in interpretation of the results” (p. 713). Those categorised as mixed methodologists work primarily within a pragmatist paradigm, interested in both textual and numeric data and their analyses (Teddlie & Tashakkori, 2009). If conducted well, a researcher should be able to integrate different techniques and move back and forth seamlessly between thematic and statistical analysis (Onwuegbuzie & Teddlie, 2003). Combining methods from a pragmatic perspective also encourages the integration of varying theoretical perspectives to interpret data (Brewer & Hunter, 2006). If one adopts a pragmatic view, the aim of research is not to discover abstract truths that exist independently from human experience, but rather to demonstrate an understanding that is both useful and beneficial. Therefore, the use of mixed-methods can facilitate the most appropriate means of answering a research question. In a similar manner, new realism takes a pragmatic approach to research and it is possible for multiple paradigms to be applied to mixed-method designs (Teddlie & Tashakkori, 2009). For both the pragmatist and the new realist, the matter lies not in the use of research methods but in the ontological commitments of the paradigm. It therefore can be appropriate for research to combine methods, if a shared ontological and epistemological position can be sustained (Morgan, 2007).

ADVANTAGES OF EMPLOYING A MIXED-METHODS APPROACH

Mixed-methods research provides strengths that are said to offset the respective weaknesses of using quantitative and qualitative research alone (Creswell & Plano Clark, 2011). Hence, there is the potential to answer both a broader and more complex set of research questions and provide a more complete analysis and composite understanding of phenomena, compared to using single methods (Creswell & Plano Clark, 2011). To illustrate this, quantitative research alone is often regarded as weak in trying to understand the voices of its participants within a particular context or setting (Creswell & Plano Clark, 2011) despite being part of the dominant, positivist tradition throughout much of the social and behavioural sciences (Teddlie & Tashakkori, 2009). Toffler once described quantitative research as focusing only on the discrete and trivial whereby an “obsessive emphasis on quantified detail without context, on progressively finer and finer measurement of smaller and smaller problems, leaves us knowing more and more about less and less” (1981, p. 142). In contrast, the application of a qualitative approach can enhance the research by exploring individuals’ experiences and understandings (Johnson, Onwuegbuzie & Turner, 2007) and yet be seen as deficient owing to the personal interpretations of the researcher and ensuing bias (Creswell & Plano Clark, 2011).

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The concept of bias will be critiqued in more detail when discussing rigour in Chapters 5 and 9. Quantitative, statistical analysis thereby provides a means of surveying a complete body of work which may become lost using an intensive, qualitative approach, particularly when specific segments of data are used to support an overall premise (Silverman, 1985). As a result, positivists have argued that psychology as a discipline will only acquire and sustain scientific credibility by employing highly rigorous, controlled empirical investigations that produce factual, reliable data (Aronson, Wilson, & Akert, 1994). In some respects, this is a valid statement. Nevertheless, although a more empirical methodology might yield a discovery of valid representations, the use of qualitative research offers a more flexible means of interpreting data and highlighting the complex nature and context of individuals' lives (Ussher, 1999).

A SEQUENTIAL DESIGN WITHIN A COMPOSITE ANALYSIS

Creating a connection between two different methods can be a challenge and therefore, in keeping with a pragmatic approach, a useful strategy is to employ the two methods sequentially in order that what is learned from one contributes to what is learned from the other, thereby adding strengths to the existing data (Morgan, 1998). It has been argued then that a researcher's first decision should be to determine the extent to which either the qualitative or quantitative method should be the principal tool for gathering data (Morgan, 1998). Morse (1991) stated that although it would seem obvious to give two methods equal priority, this is impractical in terms of analysing the data in a coherent manner. From a sequential perspective, Henwood and Pidgeon (1992) asserted that grounding quantitative research, by prior use of exploratory qualitative investigation, ensures that quantitative measures clearly assess issues linked with the research question(s) by addressing the value of context and meaning for the participants. Qualitative approaches also facilitate the construction of quantitative measures and formulation of hypotheses for quantitative research (Bryman, 1988) or direct further research questions, thus guiding the development of theory (Henwood & Pidgeon, 1992). That said, Henwood and Pidgeon's (1992) criteria stem from a Grounded-Theory perspective and in the context of this thesis, the use of the term 'exploratory' is problematic as this assumes a de-valuing of the qualitative approach. The term 'composite analysis', introduced by Yardley and Bishop (2008), is preferred therefore as a means of maintaining the integrity of both qualitative and quantitative methods used, rather than implying priority of one over another. The premise of composite analysis is to maintain coherence between aims and method for each element of the research project. Hence, each component (whether qualitative or quantitative) can be understood both

as an individual piece of work and as a contribution to a broader whole. New insight and added value can be achieved by relating the insights from one component to the other, irrespective of a sequential design or otherwise.

A second decision for the researcher involves the sequence in which the qualitative and quantitative data are used. The real question relates to how to connect different types of data in ways that maximise their contribution to the success of the overall research project (Morgan, 1998). Using his priority-sequence model, Morgan asserted that the simplest way would be to make a decision about which method should be principal. Having critiqued this argument above however, the current research project adopted Johnson and Onwuegbuzie’s (2004) mixed-method design matrix whereby equal status can be bestowed *and* a sequential order can be used. This offers the researcher creativity when setting up their mixed methods research design, rather than relying on a pre-set typology (Teddlie & Tashakkori, 2009). The mixed-method design matrix is presented in Figure 1 and the selected method for the current research project is highlighted in bold in the top-right cell:

Time order decision	
Concurrent	Sequential
QUAL + QUAN	QUAL + QUAN³
	QUAN + QUAL

³ “qual” stands for qualitative, “quan” stands for quantitative, “+” stands for concurrent, “→” stands for sequential, capital letters denote high priority or weight, and lower case letters denote lower priority or weight.

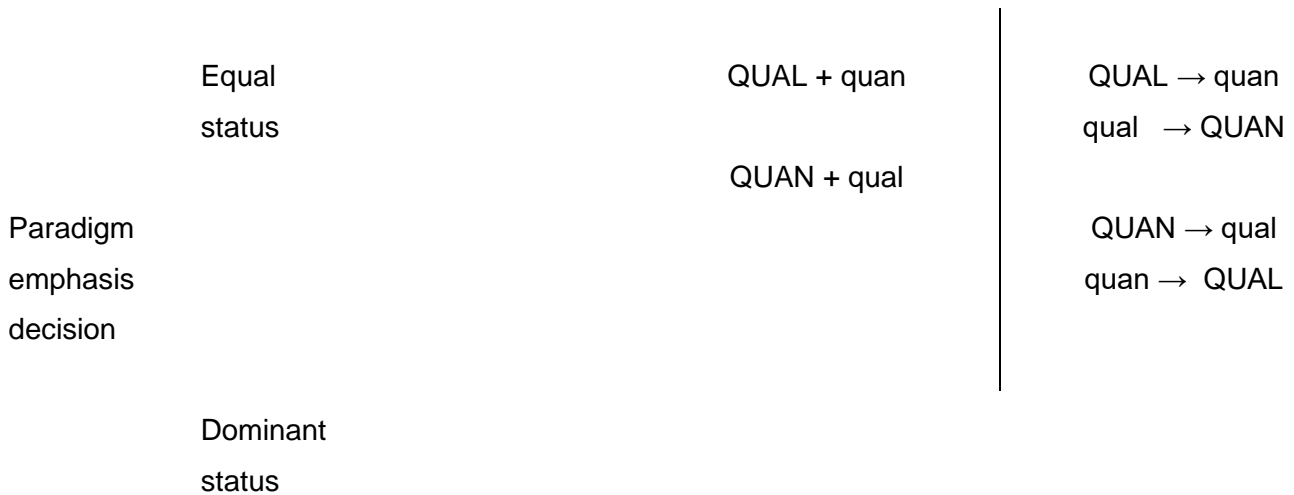


Figure 1: Mixed-method design matrix with mixed-method research designs shown in the four cells (Johnson & Onwuegbuzie, 2004).

In addition to design selection, the research process must be considered. Johnson and Onwuegbuzie’s (2004) mixed-methods research process model comprises eight distinct stages and are presented in Figure 2. The research design, as illustrated in Figure 1, was selected as stage three of the process:

1. Determine the research question
2. Determine whether a mixed design is appropriate
3. Select the mixed-method research design
4. Collect the data
5. Analyse the data
6. Interpret the data
7. Legitimate the data
8. Draw conclusion and write the final report

Figure 2: Mixed methods research process model (Johnson & Onwuegbuzie, 2004).

This process formed the basis for the current research project. That said, there were three studies within the overall project and therefore the design presented in Figure 1 differs slightly in that an additional qualitative study was added so the sequence followed thus: QUAL→ QUAL→ QUAN. The mixed-methods research process model was also modified, so that once each single study was complete, the process was repeated twice over. Stage 3, was omitted each time however, as this had already been decided at the outset.

LOCATING A NEW REALIST AND PRAGMATIST RATIONALE IN THE CONTEXT OF PREGNANCY

The present chapter has thus far, documented a rationale for the use of a new realist and pragmatist paradigm, in addition to presenting a justification for the use of mixed-methods within a composite analysis. The chapter now moves to a discussion of how my epistemological position and use of mixed methods can be located within the context of this thesis.

Subjectivity is a concept that ought to not only preoccupy both qualitative and quantitative researchers alike but be seen as a valuable resource that can be tapped to illuminate both the phenomenon under study and situate research design more generally (Gough & Madill, 2012). Ussher (1999) argued that subjective experience and behaviour are seen to be at least partially constructed within social practices, relationships, roles, and shaped by culture and history; therefore health research can never truly be objective or neutral. The essential element of the research process however involves reflexivity, in which meaning can be actively constructed between researcher and participant or at the point of data analysis where text is interpreted. Reflexivity, Ussher argued, involves being aware of the influence of our own experiences on a topic area whilst recognising our own particular stance as researchers, shaped by our political, moral and cultural notions and most importantly in this context, acknowledging the lives of the women under investigation. Reflexivity will be discussed following the method and analysis of both the media text study and interview study.

The importance placed upon reflexivity thus fits with either a new realist or pragmatist perspective whereby multiple methodologies are used either simultaneously or in succession, if they are appropriate to the research question being asked. Bhaskar (1998) suggested that a new realist approach does not limit the researcher in terms of the questions being asked due to epistemological or methodological constraints. To locate this contextually and provide an example, rather than first attempting to identify and predict single factors associated with pregnancy within a model, a more comprehensive approach would first include a subjective understanding, on the part of pregnant women, about physical symptomatology. This would involve an understanding of what it means for them and an acknowledgement of how they manage their pregnancy experience and symptoms associated with it. This emphasises the essential nature of qualitative techniques in providing a more complete and cohesive picture (Ussher, 1999).

Bhaskar (1998) also advocated the legitimacy of lay understanding when investigating psychological phenomena, which holds equal status with expert

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knowledge. In this case, the emphasis on subjectivity facilitates an insight into how women construct their understanding of pregnancy and validates their experience, in the surrounding context of medical advice, sociocultural expectations, and media accounts. This underlines the potential influence on their own perceptions about their bodies and would allow them to discuss their coping mechanisms, adopted throughout this naturally-occurring process.

LOCATING A MIXED-METHODS RATIONALE IN THE CONTEXT OF PREGNANCY

A researcher who establishes correlation between two variables or believes in a causal explanation (formed entirely through quantitative research) is faced with the inability to interpret the relationship and ask why (Bryman, 1988). In the context of this thesis, rather than relying on an exclusively quantitative approach which categorises measured responses in a relatively dichotomous way (for example identifying levels of body 'satisfaction' or 'dissatisfaction' in pregnant women), an initial qualitative approach has greater value in attempting to recognise the complex nature of different women's experiences and context of body image issues. Hence, the aim of the qualitative thematic analysis (in Chapters 5 and 8) was to capture a more in-depth interpretation of material acquired within the media text and interview studies. As briefly mentioned in the research aims, these data findings then assisted in the development of measures used in the final study and facilitated analyses in the form of comparisons across a larger, cross-sectional sample of data; thus employing a more quantitative survey design.

Another general characteristic of pragmatism is that knowledge is viewed as being both constructed *and* based on the reality of the world we experience and live in (Johnson & Onwuegbuzie, 2004). By adopting a mixed-methods approach, I acknowledge that although adjustive behaviours (e.g., exercise behaviour) and psychological factors (e.g., self-esteem) can be measured, the phenomenon of pregnancy is highly subjective and it is therefore important to embrace multiple meanings and experiences. Variables must also be considered within the wider social and cultural context. If much of our understanding about body image is framed within a social context (see Chapter 1) and sometimes determined by the use of language, then it is plausible to argue that any such social and cultural standards and conditions may give rise to or put pressure on women to adhere to self-regulatory or coping behaviours. To illustrate in this context, a quantitative survey might confirm the number of women who do or do not exercise through pregnancy, but the combination of a qualitative interview would aim to explore women's reasons for this (e.g., motivations or barriers). The use of a semi-structured interview would offer women

the opportunity to expand on their personal motivations for exercising, rather than simply selecting to choose “feeling of empowerment” or “appearance enhancement” as an abstract option within a questionnaire. It is hoped however, that although acknowledging the value and meaning of individual women’s experiences as being central to this project in Studies 1 and 2 (and therefore not adopting a value-free stance), that this will provide a ‘useful’ and pragmatic means of assisting other women throughout pregnancy by generalising findings according to what was important to women at the present time from Study 3.

SUMMARY

One of the fundamental aims of this thesis was to utilise a mixed-methods approach in order to arrive at its conclusions. Mixed-methods is a research design with philosophical assumptions in addition to methods of inquiry. The present chapter has defined my epistemological position (i.e., pragmatist/new realist) and a rationale for the utilisation of mixed-methods has been duly documented. The advantages of a mixed-methods design have been outlined before the process was detailed and explained using Figures 1 and 2. This process formed part of an overall composite analysis, using a sequential design. Finally, the chapter has presented examples of how these will be applied to the study of pregnancy and body image. The qualitative method used will be discussed in greater detail in Chapters 5 and 8 where it was used in both studies. The quantitative method is detailed in Chapter 11. Both of these methods have been widely used in body image research; however have seldom been used collaboratively to broaden the scope of study. The thesis now turns to a review of empirical literature relating to the study of health, physical change, and physical activity in pregnancy.

CHAPTER 3

PREGNANCY

INTRODUCTION

Chapter 3 provides a background to research in the area of pregnancy; more specifically this will focus on health, physical change, and physical activity. In addition, this chapter presents a brief coverage of work on obesity and eating disorders as potential risk factors to maternal and fetal health, in addition to physical activity recommendations and outcomes for physical and psychological health⁴.

HEALTH PROMOTION IN PREGNANCY

Health in pregnancy is considered to be much more than the maintenance of physical wellbeing alone and health promotion can include an array of planned interventions aimed at improving both physical and mental health in women (Beldon & Crozier, 2005). A midwife's role has expanded in recent years to include a greater focus on public health practice and clinical responsibilities (Department of Health: DH, 1999; Royal College of Midwives: RCM, 2000), whereby health is now defined as being multidimensional constituting physical, psychological, emotional, and societal elements. Pregnancy brings with it a set of unique psychological and social challenges and there is a body of evidence that has demonstrated how maternal psychosocial factors can influence pregnancy outcomes, such as negative emotions, maternal anxiety, perceived stress, and fetal development (DiPietro, Ghera, Costigan, & Hawkins, 2004; DiPietro, Christensen, & Costigan, 2008). Maternal anxiety, for example, has been associated with impaired blood flow to the fetus (Teixeira, Fisk, & Glover, 1999) and a significant, but small risk for low birth weight (Littleton, Bye, Buck, & Amacker, 2010). It is well documented that maternal and fetal health can be negatively influenced by a range of psychosocial behavioural risk factors, such as cigarette smoking, alcohol and drug use, poor diet, obesity, physical inactivity, and mental health problems and therefore the midwife should be well placed to influence and improve the health of women in pregnancy (Lee, Haynes, & Garrod, 2012).

⁴ Although the study of obesity and eating disorders are both important areas in the field of pregnancy research, they are however beyond the remit of this project and therefore their inclusion as part of this chapter is for contextual reference only.

OBESITY: A RISK FACTOR TO MATERNAL AND FETAL HEALTH IN PREGNANCY

The prevalence of maternal obesity⁵ in Western societies is seen as an increasing problem, affecting almost 50% of women of childbearing age (National Research Council & Institute of Medicine, 2007). A key contributing factor of weight retention in women is gestational weight-gain. The rising prevalence of maternal obesity in the UK since the early 1990's is expected to continue, in parallel with the increase in obesity in the general population, and is now considered to be the most commonly occurring risk factor in obstetric practice (Modder & Fitzsimmons, 2010). Directors of public health have been briefed to ensure their health professionals understand the importance of achieving a healthy weight before pregnancy, who in turn have been tasked with advising and encouraging women of the increased health risks that their weight would pose to themselves and their unborn child (NICE, 2010).

Research suggests that women who are classified as overweight (BMI 25–29.9kg/m²) at preconception, are nearly three times at risk of increasing their chances of excessive gestational weight-gain (EGWG) during pregnancy (Weisman, Hillemeier, Symons Downs, Chuang, & Dyer, 2010). Those who report considerable overeating and hence, EGWG in pregnancy, are likely to have had a history of irregular dietary habits preconception (Fairburn & Welch, 1990) and for some obese women, the perceived cause of their excessive weight-gain is said to have been prompted by their pregnancy and increased parity (Ohlin & Rössner, 1990). In the long term, excessive weight-gain during pregnancy has been associated with overweight at least eight to 10 years later (Rooney & Schauburger, 2002), which emphasises the need for education and appropriate advice so that women are at least fully informed of the importance of a healthy weight before commencing a pregnancy (Calfas & Marcus, 2007).

When addressing the issue of pregnancy weight-gain and maternal obesity however, it is important to consider physical change and psychosocial factors, particularly when there is increasing evidence that psychological factors such as depression, stress, and anxiety are associated with excessive weight-gain in general populations (e.g., Ali & Lindstrom, 2006). Little is known about how psychological state contributes to weight normalisation in pregnancy and the postpartum (Pedersen et al., 2011) despite the increasing body of evidence that suggests that factors such as depressive symptoms (Herring et al., 2008), anxiety (Skouteris, Wertheim, Rallis, Milgrom, & Paxton, 2009), stress (Siega-Riz et al., 2010), and body dissatisfaction

⁵ Obesity is defined as a Body Mass Index (BMI) of $\geq 30\text{kg/m}^2$ (NICE, 2010)

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(Rallis, Skouteris, Wertheim, & Paxton, 2007) contribute in some way to postpartum weight retention.

Although body dissatisfaction (BD) in pregnancy will be addressed later in the thesis (see Chapter 7), it is worth acknowledging some of the more recent evidence that has attempted to address associations of body dissatisfaction (BD) with maternal obesity, often with equivocal findings. Mehta, Siega-Riz, and Herring (2011) found that body image was associated with gestational weight-gain and the numbers of women who gained weight outside of recommended guidelines (which at the time were between 28 and 40 lbs in the US) increased, but the relationship was complex. In a cohort study of 1,192 women, the authors showed that participants in the average and underweight BMI categories were at greater risk of EGWG, whilst women in the overweight and obese categories were at decreased risk of EGWG. Regardless of body size preference, most experienced EGWG during their pregnancy. The authors implied that this may have been due to a relaxation of pre-pregnancy body image ideals whereby those women in the average or underweight categories felt comfortable with weight-gain as the pregnancy progressed. For some obese women however, the authors suggested that the preference to be thinner may have led to women being more vigilant about the weight they were gaining. In contrast, Rauff and Symons Downs (2011) failed to find any significant relationships between gestational weight-gain and BD during pregnancy. The progression of dissatisfaction across the trimesters was unrelated to weight changes between the second and third trimesters. Phillips, King, and Skouteris (2012) have since proposed a conceptual model in which socio-contextual influences (including pregnancy-related medical factors, demographics, social support) coupled with maternal physiological and physical weight characteristics (both prior to and during pregnancy), and sleep quality, each influence levels of psychological distress (e.g., depression, anxiety, or stress), which in turn influence body dissatisfaction. These subsequently have a bearing upon pregnant women's behaviours (e.g., physical activity, diet, or breastfeeding) leading potentially to postpartum weight retention (Phillips et al., 2012).

In summary, it is argued that in order for health professionals to fully support women through pregnancy and into the postpartum, it is necessary to understand specifically the bi-directional relationship between body dissatisfaction and maternal physical, psychological, and emotional health (Fuller-Tyszkiewicz et al., 2013). The aforementioned multidimensional definition of 'pregnancy health' has been reflected within a number of National Institute for Health and Clinical Excellence (NICE) practice guidelines when addressing obesity (e.g., public health guidance on weight management before, during and after pregnancy issued by NICE, 2010). NICE is currently working in partnership with bodies such as the Royal College of

Obstetricians and Gynaecologists (RCOG) to address some of the physical, psychological, and psychosocial factors described above that are related to gestational weight-gain.

DISORDERED EATING: A RISK FACTOR TO MATERNAL AND FETAL HEALTH IN PREGNANCY

The body of knowledge on eating disorders (ED) has demonstrated that their association with pregnancy is a complex one. Pregnancy tends to occur following the self-reported recovery or partial-recovery from an eating disorder, predominantly in younger women (Larsson & Andersson-Ellstrom, 2003). That said, women with active ED's, particularly Anorexia Nervosa, are seen to be having more children than ever before (Mazzeo, Zucker, Gerke, Mitchell, & Bulik, 2005), most likely due to advances in fertility treatment (Evers, 2002). There is evidence that pregnancy may be a trigger factor for relapse in some women with a history of ED (Lacey & Smith, 1987; Stein & Fairburn, 2006) and in some cases, symptoms may become worse than they were pre-pregnancy (Morgan, Lacey, & Sedgwick, 1999), which can be attributed to a desire to lose weight following the birth (Lacey & Smith, 1987). There is also indication that pregnancy may actually precipitate disordered eating (Astrachan-Fletcher, Veldhuis, Lively, Fowler, & Marcks, 2008; James, 2001; Stein & Fairburn, 1996). In contrast, pregnancy may also be a period of respite for those experiencing ED symptoms (Crow, Keel, Thuras, & Mitchell, 2004; Von Soest & Wichstrøm, 2008), even if the respite period is only brief (Rocco, Orbitello, Perini, Pera, Ciano, & Balestrieri, 2005).

Although it is suggested that factors such as fear of weight-gain, early vomiting and disruption of eating habits can lead to a certain level of distress for any woman during her pregnancy, irrespective of the existence of an ED (Abraham, Taylor & Conti, 2001), much less appears to be known about the complex set of psychosocial factors involved during pregnancy and postpartum period amongst women with eating disorders (Mazzeo et al., 2006) and moreover, single studies can generate findings whereby pregnancy can either precipitate or exacerbate disordered eating (e.g., Lai, Tang & Tse, 2006). The apparent paucity of research related to eating disorders in pregnancy may be linked to problems recruiting large, representative samples of women with conditions such as anorexia nervosa or bulimia nervosa because of the medical difficulties they face in actually becoming pregnant (Lewis & le Grange, 1996) or due to the reluctance on behalf of pregnant women to disclose their eating disorder to professionals (Franko & Walton, 1993; Turton, Hughes, Bolton & Sedgwick, 1999).

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Disordered eating behaviours can result in an array of medical complications such as low birth weight, premature delivery (Franko & Walton, 1990) and increased risk of early miscarriage, plus the potential for the child to develop disordered eating later in life (Edelstein, 2007) or be at risk of malnourishment (van Wezel-Meijler & Wit, 1989). Data from a recent British study illustrate that almost a quarter ($n = 173$) of the pregnant sample recruited scored above the threshold for weight and shape concerns and now one in 14 pregnant women experience some form of eating disorder during the first three months of pregnancy (Easter et al., 2013). Although women who have a past history of eating disorders (such as Anorexia Nervosa, Bulimia Nervosa, Binge-Eating Disorder or Eating Disorders - not otherwise specified) are not necessarily predisposed to having a child of low birth weight, there is evidence to suggest that those who suffer from disordered eating whilst pregnant are at much greater risk of delivering a child that is small for its gestational age (Conti, Abraham, & Taylor, 1998).

The transition towards motherhood can however, have a positive effect on eating problems as it can compel pregnant and new mothers to limit impulsive behaviour, constrained by the care of very young children (Crow et al., 2004; Von Soest & Wichstrøm, 2008) which can signify a sense of “high readiness for change” (Crow et al., 2004, p. 223). As a result of the feared fetal harm experienced by women suffering from disordered eating, some make valiant efforts to control their disorder during pregnancy (Lacey & Smith, 1987) despite symptoms often returning in the puerperium (i.e., the six week period immediately after the birth) equal to or worse than before conception (Lewis & le Grange, 1996; Morgan, Lacey & Sedgwick, 1999).

Eating disorders in the context of body image and pregnancy will be briefly discussed in Chapter 7. The recruitment of women with disordered eating is beyond the remit of this research, due to the specific set of recruitment issues described earlier. Nonetheless, it is imperative for these women to receive individual medical treatment, follow-up, and emotional support so that they may experience a positive pregnancy and successful adjustment to motherhood (Fawkner, 2012).

PHYSICAL ACTIVITY RECOMMENDATIONS IN PREGNANCY

First, the current recommendations for physical activity in pregnant women will be outlined. Following on from this, the physical and psychological benefits of exercise will be discussed. The findings related to both these aspects are extensive and well documented. A decade ago, recommendations regarding physical activity in pregnancy were published by the American Congress of Obstetricians and Gynecologists (ACOG, 2002; Artal & O’Toole, 2003) detailing only a small number of medical conditions that would preclude otherwise healthy, pregnant, and even sedentary women from engaging in regular exercise. Examples of such

contraindications to exercise included pregnancy-induced hypertension (e.g. preeclampsia and proteinuria), an incompetent cervix or persistent bleeding. In 2006, RCOG published a statement on exercise in pregnancy in support of ACOG's guidelines, however women with complex medical complications were still encouraged to exercise under medical supervision, in particular that of hypertension and cardiovascular disease⁶. The US Department of Health and Human Services (2008) have since released further guidance that women should aim for *at least* 150 minutes of moderate-intensity aerobic activity (e.g., brisk walking) over a weekly period, during pregnancy and in the postpartum. If women already engage in high-intensity activity during pregnancy, they are encouraged to continue subject to health checks and guidance from their healthcare provider.

The risks of a sedentary lifestyle are well-documented for women and healthcare professionals and it is now known that lack of physical activity during pregnancy can contribute to a loss of muscular and cardiovascular fitness, excessive maternal weight-gain, in addition to increased risk of preeclampsia (Lewis, Avery, Jennings, Sherwood, Martinson & Crain, 2008; Sorensen, Williams, Lee, Thompson & Luthy, 2003) and gestational diabetes mellitus (Bung, Artal, Khodiguan, & Kjos, 1991; Liu, Laditka, Mayer-Davis, & Pate, 2008). The increase in empirical literature studying physical activity and pregnancy has evolved over the past 50 years, with evidence to show overwhelming support of engagement in prenatal moderate to high-intensity exercise for improved maternal health outcomes, however, more work needs to be done to promote physical activity before, during, and following pregnancy (Symons Downs, Chasan-Taber, Evenson, Leiferman, & Yeo, 2012).

RCOG (2006) specified that any exercise programme should be adapted for the individual and that advice must be sought from a healthcare professional or midwife before pregnant women commence an exercise programme. This requires an assessment of a woman's current fitness status and consideration of the frequency, duration and intensity of the exercise programme that an individual wishes to engage in. ACOG (2002) suggested that non-pregnant and sedentary individuals should begin with 30 minutes or more continuous exercise on most days of the week, if not, daily and that women, with uncomplicated pregnancies, should be able to adopt this recommendation also. In the UK, previously-sedentary but healthy pregnant women are recommended to first commence with 15 minutes continuous exercise three times a week, gradually increasing the duration to 30 minute sessions, four times a week and then, daily (RCOG, 2006; NICE, 2010). The key issue is that it is

⁶ Please visit RCOG (2006) for the complete list. These remain the most up-to-date UK guidelines available for both pregnant women and healthcare professionals and are fully supported by NICE.

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never too late to commence an exercise programme. Despite a small sample ($n = 9$), a US study found that previously sedentary women who commenced an intense exercise programme in their second trimester⁷ reported considerable improvements to their cardiovascular fitness and delivered healthy babies at term (Marquez-Sterling, Perry, Kaplan, Halberstein & Signorile, 2000). With due vigilance, women who engage in high-intensity exercise prior to pregnancy (e.g., jogging or aerobics) are encouraged to continue doing so through pregnancy, with no adverse outcomes for the mother or fetus, however most women should anticipate some decline in activity levels as their pregnancy reaches full term (RCOG, 2006).

Careful consideration should be given to the type of activity women engage in, to ensure that there is equilibrium between potential benefits and harmful outcomes. Consequently, women are not encouraged to engage in high-risk sporting activities such as scuba diving or downhill skiing and exercises that require pregnant women to lie in the supine position⁸ should be avoided due to the risk of the uterus compressing the blood vessels, thus reducing oxygenated blood flow to the fetus (Poudevigne & O'Conner, 2006). Yet high-risk does not necessarily equate to high-intensity. Despite a relatively small ($n = 148$) and cross-sectional sample, Duncombe and colleagues (2006) conducted a study to assess intensity, duration, and frequency of exercise on birth outcomes. Using structured daily exercise diaries and heart monitors (as opposed to the more frequently-used, self-report format) the authors found that regardless of whether women engaged in vigorous or less-intense, recreational exercise, mean birth outcomes and fetal growth were not affected (e.g., low birth weight).

The health benefits of exercise have been well-established over the last 50 years. That said, knowledge, understanding, and advice about the impact of exercise on pregnancy have been rather vague and the findings equivocal. In the 1980's, exercise was advocated to pregnant women, in moderation and using due caution, whilst being cognisant of potential warning signs such as increased heart rate (see Sady & Carpenter, 1989). Caution was expressed nonetheless, about jogging, stretching, and increased core temperature (ACOG, 1985), activities involving sudden movements (Goodlin & Buckley, 1984) and exercising in excess of 30 minutes (Morton, Paul & Metcalfe, 1985; Sady & Carpenter, 1989). At this time, specific contraindications also included having a history of an 'extremely sedentary lifestyle' (ACOG, 1985).

Since that period, there has been a distinct shift from discussions around 'special considerations' to a consensus and clear emphasis of the health benefits,

⁷ 15 weeks of one-hour sessions, held three times a week.

⁸ i.e., on their back

with meta-analytic research commencing in the 1990's that offered no support for unfavourable effects on maternal or fetal outcomes (Lokey, Tran, Wells, Myers & Tran, 1991). A full review of available evidence at the time, suggested however, that in terms of health promotion, it would be prudent not to advise that women *should* exercise, but that they *may* if they choose to (Sternfeld, 1997). In light of further research and increased understanding on the part of health professionals and experts, all women are now actively encouraged to engage in aerobic and strength-conditioning exercises during pregnancy as part of a healthy lifestyle.

PHYSICAL ACTIVITY AND MATERNAL PHYSICAL HEALTH OUTCOMES

For the expectant mother, physical activity in pregnancy is accompanied by reduced incidences of muscle cramps and lower-limb oedema (i.e., swelling) (Horns, Ratcliffe, Leggett & Swanson, 1996; Melzer, Schutz, Boulvain & Kayser, 2010), musculoskeletal pain, and in the fetus, an improved tolerance for stress (Melzer et al., 2010). Physical activity can reduce resting blood pressure, increase arterial blood flow and positively adjust body composition to increase lean mass and decrease fat mass (Miles, 2007). Weight-bearing exercise, in particular, is associated with a reduced labour period and decreased risk of delivery complications (Melzer et al., 2010; Paisley, Joy & Price, 2003) despite an earlier study stating that intense, heavy exercise was predictive of a smaller infant, induction and longer labour (Magann, Evans, Weitz & Newnham, 2002). In addition to increased cardiovascular and muscular fitness, regular prenatal exercise helps to reduce the intensity of conditions such as insomnia and anxiety (Goodwin, Astbury & McMeeken, 2000), dyspnoea⁹, varicose veins and lower back pain (Davies, Wolfe, Mottola & Mackinnon, 2003). If a woman commences exercise in early pregnancy, this may stimulate placental growth (Weissgerber et al., 2006) and increase placental blood-flow volumes (Clapp, 2003), after which the benefits are still apparent at term, even if the mother ceases regular exercise at 20 weeks gestation (Jackson, Gott, Lye, Knox-Ritchie & Clapp, 1995).

For women in the initial stages of smoking cessation in pregnancy, research has shown that just 20 minutes of mild-to-moderate exercise can significantly reduce cravings (Prapavessis et al., 2013). Regular exercise is said to complement pregnancy because exercise increases fat for energy, which in turn provides improved accessibility of glucose and oxygen for the fetus (Clapp, 2002, as cited in Lewis, et al., 2008). There is even preliminary evidence from a Canadian randomised-controlled trial which suggested that moderate-intensity, structured exercise (average time of 117 minutes per week) in pregnancy improves neuro-electric responses and

⁹ laboured breathing

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cerebral development in a newborn's brain, compared with a sedentary group who engaged in 12 minutes per week (Labonte-LeMoyne, Curnier & Ellemborg, 2013; Labonte-LeMoyne, Curnier, St-Jacques & Ellemborg, 2012). Recreational exercisers and elite athletes, who choose to continue exercising through their pregnancy, albeit at a slightly reduced level, are expected to increase or at least maintain their aerobic capacity (see Sternfeld, 1997 for a full review). Overall, the exercise-related research discussed in this chapter would affirm the positive effects of exercising prior to, during and after pregnancy and recommendations and guidance have since been put in place, as previously discussed¹⁰.

PHYSICAL ACTIVITY AND MATERNAL PSYCHOLOGICAL HEALTH OUTCOMES

RCOG (2006) advocate exercise during pregnancy as a means of adjusting to the physical changes, and increasing overall well-being. Physical activity is said to activate the release of endorphins (endogenous opioids) into the brain which in turn leads to improved mood and a sense of calm following exercise (Miles, 2007). Self-esteem (which can incorporate positive and negative evaluations of the self) is an integral element of one's mental health and wellbeing. Exercising for health reasons is positively associated with high levels of self-esteem (McDonald & Thompson, 1992). In pregnancy, higher levels of self-esteem have also been found to be both a predictor (of increased perceived attractiveness) and mediator (between depressive symptoms and salience of weight and shape) due to the rapid, physiological changes that occur (see Kamysheva and colleagues' model, 2008). As body size and shape increases, attitudinal changes towards one's body and these changes can evolve from pre-pregnancy through to postpartum (Strang & Sullivan, 1985). This area of research will be discussed in greater detail further on in Chapter 7. As Goodwin et al. (2000) highlighted, it is necessary to explore whether physical activity acts as a mechanism to improve psychological health in pregnancy or whether it is the levels of psychological wellbeing that determines engagement in physical activity. Research has demonstrated that those that do engage in pre-natal exercise report significantly higher self-esteem scores than those in sedentary control groups (Wallace, Boyer, Dan & Holm, 1986).

Pregnancy can be associated with increased symptoms of depression and bodyweight which makes the prospect of physical activity less attractive and physically difficult for some and yet conversely, regular exercise has been shown to attenuate the symptoms of depression (Koniak-Griffin, 1994), fatigue (Poudevigne &

¹⁰ Additional guidelines include using the 'talk test' where women should be able to talk whilst exercising, ensuring sufficient hydration levels, and avoiding exercising whilst fasting or in high heat, humid conditions amongst others (Lewis et al., 2008).

O'Connor, 2006) and improve mood (Symons Downs & Hausenblas, 2004). Whilst depressive symptoms in the first trimester are associated with depressive symptoms in later pregnancy and postpartum, there is evidence to suggest that pre-pregnancy exercise behaviour can moderate the degree to which symptoms are experienced as trimesters progress (Symons Downs, DiNallo & Kirner, 2008). In their sample of 180 pregnant women, Da Costa, Rippen, Dritsa and Ring (2003) found that despite exercising at self-reported, low-moderate levels (lower than those proposed for health benefits) pregnant women in their first and second trimester described lower levels of depressed mood, anxiety and pregnancy-specific stress. In an earlier study, Abraham et al. (2001) argued that low-intensity exercise may also act as a protective factor for those who have weight concerns, particularly as their sample reported reduced postnatal distress following childbirth, having engaged in low-intensity exercise in the earlier stages of their pregnancy.

PREGNANCY-RELATED SOURCES OF INFORMATION

Despite women reporting that they seek advice from healthcare professionals and various other sources, there is evidence that the information they receive is not consistent (Cioffi et al., 2010; Duncombe et al., 2009; Symons Downs & Hausenblas, 2004). Clarke and Gross (2004) found that a number of women believed that exercise presented an inherent risk to their maternal health, even though the majority obtained their information about physical activity from free publications at ante-natal clinics, commercial books and parenting magazines. These findings suggest that women may feel fearful of exercising or be faced with making decisions on information that in some instances may not be accurate or reliable. This is particularly an important issue for those women who are sedentary, overweight and / or obese who perceive there to be a sheer lack of accessible information and advice about the benefits of physical activity and who report having been offered no advice from their midwife (Leiferman et al., 2011; Weir et al., 2010).

SUMMARY

Evidence has been presented to show how maternal psychosocial factors can influence foetal development and pregnancy outcomes. EGWG and disordered eating behaviours are argued to exacerbate common health-related issues which can result in medical complications.

The physical and psychological benefits of exercise in pregnancy are both extensive and widely acknowledged. The risks of a sedentary lifestyle are well-documented and a lack of physical activity can contribute to a loss of muscular and cardiovascular fitness, excessive maternal weight-gain and increased risk of

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pregnancy-related, health conditions. Research has progressed over the last two to three decades to show overwhelming support of engagement in prenatal moderate to high-intensity exercise for improved maternal health outcomes. All women are now actively encouraged to engage in aerobic and strength-conditioning exercises during pregnancy as part of a healthy lifestyle. RCOG (2006) advocate exercise during pregnancy as a means of adjusting to the physical changes, and increasing overall well-being (e.g., self-esteem).

Worryingly, some women have also referred to physical exertion as an inherent risk to their baby's health and often elect to stop once pregnant¹¹. This is particularly concerning for those women who are sedentary, overweight and/or obese. This final point leads us to question the information that UK women have access to during their pregnancy and the messages they are receiving in terms of their physical appearance, their health, and the role of exercise. These questions form the foundation for the first study of this thesis and a background to the sociocultural perspective and body of work on the media can be found in the following chapter.

¹¹ This will be discussed in greater detail in Chapter 7.

CHAPTER 4

LITERATURE REVIEW: ROLE OF THE MEDIA AND PHYSICAL APPEARANCE

INTRODUCTION

The literature review in the present chapter relates to the role of the media and physical appearance. First, in order to fully understand the ubiquitous role of the media, it is important to i) expand on the sociocultural perspective introduced in Chapter 1 and ii) recognise the concept of thin-ideal internalisation, before moving on to a discussion about sociocultural expectations of appearance and media portrayals. These expectations will be applied to pregnancy in terms of current knowledge of media messages and the emergence of celebrity culture. Finally, a review of existing media analyses of pregnancy-related content will be made.

SOCIOCULTURAL PERSPECTIVE AND THE THIN-IDEAL BODY SHAPE

Body image can be interpreted as an underlying component of our physical and mental wellbeing (Dittmar, 2009) but has been defined by some researchers in different ways, depending on their epistemological position, professional background, and research aims. Although body image is an umbrella term for a host of different fields of study, some specifically focus on perceptual factors (i.e., body-size estimation) and others on attitudinal factors towards the body (Grogan, 2008). As outlined in Chapter 1, those who have conducted years' worth of research and who have interest in the body as a psychological phenomenon (Fisher, 1990) have seen the transition from the fuller-figured woman of the 1950's, which at the time was the 'ideal', to the contemporary view of the thin-ideal. Hence societal beliefs about appearance have shifted which now emphasise the notion that to be small is to be feminine and to be large (or mesomorphic) is to be masculine (Fisher, 1986). From the 2000's however, the female thin-ideal has been replaced with an ideal around fitness and having a firm, toned body (Bordo, 2003). In addition, we have seen the pervasiveness of the 'busty ideal' (i.e., slender body, narrow hips, and large breasts) which has resulted in the ensuing prevalence of breast augmentation and breast lift surgery (Frederick, Peplau, & Lever, 2008). Irrespective of the change seen in body shape ideals for women, the one thing that remains constant is that women have always been encouraged to adapt to current trends by changing their shape and / or weight in some way (Grogan, 2008).

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Weight and appearance-related concerns have traditionally been associated as having central importance with women (Rodin et al., 1984) and there is a general consensus that pressures on women to be a particular shape or size are more pronounced than they are on men (Grogan, 2008). Feingold and Mazzella's (1998) meta-analysis of 222 studies and 730 effect sizes showed that women, from adolescence into adulthood, self-rated as less physically attractive and were more dissatisfied with their bodies than males. From a pool of 4,000 responses (86% of women, primarily Caucasian, heterosexual and in their early to mid-thirties), Garner (1997) found that 15% of women would sacrifice five years of their lives to be at their desired weight.

Women are also generally reported to express dissatisfaction with specific aspects of their bodies. From 2108 responses, Harris and Carr (2001) found that although concerns were prevalent among both men and women regarding the nose, weight and skin disorders (e.g., acne, eczema), women were particularly anxious about their breasts and abdomen. Overall, 61% of women were concerned about at least one aspect of their appearance. Of the women who were anxious by their appearance, 25% reported feelings of isolation, social avoidance, and problematic intimate relationships. Of the 56% of women dissatisfied with their appearance in Garner's (1997) body image survey, self-disparagement was predominantly directed towards the abdomen (76%), body weight (66%), hips (60%), and muscle tone (58%). Further research by Frederick and colleagues (2008) has demonstrated that women's dissatisfaction with their breasts might be even more pronounced as 70% of their sample¹² expressed discontent. More specifically, younger women were more likely than older women to report dissatisfaction about the size of their breasts, whilst older women were more concerned about the droopiness of their breasts (i.e., breast ptosis).

From a sociocultural perspective, one's body image is influenced by social and cultural ideals of attractiveness and we apply these definitions and values when engaging in self-evaluation (Jackson, 2002). Constructed sociocultural pressures are said to induce body dissatisfaction, negative body image and eating disorders, as a result of the persistent reinforcement of unrealistic body ideals (Rodin et al., 1984; Stice, 1994; Thompson, 1990; Thompson et al., 1999). Such stringent ideals are almost impossible for any woman to achieve, without resorting to unhealthy and maladaptive behaviours (Fallon, 1990; Thompson & Heinberg, 1999; Tiggemann & Pickering, 1996).

¹² total $n = 26,703$ women between the ages of 18 to 65 years.

THIN-IDEAL INTERNALISATION

Despite the ideal becoming thinner over the years, the average woman has become heavier, which has extended the gap between actual bodily size and the ideal size portrayed in media images (Dittmar, 2008). Internalisation is considered to be linked to the way in which individuals' process information and respond following exposure to media imagery. Internalisation signifies the acceptance and adoption of the thin-ideal as part of a personal goal, as opposed to a simple awareness or recognition of societal values (Thompson et al., 1999). The tendency to internalise the socially-constructed value of thinness is said to be influenced by sociocultural pressure (Stice, Ziemba, Margolis, & Flick, 1996) and deemed to be a principal correlate of and risk factor for body image disturbance; if individuals' yearn for and make every effort to achieve a thin body. This depends on the extent to which an individual cognitively "buys into" socially-defined ideals of attractiveness and engages in behaviours designed to yield an approximation of these ideals (Thompson et al., 1999). That said, the societal ideal of attractiveness encompasses more than just thinness (Thompson & Stice, 2001).

Pervasive Western ideology and media representations of the female body are said to make women vulnerable and preoccupied by slenderness (Bordo, 2003). Media images have been found to precipitate negative, body and weight-related affect, where women 'think ideal, then feel bad', likely as a result of average women's bodies being customarily larger than the images they are exposed to (Dittmar, Halliwell, & Stirling, 2009; Dittmar & Howard, 2004). In their meta-analysis, Cafri, Yamamiya, Brannick, and Thompson (2005) found that internalisation of the thin-ideal and perceived pressures to be thin significantly predicted body image attitudes (more so than merely an awareness of the ideal) which the authors argued have important theoretical implications when considering interventions that might challenge individuals' existing cognitions.

Despite the ubiquitous nature of 'body perfect' images however, levels of body dissatisfaction exhibited within women's responses vary and it is simplistic to suggest that all women will go on to experience more serious consequential outcomes, such as eating-related disorders (Dittmar & Howard, 2004). From a comprehensive literature review, it is also evident that there has been a tendency to explore this phenomenon using predominantly young, student populations, which indicates that there may be other groups of women that must be considered also.

THE ROLE OF THE MEDIA

The function of the media, as both a sociocultural and substantive risk factor, has perhaps received the highest level of attention in terms of its influence on body image attitudes and hence, will purposely form the first study of this thesis as it is important to explore media messages specific to pregnant women. The media are understood to be the most influential conveyor of socio-cultural standards (Tiggemann, 2003, 2011) and seen to “penetrate so far into our psychological life that their content irrevocably shapes our understanding of the phenomena they communicate” (Giles, 2003, p. 183). In essence, the media is ubiquitous in our lives; and to some extent we are all influenced, in terms of how we behave in the real world, by what we read, view, browse, play and hear (Laughey, 2009).

SOCIOCULTURAL EXPECTATIONS AND MEDIA PORTRAYALS OF THE *IDEAL* BODY.

It is well-documented that media communicate stringent sociocultural ideals of appearance for women as will be explored in this chapter. This is acutely evident by the prolific use and over-representation of Westernised bodily-ideal images that portray the slender body shape (Wykes & Gunter, 2005), and the well-established fact that the majority of women are dissatisfied with their appearance (Grogan, 2008), to the extent that discontent is considered ‘normative’ (Rodin et al., 1984). Magazines in particular, promote a widespread preference for a stereotypical representation of a slender figure in female fashion models and a more muscular frame in male fashion photography (Laughey, 2009).

From the 1970’s onwards, articles related to diet and physical appearance have increased considerably in popular media; the dominant message is that thinness is an essential component of beauty in women (Davalos, Davalos & Layton, 2007). Numerous quantitative studies have examined the impact of brief exposure to thin media images on physical and psychological health (see Harrison & Cantor, 1997; Heinberg et al., 1995; Ogden & Munday, 1996; Thompson et al., 1999). In some cases, media exposure and internalisation of sociocultural pressures to maintain the ideal-body stereotype has predicted increased body dissatisfaction (Stice, Schupak-Neuberg, Shaw & Stein, 1994). If women internalise these beauty ideals, they inevitably hold themselves to account using body shame and self-loathing and feel guilt when unable to meet such imposing standards (Calogero & Pina, 2011). It is unsurprising then that they are also more likely to experience greater body dissatisfaction when repeatedly exposed to media messages depicting the ‘worth’ of thinness (Polivy & Herman, 2004).

With an express desire to see increased body diversity in magazines (representative of different body types), women who feel extremely dissatisfied with their appearance feel resentful (45%) and insecure or angry (67%) following exposure to fashion models (Garner, 1997). Of those dissatisfied, 43% of women always or very often compared themselves to models in magazines and 47% always or very often carefully studied the shape of models. This supports both social comparison theory and sociocultural perspective whereby the mass media disseminates the ideal as slender which can lead to body dissatisfaction in young women (Groesz et al., 2002). There is however a disparity within the literature; despite being relatively dated, studies have also found no relationship between media exposure and effects on body satisfaction (e.g., Champion & Furnham, 1999 found that thin images had no impact on levels of body satisfaction) or equivocal results (e.g., Cash et al., 1983 implied that short-term exposure to beautiful 'professional' models in magazines would result in only a modest impact).

It is important to acknowledge however, that the word 'media' is an umbrella term for many different forms of communication. Some studies have been criticised that package the 'media' as one unitary concept and viewed television, internet and magazines comparable with each other when exploring exposure and influence (e.g., Stice et al., 1994). Tiggemann (2003) argued that magazines and television do not function in the same way and used awareness and internalisation of sociocultural ideals to demonstrate this point. Whilst both magazines and television were similarly associated with body dissatisfaction, television-watching was negatively associated with awareness of but not internalisation of socio-cultural ideals, whilst reading fashion magazines was related to internalisation and not awareness of these ideals. Tiggemann (2003) suggested that those with higher levels of dissatisfaction chose to seek out specific content in magazines that focused on enhancing appearance and openly portray images of thin models/celebrities. Thompson (2009) argued that research therefore should differentiate clearly between the various dimensions of the media and use appropriate measures that do not simply focus on 'exposure' to media images or messages. He highlights the need for further research that looks at other dimensions such as 'perceived pressures' or 'awareness of media ideals' when measuring the media as a predictive risk factor (e.g., the work by Cafri and colleagues, 2005).

Given the prevalence and pervasiveness of Westernised media images, it is not surprising that women have become less likely to challenge the ideal standard set for them (Henderson-King, Henderson-King & Hoffmann, 2001) and hence, perceive such images as normal. Central to the notion of attractiveness, such expectations

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about appearance are simply unattainable for most women (Krahé & Krause, 2010; Tiggemann, 2011). It is unsurprising then, that when women have been approached to discuss their responses to media images and despite substantial variability in the responses received (Halliwell & Diedrichs, 2012), criticism is still largely directed towards the media, for actively contributing to the reinforcement of cultural expectations within text and images, which for many women is blatantly unrealistic (Davis, 1997).

MEDIA MESSAGES AND PREGNANCY

First, it is important to acknowledge the views of health professionals working directly with pregnant women. Some obstetricians believe that women *are* influenced by the popular media, particularly the internet, when seeking information on a number of pregnancy-related intervention issues, such as elective caesarean section, choice of anaesthesia, and induction (Handfield, Turnbull, & Bell, 2006). Handfield et al.'s study raised concerns regarding the accuracy of web-based data, related to the internet's increasingly influential role in providing pregnant women with health-related information. This is problematic because of the potential influence that inconsistent or inaccurate data can have upon women's maternal and fetal health outcomes (e.g., requesting a caesarean section based upon information gleaned from the internet).

The fitness and diet industry would appear to have capitalised on a shift in messages regarding exercise during pregnancy. In the early 1990's, it was recommended that pregnant women rest and avoid exercise; more recently, exercise and training the maternal body for the optimal pregnancy outcome has been promoted (Dworkin & Wachs, 2004; Jette, 2006). It is argued that we have been socially conditioned to act upon our body anxieties and correct our flaws and ironically this has made us better consumers in the eyes of the fitness and diet industry (Orbach, 2009). Despite this shift, many women hold inaccurate perceptions of the effects of maternal exercise and are unaware of the positive physical and psychological outcomes; believing that exercise actually presents an inherent risk to maternal health as previously discussed in Chapter 3 (see Clarke & Gross, 2004). This is in spite of pregnant women obtaining much of their information regarding physical activity from free publications at ante-natal clinics, commercial books, and parenting magazines; thus demonstrating that the messages they often receive are inconsistent or inaccurate (see Cioffi et al., 2010; Clarke & Gross, 2004; Duncombe et al., 2009; Symons Downs & Hausenblas, 2004). This leads the chapter on to a discussion around the messages that pregnant women are currently exposed to and the potential impact this might have on their own appearance-related self-perceptions.

THE EMERGENCE OF CELEBRITY CULTURE IN BRITISH MEDIA AND THE 'YUMMY MUMMY' PHENOMENON.

Retail sales of celebrity-related magazines and tabloid newspapers (e.g., *The Sun*) have grown rapidly in the UK, however even broadsheet newspapers such as *The Times* or *Daily Telegraph* have become increasingly celebrity-driven (Pringle, 2004). That said, criticism has been specifically levied at both tabloid publications and magazines on the inappropriateness of each other's content. Fashion magazines (e.g., *Marie Claire*), and the industry as a whole, have been criticised for promoting the thin-ideal (see Cartner-Morley, 2000). At the same time, tabloids have been accused of focusing heavily on appearance-related articles (see Burchill, 2000). To contextualise these two articles, Jessica Cartner-Morley, writing as a fashion editor for the Guardian newspaper, was highly critical of the magazines for promoting an extremely thin body shape, demanding a more responsible attitude. Interestingly Julie Burchill, who was also a journalist from the Guardian, responded by pointing the finger at newspapers, not magazines, saying "The *Daily Mail* has created thousands more anorexics than *Vogue*" (Burchill, *Guardian*, 8 July 2000).

The advent of the wealthy 'yummy mummy' depicted in celebrity magazines has been argued to leave women with the perception that the prerequisite for successful motherhood is an affluent and glamorous lifestyle (McRobbie, 2006), not to mention thinness and beauty. Using critical discourse analysis, Jette's (2006) analysis of the "Fit for Two" column in *Oxygen* fitness magazine showed a common 'Yummy Mummy' theme emerging. All women models pictured had toned bodies, showing little evidence of weight-gain other than their growing fetus or baby bump. Moreover, the concepts of baby fat and pregnancy-related appearance aspects were seen as problematic by the way in which they were described. Baby fat was described as 'jiggle' and 'baby bulge' and stretch marks were labelled as being 'unsightly'.

To facilitate postpartum women's journey to 'yummy mummy' status, magazines, in particular have been shown to promote physical exercise as a mechanism to lose weight, as a means to get 'back to thinness' (Anderson & DiDomenico, 1992) and enhance muscle tone, as opposed to improving physical and psychological health. As Giles (2003) stressed, calculating the extent to which certain social groups appear within media text may be useful to consider the matter of underrepresentation, yet the issue of *misrepresentation* is a more pressing and complex area. This raises important questions as to the messages aimed at British pregnant women, if celebrity articles are ever increasing.

MEDIA ANALYSES OF PREGNANCY-RELATED CONTENT

Media analyses have traditionally been undervalued by mainstream health psychology over other methods, such as experimental exposure studies (Lyons, 2000). From a health perspective, Lyons (2000) argued that analyses of media representations bring value for three reasons: not only do they have the capacity and power to shape individual and societal beliefs and understandings about health and illness, they also have the capacity to influence societal attitudes towards certain sub-groups and mediate lived experiences. Thus, understanding how the media represent pregnancy and the pregnant body is exceptionally important. Despite evidence that sociocultural influences and individual characteristics have a bearing on body-image development through pregnancy into the postpartum (Skouteris et al., 2005), the analysis of pregnancy-related content within media sources is relatively limited.

Employing a textual method, Dworkin and Wachs (2004) documented a discourse that constructed the maternal form as being maternally successful and yet aesthetically problematic, in their critical analysis of one specific fitness pregnancy magazine between the period 1997 and 2003. Fitness was promoted as a means of 'bouncing back' in two ways: fitness made it easier to recover from the stress and pain of delivery and fitness provided a means of erasing the physical evidence of motherhood so one could 'get one's figure back'. Interestingly, 81% of the featured models in the workouts were white, which highlights not only the racialised way in which ideals of beauty are represented but also the nature of the target demographic (Dworkin & Wachs, 2004).

Employing discourse analysis, Sha and Kirkman (2009) analysed a 2005 sample of Australian magazines to examine media representation of pregnant women and the pregnant body. Across 20 magazines, all but two of the 91 items selected for analysis featured celebrity content, with a concentrated focus on the women's appearance. Women were either expected to be thin or allowed (temporarily) to look pregnant. Roth, Homer and Fenwick (2012) analysed textual and visual messages in celebrity postpartum stories from three Australian women's magazines and found messages encouraging weight loss postpartum and the recovery of pre-pregnancy figures. Rapid weight loss was glamorised using celebrities' bodies as 'benchmarks' (Roth et al., 2012). The tendency to focus on celebrity content was also found by Hine (2012). She conducted a content and textual analysis across a sample of New Zealand women's magazines that spanned a thirty-eight year period, to examine the shift in pregnancy discourse. Hine found that, in addition to a concentrated focus on celebrity content, celebrity mothers-to-be were habitually praised or criticised for their bodily-appearance and choice of attire, and during the postpartum, their dietary and exercise regimes were scrutinised. Echoing the aforesaid media analyses, the

prevalence of celebrity pregnancy stories within U.S. entertainment magazine websites appears to be now more apparent than ever before, with few articles focusing on the realities of pregnancy weight and even fewer suggesting that women might experience postpartum body dissatisfaction (Gow, Lydecker, Lamanna, & Mazzeo, 2012).

SUMMARY AND AIMS OF THE CURRENT STUDY

The aforesaid studies have taken the first step in examining pregnancy-related content within media sources; however there are some limitations. The previous studies have focused on only one specific genre in their analysis (e.g., entertainment websites by Gow et al., 2012; lifestyle magazines by Sha & Kirkman, 2009; *Shape Fit Pregnancy* magazine by Dworkin & Wachs, 2004) or purposefully limited the focus to depictions of celebrity pregnancies (e.g. Gow et al., 2012; Roth et al., 2012). In contrast, the intention of the first study in this thesis was to examine the messages across a wide range of the most popular UK media. A main objective was to explore the messages pregnant women received about appearance-related aspects of their pregnancy, the pregnant body and the role of exercise. In contrast noting the above limitations, this study aimed to broaden its search to explore how different categories of women's magazine (e.g., parenting, slimming, or health and fitness) approached the topic of pregnancy and body image and whether messages were any different from the popular, fashion or beauty magazines (such as *Glamour* or *Cosmopolitan*) or those accessible in news media content.

This is the only study to examine British media material across two genres: women's magazines and editorial news content, using thematic analysis. Thus, an examination of the weight, appearance, and exercise messages that pregnant women are exposed to seems timely and important. In the broad sense, research aims were to qualitatively examine the ways in which pregnant women's bodies were depicted, identify textual messages related to health and exercise and to understand how and where the pregnant body appeared.

CHAPTER 5

STUDY 1: QUALITATIVE METHOD

INTRODUCTION

As stated previously, the aim of Study 1 was to examine messages regarding weight, appearance, and exercise in pregnant women in both UK women's magazines and online editorial news. Thus, this chapter documents the method employed for Study 1. In this chapter, a comprehensive description of the study's design will first be outlined. This precedes a detailed sampling strategy and rationale for the qualitative method of analysis adopted; Braun and Clarke's (2006) Thematic Analysis. A full account of the procedure then follows, prior to a rationale for qualitative rigour.

METHOD

Magazines and news titles were selected on the basis of circulation rates and target audience over a four-month period (November 2009 to February 2010). The Audit Bureau of Circulation's (ABC) figures were accessed via Press Gazette to select magazines (August, 2009a) and newspaper titles (October, 2009b) for analysis.

MAGAZINE SAMPLING

Press Gazette categorised five main areas of women's interests (August, 2009a). Four out of five categories were selected for sampling, with each category inclusive of the two highest circulating publications: lifestyle / fashion (*Glamour*, *Cosmopolitan*), health / fitness (*Zest*, *Healthy*), parenting (*Emma's Diary: Pregnancy Guide*, *Mother & Baby*), and slimming (*Weight Watchers*, *Slimming World*). The category of home / interest was excluded due to the irrelevance of its content (in relation to the aims of the current study). For clarification, the slimming category differs distinctly from health and fitness in that the magazines selected are devoted specifically to weight loss and are (usually) bi-products of well known, UK-based, weight-loss organisations.

In the parenting category, although *Your Toddler* had the second highest circulation rate (220,000), this publication was excluded and instead, the next highest publication; *Mother & Baby*, was selected because it was most likely to contain content related to pregnancy and postpartum issues. Table 1 illustrates the circulation and distribution rates and the total number of editions of the magazine titles selected for analysis. Footnotes are provided beneath to justify and contextualise the sampling strategy:

Table 1: Circulation rates for magazines selected for analysis (Press Gazette, August, 2009a).

Category	Title	Circulation rate per year	Distribution	Editions collected
Lifestyle/Fashion	Glamour	526,145	monthly	4
	Cosmopolitan	441,663	monthly	4
Health/Fitness	Healthy	163,329	bi-monthly ^a	2
	Zest	96,754	monthly	4
Parenting	Emma's Diary	407,191	per season ^b	2
	Mother & Baby	60,008	monthly	3 ^c
Slimming	Slimming World	291,730	bi-monthly ^a	2
	Weight Watchers	208,348	monthly	3 ^d

^aBi-monthly refers to one that is issued every two months. ^bEmma's Diary Pregnancy Guide is a free magazine given to every mother in pregnancy by their midwives, hence the high circulation rate. The editions available for access were Spring / Summer 2009 and the later edition, Autumn / Winter 2009-2010 which became available in February. ^cAt the time of commencing the study the November edition had become obsolete and a back-copy was not available via the publisher. ^dA Christmas edition was produced which covered December and January as one issue.

NEWS PUBLICATION SAMPLING

Newspapers were categorised as either broadsheet (usually in larger format, suggested to present more reputable or serious journalistic output) or tabloid, which is generally viewed as a more commercial and sensationalised publication (Sparks, 2000). The two highest circulating papers for each of the two categories were selected: *The Telegraph*, *The Times* (broadsheets) and *The Sun*, *Daily Mail* (tabloids). Both types of publications were included for comparison, particularly as these two main elements of news media have not been collectively analysed when examining pregnancy depictions.

Prior to commencing the study, it was observed that articles featured on the internet publications of these newspapers frequently did not make the paper editions and that ABC's figures (as will be presented in Table 2) reflected an overall decline in daily readership for all print newspapers over the previous year. There has been a notable consumption shift in the UK in recent years as readers now tend to access news via the internet and television, hence resulting in a decline of paper editions (Key Note, 2010). Access to news is usually immediate now as users can browse webpages at their convenience, for up to the minute content via computer, mobile phone or tablet (Altheide & Schneider, 2013). In addition to this, Key Note's consumer research showed that just over 50% of all adults interviewed preferred newspapers

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that contained more features than news (e.g., leisure, health, sport, and celebrities). A decision was thus taken to access articles from the online news sites rather than the paper editions, because this facilitated a more comprehensive search and reflects the way that consumers access these sources. At the time of the search however, I was unable to access hit rates of the websites due to the substantial cost involved and therefore used circulation rates to inform my selection criteria. Magazine editions were still primarily published in print, hence paper copies were collected. Table 2 shows the circulation rates of broadsheet and tabloid titles selected for analysis, available in the six months prior to October, 2009:

Table 2: Circulation rates for daily broadsheet and tabloid newspapers selected for analysis (Press Gazette, October, 2009b)

Type of publication	Title	Circulation rate per year
Broadsheet	The Telegraph	801,872
	The Times	571,506
Tabloid	The Sun	3,079,451
	Daily Mail	2,159,931

ARTICLE SAMPLING

A time-frame of four months was selected, for both theoretical as well as practical reasons. The dates on which each publication was produced, varied. In practical terms, with eight magazines (published monthly, bi-monthly, or seasonally) and four news editions (published on a daily basis), there were over 2000 newspaper articles that initially were sourced as being pregnancy-related. Of these thousands of articles, although only 153 were eventually coded, this represented a large amount of data. The amount of data considered was in keeping with studies employing a similar methodology. From a theoretical perspective, data saturation was reached following the analyses of these articles and thus, it was decided that the time-frame was adequate and data analysis was complete¹³ (Morse, 1995; Onwuegbuzie & Leech, 2005).

Magazines and online news sites were initially searched for text within articles, captions, or headlines containing the word *pregnant* or *pregnancy*. This inevitably generated a vast number of unrelated articles, particularly online (for example, written pieces documenting statistics on teenage pregnancies). Consequently, each original

¹³ According to the most recent circulation figures available, the four newspaper titles continue to remain the highest circulating publications by mid-2013 (Press Gazette, August, 2013a) with the same for all but one title of magazine, where *Women's Health* has since surpassed *Zest* in the health and fitness category (Press Gazette, August, 2013b).

pregnancy article or webpage was screened further for meaningful units of text pertaining to the topic of *pregnancy and body*, *pregnancy and body image*, and *pregnancy and exercise*, either in the headline, main text, or caption that accompanied a visual image. Searching for content related in any way to *pregnancy and body* produced articles relating to weight and shape, in addition to discussions on diet and nutrition, therefore these were all retained as highly relevant to the analysis. Articles accessed online were retained and printed using the URL (or web address).

A total of 153 articles (55 magazine and 98 online news) formed the data set for analysis¹⁴. In sections of *Emma's Diary*, material was duplicated across both seasonal issues, however a decision was taken to include both sets of articles, because it reflected the consistency of the article produced or advice reported. This also occurred across the tabloid news sites, where paragraphs were often repeated, but with subtle differences. This was possibly due to a lack of 'newsworthy' material elsewhere. Again, the decision was made not to exclude material as the articles on news sites were not duplicated as a whole. This decision was linked to the suggestion that a 'dose-response' relationship exists when certain reinforced, gender-related behaviours (e.g., dieting) have the potential to increase the incidence of adverse outcomes (e.g., eating disorders) (Anderson & DiDomenico, 1992). One might speculate therefore, that if women were to read articles of a similar nature more than once, the message within the article might also be strengthened when duplicated.

Prior to data analysis, the sample was initially coded to establish the type of data item presented and identify the total number of articles within each magazine or news site (see Table 3). A preliminary review revealed that many of the data items, in both magazines and online news, had a celebrity focus. In terms of news content, this resonated with findings from the Key Note (2010) survey, Hine (2012), and Sha and Kirkman (2009). As a general guide, three types of article were identified prior to being coded thematically: those with a celebrity focus (CF: of the celebrity mother during pregnancy or postpartum), a real-life story or feature (F), and those with either an expert or advice element (E / A). The total breakdown for each type of article is displayed for both news and magazines in Table 3:

Table 3: Breakdown of the types of articles counted within online tabloids, broadsheet news sites, and magazines that contained references to pregnancy and body, pregnancy and body image, and/or pregnancy and exercise:

Category	Title	Total (n)	Celebrity Focus (CF)	Story / Feature	Expert / Advice
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¹⁴ Readers' comments were excluded from the data set, simply due to the sheer volume of data already retained for analysis.

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Broadsheet	The Telegraph	8	2	2	4
	The Times	8	5	1	2
Tabloid	The Sun	24	20	3	1
	Daily Mail	58	45	8	5
Lifestyle/Fashion	Glamour	0	0	0	0
	Cosmopolitan	2	2	0	0
Health/Fitness	Healthy	3	0	3	0
	Zest	8	2	4	2
Parenting	Emma's Diary	20	0	12	8 ^e
	Mother & Baby	14	2	6	6
Slimming	Slimming World	4	0	3	1
	Weight Watchers	4	1	3	0
		153	79	45	29

^e Of the eight features, two had a specific focus on a celebrity pregnancy

DATA ANALYSIS

This study formed phase 1 of this larger research programme, and it was intended that the themes that emerged in this study would then be used in the generation of an interview schedule for the second phase of the research. A qualitative approach therefore, appeared to offer the most appropriate and flexible way of gathering introductory data as it facilitates the development of further research questions and assists in the progress of theory (Henwood & Pidgeon, 1992). Although the use of content analysis as a more quantitative method enables the researcher to measure data objectively, the advantage of qualitative analysis is that a researcher can also describe the data, hence retaining its detail and complexity (Johnson & Onwuegbuzie, 2004).

THEMATIC ANALYSIS (BRAUN & CLARKE, 2006)

The method of thematic analysis is appropriate for an array of reasons, as described by Clarke and Braun (2013). First, it can complement a wide range of research questions, encompassing those concerned with people's experiences to those that consider representations and constructions of phenomena in a given context. Second, it is suited to numerous forms of data, from media articles to interview transcripts. Third, it can be applied to both large and small data sets and finally, that it can be employed to generate data-driven or theory-driven analyses. Hence, as a stand-alone, theoretically-free method, it is argued to be suited to a much broader range of questions and theoretical perspectives (Braun & Clarke, 2006). It can also facilitate the smooth transition through three phases of inquiry: the initial recognition of an important code-able moment (seeing), which is followed by the encoding of it (seeing it as something), which in turn leads to interpretation (Boyatzis, 1998).

Thematic analysis, as informed by Braun and Clarke (2006) was employed to identify, analyse, and report on themes found across the data set. The flexibility of thematic analysis allowed for the data to be organised into categories or themes to illustrate patterns in the messages, or potentially to highlight any disparities in terms of messages established in previous research. The data set was defined by the researcher's specific investigative interest in appearance-related aspects of pregnancy (which subsequently included topics around diet and nutrition) and pregnancy / postpartum exercise, which subsequently encompassed all instances where these topic areas were referred to (Braun & Clarke, 2006). This method has also been successfully used in prior body image research, for example, to study body image processes and clothing practices in both newspapers and magazines (Frith & Gleeson, 2008).

A DATA- VERSUS THEORETICALLY-DRIVEN APPROACH?

The analysis of this first media text study was to be largely driven by the data and set within the current social context, essentially due to the lack of research which has been conducted on pregnancy representation. Thematic analysis was selected over others for its flexibility; in that it is not attached to a particular theoretical position or epistemological framework such as critical discourse analysis, used by a number of authors to examine media texts (e.g. Dworkin & Wachs, 2004; Jette, 2006; Markula, 2001; Sha & Kirkman, 2009). Although a constructionist, theoretical stance can be adopted with thematic analysis, a more data-driven approach was taken, largely due to the lack of research which addresses pregnancy representation in British material. Yet, whilst remaining focused on the data, it was important to acknowledge my theoretical interest in this area of research. Hence, the aim was to contextualise emerging codes and themes, while reflecting on the wider, sociocultural perspective and pre-existing body of knowledge, thus in keeping with a more new realist or contextualist epistemology (Braun & Clarke, 2006).

PROCESS OF THEMATIC ANALYSIS

Braun and Clarke (2006) detail five recursive phases before a written account is prepared as step six. These are presented in Figure 3 and are taken directly from Braun and Clarke's paper:

1. Familiarising yourself with your data:

Transcribe data (if necessary), read, and re-read the data; note down initial ideas.

2. Generating initial codes:

Code interesting features of the data in a systematic fashion across the entire data set; collating data relevant to each code.

3. Searching for themes:

Collate codes into potential themes, gathering all data relevant to each potential theme.

4. Reviewing themes:

Check if the themes work in relation to the coded extracts (Level 1) and

Figure 3: The six-step process of Braun and Clarke's (2006) thematic analysis, including the steps (highlighted in bold) with a description of the process.

As part of the first step, I familiarised myself with the data by reading and re-reading each individual article, making annotated notes down the margins to highlight interesting aspects about the data. Colour coding assisted to highlight both semantic and latent aspects of the data, across all articles. A decision was made to include both semantic and latent codes, as these can be used concurrently (Boyatzis, 1998). Braun and Clarke describe latent codes and themes as ones which are identified within surface meanings of the data, whereas semantic codes and themes are informed by underlying conceptualisations, hence the inclusion of both, as part of a new realist approach. Although data-driven throughout this iterative process, I remained mindful of previous literature to ensure sensitivity and vigilance to any nuanced elements of the data (see Braun & Clarke, 2006; Tuckett, 2005). Any bodily or appearance-related reference (e.g., weight, breast size, stretch marks) was included (e.g., "Your large lunch look is turning into a proper bump") and for exercise, this included any comment related to fitness or physical activity (e.g., "Are you fit enough to cope with labour?"). Having made notes throughout each article, it became apparent where there were topics emerging from the data that had not formed part of the original research aims. An example of this will be discussed more in the analysis chapter, but referred to messages around eating practices and current recommendations for pregnant women. This was not specifically related to my research aims, but as it was prominent throughout the data set, it was imperative to retain the data for later analysis. These data subsequently formed a standalone theme.

The process of coding (as part of step two) was relatively complex and is argued to be the most time-consuming phase of the whole process, simply because there are generally no standardised categories when attempting to divide and note

patterns in the data (Joffe & Yardley, 2004). Units of codes varied from a few words, a line of text, to a full sentence in order to capture the main essence of the segment of text. As stressed by Howitt and Cramer (2008), a chunk of text does not necessarily have to equate to the same number of lines each time coding occurs. Codes were subsequently grouped to form relevant themes (see phase three) where patterns across the data set were apparent (e.g., maintained appearance, return to 'form'). Coding was primarily data-led, guided by the characteristics within the data. Initially, semantic coding assisted in describing what was happening in the data. This can be illustrated in Figure 4, whereby a chunk of text was coded alongside, in a semantic manner:

Data extract	Codes (semantic)
<p><i>"The former Wimbledon champion [Boris Becker] was spotted gazing adoringly at wife Lilly at an awards ceremony in Kitzbeuhel, Austria last night. The model put her bump on show in all its glory for the occasion, dressing in a dazzling floor length sequinned gown."</i></p> <p>(Daily Mail, November 24th, 2009)</p>	<p>Husband affectionate</p> <p>Displayed bump openly</p> <p>Positive description of mum and baby bump (glory/dazzling)</p>

Figure 4: Data extract with semantic codes applied.

The transcript was systematically examined on a subsequent occasion; this time with the aim of searching for latent codes. This was achieved using my own interpretation and was informed by previous research that has already been referred to in this area (see Chapter 4). The following extract provided in Figure 5 includes both semantic and latent codes alongside questions from the interviewer and responses from the participant. Latent codes are highlighted in bold as being distinctive from the semantic codes in the example extract below:

Data extract	Codes (semantic and latent)
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<p>“Nick said when he cuddled me, ‘I think you look really sexy’. Let it be said that I’m flattered that he stills finds me attractive (although he must be cracking up if he finds women with stretch marks and heartburn a turn-on.” (<i>Emma’s Diary</i>, Spring/Summer 2009)</p>	<p>Husband complimentary of appearance Appreciative of compliment A pregnant body is not a sexual one</p>
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Figure 5: Data extract with semantic (non-bold) and latent (bold) codes applied.

WHAT IS A THEME?

Importantly, a theme may represent some level of constructed idea or argument in the data (in this case a pattern of similar sentences in the articles), however the principal focus is to assess how well the theme represents a statement central to the research area being studied or captures an aspect driven by the research question (see Braun & Clarke, 2006 for a detailed explanation). The nature of a theme should be at the heart of the topic one is trying to address and it is important to acknowledge both patterns as well as disparities in the data. This highlights the challenges of trying to quantify qualitative text. In essence, the key focus of thematic analysis centres on *relevance* over frequency; frequency being a feature more closely linked with content analysis and a quantitative method commonly adopted in recent studies (Gow et al., 2012; Roth et al., 2012).

During the process of step three, the coded data were organised into prospective themes. Whilst at this stage, I encountered codes around the use of clothing, which were not necessarily specific to the pregnant body or appearance and therefore these were categorised separately under a clothing theme, to be examined later in terms of relevance. As Braun and Clarke suggested, some themes can be categorised as sub-themes and grouped under one overarching theme, whilst others can remain separate or be discarded. For example, an overarching theme; ‘Tell it like it is!’ emerged in the magazines and included sub-themes related to the increase in and fear of weight-gain, negative discussion of appearance-related changes and bodily acceptance. A decision was also made to code into multiple categories, rather than exclusively into one category. For example, there were instances where one unit of text (or in some instances, one sentence) was relevant to one or more sub-themes (e.g., “To stop me feeling like a baby elephant I’d splashed out on this floaty dress which showed off all my very curvy curves”. This related to sub-themes in the above example around increased weight-gain but also acceptance). Although Braun and Clarke advocate the use of thematic maps to begin to display one’s theme development, the analysis was relatively straightforward and this process was not

warranted for this study. Thematic maps however, were developed for the second qualitative study, as will be seen in Chapters 8 and 9.

During step four, it was important to identify the nature of prospective themes. Several questions needed to be addressed. These were in relation to the quality of a theme, the boundaries of the theme, the relevance of meaningful data attached to each theme, and whether the themes worked in relation to a) the coded extracts and b) the entire data set. As part of this process, coded articles, extracts, and proposed themes were examined by both myself and the supervisory team. Collaborative decisions were made to review themes to ensure support for each candidate theme, that there was sufficient data to form a coherent pattern, and to identify clear distinctions between themes (Braun & Clarke, 2006). Patton (1990) described evaluating themes on their *internal homogeneity* and *external heterogeneity*. This yields two types of findings: high-quality descriptions of each theme to show uniqueness, together with a meaningful, shared pattern across themes to demonstrate coherence (Patton, 2002).

Whilst in the process of step four, it became apparent that there was a disparity across two themes around exercise amongst different sources. These were subsequently refined and presented as one contrasting theme, to demonstrate the divergence and inconsistency of information. This process formed an element of step five, during which themes were defined, clearly named, and again, related back to the research aims, with illustrative extracts selected for each. This final level of organisation created a timely opportunity to commence a written account to accompany each extract. The final step of the analysis involved producing a written report of the findings. The full analysis and discussion will be presented in Chapter 6.

NEGOTIATING THE USE OF CODING SOFTWARE

Neither this, nor the interview study employed the use of computer-assisted qualitative data analysis software (CAQDAS). It was felt that although this type of software may be a helpful tool in terms of organising data and code searching, thus increasing efficiency, I preferred to retain full control in the analysis process. Hence, the analysis was conducted manually in both instances of qualitative analysis for this thesis.

METHODOLOGICAL RIGOUR IN THE QUALITATIVE ANALYSIS OF STUDY ONE

“There is absolutely nothing that is seen by two minds simultaneously.”
(Bertrand Russell, 1872-1970.)

A significant challenge for those undertaking research in health psychology is to convince researchers and scholars (in the field) of the value of a qualitative approach, as a legitimate form of inquiry and knowledge production (Lyons, 2011). Demonstrating rigour using terms such as reliability and validity have been rejected within qualitative inquiry for the sole reasons that such concepts pertain to a more positivist, quantitative paradigm (see Altheide & Johnson, 1994). That position has been contested on the grounds that rigour relates to scientific enquiry. Morse (1999) argued that to reject such concepts may result in qualitative research being excluded as unable to offer any valued, scientific contribution to the advancement of knowledge and understanding.

Regardless of epistemological paradigm or research approach, rigour is the means by which integrity and competence is evidenced through the analysis process (Tobin & Begley, 2004). The research process is likely to have been influenced by my own value positions and experiences; that said, these should not constitute an obstacle, but rather make the research more meaningful (Koch, 2006). Hence, it is important to acknowledge that the qualitative work produced for this thesis cannot be set wholly within a value-free context, but that there are processes involved that help mitigate the influence that personal values and preconceptions might have had on both the procedure and findings (Patton, 2002). A more detailed discussion of methodological rigour, encompassing Lincoln and Guba's (1985) concept of trustworthiness, can be found in Chapter 8 following the method from Study 2.

DEBATING THE NEED FOR INTER-RATER RELIABILITY IN QUALITATIVE RESEARCH

The collaboration of more than one analyst, or use of independent multiple coding, is a conventional process in quantitative research (Armstrong, Gosling, Weinman & Marteau, 1997) but has also been argued to improve credibility (consistency) or dependability (reliability) of qualitative research findings, particularly where researcher 'bias' is perceived as a potential problem (Pope, 2000). Multiple coding is also regarded as useful during supervision sessions, when discussing emergent coding frameworks or refining coding frames, as a means of delivering alternate interpretations (Barbour, 2001). *Member-checking* as a procedure also relates to another researcher checking the analysis to obtain a degree of consensus on interpretation, as recommended in Lincoln and Guba's work (Walsh & Baker, 2004), in addition to being known as the term for a participant review of findings.

That said, empirical evidence has suggested that although close consensus can be reached on basic themes within a transcript, the inherent subjectivity of

interpretation can differ greatly amongst analysts, in terms of how themes are 'packaged' (Armstrong et al., 1997). Advice was therefore sought from Associate Professor Victoria Clarke (personal communication, July 10th, 2011). She re-affirmed my previously-held reservations about the need for multiple coding or member-checking in qualitative research. She agreed that in quantitative studies, inter-rater reliability forms a key criterion when coding, thus assuming a more deductive approach. Yet this is problematic in qualitative research, according to Clarke, for two main reasons. First, even if I was to adopt a realist view, inter-rater reliability would only be demonstrative of the fact that two or more coders have been trained to code in the same way. Second, if I were to adopt a more constructionist stance, the main concern lies in the assumption of 'truth', whereby ultimately, there is no one *right* way to analyse the data. Confirmation of the authors' position on the use of collaborative coding can be found on Braun and Clarke's thematic analysis website (<http://www.psych.auckland.ac.nz>).

Following this advice, the bulk of the coding process was done by myself, as researcher. Coded extracts were available to and examined by the supervisory team when discussing theme generation. In addition, collaborative decisions were made to review themes to ensure 1) support for each candidate theme, 2) that there was sufficient data to form a coherent pattern, and 3) to identify clear distinctions between themes (Braun & Clarke, 2006).

PREDOMINANCE OF CODED EXTRACTS

The magazine data set consisted of 217 coded extracts. Of this sample, 140 (65%) originated from parenting magazine articles, 46 (22%) from the eight articles within slimming magazines, and 28 (12%) from the health and fitness magazines. Magazines, such as Emma's Diary, are aimed at a wide audience of pregnant women, to provide them with a wealth of information and as such, formed 49% of the parenting magazine sample. This publication in particular, is offered to every pregnant woman free of charge during their antenatal care and the cost of publication is most likely funded through the many advertisements included. Nevertheless, this also ensures that the dissemination of health-related information reaches the widest audience possible and explains the perhaps expected predominance of material within parenting publications.

It is interesting to note however, the amount of material from tabloid publications as opposed to the broadsheets. Coded news extracts were largely derived from the *Daily Mail*: 339 (77%) within 58 articles. Of the 442 total coded extracts across news sites, only 69 (13%) originated from broadsheets collectively (32

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and 27 from *The Times* and *The Telegraph* respectively). This is most likely associated with the current preference and transition from news to feature content (as discussed by Key Note, 2010) and perhaps lays bare the wider social interest, or possible fascination, in celebrity culture and lifestyle.

SUMMARY

This chapter documents the design, aims, and method employed for Study 1. A sampling rationale was presented, together with a comprehensive description of the qualitative method of analysis adopted. A justification for the use of manual coding and the researcher's position on collaborative coding has been presented. The analysis and discussion will now follow in Chapter 6.

CHAPTER 6

STUDY 1: QUALITATIVE ANALYSIS AND DISCUSSION

INTRODUCTION

In total, six major findings will be presented and discussed in this chapter. Following an account of the findings, the discussion will consider all six findings in relation to the current body of literature and move on to demonstrating how these qualitative findings have increased understanding in this area. Although the media's promotion of beauty and the thin-ideal is well documented (see Chapter 4), these findings seek to demonstrate an extension of this knowledge, in terms of the pregnant body, and help us to move forward from a theoretical and practical perspective. The chapter continues to include a discussion of study limitations and implications for Study 2, before offering concluding remarks.

INVISIBILITY OF THE PREGNANT BODY IN FASHION MAGAZINES

The pregnant body¹⁵ appeared in literally all genres, except for fashion magazines, however, the way in which the pregnant body appeared differed. In the tabloids, the same celebrity or model was often pictured and reported on over days or weeks, effectively tracking changes in her appearance as her pregnancy progressed. In the magazines, many of the articles were text-based only, containing more real-life features and advice elements. With the exception of two articles in *Cosmopolitan*, which both had a celebrity focus, pregnancy or the pregnant body was essentially invisible in fashion magazines. These particular articles centred on an interview with Rachel Weisz (British actress) describing life after pregnancy and an interview with Vernon Kay (UK TV celebrity), husband to Tess Daly (UK TV celebrity), describing his wife's pregnant body. This description will be discussed towards the end of the chapter. Thus, from here on, when magazines are referred to, this means the parenting, slimming and health magazines¹⁶.

¹⁵ That is, images of the pregnant body, as well as articles about pregnancy etc.

¹⁶ unless otherwise specified

BODILY CHANGE: 'TELL IT LIKE IT IS!' VERSUS 'UNSCATHED BY PREGNANCY'.

This theme relates to how pregnant women are represented in terms of bodily change. In parenting and slimming magazines specifically, the enduring and sometimes lasting legacies of pregnancy were clearly outlined for women in the theme 'Tell it like it is!'. In contrast, online news sites centred on celebrity appearance and less-so on the realities of body change in the theme 'Unscathed by pregnancy'.

Almost 47% of the overall coded extracts in magazines presented some of the more unpleasant or negative, and some might consider realistic appearance-related aspects of pregnancy. For example, in *Emma's Diary*, diary sections are written by a fictitious character (Emma) who documents the events from week six of pregnancy through to the birth¹⁷. *Emma's Diary* focused on two aspects of pregnancy-related body changes. The first was related to weight-gain, body shape, and size, in which references are often made to animals and other inanimate objects:

Week 12 - "I went to slip into my fave jeans – tight, sexy, look great with anything – and found that thanks to my now planet-sized (well almost!) jellybelly they wouldn't do up."

Week 32 - "I'm even finding it tough to drag my hippo-sized body out of the office for lunch each day..."

The second aspect regarded other appearance-related aspects during pregnancy, such as skin tone and stretch marks:

Week 10 – "...bleeding gums aren't a very attractive look for a mum-to-be."

Week 26 – "P.S. Help! I'm turning into a monkey – I've got a black hairy line down the middle of my bump that I'm sure wasn't there the other day."

Week 28 - "I caught a glimpse of my bump the other day and saw loads of scary purple lines (think AA roadmap) sneaking across it. Yes I know they're harmless...but it's still hard to face the fact that my bikini wearing days are over."

The issue of bodily change was also apparent within the other parenting and slimming magazines and the expectation for excess weight-gain and increased body size was still very much evident:

¹⁷ The complete diary and many of the health-related articles are replicated in each edition and the illustrations highlighted are identical in both issues examined.

“Initially I wasn’t fazed at the thought of having twins, but when the consultant told me I’d be the size of a house, would need a double buggy and might have to get a new car, panic set in” (Mother & Baby, December 2009).

Although frequently communicating a more realistic outlook, using somewhat pessimistic self-talk for the reader (e.g., by fictitious character *Emma*), extracts within the parenting magazines revealed a sub-theme related to appreciation and acceptance, where women were also encouraged to embrace the physical changes. Although the concept of bodily acceptance tended to be restricted within the context of functionality, this highlights the conflict in messages communicated within just one publication alone:

“The positive reaction my bump brings out in people is lovely...It makes me feel so special.” (Mother & Baby, February 2010).

Interestingly, there were no articles related to embracing one’s pregnancy shape in any of the slimming editions; however it might be reasonable to suggest that the ethos behind such publications focuses on postpartum weight loss and less so on acceptance. This was apparent when the amount of weight gained was documented in a negative manner, despite the fact that weight-gain in pregnancy varies greatly from woman to woman and is attributable to an array of factors (N.H.S. Choices, n.d.):

“But I gained 2st 7lb [35lbs] after having Grace and hadn’t lost it by the time I became pregnant with Sienna...I hated the shape I’d become.” (Weight Watchers, December 2009/January 2010)

In contrast with the majority of magazine articles, the online news sites reported extensively on celebrity weight-gain; frequently describing very modest levels during pregnancy or weight-loss postpartum. In rare instances, anomalous articles presented as health features, yet written by non-specialist journalists, were highly critical of the thin-ideal image, similar to that of Cartner-Morley (2000) and Burchill (2000) as referred to in the literature review in Chapter 4. On the whole however, articles commonly depicted a celebrity’s pregnant body and the appearance of a ‘neat’ bump in a very positive light (in direct contrast with the parenting and slimming magazines) and commented on their capacity to *maintain* their appearance during pregnancy. In many cases, such celebrities were compared with ‘the average pregnant woman’ and the following two extracts illustrate both of these points:

“She’s eight months pregnant and almost ready for motherhood. But apart from a perfectly formed bump, Brazilian supermodel Gisele [Bundchen’s] figure seems to have remained largely unaffected by pregnancy. While many women in her position may be feeling a little rotund and even bloated at this stage, Gisele, 29 is still remarkably sleek” (Daily Mail, November 7, 2009).

“Some women look tired and drawn while they are pregnant, while others literally glow. Dannii [Minogue] is clearly one of the latter ladies.” (Daily Mail, February 9, 2010)

Physical appearance comparisons were often a topic of discussion in both broadsheet and tabloid news articles. *The Times* published articles on ‘How to get’ a particular celebrity’s postpartum body (which will be discussed in more detail within theme three), and in the following tabloid extract, Ms Alicja Bachleda-Curus [Polish actress and singer] was photographed on holiday soon after the birth of her child, leaving the reader to ponder the question of how her body remained unchanged or returned to ‘form’ after nine months of pregnancy:

“Whilst most new mums wouldn’t be seen dead in a bikini so soon after a stomach-bulging pregnancy, sexy Alicja proudly displays a body unscathed by nine months of expansion.” (The Sun, December 2, 2009)

POSTPARTUM WEIGHT LOSS: ‘REALISTIC EXPECTATIONS OF THE RETURN JOURNEY’ VERSUS ‘SNAP BACK INTO SHAPE AND GET THAT BODY BACK.’

This contrasting theme centred on postpartum weight loss. There was a tendency in both parenting and slimming magazines to present a more credible prospect for women in terms of the length of time they should expect their bodies to return to their pre-pregnant shape, in the theme ‘Realistic expectations of the return journey’. On the contrary, news sites elected to report on the speed at which new celebrity mothers were able to return to their pre-pregnancy figure in ‘Snap back into shape and get that body back’.

When approaching the topic of postpartum weight loss, magazines suggested women take a more pragmatic and realistic approach:

“You can get back to your old size, but it’s not going to happen overnight....Give yourself a year..only then should you be worried about carrying any extra baby weight” (Mother & Baby, February 2010)

“Although you’ll be looking and feeling loads thinner than before, don’t expect to be able to slip back into your skin-tight jeans just yet. It can take a while for your figure to return to something like its pre-pregnancy shape – some women manage it in few weeks, but for many, it can take months..” (Emma’s Diary).

Despite parenting magazines discussing the value of personal choice and importance of holding realistic expectations, both broadsheet and tabloid news articles placed considerable emphasis on a celebrity’s ability to shed her pregnancy weight or intention to lose the weight before even having given birth. Central to this aspect was discussion surrounding body shape postpartum, dietary regime and the specific length of time taken to lose weight:

“[German] Supermodel Heidi Klum is back to work (and back in shape) just SEVEN weeks after giving birth.... She has miraculously regained her slim physique after giving birth to daughter Lou Samuel and has gone straight back to work.” (Daily Mail, December 4, 2009).

“(caption) Back in shape: Lisa Scott-Lee [British singer] lost her baby weight in three weeks...For her the weight loss was easy – she was back in her size 8 jeans three weeks after giving birth, having shed 2 stone [28lbs] of baby weight....Lisa is adamant she hadn’t dieted since having Star, but is simply blessed with a fast metabolism.” (Daily Mail, January 5, 2010).

“...her ditching of the pregnancy footwear uniform does not entirely explain the downsizing in Coleen Rooney’s [British footballer’s wife] lower body less than three weeks after she gave birth...and her hips already seemed to be boomeranging back to her pre-baby size 10.” (The Times, November 23, 2009).

Despite the news sites’ overwhelming obsession with celebrity weight loss, the Daily Mail produced an anomalous article, launching an attack on *OK!* Magazine (USA) where American TV personality, Kourtney Kardashian’s image had been digitally altered; presenting her as a new mother who had lost 10 lbs in 10 days. This was featured alongside her original photograph which clearly showed the digital manipulation of the size of her stomach and the colour of her clothes. Despite being uncharacteristic in the midst of the news sites’ inclination to portray rapid weight loss, the two contrasting images offered women the opportunity to see first-hand, that what they view may at times be disingenuous. Worth noting however, was Kourtney Kardashian’s final word on the matter where, after criticising the publication for their

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actions, she reportedly said 'but thanks' which appears to illustrate her personal wish to have looked as depicted:

"Kourtney [Kardashian] has it out at an American magazine after they digitally slimmed her 'post-baby body' on the front cover...Kourtney told Women's Wear Daily: 'They doctored and Photoshopped my body to make it look like I have already lost all the weight, which I have not...And I gained 40 pounds while pregnant, not 26...But thanks'." (Daily Mail, January 28, 2010).

THE ROLE OF EXERCISE: 'BE HEALTHY, GET FIT, BUT BE SAFE' VERSUS 'EXERCISE WILL BLITZ THAT BABY WEIGHT'.

The third contrasting theme relates first to the role of 'safe' exercise, identified in the magazines as a means to achieve health and fitness, in addition to preparing the body for birth. This was named 'Be healthy, get fit, but be safe'. In direct contrast, 'Exercise will blitz that baby weight' alluded to the tendency to portray exercise as a means of controlling weight-gain through pregnancy or as a postpartum, weight-loss mechanism in the news sites. Parenting magazines, in particular, although commenting on the appearance-related benefits, emphasised how exercise can help alleviate pregnancy-related symptoms:

"And don't forget that exercise has other benefits besides getting a better body...having an exercise routine lets you scrape back a bit of time for yourself...it eases stress and can help you sleep." (Mother & Baby, February 2010).

"Taking regular exercise will help you have an easier pregnancy and give you more stamina for labour. If you're fit, you're likely to get back into shape more easily after the birth and you will have more energy to cope with the demands of a new baby." (Emma's Diary)

In addition to focusing on the fitness aspect of exercise, the health benefits for the baby were also made salient. This was the case for both gestating and newborn babies:

"Few of us have time to squeeze in our recommended 30 minutes of exercise every day – which is why many mums are eager to find ways to get in shape that include their baby...Not only will swimming boost your fitness, but it's also a great way to bond with your baby." (Mother & Baby, February 2010)

Where a woman's postpartum shape was discussed, the general tone shifted from weight loss to focusing more on an individual's shape and in the following example, the use of clothing was discussed as a means of assessing one's change in shape:

"Exercise can tone you up without losing weight, which is why it is better to use your clothes as a weight-loss guide." (Mother & Baby, February 2010).

Central to many of the articles discussing exercise in pregnancy, was the fundamental message about safety and the importance of seeking professional advice, when negotiating the prospect of commencing or adapting an exercise programme:

"Exercise safely – pregnancy is no longer an excuse to put your feet up for nine months, it's good for you to be active – but don't try and reinvent yourself. What you do depends on pre-pregnancy fitness levels. Now is not the time to take up a strenuous regime if you've never done it before." (Emma's Diary)

"If you've chosen the gym as your preferred form of pregnancy exercise, getting the right advice is vital...Continue your workouts, but ease off the intensity...Don't try anything new without advice, opt for lighter weights than usual and don't exercise to the point of fatigue." (Slimming World, November/December 2009)

"Don't attempt anything other than gentle walks until you've had your postnatal check-up...If you've had a caesarean you'll normally be advised to wait 12 weeks before starting any form of exercise. For the first six months avoid any activity that has an impact on your joints, such as jogging or skipping..." (Mother & Baby, February 2010)

The representation of exercise as a weight-control mechanism lays bare the disparity between magazines and news articles, in which the propensity to advocate exercise for weight management during pregnancy or for returning the body to its pre-pregnancy weight or shape is evident. News articles focused intensely on celebrity weight loss and the scrutiny of their exercise and dietary regime was self-evident:

"It's the exercise weapon Coleen Rooney plans to use to regain her pre-pregnancy figure. The 23-year-old, who gave birth....last week, is keen to get her size ten body back as soon as possible. And her fitness

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instructor....revealed she intends to use a Flexi-Bar to do it.” (Daily Mail, November 11, 2009)

Daily Mail also interviewed British radio DJ, Sara Cox who described her ‘desperation to lose her baby weight’ whilst still pregnant:

“Sara Cox is seven months pregnant and already thinking about how to get in shape after her third baby is born. She has already made plans to blitz her baby belly by going to dance classes.” (Daily Mail, February 2, 2010)

Christina Milian [American singer] was also alleged to be discussing, while still pregnant, plans to lose postpartum weight in order to secure future work:

“[Christina] Milian said she will be heading to the gym after the birth to regain her toned pre-pregnancy figure...After the birth, Milian is planning to get back in the gym to lose her baby weight so she can start auditioning for movie roles.” (Daily Mail, January 15, 2010)

Of the eight articles examined in *The Times*, two carried the headlines “How to get... Coleen Rooney’s post-baby body” (November 23, 2009) and “How to get...Nicole Kidman’s thighs” (November 9, 2009).

“Kidman is not one to shirk exercise. She continued to work out in the gym until a few weeks before daughter Sunday Rose was born last year, displaying barely a bump throughout her pregnancy and shrinking back into shape with improbable swiftness afterwards.” (The Times, November 9, 2009).

In the Kidman article, “her secret” was quoted to be a series of regular Pilates, a weekly spinning class, cardio workouts, outdoors running of 7-12 miles, power walking, weight training, swimming and yoga. In the “*what you can do*” section however the first line reads “*The bad news is you can’t outwit your genes*”, implying that regardless of the effort and exertion in all of the above exercise sessions, if you are not ‘genetically blessed’ as many celebrities are portrayed to be, it is likely that you are, quote “*just not destined to have Kidman-esque limbs*”.

‘EAT FOR TWO? PREGNANCY IS NOT AN EXCUSE’.

A striking consensus emerged across all media genres regarding energy needs and food consumption during pregnancy in the theme ‘Eat for two? Pregnancy

is not an excuse'. All relevant articles stressed the consequences of not eating for two during pregnancy, with particular emphasis on calorie intake and reference to recommended NICE guidelines. NICE's (2010) public guidance health report (as referred to in Chapter 3) made formal recommendations on the promotion of good health during pregnancy. The report raised concerns that in the UK almost 50% of women of childbearing age are already overweight (BMI > 25) and / or obese (BMI > 30). This does not appear to be exclusive to the UK with a similar figure being cited by Skouteris and colleagues in Australia (Deakin Research, 2011). NICE (2010) stated that women should be actively discouraged from eating for two as energy needs do not change during pregnancy and it is only in the final trimester that an increase of approximately 200 calories a day is needed. It became clear by the time of this analysis, that the main messages from their report had already been disseminated in the media:

"Eating for two is just a myth, Health Service advises mothers-to-be.....Mothers should be warned that 'eating for two' is a myth according to guidelines. They do not need to drink full-fat milk or change their diet at all for the first six months of the pregnancy. Even in the last three months they need just 200 extra calories a day – the equivalent of a small sandwich." (Daily Mail, February 19, 2010)

"Contrary to popular belief, you don't have to eat for two now you're pregnant. You only need 200 to 300 calories a day, and that's only in the last trimester." (Emma's Diary).

"When pregnant you don't need more energy in the first trimester than pre-pregnancy and barely 300 calories more than normal in the final stages, so there's no need to gain an excessive amount of weight by 'eating for two'. But neither should you eat less to avoid putting on a couple of stone [28lbs] – just eat better!" (Zest, November 2009).

"The guidance [N.I.C.E.] emphasises the importance of being a healthy weight before conception in order to avoid pregnancy and birth complications and warned that women do not need to 'eat for two'." (The Telegraph, February 19, 2010).

The slimming magazines, in particular, highlighted the consequence of poor choice, which was clearly evident for the reader to comprehend:

"I didn't give much thought to what I ate while I was pregnant and, as a result, I put on 5st [70lbs]." (Slimming World, November/December 2009)

THE PREGNANCY BODY: CONCEAL OR REVEAL?

Finally, a distinct theme named 'Conceal or reveal?' featured mainly throughout the online news sites, in both tabloid and broadsheet publications. This referred to appearance-related depictions of either a celebrity's desire to hide their bump for as long as possible in flowing dresses or a celebrity's proud display of their bump in tight clothing. Unsurprisingly, these suggestions were formed by the journalists writing the article and not necessarily expressed by the women being discussed. The way in which their bump was described was of interest:

"Headline: Heavily pregnant Sara [Cox] looks radiant as she shows off her growing bump in a tight dress.....And her burgeoning bump was all too clear to see under her tight blue dress and black jacket." (Daily Mail, January 28, 2010)

"Certainly the 35-year-old presenter [Denise Van Outen – British actress and television personality] didn't look the least bit peaky when she wafted down the catwalk..., her six-month-swollen-belly swathed in a Grecian-style gown." (The Telegraph, February 20, 2010)

"Headline: Pregnant and proud Christina Milian shows off her baby bump in tight-fitting top and leggings...Clearly proud of her pregnancy, the tight-fitting outfit showed off her curves in all their glory." (Daily Mail, January 15, 2010).

Yet again the tabloids, in particular, opted to report on Dannii Minogue's pregnancy in the early stages. As such they chose to describe her as strategically hiding her figure during the early period so as not to look as though she had simply put on weight:

"Meanwhile, Dannii covered up her baby bump at the Elle Style Awards last night – as she said her pregnancy was giving her a wardrobe crisis. She laughed...with her sister on the red carpet as she concealed her bulge in a flowing yellow Grecian-style frock." (The Sun, February 23, 2010).

"It was Dannii's first public engagement since she announced her pregnancy. The 38-year-old disguised signs of a bump with a full-skirted black and white striped vintage prom dress." (Daily Mail, January 21, 2010).

Emma's Diary remarked on a woman's freedom to choose how to dress during pregnancy, and whether to openly display one's bump. Ironically, this appeared to be attributable to celebrities, in which case women were still being compared in terms of their appearance:

"Thanks to a spate of 'celeb' mums....looking stylish with your bump is easily achievable....Although the fashion still seems to be showing off your bump, if this isn't for you then don't feel embarrassed about it." (*Emma's Diary*).

Prominence was placed on the appearance of the pregnant woman and her choice of dress, comparable with findings by Hine (2012) and Sha and Kirkman (2009). In contrast however, this study found that both news and parenting magazines celebrated an individual's ability to maintain a fashionable 'look' whilst preserving a conservative and modest approach. This was particularly evident on *Mother & Baby's* regular monthly "A-List Bump Watch" page, which encouraged its reader to adopt a celebrity's style.

DISCUSSION

In addition to the finding explaining the issue of invisibility of pregnancy in lifestyle / fashion magazines, this section will first present discussion of each theme in turn. Having taken the decision to remain data-driven in the analysis of the data, it was at this point that these findings were then related to and contextualised within existing research and the social context. The rationale for this was to discover whether any patterns in this data set were comparable or distinctive from both existing media analyses and findings from qualitative whereby women have been interviewed about their experiences, but not to be overly influenced by these studies when generating themes¹⁸. The themes produced in this study and the knowledge gained from the existing body of research will then facilitate setting the foundations for the interview schedule for Study 2 (Chapter 8).

To contextualise these findings and refer to existing research, it is worthy of initial comment that of the 98 online news articles, 78% either featured white models or celebrities as part of a story or within an image attached to an article. This figure is comparable with findings by Dworkin and Wachs (2004) whose magazine analysis highlighted that 81% of fitness models in *Shape Fit Pregnancy* were white and also Frith, Shaw and Cheng's (2005) findings in which white women were over-

¹⁸ Hence there may be references made in the remainder of this chapter to studies that have, thus far, not been discussed in a literature review. These will be discussed however, in much greater detail when the literature review is presented in Chapter 7.

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represented within three of the most popular women's fashion and lifestyle U.S. magazines from 2001-2002. This is unsurprising given that Western beauty portrayals are said to racially favour and represent 'white' characteristics (e.g., blonde hair) as universal ideals (Bordo, 2003).

BODILY CHANGE

In sum, messages regarding bodily change were more realistic in magazines than news sites. Messages within the parenting magazine extracts in this theme resonate with the feelings of the women in Johnson et al.'s (2004) research, who spoke of feeling less attractive, becoming less satisfied with their bodies, more uncomfortable and constrained as their pregnancy developed; many of whom longed to return to "normal". Participants in Clark et al.'s (2009b) qualitative study felt that although some of the changes were rather unwelcomed, they were willing to accept them. For some women however, they believed that their body had changed to such an extent that they self-described occupying a 'stranger's body'. It may be unsurprising then that previous research and magazine depictions in the present study demonstrate the overwhelming sense of unattractiveness during pregnancy as a consequential necessity, particularly when their bodies are in a state of uncontrollable transition. Thus, the idealised image of a tight, toned and *maintained* body may be perceived as even more unachievable than ever before. As is well-documented, such media images are near impossible for the majority of women to achieve by healthy means (Krahé & Krause, 2010; Tiggemann, 2002, 2011), irrespective of pregnancy.

By choosing to compare women to inanimate objects and animals however, this suggests that the parenting magazines paint a rather disconcerting and negative picture; exaggerating the distance that is already well-established between a pregnant woman's reality and the thin-ideal concept. The way in which pregnancy-specific aspects of pregnancy were negatively described (e.g., 'scary purple lines' [stretch marks] and 'hippo-sized body') resonates with discourses found in Jette's (2006) pregnancy magazine column analysis. Slimming magazines in particular, send the message that if a woman wants to reclaim her pre-pregnancy self-identity, she needs to apply self-control to lose postpartum weight.

There is a resounding similarity between the news extracts in this theme and Jette's (2006) analysis of *Oxygen* fitness magazine, McRobbie's (2006) report, and Hine's (2012) analysis of celebrity content; all of whom documented a recurring theme of "Yummy Mummy" models, praised for their toned bodies and showing little indication of any increase in weight, apart from their baby bump. In contrast however with Jette's work, where a woman was depicted as being able to transform herself

into a fit mother with discipline and control, the extracts presented here liken such women to exceptional human beings who have the ability to 'accomplish' their look with minimal effort, compared with their 'average' counterpart; hence glamorising the experience of celebrity pregnancy. These news extracts, among others, send the message that regardless of discipline and hard work, the average woman should never expect to measure up. This may have negative consequences for women who have a tendency to engage in upward comparisons (and compare themselves to the idealised images of women in the media), particularly when the female celebrities in these articles are portrayed as 'extraordinary'¹⁹.

POSTPARTUM WEIGHT LOSS

Parenting magazines offered more reassuring and realistic messages about weight loss. They advised against setting a time in which to lose pregnancy weight, despite what they might read in celebrity features and because every pregnancy is such a subjective experience, this is something that should remain very personal to them. I would argue that parenting magazines have a vested interest in ensuring that women receive a more balanced perspective. They provide advice in line with National Health Service (NHS) guidelines (for example on breastfeeding or healthy eating) and are therefore guided by certain principles, in terms of the information they communicate.

For those women who do wish to restore their pre-pregnancy body shape and weight, it is well-documented that this is often made more difficult owing to disruption of their routine, sleep patterns and mealtimes following the birth of their baby and subsequently women find it hard to maintain a healthy diet (Stein & Fairburn, 1996). As Clark et al. (2009b) discovered, women want to be provided with realistic information as to what will happen to their bodies post-birth and this is especially important for nulliparous women, whose anxieties may be more pronounced (Johnson et al., 2004).

There was a clear disparity in the messages between news articles and those in magazines aimed at pregnant women. The overwhelming message from within the news extracts is that weight loss postpartum should be quick and easy; thus providing evidence to those who have previously expressed concern about impractical beliefs. It is well-documented that women are at high risk of postpartum body image disturbance, in their attempt to return to a pre-pregnancy shape (e.g., Clark et al., 2009b). As many new mothers anticipate the 'return' to their pre-pregnancy shape within only a few months of giving birth, it is possible that a greater degree of body

¹⁹ The concept of upward social comparisons will be discussed in greater detail in Chapter 10.

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dissatisfaction postpartum is due to unrealistic expectations about weight loss (Heinberg & Guarda, 2002), their post-birth bodies and the length of time they believe themselves to be wearing maternity clothes (Clark et al., 2009b). As was also illustrated in the Christina Milian extract in the theme around exercise, residual pregnancy weight postpartum is not aesthetically pleasing and a time limit is said to be key to ensure conformity to desired social expectations.

Markula (2001) however, questions the legitimacy of magazines continuing to promote the thin-ideal, whilst simultaneously critiquing other media for doing so and publishing content on health problems associated with this ideal. I would suggest from these findings that women, who are seeking a realistic account of weight loss and bodily change expectations postpartum, should be actively discouraged from sourcing their information from online news sites, more so than the magazines. That said, although weight loss may not be depicted as quick and easy in the slimming magazines, it is portrayed as much more of an achievable and successful goal (assisted through the purchase of their products).

THE ROLE OF EXERCISE

The promotion of health benefits during pregnancy and postpartum, provided in the parenting magazines, supports advice provided by RCOG (2006) and The National Institute for Health and Clinical Excellence (NICE, 2010) discussed in Chapter 3. As with Jette's (2006) findings, moderate exercise was advocated to pregnant women in the parenting magazines as a means of ensuring an easier delivery and advancing the health prospects for the baby. In terms of achieving health and fitness, this was promoted in parenting, fitness, and slimming categories.

For some women, psychological and physiological changes occurring during pregnancy may contribute to a reduced level of activity, such as increased fatigue and weight-gain, which makes the prospect of exercising more difficult and less attractive (Poudevigne & O'Connor, 2006). Present findings demonstrate the emphasis on safety and personal choice, in terms of which activities to undertake, with no evidence of pressure to return to exercising postpartum at the same speed portrayed by online news.

News extracts, in contrast, send the message that exercise should be advocated for weight loss postpartum and control of a woman's weight during pregnancy, thus supporting Mutrie and Choi's (2000) argument that beauty is synonymous with thinness and that health-related exercise for women has become beauty-related. As supported by findings in the present study, women are being encouraged to lose weight and improve muscle tone, with much less emphasis on improving their physical and psychological health (Mutrie & Choi, 2000). Unless a

pregnant mother-to-be is an active consumer of parenting and health-related magazines, the news sites perpetuate the message that one's motivation to exercise should be fixed on maintaining a pre-pregnancy appearance and once in the postpartum, exercise should be employed intensely to target weight loss. This is likely to be problematic for the new mother in that the postpartum is said to represent the greatest time of body image vulnerability (Clark et al., 2009b) and exercise for appearance-reasons is known to be associated with lower levels of body satisfaction (Tiggemann & Williamson, 2000) and eating disturbance (McDonald & Thompson, 1992).

Exercise extracts in the news articles expose the almost impossible lengths some celebrities may strive for to achieve the thin-ideal. This also conveys a message that women should be setting themselves a goal as to how they ought to look, particularly as these images are so prominent and moreover, because one particular title starts with "How to get...". Although it may seem obvious, this suggests that women should be striving for the thin-ideal body shape. Yet again, the average pregnant or postpartum woman is unlikely to ever meet such standards, unless they are naturally set apart from the norm or willing to resort to maladaptive behaviours (Fallon, 1990; Thompson & Heinberg, 1999; Tiggemann & Pickering, 1996). In their work, Charles and Kerr (1986) referred to a 'mental yardstick' or goal which women set for themselves in terms of how they should look. Inevitably this resulted in body dissatisfaction, which the authors believed was a product of women's inferior position in society. As a result, they argued that their only means of exerting power and control externally was to do so over their bodies; thus conforming to the dominant cultural beauty ideal. Hence, Mutrie and Choi (2000) question whether 'beauty-related' exercise truly empowers women or enslaves them. In line with Orbach's (2009) discussion on social conditioning, this Westernised cultural reasoning provides the perfect setting for the ever-growing diet and fitness industry to capitalise on women's perceived imperfections. From these findings, it would appear that pregnant and postpartum women's bodies are seen to be flawed in a similar way.

THE PREGNANT BODY: CONCEAL OR REVEAL?

Many coded extracts focused on alleged preference of clothing which resonates with findings by Hine (2012) and whether a woman chose to conceal or reveal their growing baby or bump during pregnancy. For the celebrity women discussed in the present study, some were depicted as concealing or disguising their bump whilst others were described as revealing or exposing their pregnant belly. Of the 22% of total news extracts that were illustrative of clothing practices in this theme,

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the present study highlights the distinctive way in which women are portrayed throughout various stages of their pregnancy, particularly as timeframes were commonly referred to. Messages around concealment appear to echo concerns expressed by women in the earlier trimesters, coping with self-perceptions of weight-gain, where it is not apparent that it is pregnancy-related (Clark et al., 2009b; Skouteris et al., 2005). Johnson et al. (2004) similarly found that only when the pregnancy started to 'show', did women's negative associations with being 'fat' start to abate.

Frith and Gleeson's (2008) research stressed the importance of investigating clothing practices as a means of understanding how a woman relates to and can alter her body. When applied to pregnant women's body-image concerns, this message of 'negotiation' echoes Earle's (2006) discussion of conformity versus resistance. If conforming to the notion of the thin-ideal, then as portrayed here, women are preoccupied with their attire and appearance to hide the natural process. It may also be however that women have chosen to resist the view of the asexualised, pregnant body through the use of tight-fitting, revealing clothes to proudly display evidence of their growing bump. Extracts in the present study portraying celebrity clothing practices and articles such as those that offer "*How to get...*" or "*A-List*" advice, support the view that the media reinforce the societal requirement on women to 'do' pregnancy in a certain way (Longhurst, 2005), emulate glamorous celebrities, and establish a 'look' or body shape that every woman should yearn for. In terms of concealment, I would suggest that if women are seen to be concerned about their appearance in pregnancy, they are simply being urged to mask it, through the use of clothing. Hence, as Longhurst states, expecting pregnant women to "perform the self in yet another tightly prescribed manner." (2005, p. 443).

EATING FOR TWO?

Messages surrounding eating practices are likely to have corresponded with the documented rising prevalence of obesity in pregnancy since the early 1990's, which is expected to continue in parallel with the increase in obesity in the general population (Modder & Fitzsimmons, 2010). Women have reported enjoying being able to consume more than usual because they were pregnant (Johnson et al., 2004). Yet what once appeared an opportunity for women to relax about their calorie intake in pregnancy seems no longer the case. The recently recognised health benefits of not putting on too much weight in pregnancy appear to have led to a shift in message which I would argue may have also restricted freedom of choice; the use of the word 'excuse' implying that for women to do otherwise would be to act irresponsibly. That said, the guidelines that recommend women consume only an additional 200kcal

during the last trimester of pregnancy have been in place since 1991 (Department of Health, 1991) so it is difficult to know whether these messages have been communicated adequately to women via their health professional, if some women still perceive pregnancy a time of relaxed eating.

INVISIBILITY OF THE PREGNANT BODY AND THIN-IDEAL MESSAGES

The scarce content relating to the pregnant body in fashion magazines was clearly evident. This finding is comparable with studies that have found that magazines which focus on idealised body shapes also contain the highest number of beauty articles (Sha & Kirkman, 2009; Nemeroff, Stein, Diehl, & Smilack, 1994). Sha and Kirkman (2009) found a similar absence of material in their analysis of *Cosmopolitan* where pregnancy was mentioned (in passing) just once. In addition to their main edition however, the Australian publication issued *Cosmopolitan Pregnancy* bi-annually. According to Sha and Kirkman, this implied that whilst pregnancy was acknowledged as important, by devoting a separate magazine to the subject every six months, inevitably meant that their main edition was not “compromised”. Hence, the messages related to pregnancy and beauty should remain separate.

This study cannot assess if a visual lack of images of pregnant bodies has any deleterious impact on women. The message, however, appears simple and straightforward. Pregnant women should not expect to find themselves represented in a magazine that symbolises fashion, glamour and beauty. The sheer void of pregnancy-related material or information (and lack of a UK pregnancy, fashion edition) implies that unless a postpartum mother is willing to make that return journey back to her pre-pregnancy state, she is not likely to be associated with or embodied within images portrayed in a fashion or beauty magazine, even if she was an existing consumer beforehand. This leads on to the comment made by Vernon Kay in one of the two articles in *Cosmopolitan*, in which he was asked about his decision to not be present in the delivery room when his wife was giving birth. Interestingly, he was quoted as saying:

“I stood outside the room. I didn’t want to be near the ‘action end’. I’ve got friends who’ve watched it and they haven’t had sex since. There was no way I was risking that.” (November, 2009).

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One might suggest that this description implies that pregnancy and the sexual body should not be equated, which is paradoxical given that the pregnant body is generally the result of an earlier sexual encounter.

The pregnancy and postpartum news extracts presented in this study epitomise the long-held societal expectation that a woman should be motivated by appearance-related concerns over concerns with her health. Hence, media articles, inundated with physically attractive women longing to return to their pre-pregnancy figures, suggest that these are the values on which an ordinary woman should also place great importance. A woman seeking advice within news articles will rapidly discover that such messages celebrate the association of “femininity with appearance and objectification” (Levine, 2000, p. 84) and that not only is a slender body vital for success, but that a postpartum woman who is willing and disciplined, *may* also achieve such a transformation through diet and intense exercise (as found by Jette, 2006). That is, unless she is *naturally blessed* with a celebrity’s pregnant body, in which case, any effort required will be minimal as only a modest transformation will occur. This begs the question as to the greater bearing this might have upon a pregnant woman or new mother who faces the ‘unknown entity’ that is their postpartum body, particularly when they are inundated with messages about effortless weight control. Furthermore, the researcher has concerns about the negative portrayal and shaming of the postpartum body within slimming magazines, despite stories depicting a successful return to pre-pregnancy form and weight loss (if one buys into their product, that is).

From these findings, it would appear that the UK media continue to publicly perpetuate thin-ideal messages, even when women are pregnant. In previous years, the British Medical Association called for greater editorial responsibility to ensure that a range of bodily images are portrayed within the media (Morant, 2000). The call for change in the way in which women are represented in the media is undoubtedly topical at present in the UK, which has been gathering momentum as part of an international summit to celebrate body diversity (Endangered Species, 2011), an all-parliamentary group for body confidence (Campaign for Body Confidence, 2011), and debates on media and body image led by MP’s and academics (Real Women Campaign, 2010).

A study commissioned in 2010, by the Royal College of Midwives (RCM) and parenting website *Netmums.com* found that of 6,226 women surveyed across the UK, 59% felt pressured by celebrity culture to lose post-pregnancy weight more quickly, almost half admitted to being worried about their weight during pregnancy and many were concerned about managing their weight-gain and losing weight after the birth (RCM, 2010). This joint RCM and Netmums study also highlighted the intense

pressure placed upon pregnant women from celebrity coverage within the media. A more recent study found that out of 60 British women, only a quarter received advice about weight-gain from a healthcare professional and information regarding exercise was brief at best (Brown & Avery, 2012). Since the present study found that different media avenues appear to be disseminating conflicting health and exercise messages for pregnant women, it lends support to the RCM and Netmums' appeal that greater antenatal and postnatal care from midwives ought to be provided to women to include nutrition and weight management issues, particularly if, as Clarke and Gross (2004) found, the majority of women are accessing pregnancy-related information from media avenues.

LIMITATIONS OF THE STUDY AND FUTURE RESEARCH

It is important to recognise that a period of years have passed since the material in this study was analysed. Whilst it is unlikely that there would be a great deal of variability in the material at this present time, a follow-up study would provide a more up-to-date assessment of any further relevant media content. It is also possible that the use of more specific search terms would have provided a more detailed examination of other areas of pregnancy that may be related to one's pregnancy appearance, such as 'pregnancy and breastfeeding'. This would be worthy of investigation considering that breastfeeding in *Emma's Diary* was described as a way of helping the body recover from the birth and a UK study has recently shown that breastfeeding can reduce postpartum BMI and risk of obesity-related diseases in later life (e.g., Bobrow, Quigley, Green, Reeves, & Beral, 2013). As a final point, the analysis focused specifically on the textual components in the articles. It would be interesting to consider the images accompanying the articles in addition to the text; however this was not within the scope of the current study.

Future research may also benefit from a textual analysis of female readers' comments within the articles or as part of internet forums to assess the strength of feeling towards certain articles presented. Pregnancy forums provide an accessible space where women can, anonymously if they so wish, seek advice from similar others and possibly gain strength and support if they are concerned about something. This may facilitate a greater understanding of how viewers select, accept, or critique health- (and appearance-) related media recommendations (Hodgetts & Chamberlain, 2003) within the wider sociocultural context, given that celebrity women being generally likened to exceptional human beings in tabloid publications, compared with their 'average' counterpart.

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More work is needed within body image research to consider other dimensions such as 'perceived pressures' or 'awareness of media ideals' when measuring the media as a predictive risk factor (Thompson, 2009). This is essential when researching body image in pregnancy, more so now that one in 14 British, pregnant women experience some form of disordered eating during the first three months of pregnancy (Easter et al., 2013). If women are being increasingly encouraged by media sources to discipline or control the appearance of their pregnant body as has been demonstrated in this study, this has serious implications for both mother and baby, particularly amongst those already suffering from disordered eating (as discussed in Chapter 3).

It has been suggested that the beauty industry has a vested interest in the continued dissatisfaction of our bodies (Wolf, 1991), for both women and men, but it may be that the current tide is changing, albeit slowly. Research has shown that using attractive, *average-sized* models as opposed to *thin* models can reduce body-focused distress and yet still be equally as effective in their advertising (Halliwell & Dittmar, 2004), even amongst those with a history of disordered eating (Halliwell, Dittmar, & Howe, 2005). From a consumer perspective, both men and women are beginning to reject the narrow uniformity of current body sizes and women are voicing their discontent with the over-representation of thin models and objectification of women within media images (Diedrichs, Lee, & Kelly, 2011). Yet as it stands, *normal-sized* models and attainable images remain the exception and there is still much work to be done before they can be considered the norm (Rumsey & Harcourt, 2005). One might argue that further qualitative research is required to gain a more in-depth understanding of both psychological and behavioural responses to media messages and imagery before industry and public health objectives can be addressed.

IMPLICATIONS FOR STUDY TWO

The present study established a foundation upon which the next study was developed. Study 2 aimed to address the disparity between the realities pregnant women face regarding body-image issues, specifically those of weight management, the role of exercise during pregnancy, and the expectations and values disseminated by media and celebrity culture. A particular strength of Study 1 is the inclusion and examination of a wide array of media sources within one analysis. It has been argued that to progress from this, it is important to explore how women construct meaning in relation to health messages in the media to account for the practice of certain health behaviours (Madden & Chamberlain, 2004). As this study has demonstrated, it is crucial that appearance-related messages be taken into consideration, as these also

have the potential to influence adjustive strategies and behaviours, particularly so if women are said to be preoccupied by slenderness (Bordo, 2003).

Now that media messages have been identified related to pregnancy appearance, health, and exercise, engaging with women in meaningful discussion would facilitate a greater understanding of how these contribute to women's body image and how they are interpreted, in terms of perceived pressure and awareness of ideals. The present study may not be able to establish a direct association between media portrayals and pregnant women's body image, but has informed the second study of this larger research project, in which I aimed to understand the perspective of the average first-time mother-to-be, in terms of how they related to such content, whether they viewed these messages as problematic, and whether they perceived the media as invoking that same sense of pressure upon them to conform to societal ideals. It was also important to assess women's perceptions of the messages surrounding 'not eating for two'. The themes were used to form the basis of a semi-structured interview schedule, from which these issues were raised. The average woman has become taller and heavier, thus widening the gap between actual and ideal body size (Dittmar, 2008) and with almost 40% (10.1 million) of UK women wearing clothes in size 16 (US 18) or over (Intel, 2010), there is clear evidence that current beauty ideals are even less representative of the overall population than they might have been in previous years. Further examination is especially crucial for those women who are experiencing pregnancy for the first time, which one might term 'uncharted territory' or with those who are inclined to engage in social-comparison tendencies (i.e., compare themselves with similar others).

SUMMARY AND CONCLUDING REMARKS

The current findings imply that the pregnant body is overlooked within popular fashion magazines. In conjunction with the news publications, where the emphasis is on celebrity women, the media overtly promote the notion that beauty equates with the concept of the thin-ideal. This is achieved through the use of appearance-related messages that have an overwhelming emphasis on disciplining the postpartum body in order to regain one's pre-pregnancy shape.

From a health perspective, the role of media must be considered as more multi-faceted than a mere conveyor of information (Hodgetts & Chamberlain, 2006). This is particularly important when considering the high levels of celebrity content that pregnant women are exposed to. This becomes ever more salient for mothers who encounter persistent messages of high-value 'thinness', particularly where the

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pressure to return to a pre-pregnant state is prioritised over the role of motherhood (Stern & Kruckman, 1983).

Moreover, there is a need for UK health professionals to be ever mindful of the strategies applied by the media to continually portray the thin-ideal into pregnancy. In this way, they may be better able to respond to pregnant women's concerns, should they manifest, and to challenge such expectations. As shown, messages are not necessarily limited to pregnancy as the media depict celebrities' 'transformed' bodies postpartum. It would be reasonable to suggest therefore, that women might have recurring concerns about their bodies during the pregnancy process (as found by Earle, 2006) and postpartum, at which point, contact between the new mother and respective health professional generally becomes less frequent. It is imperative women recognise that pregnancy messages can be both inconsistent and sometimes unrealistic, and that this is raised within maternity healthcare provision, so that women can be directed towards consistent, accurate information (whilst acknowledging their freedom of choice) and given the confidence to accept and care for their bodies during pregnancy and in the postpartum period. The thesis now moves on to a review of the research examining the psychosocial factors that can influence body image during pregnancy and the postpartum in preparation for Study 2.

CHAPTER 7

LITERATURE REVIEW: BODY IMAGE AND PREGNANCY

INTRODUCTION

The current chapter aims to review the research examining individual psychosocial factors that can influence body image during pregnancy and the postpartum and that comprise the main focus of this thesis: body perceptions (including body satisfaction and dissatisfaction), weight management and advice, interpersonal experiences (focusing specifically on the role of appearance-related commentary), and physical activity. In order to fully address physical activity, it is necessary to engage with the literature that has addressed women's reported motivations and barriers to participation in exercise.

BODY IMAGE PERCEPTIONS IN PREGNANCY

There is evidence to suggest that older women may experience less specific pressure from the media, that their ideals shift over the lifespan (Stevens & Tiggemann, 1998), and that body dissatisfaction can remain remarkably stable across the adult life span until they are quite elderly (Tiggemann, 2004). That is not to say that pregnant women are considered to be 'older' in any sense, but maybe, like age, other developmental milestones might lead to a shift in ideals. Pregnancy presents a phase of considerable physical and psychological change, during which a woman's body, shape and weight can alter dramatically over a short period (Kamysheva et al., 2008). This is also the time when a woman's body shape will inevitably deviate from society's thin-ideal standard (Dworkin & Wachs, 2004; Rumsey & Harcourt, 2005). Besides changes in weight and shape, women may experience changes in other aspects of their appearance. These appearance-related changes may be perceived as either an improvement (e.g., thicker or glossy hair, nail growth) or deterioration (e.g., skin problems, excessive gestational weight-gain) and may be either temporary or become permanent (Heinberg & Guarda, 2002). Women may experience hormonal fluctuations and pregnancy-related physical symptoms which can present both internally (e.g., nausea, backache) and externally (e.g., varicose veins, stretch marks) (Skouteris, 2011).

Although women might expect these pregnancy-related changes, they further widen the gap between a pregnant woman's reality and cultural expectations of appearance. It is therefore important to understand the antecedents and

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consequences of body image concerns across pregnancy. Research findings on how women cope with appearance-related changes in pregnancy however, are equivocal. There is evidence of stability in appearance satisfaction and of body-change acceptance. In contrast, there is evidence of body-dissatisfaction.

BODY SATISFACTION IN PREGNANCY

For some women, pregnancy represents an opportune time to discourage a sense of self-objectification and appreciate the purposeful body-changes taking place (Clark, Skouteris, Wertheim, Paxton & Milgrom, 2009a) or a period in which one holds a 'license' not to be concerned about weight-gain because of the natural shape changes expected (Fairburn & Welch, 1990) and which legitimises increased eating and relaxed calorie restrictions (Abraham et al., 1994; Clark & Ogden, 1999). Women have been reported to elect to eat more and exercise less because they felt they had an excuse to (Clark et al., 2009b).

During such time, some pregnant women report feeling more satisfied with their bodies than non-pregnant women and can adapt positively to the change in body shape, whilst still upholding their pre-existing body-image ideals (Davies & Wardle, 1994). This has often been attributed to an internalisation of a socially-valued change in role (i.e., that of motherhood) (Baker et al., 1999; Rocco et al., 2005). For others, focusing on specific areas of their body can induce positive feelings in pregnancy; some women report feeling positive about the resulting increase in breast size, which Johnson (2010) maintains brings the women closer to a desired Westernised ideal of a fuller, firmer breast. Although women are socially accustomed to the experience of objectification and self-surveillance²⁰, valuing one's body functionality during pregnancy may offer some protection against the negative outcomes of body surveillance, for example, depressive symptoms (Rubin & Steinberg, 2011).

Quantitative studies conducted with pregnant women have revealed increased positive self-regard and body acceptance in recent years. Using a range of body image measures and rating scales, Duncombe, Wertheim, Skouteris, Paxton, and Kelly (2008) reported that body image remained stable across the trimesters as they progressed and generally, women adapted well to the swift changes occurring. Despite this time of transition and feelings of uncertainty about weight-gain, some women have also described feeling relatively satisfied with their physical appearance (Loth, Bauer, Wall, Berge, & Neumark-Sztainer, 2011) and reported less inclination to control their food intake and subsequently eat more than their non-pregnant peers (Clark & Ogden, 1999). Chapter 3 briefly referred to incidences where women who

²⁰ This theoretical framework (Frederickson & Roberts, 1997) will be presented prior to Study 3.

suffer from disordered eating prior to and during pregnancy, experience a brief period of respite where their focus shifts towards improved eating attitudes and body satisfaction and a greater sense of power (Crow et al., 2004; Rocco et al., 2005; Von Soest & Wichstrøm, 2008).

Despite women appreciating the functionality of their bodies during pregnancy however, feelings of ambivalence about appearance changes can develop as trimesters' progress. For those in particular who experience disordered eating, this period is only short-lived as Rocco and colleagues (2005) discovered from their longitudinal and prospective study. Despite experiencing amelioration in symptoms during pregnancy, attributed to an increased perceived quality of life (i.e., women taking more care of themselves, social demands being lowered), levels of dieting and exercise increased significantly in the puerperium (the six-week period following the birth). The authors suggested that when the period of psychological stability offered by pregnancy ends, the mother faces a new situation whereby her body satisfaction and self-image returns to previous levels following delivery.

BODY DISSATISFACTION IN PREGNANCY

It is important however, to consider that the transition to parenthood can be viewed as a developmental crisis in itself, with emotional and social changes occurring simultaneously (Choi & Mutrie, 1996) and pregnancy can also be viewed as a vulnerable time for women, biologically and psychologically, particularly in terms of well-being (Sjöström, Langius-Eklöf, & Hjertberg, 2004). It has been suggested that these changes can have a significant impact on body satisfaction (Heinberg & Guarda, 2002). Body dissatisfaction has been associated with both psychological factors (e.g., body image investment) and sociocultural factors (e.g., thin-ideal internalisation, appearance-related teasing) in pregnancy (Fuller-Tyszkiewicz et al., 2013). For some women, this period can be problematic whereby women report greater body dissatisfaction (Heinberg & Guarda, 2002; Strang & Sullivan, 1985), an increase in eating disorders (Lai et al., 2006), continued eating disorder symptoms (Micali, Treasure, & Simonoff, 2007), intentions to lose (8%) or maintain (34%) weight during pregnancy (Bish, Chu, Shapiro-Mendoza, Sharma, & Blanck, 2009) and those with more severe body image concerns have a higher tendency to report depressive symptoms (Duncombe, Wertheim, Skouteris, Paxton, & Kelly, 2008; Rauff & Symons Downs, 2011). Despite the link between body dissatisfaction and postpartum depression however, it cannot be assumed that increased weight-gain during pregnancy directly predicts postpartum depressive symptoms (Cline & Decker, 2012).

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Rather, quantitative retrospective studies have suggested more specifically, that it is those who tend to be previously concerned about their shape, weight, and eating habits before pregnancy that have been found more likely to report higher levels of distress in the weeks following delivery (Abraham et al., 2001; Carter, Baker, & Brownell, 2000), are less likely to over-eat during pregnancy, and more likely to diet and exercise soon after childbirth in an attempt to return to their pre-pregnancy weight and shape (Baker et al., 1999; Fairburn & Welch, 1990).

It has been suggested that women's weight prior to pregnancy (Fox & Yamaguchi, 1997), in addition to gestational weight-gain (Walker, 1998) can have a significant impact on their body image postpartum, and as such, body dissatisfaction experienced in the early post-partum period appears to be a strong determinant of further dissatisfaction experienced one year on (Rallis, Skouteris, Wertheim, & Paxton, 2007). Even if postpartum residual weight-gain might not yet have occurred, the thought of this during pregnancy can be enough to precipitate disordered eating habits (Stein & Fairburn, 1996), in part, intensified by enduring and uncontrollable, physical changes during this period (Astrachan-Fletcher et al., 2008; James, 2001). Those women with a history of eating disorders may struggle to adapt to physical changes in appearance and weight, encountering feelings of "irrational guilt and obsessive worry" (James, 2001, p. 42). Meta-analytic research has suggested that the pursuit of 'perfectionism' is a high risk factor for bulimic pathology which, when combined with other risk factors, can predict an eating disturbance (Stice, 2002). When associated with pregnancy, this aspect of perfectionism may be attributable to a woman's concern over mistakes they may have made or may make (Mazzeo et al., 2006).

Qualitative thematic research has revealed a link between body shape concerns and loss of pre-pregnancy self-identity, with many women experiencing negative emotions about their appearance, despite accepting that they are pregnant (Patel, Lee, Wheatcroft, Barnes, & Stein, 2005; Upton & Han, 2003). Increased concerns have also been expressed in the first and second trimesters when women yearn to look visibly pregnant and not be mistaken as fat (Clark, Skouteris, Wertheim, Paxton, & Milgrom, 2009b). Such emotions often manifest where a woman tends to perceive herself as a person who has simply gained weight, rather than someone who is pregnant (Skouteris et al., 2005). Reflecting upon the departure of one's 'old' sense of self can be particularly distressing for first-time mothers, who are new to the experience of body-shape change in pregnancy (Patel et al., 2005).

During this rather unnerving time, women have also been known to associate the reality of pregnancy with the physical visibility of a pregnant body, where the pregnant belly becomes a definitive marker (Nash, 2012). This can be particularly

meaningful for women who may have experienced earlier fertility problems and wish to publicly display their bump with a sense of achievement or pride (Earle, 2003). The use of clothing can also play a huge role in defining women's pregnant identity. Those who choose to wear more fitted clothing have described their desire to not only appear fashionable, but to also emphasise a growing bump; thus resisting the social construction of a 'modest, domestic and respectable mother' (Longhurst, 2005). Those who experience poorer body image (and excessive gestational weight-gain) however may be more likely to employ more negative coping strategies (e.g., avoidance of problems) through pregnancy (Hill et al., 2013). For those who choose to conceal their pregnancy, through the use of clothing, the motivation can be attributed to the perception that they will be treated differently in the workplace or be subjected to unwanted opinion or judgement by others (Upton & Han, 2003).

During interviews, Bailey (2001) found that women initially described their pregnancy experience as protection against negative appearance-related concerns. In some cases, however, this feeling was only temporary as they soon expressed a desire for their bodies to go "back to normal" post-partum. For others, the temporary release was not experienced at all, as a result of feeling "frightened" about weight-gain during pregnancy. In contrast, some obese women report a sense of temporary emancipation from certain confines normally placed upon them outside of pregnancy and feel able to engage in social activities (e.g., swimming) due to their changed status from 'fat' to 'pregnant' (Wiles, 1994).

Despite pregnancy being a time of self-reflection, when a woman prepares psychologically for the societally-valued role of motherhood (Smith, 1999), and what might seem like a period of respite, some women report perceiving themselves as less attractive and less fit or strong during pregnancy or have real concern about getting 'fat' (Earle, 2003); these frustrations are often intensified by debilitating, physical symptoms that can accompany the experience (Hofmeyr, Marcos, & Butchart, 1990; Johnson, Burrows & Williamson, 2004; Kamysheva et al., 2008). For some, pregnancy results in a diminished sense of well-being towards the latter stages, often due to reduced mobility, increased pain, and lack of energy (Sjöström et al., 2004). In spite of being well aware of current cultural expectations of a fit, maternal body, women who are unable to remain physically active and experience prescribed periods of bed rest have described a sense of failure and self-blame whilst feeling betrayed by their bodies (Alcade, 2011). Yet, the findings linking body dissatisfaction and physical symptoms are again equivocal. Despite discovering a link between depression and physical symptoms (in particular that of fatigue), Chou and colleagues (2003) found no relationship between depression and body dissatisfaction. The

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authors were unable to conclude whether depression was an antecedent or outcome of symptoms such as nausea, vomiting or fatigue in pregnancy. In Kamysheva and colleagues' (2008) sample (N=215) however, 94.9% experienced fatigue of which 44% suffered often and 85.6% experienced nausea with 36% often, both of which correlated with body dissatisfaction and those who experienced poorer sleep quality then went on to experience depressive symptoms, lowered self-esteem and in turn, body dissatisfaction. In addition to this, women report real concern about the fluidity and changed form of their breasts or the consistent threat of vomiting, particularly when in a public space and can often choose to withdraw from public activities as their pregnancy progresses (Longhurst, 2001).

In spite of women's acceptance that increased weight-gain is a natural and inevitable outcome of pregnancy, feelings of lowered attractiveness can be precipitated by physical appearance comparisons and perceived sociocultural pressure to be thin (Skouteris et al., 2005). There is experimental evidence, albeit rather dated, using body size estimation measures that suggests that feeling vulnerable about one's pregnant shape can be attributed to receptiveness to thin-ideal, media imagery (Sumner, Waller, Killick, & Elstein, 1993). This not only strengthens the rationale for having conducted a media analysis of messages related to body image, weight-gain, physical appearance, and even the role of exercise, but in today's current media-focused culture, this suggests that further research should examine women's responses to such messages. This is particularly crucial given that discussion of body image concerns and screening for disordered eating in the US occurs in less than half of routine obstetric appointments, despite over 90% of physicians being aware of the potential negative, maternal outcomes (Leddy, Jones, Morgan, & Schulkin, 2009). There has been a recent call for screening in the UK after researchers from the UCL Institute of Child Health raised concerns about women whose eating disorders may be going undetected and untreated during pregnancy (Easter et al., 2013).

BODY IMAGE PERCEPTIONS IN THE POSTPARTUM

What appears to be evident from the research conducted to date, is that the postpartum represents the greatest time of body image vulnerability (Clark et al., 2009b) and that it is important to recognise both sociocultural influences and individual characteristics as having a bearing on body image development through pregnancy (Skouteris et al., 2005), particularly when social norms dictate women's obligation to 'get their bodies back' (Upton & Han, 2003). Post-birth, women feel they should take control as there is no longer the 'excuse' (Clark et al., 2009b), although for many, it may be difficult to return to one's pre-pregnant body shape and in some cases, this

proves an unattainable aspiration as weight is typically retained (Jenkin & Tiggemann, 1997). For those women who do wish to restore their pre-pregnancy body shape and weight, this is often made more difficult owing to disruption of their routine, sleep patterns and mealtimes following the birth of their baby and subsequently women find it hard to maintain a healthy diet (Stein & Fairburn, 1996).

Body dissatisfaction can worsen significantly from delivery to nine months postpartum, where despite losing some weight, women have associated their discontent with poor eating patterns (e.g., periods of overeating), decreased mental health, and greater current weight (Gjerdingen et al., 2009). Women have even been reported to feel greater body dissatisfaction earlier than nine months, at six months postpartum, despite weighing less than they did in the puerperium (Rallis et al., 2007). This becomes more salient for mothers living in Western societies that place a high value on the notion of “thinness” and accentuate pressure to return to a pre-pregnant state over the role of motherhood (Stern & Kruckman, 1983).

It has been suggested that as many new mothers anticipate the ‘return’ to their pre-pregnancy shape within only a few months of giving birth, it is possible that a greater degree of body dissatisfaction post-partum is due to unrealistic expectations about weight loss (Heinberg and Guarda, 2002), particularly amongst younger women (Jenkin & Tiggemann, 1997). Within only three days of giving birth, 68% of Fairburn and Welch’s (1990) sample reported plans to exercise and 50% planned to diet, with just over a third assuming that their weight would return to pre-pregnancy levels. Therefore it would seem prudent to acknowledge the importance of a healthy and positive body image early on in pregnancy as a means of potentially preventing depressive symptoms later on (Rauff & Symons Downs, 2011) and encourage women to develop a more honest and realistic philosophy postpartum.

WEIGHT MANAGEMENT ADVICE AND AMBIVALENCE ABOUT BEING WEIGHED IN PREGNANCY

It is well documented that women at some point throughout the lifespan have experienced pressure to diet and control their eating habits and such practices are thought to be commonplace among adult women, focusing on self-improvement (Polivy, 1996). Most women choose to wait until after the puerperium to commence dieting (Lacey & Smith, 1987; Rocco et al., 2005). Nonetheless, despite being in the minority, some women have reported dieting during pregnancy. In Fairburn and Welch’s (1990) sample, 6% chose to diet to control their weight-gain, whilst one individual was advised to diet by medical professionals. That said, there is increasing evidence to demonstrate that psychosocial factors, such as increased depressive

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symptoms, lower self-esteem, anxiety, and body dissatisfaction, are linked to EGWG, although the pathway in terms of 'how' is less known (Hill et al., 2013). Some would argue therefore, that pregnancy provides an optimum opportunity for health professionals to monitor gestational weight-gain and advise women in weight management and physical activity, in order to prevent future health risks, such as Type 2 diabetes (Sattar & Greer, 2002). Once a woman's baby is born, competing priorities (for example, the health of her child) can also mean that she ends up neglecting her own health (Heslehurst et al., 2011).

Some authors have suggested that in addition to body weight, women's eating behaviour history should be recorded in order to provide comprehensive obstetric care (Abraham, King, & Llewellyn-Jones, 1994), although this has proved to be a contentious issue, particularly for those who are considered to have disordered eating symptoms. For example, from survey data it has been reported that women who agreed with the statement, 'If my doctor stated that I was gaining too much weight, I would try to limit my weight-gain before the next visit', were more likely to believe that women should limit gestational weight-gain and were more likely to be worried about gaining too much weight during pregnancy (Armstrong Schultz, & Hagan, 2002). Conway, Reddy, and Davies (1999) found that at 30 weeks' gestation, restrained eaters had a more negative attitude towards their pregnancy weight-gain than non-restrained eaters. One fifth of the restrained eaters in their sample gained less weight than what was recommended (at the time). This is particularly concerning when considering fetal and maternal health for the reasons described in Chapter 3 when discussing disordered eating patterns and potential outcomes.

There is yet to be comprehensible evidence as to the impact that intervention programmes with pregnant women, on issues such as weight-gain and dietary behaviours, will have (see Skouteris and colleagues, 2010) as the following two systematic reviews will further demonstrate. In 2011, Campbell and colleagues conducted a review of five controlled trials ($N = 577$) and eight qualitative studies. The qualitative review involved a thematic analysis of studies that investigated the views of women on weight management during pregnancy. Despite intense and frequently tailored interventions that included strategies to promote improved dietary patterns and physical activity behaviours, there was statistically no significant effect on weight-gain in pregnancy. That is to say, there was no difference in terms of reduced gestational weight gain among those in the intervention group compared with the control (mean difference -0.28). Their qualitative findings related specifically to themes around conflicting and contradictory messages regarding healthy weight management, perceived lack of control on behalf of the women, and pregnancy as a time of transition and change. Despite however, the issue of conflicting messages

being addressed in the interventions, this alone made no difference in terms of reduced weight-gain for women (Campbell, Johnson, Messina, Guillaume, & Goyder, 2011).

A more recent study was commissioned to assess the efficacy of weight management intervention studies specific to the UK, in the light of the current public health guidance that was circulated by NICE (2010). A total of 17 qualitative studies were included for analysis up until December 2011 (Johnson et al., 2013) whereby the majority centred on the beliefs and experiences of women who were pregnant or had just given birth. These did include however, a mix of both women's and health professionals' views about weight management in pregnancy. The authors were specifically interested in the views and experiences of women and health-care professionals about dietary and physical activity interventions aimed at managing weight through pregnancy, hence the search for qualitative articles only. Of the 17 studies, six had previously been assessed in the Campbell et al. (2011) review. Consistent with Campbell and colleagues' findings, they found that in seven studies (eight papers), the information communicated by health professionals was at best, ad-hoc and inconsistent, and guidance as to reasonable levels of weight-gain was distinctly lacking or vague (see Weir et al., 2010 as a specific example of this). This was especially evident in books and information leaflets provided by health and maternity services (see Clarke & Gross, 2004). The internet and TV programmes were referred to as providing an abundance of information and yet again, this was more often than not, contradictory in terms of the advice offered (Weir et al., 2010).

Women's acceptance of advice and weight monitoring practices were discussed in four studies (Johnson et al., 2013). Women wanted more specific advice with precise figures regarding weight objectives, so they could plan their goals. In terms of monitoring, some felt reassured by routine monitoring, others felt anxious. Some however (who were already anxious about their weight) chose to initiate unhealthy eating behaviour prior to their antenatal appointment, to either purposefully lose or gain weight for the weighing session (see Warriner, 2000); a practice previously adopted by 13% of women in Abraham et al.'s (1994) study. As has already been mentioned above, this could be highly problematic, specifically for those with a history of disordered eating. Despite midwives claiming that some clients lacked a general awareness and knowledge about healthy eating (nor an understanding of the implications of having a high BMI), some found having to communicate about weight management problematic in terms of initiating a discussion, given that obesity can be a sensitive matter to broach, as well as a potentially stigmatising topic (Furness et al., 2011). Overall, Johnson et al. (2013) stressed that clear guidelines were needed for

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women to help them make informed choices and evidence-based decisions on how to optimise both their health and that of their baby. That said, they cautioned about focusing attention on weight that might not be appropriate during pregnancy, but argued that at least women's questions on appropriate diet and physical activity levels should be clarified.

It is important to note that the topic of appearance in general can be both sensitive and emotive; hence it would be inappropriate and unethical to assume that everyone will be comfortable reflecting on their experiences (Rumsey & Harcourt, 2005) or respond in a homogenous manner. The sense of mixed emotions was felt by Nash's (2012) sample of women; some who were pleased that their healthcare provider chose not to focus on it and some who were more anxious about not being weighed. In many instances this was a concern for women who tended to use pregnancy manuals and guidance on weight-gain as a benchmark for their own personal experience.

In addition to this, midwives have been concerned about feeling overwhelmed by the sheer amount of information they are required to communicate, as well as a lack of specialist training that, if improved, would facilitate more comprehensive and sensitive discussions around women's weight and nutrition, for example engaging in positive, uncritical discussions to address obesity (Heslehurst et al., 2011). A more recent study in the North East of England (Heslehurst et al., 2013) has drawn attention to a specific need for maternal obesity training, education, and interventions in order to address the socioeconomic, ethnic and cultural associations with obesity. The authors reported that present practice demonstrates that midwives tend to focus on weight-gain and diet and, to a lesser extent, physical activity. Despite this, they claimed that midwives would much prefer to offer a more holistic approach, encompassing family lifestyle behaviours, as opposed to just narrowly focusing on the pregnant mother in isolation.

Johnson et al. (2013) referred to a British study by Warriner (2000) who stated that despite none of the maternity units having a policy of routinely weighing women, this practice was commonplace during antenatal appointments, with very little, evidence-based justification offered to women as to the reasons for it occurring. It would appear that not all who are weighed feel embarrassed, but it can make some women feel unattractive upon learning the weight they have gained, even amongst those who have gained within recommended ranges (DiPietro, Millet, Costigan, Gurewitsch, & Caulfield, 2003). Current guidance on the NHS website (NHS Choices, n.d.) states that women are weighed during their first booking-in appointment to calculate BMI, however this is not endorsed as a regular occurrence. One might suggest that this is linked to the discoveries made about purposive weight control by

clients prior to appointments (Abraham et al., 1994; Armstrong Schultz et al., 2002; Warriner, 2000). Despite this, some maternity units do offer regular monitoring and advice for all women and not just for those who are deemed overweight or obese, as found by Heslehurst and colleagues (2011) and therefore there is a justification for further research that considers women's views on nutrition and weight advice in pregnancy.

INTERPERSONAL EXPERIENCES – SOCIAL SUPPORT

Broadly speaking, social support is argued to be significantly associated with increased levels of well-being in general (e.g., mood state, level of functioning, and quality of life) and can act as a valuable, protective buffer during stressful events (Wang, 1998). Social support can be expressed structurally (e.g., marital status, frequency of social interaction) and/or functionally (i.e., offering emotional, tangible, or informational support) (Callaghan & Morrissey, 1993). More specifically, it can also be expressed as an emotional concern, in the form of encouragement, love, and empathy (House, 1981). The buffering effect refers to support that can also help enhance an individual's coping abilities (Stewart, 1993). That said, coping has been shown to vary significantly, dependent upon the situation and the characteristics of the individual involved (Folkman & Lazarus, 1980, 1985; Lazarus & Folkman, 1984). Using structured interviews and a range of measures, Dunkel-Schetter, Folkman, and Lazarus (1987) found that individuals' who were more comfortable receiving help or who had higher levels of self-esteem also reported receiving more emotional support. Some situations required much-needed support (e.g., death of a family member) whilst others required a greater respect for privacy and distance (e.g., job loss).

Social support is also understood to enhance health in three ways i) it regulates thoughts, feelings, and behaviour to promote health, ii) it fosters an individual's sense of meaning in life, and iii) it facilitates health-promoting behaviours (Callaghan & Morrissey, 1993). From a meta-analysis of 182 primary studies (both published and unpublished), Wang and colleagues (2003) found that other than the effect of social support on physical adjustment ($p > .05$), all the effect sizes of social support were significantly correlated with health outcome variables. Of the 16 health outcome variables, positive effects were found on health status, psychosocial adjustment, coping behaviour, health belief and health promotion behaviour. Negative effects (i.e., less support) were also associated with physical symptoms and responses, depression, role burden, and stress (Wang, Wu, & Liu, 2003). Expectant parents report emotional support from a partner as vitally important during the transition to parenthood (Morse, Buist, & Durkin, 2000) and high levels of perceived

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social support have shown to increase a woman's confidence in their ability as a new mother (Castle, Slade, Barranco-Wadlow, & Rogers, 2008). In terms of interpersonal experiences and their association with body image however, studies appear to report more negative findings.

The expectation to conform to the slim-ideal and return to pre-pregnancy body shape has been associated with pressure from partners / spouses to maintain a sexual relationship in the post-partum period, whereby feelings of body dissatisfaction are reinforced by the comments of women's partners that equate sexual attractiveness with slimness (Charles & Kerr, 1986). More recently, there is evidence that negative evaluation by a spouse or negative family influence can predict levels of body dissatisfaction (Pole, Crowther, & Shell, 2004) and this can have an impact upon feelings of intimacy within relationships. Women who have reported postpartum body dissatisfaction also experience diminished intimacy satisfaction, as a result of perceived sexual rejection from their partner (Mickelson & Joseph, 2012). For some, although sexual frequency was highest prior to becoming pregnant, sexual relationships worsened throughout pregnancy and up to six months postpartum, attributed to low body image scores (Pauls, Occhino, & Dryfhout, 2008); that said, weight alone was not necessarily responsible as both maternal weight and BMI had returned to first trimester levels by 6 months postpartum. Another specific issue involved urinary symptom distress (Pauls et al., 2008). One woman, in Longhurst's (2005, p. 441) study, described how her partner had become 'turned off' by her pregnancy appearance, which in turn had resulted in a sense of self-discontent that she was unable to measure up to the social obligation to be a 'beautiful, pregnant woman'. In this respect it would warrant qualitative exploration into how women feel in terms of social pressure, particularly from spouses/partners or the media and whether this results in a commitment to adjust their behaviour (e.g., exercising) to maintain weight-control through pregnancy or change body shape / size postpartum.

PHYSICAL ACTIVITY PARTICIPATION AND BODY IMAGE

Meta-analytic research, inclusive of unpublished findings (total $N = 57$ studies, range = 1972 - 2007) has established that i) exercise can improve body image, ii) that a programme of exercise is self-sustaining once the basic skills are learnt (e.g., understanding how frequency, duration, and intensity can affect fitness gains), and iii) exercise may even have advantages over other forms of therapy, such as cognitive-behavioural therapy (Campbell & Hausenblas, 2009). For example, strength training can make exercisers feel stronger, thinner, and more toned; these perceived changes may, in turn, elicit improvements in body image (Martin & Lichtenberger, 2002). There is also a large body of evidence that exercise enhances psychological well-being, as

well as body satisfaction (e.g., Campbell & Hausenblas, 2009; Martin & Lichtenberger, 2002), perception of control (Brown & Lawton, 1986), and a sense of empowerment and physical mastery over the body (Choi, 2000; Koff & Bauman, 1997). Data from 1093 women who participated in a worksite health promotion intervention demonstrated that positive affect significantly predicted self-reported exercise and health; in addition positive coping behaviours predicted recreational exercise (Kelsey et al., 2006). The authors suggested that when the health benefits and outcomes of regular, recreational exercise are made clear, there is evidence to suggest an increase in self-reported adherence to exercise programmes is associated with higher positive affect scores (i.e., emotions related to determination, enthusiasm, inspiration). Due to a cross-sectional design however, it was not possible for the authors to conclude whether positive affect (i.e., determination, enthusiasm, or inspiration) led to increased exercise or vice versa (Kelsey et al., 2006).

Mutrie and Choi (2000) argued however, that while exercise was once described as being beneficial for health, exercise has now become synonymous with beauty (women are encouraged to lose weight and improve muscle tone, as opposed to improving physical and psychological health). It is not surprising then that research has revealed appearance-related reasons for participation in exercise rather than for health or enjoyment purposes.

Studies have demonstrated a distinct emphasis on exercise for the purpose of weight loss or control (Bish et al., 2009; Furnham & Greaves, 1994; Grogan, Connor, & Smithson, 2006; Maguire & Mansfield, 1998; Silberstein, Striegel-Moore, Timko, & Rodin, 1988; Tiggemann & Williamson, 2000) or exercise being a means to increase sexual attractiveness and physical condition (Furnham & Greaves, 1994). More recently, appearance evaluation (i.e., self-ideal discrepancy) and appearance investment (i.e., self-evaluative and motivational salience of appearance) have been shown to contribute significantly to an array of health behaviours, such as dietary restraint (Lamarche & Gammage, 2012; Lattimore & Hutchinson, 2010), exercise dependence symptoms, and leisure-time physical activity (Lamarche & Gammage, 2012); which suggests that some women might perceive these behaviours as the only ways by which they can realise their appearance goals. Those with a drive for weight control and tone also experienced lower body satisfaction (Tiggemann & Williamson, 2000) associated with disturbed eating (McDonald & Thompson, 1992). In contrast, those who engaged in exercise for fitness reasons also experienced increased self-esteem (McDonald & Thompson, 2002; Tiggemann & Williamson, 2000). This clearly demonstrates the need for a rigorous assessment of exercise motivations among women in order to ascertain the prevalence of positive, psychological outcomes and

direct the focus towards health and fitness. Since health has become tantamount to thinness and beauty, Mutrie and Choi (2000) questioned whether exercise empowers women or enslaves them, particularly when individuals' associate exercise as a means of achieving weight loss (Drew, 1996) and assign the meaning of health with the perception of thinness (Dean & Choi, 1996). When the use of exercise is encouraged to rid dissatisfied women of problematic areas (i.e., 'hips, bums and tums'), it is perhaps clear to see why an ever-expanding exercise and diet industry would be ready to help deal with appearance-related concerns (Choi & Mutrie, 1996).

EXERCISE AND BODY IMAGE IN PREGNANCY

Participation in some form of safe exercise activity has been associated with the ability to avoid excessive weight-gain, which has subsequently resulted in lower levels of body dissatisfaction experienced during pregnancy and in the postpartum period (Walker, 1998). It has also been suggested that the role of exercise is directly associated with a positive body image and increased self-esteem in pregnancy (Choi & Mutrie, 1996; Mutrie & Choi, 2000). Women claim to experience a sense of control over their bodies at a time when their body was assumed to be controlling them. Women who exercise during pregnancy may respond more favourably to changes occurring in their bodies compared to women who remain sedentary (Boscaglia, Skouteris, & Wertheim, 2003), most notably in those who exercise at high-intensity levels, although the authors concede that other psychological variables such as self-esteem and mood were not assessed. High-level exercise (i.e., comprising of at least 90 minutes of moderate intensity activity per week) can function as a counteractive, adjustive strategy for pregnant women who feel dissatisfied with weight-gain, nowhere more so than in group exercise sessions (Boscaglia, et al., 2003) when individuals can collectively seek to achieve their goals and offer reinforcement to others (Wallace et al., 1986). Aquatic exercise has shown to reduce maternal physical discomforts and improve body image (Smith & Michel, 2006), although this was not compared with any other form of physical activity and was only demonstrated in a pilot study.

Various motivations for exercising during early pregnancy are reported by women (see Duncombe et al., 2008; 2009), such as to enhance fitness and body image, keep weight-gain to a minimum, enjoy a regular routine, and to help alleviate symptoms of pregnancy-specific stress. However, there may be an explanation for the decreased levels of exercise experienced by pregnant women. In the field of sport, exercise and fitness, the construct 'social physique anxiety' (SPA) was defined to relate to the distress individuals' may experience, rooted in others' perceptions and evaluations of their bodies, rather than their own views (Davison, 2012). This construct and resultant 12-point scale, developed by Hart, Leary and Rejeski (1989)

sought to identify and address individuals' anxiety at the perceived or existent occurrence of interpersonal appraisals of one's physique, which can be particularly distressing when one's body is on display or exposed (e.g., in a gym or swimming pool setting). As a result, SPA and the use of self-presentational strategies (e.g., physical attractiveness, weight control) became highly relevant when assessing exercise behaviour patterns in a social context. Using data from 104 undergraduate females, Crawford and Eklund (1994) found that those who were motivated to exercise for appearance-related reasons (such as body tone and physical attractiveness, and not fitness) reported increased SPA and that SPA was negatively associated with an aerobic dance setting that emphasised a more revealing dress code and attire (i.e., tights and thong leotards). This has implications for those considering exercising in public settings or for those who engage in social encounters where their appearance or body will be observed, particularly given the social pressures women live through, in a culture where thinness is valued (Davison, 2012) and where a competitive sports setting isolates those who do not conform to the stereotypical 'sporty type' (Choi, 2000).

From a health perspective, the significance of addressing self-presentational concerns and the social circumstances of the exercise setting on individuals' willingness to engage in physical activity is only too apparent (Leary, 1992; Leary, Tchividjian & Kraxberger, 1994). If a woman "feels fat" she may avoid joining a gym or other organisation because her body does not 'fit in' or is not the right type, even though the motivation is there to exercise (Grogan, 2008). Concerns about one's weight and / or appearance however, may be apparent prior to adulthood. A study by Haste (2004) showed that although her sample of 687 girls and boys (aged 11-21 years) were motivated to increase their fitness, for females the emphasis was placed on self-image, appearance and weight loss, and 'how one looks whilst exercising' was cited as an inhibiting factor in over a quarter of participants.

One critique of the exercise literature is that much of the work applies to general 'well-being'²¹. In addition, there appears to be a paucity of literature relating to the psychological impact of exercising prior-to and during pregnancy. As the first media text study has demonstrated, information that is available to women, relating to exercise, can be inconsistent and conflicting, depending on where women choose to source this information. This is particularly problematic when exercise messages focus on the appearance-related benefits. Some women have described feeling frustrated when advised by health professionals to reduce exercise activity in their

²¹ i.e., it is not sufficiently specific to certain aspects of well-being, whether it is physical or psychological.

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third trimester and early in the postpartum period, in order to aid recovery from birth and maximise milk production, whilst simultaneously, feeling renewed self-enforced pressure to lose weight (Clark et al., 2009b). Therefore, specific information that positions the health benefits of exercise over appearance benefits may help those who feel too embarrassed about their appearance (Keiffer et al., 2002) or who report postpartum weight retention as a reason for eventually becoming insufficiently active following the birth (Pereira et al., 2007).

PERCEIVED MOTIVATIONS AND BARRIERS TO EXERCISE

Motivating factors and barriers to exercise bear critical examination. Engagement in exercise can be greatly influenced by a number of factors and women may report perceived barriers and motivations in relation to their participation in physical activity. What appears clear from a review of the exercise literature is that there are “consistent demographic predictors” of increased physical activity levels in pregnancy, such as being white and possessing a high level of education and income (Gaston & Cramp, 2011, p. 299). Symons Downs et al. (2012) argued that physical activity is influenced by intrapersonal (such as beliefs, socio-demographics), interpersonal (such as social support), and environmental / policy factors (such as access to facilities) and intrapersonal factors are argued to have the most profound influence on physical activity behaviours (Evenson, Moos, Carrier, & Siega-Riz, 2009).

Participation can be prompted by the opportunity to engage and socialise with other pregnant women and encouragement from a partner or healthcare professional once a woman receives assurances that it is safe (Cioffi et al., 2010). A sound awareness of the health benefits of exercise often facilitates continued exercising through pregnancy (Da Costa et al., 2003), although weight control and perceived easier labour is often cited as a main motivation, particularly from ‘veteran’ mothers who perhaps have had experience of extreme weight-gain and difficult labour from previous pregnancies (Leiferman, Swibas, Koiness, Marshall, & Dunn, 2011). That said, women have described fitness, enjoyment and a means of reducing stress as particular motivations for exercise participation (Duncombe, Wertheim, Skouteris, Paxton, & Kelly, 2009) which would fit with the general theoretical link between physical activity and stress: the fitter the individual, the more stress-resilient they become, which allows the body to recover more rapidly from a stress-inducing event (Salmon, 2001), such as labour.

Despite the documented benefits, two comprehensive reviews of the current body of exercise literature have shown that most women remain sedentary or reduce their level of physical activity during pregnancy (Gaston & Cramp, 2011; Poudevigne

& O'Connor, 2006) and into postpartum (Symons Downs & Hausenblas, 2004), particularly participation in sports and exercise (Clarke & Gross, 2004) and very often within the first 20 weeks of pregnancy (Fell, Joseph, Armson, & Dodds, 2009). In a cross-sectional study, a sample of 250 prenatal women (45% of whom were classified as overweight or obese) reported a decrease in moderate physical activity by the third trimester and low levels of vigorous exercise across all trimesters, however the authors highlighted the importance of gathering data on everyday activities (e.g., household and care-giving commitments) and a person's occupation in future research, as these contributed to much of the women's total energy expenditure (Schmidt, Pekow, Freedson, Markenson, & Chasan-Tabor, 2006). Researchers in this field accept that it is sometimes difficult to assess the full scope of pregnant women's physical activity and examining its influence on associated health outcomes when measures are vague and the scope of the study is limited to exercise alone, for example, if researchers do not take account of physical symptoms and / or all types of regular activities such as active commuting or childcare (as had been recorded by Rauff & Symons Downs, 2011).

Of the many perceived intrapersonal barriers to exercise, a perceived lack of time and fatigue are often cited by many women (Evenson et al., 2009) along with maternal physical health (Clarke & Gross, 2004; Symons Downs & Hausenblas, 2004) and pregnancy-related physical discomforts (Duncombe et al., 2009; Evenson et al., 2009; Leiferman et al., 2011; Symons Downs & Hausenblas, 2004). In qualitative interviews, women have described specific discomforts such as breast tenderness, uterine pressure, breathlessness and lack of mobility as factors that hinder participation (Cioffi et al. 2010). This presents a paradox when pregnant women who exercise have, in fact, reported significantly lower levels of fatigue along with lower levels of other physical discomforts (e.g., backache and headache) in their third trimester, as compared with non-exercising controls (Wallace et al., 1986). Yet in Fell et al.'s (2009) study, a small minority of previously inactive women seemed to be motivated to increase their physical activity level in pregnancy. These women however, had the highest rate of moderate/extreme obesity ($BMI \geq 35 \text{ kg/m}^2$) and therefore the authors suggested this motivation may have been triggered by desired weight loss. This suggestion was supported by Weir et al.'s (2010) research whose obese and overweight, pregnant participants perceived exercise as a mechanism to control weight-gain and facilitate a return to pre-pregnancy weight and shape. This is interesting considering that poor body image and lack of confidence are commonly-reported barriers marked in non-pregnant samples that are obese and need to lose the weight (Miles, 2007). Women, who are recruited for longitudinal studies over a

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longitudinal period (i.e., from pregnancy into the postpartum), often report a lack of time (Symons Downs & Hausenblas, 2004), working long hours or lack of childcare (Pereira, Rifas-Shiman, Kleinman, Rich-Edwards, Peterson, & Gillman, 2007) as presenting considerable environmental barriers to exercise.

A more rather alarming finding however, is that women have been reported to refer to physical exertion as an inherent risk to their baby's health (Lewis et al., 2008; Weir et al., 2010) and emphasise the dangerous nature of former exercise routines as providing a timely reason to stop (Clarke & Gross, 2004). Low intensity, low impact exercise can be perceived as safe whilst high intensity and vigorous exercise can be viewed as unsafe (Duncombe et al., 2009) and unbeneficial (Evenson & Bradley, 2009). Cioffi and colleagues (2010) discussed the process of engagement in exercise in pregnancy following interviews with 19 women. The first trimester, for some, prompted feelings of uncertainty and a need to be cautious, particularly whilst concurrently experiencing periods of fatigue and nausea. Such feelings tended to abate during the second trimester when women felt more confident and comfortable about increasing their levels of physical activity or when they used this time to adapt their existing activities. During the latter phase however, the increase in body size and shape made some woman feel restricted and therefore they made 'compromises' in order to balance the need to be active with averting risk. In terms of seeking advice, women tended to self-manage their participation in physical activity, using advice from an array of sources. That said, some women identified that the advice they accessed was often not consistent and at times, contradictory (Cioffi et al., 2010).

In addition to sources of information, it is important to consider the normative beliefs of those around the women. When assessing social role models and / or support networks as interpersonal factors, a woman's exercise behaviour in pregnancy and postpartum can also be greatly influenced by the normative beliefs of partners, family members and friends (Blum, Beaudoin, & Caton-Lemos, 2004; Symons Downs & Hausenblas, 2004) whether disapproving or approving (Keiffer, Willis, Arellano, & Guzman, 2002). It would therefore highlight the need to examine both the sources of information available to women during their pregnancy, in addition to exploring their perceived motivations and / or barriers towards physical activity in pregnancy.

The use of theoretical health models as conceptual frameworks, such as the Theory of Planned Behavior (TPB; Ajzen, 1991) has been employed in previous research to prospectively determine and predict levels of exercise behaviour in pregnant samples between first and second trimester (Hausenblas, Symons Downs, Giacobbi, Tuccitto, & Cook, 2008), second and third trimester (Symons Downs & Hausenblas, 2003) and third trimester and six weeks postpartum (Symons Downs &

Hausenblas, 2007) in which many of the aforementioned factors have been incorporated (e.g. fatigue, weight-gain). Despite these studies supporting the conceptual nature of the TPB framework²², there were inconsistencies across the different trimesters and only partially-supported hypotheses in each study, which ultimately limited the predictive power of the model (Hausenblas et al., 2008).

In addition to limitations brought about by small sample sizes, poor participant retention and bias in terms of ethnic, socioeconomic, and education status across all three studies, the authors discussed problems arising from pregnancy being a fluctuating and unstable state (Hausenblas et al., 2008), therefore although pre-pregnancy exercise behaviour is advocated for positive pregnancy and maternal health outcomes, it demonstrates only a modest impact on continued levels during pregnancy because of the significant physical and psychological changes taking place which women often have very little control over. This suggestion of only a modest impact however highlights the equivocal nature of findings related to the examination of previously-active participants before pregnancy. Some that have shown a similar decrease in physical activity levels across the trimesters (Evenson, Savitz, & Huston, 2004; Hausenblas et al., 2008) conflict with those studies that have successfully predicted sustained physical activity levels due to a previously active lifestyle (Gaston & Cramp's 2011 review). Despite the documented benefits however, the body of literature has shown that many women remain sedentary or reduce their level of physical activity during pregnancy. Perceived barriers include a lack of time, fatigue, along with pregnancy-related physical discomforts. There is therefore a need to further understand the barriers to being physically active in pregnancy (Poudevigne & O'Connor, 2006), particularly as pregnancy presents an opportune window for a change in behaviour which may lead to long-term healthy behaviours postpartum (Benelam, 2011).

SUMMARY

The current chapter has presented coverage of individual psychosocial factors that can influence body image during pregnancy and the postpartum. These will comprise the main focus of this thesis. The findings that would indicate women's ability to cope with appearance-related changes in pregnancy appear equivocal. Some experience body satisfaction whilst others experience dissatisfaction. From the body of research incorporating both pregnant women's and health professionals' perspectives, weight management and advice would appear to be a contentious issue

²² i.e., attitudes, perceived behavioural control, and subjective norms, which then lead to an intention and subsequent behaviour

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whereby some women feel comfortable about being weighed, whilst others are more anxious. There seems to be consensus however that the information provided to women on exercise and nutrition needs to be both accurate and consistent, although there have been concerns raised by health professionals on the training required for this.

Interpersonal experiences in pregnancy appear to play a vital role and can be expressed in a number of different ways, according to the situation and characteristics of the individual involved. Expectant parents report emotional support from a partner has been considered vitally important during the transition to parenthood and perceived social support has shown to increase a woman's confidence in their ability as a new mother. That said, there are concerns that a lack of social support or perceived expectation from a partner to conform to the slim-ideal and / or return to pre-pregnancy body shape has been associated with difficulties in maintaining a sexual relationship in the post-partum period, which has in turn, induced feelings of body dissatisfaction for the mother.

With regards to physical activity, both the physical and psychological benefits are well documented. That said, it has been argued that exercise has now become focused on beauty (encouraging women to lose weight and improve muscle tone, as opposed to improving physical and psychological health). It is not surprising then that research has revealed appearance-related reasons for participation in exercise rather than for health or enjoyment purposes. In order to fully address physical activity in pregnancy, it is therefore necessary to assess women's reported motivations and barriers to participation in exercise in future research. The following chapter now documents the qualitative method employed for Study 2.

CHAPTER 8

STUDY 2: QUALITATIVE METHOD

INTRODUCTION

This chapter documents the research questions, design, aims, and procedures employed in Study 2. The next stage in the process was to incorporate some of the prominent themes from the media text study into questions for an interview schedule. A detailed report of the ethical considerations involved and a full account of the procedure then follows, before a final rationale for qualitative rigour and reflexivity is presented. Methodological rigour is addressed in terms of *trustworthiness* (Lincoln & Guba, 1985) presented towards the end of the chapter.

RATIONALE FOR QUALITATIVE RESEARCH IN STUDY 2

Qualitative research offers a unique insight into an individual's social world which is crucial as health is not merely a biological or psychological issue (Chamberlain, Stephens, & Lyons, 1996) and as mentioned in Chapter 1, knowledge about health in pregnancy involves much more than just the maintenance of physical well-being (Beldon & Crozier, 2005). The use of qualitative research has become more widespread within healthcare systems for two main reasons; because it assists in the development of research into clinical outcomes and because it enhances our understanding of healthcare processes from the perspectives of those involved (Kingdon, 2004), particularly those who are service users. The purpose of qualitative research is not only to achieve an understanding of how people's experiences are shaped by their subjective and sociocultural perspectives, but also to examine how psychological, sociocultural, and linguistic components influence the manner in which a participant attributes meaning to their experiences (Wilkinson, Joffe & Yardley, 2004). Ultimately, any examination of pregnant women's beliefs and attitudes, using a more quantitative approach, must first consider the personal, social, and cultural context in which these women are surrounded; this is particularly important when investigating psychological concepts such as one's identity or sense of self (Lyons, 1999). Silverman (2010) emphasises the need to embrace and appreciate the subjectivity of human experience before attempting to quantify and generalise from it, particularly when exploring intimate matters.

A qualitative endeavour therefore has the potential to address the complexity and circumstance of women's lives (Ussher, 1999). The essence of drawing together responses from open-ended questions enables the researcher to understand and

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attach importance to the position of those being researched (Patton, 2002), without pre-determining those viewpoints through hypotheses, based on a selection of variables from previous studies (Silverman, 2010). Using an example of one of my research aims in Study 2, a qualitative approach allowed for a greater understanding of the motivations and barriers pregnant women experienced around physical activity. Although the final, quantitative element of the project was designed to examine participants' attitudes and behaviours using established measures, it was first essential to explore the very subjective nature of pregnancy and in doing so, elicit meaning and gain an understanding from the women's perspective of this lived experience.

RESEARCH DESIGN AND AIMS

A series of interviews were conducted with nulliparous, pregnant mothers-to-be and data were gathered using a semi-structured interview schedule. In total, nine interviews were conducted and the data were analysed using Braun and Clarke's (2006) six-step approach to thematic analysis. Although it is common for sample sizes to be larger in qualitative research when trying to identify patterns in the data (Braun & Clarke, 2013), it was considered that data saturation was reached after nine participants. This became the point at which there were enough data to offer a rich account of experiences (Onwuegbuzie & Leech, 2005) in the knowledge that any further interviews would not necessarily produce new information (Morse, 1995). The rationale for the selected method of analysis will be discussed later in this chapter.

There were four main research aims and questions were incorporated within each of these topic areas. First, to attend to body image in pregnancy, research questions needed to address women's thoughts and feelings about their bodies during pregnancy. Second, to address social influence and comparison, research questions needed to attend to the significance of external social influence on women's perceptions and behaviour; in addition to the extent to which support and/or pressure from family / partner / media had a potential influence on body image and exercise behaviour. Third, the role of exercise in pregnancy was to be addressed by asking women about their general perceptions about exercise, and then more specifically, about their motivations and / or perceived barriers that indicate whether women do or do not engage in physical activity. Finally, as informed by the media text findings, a research question covered media representation of the pregnant body and women were asked about how they felt the pregnant body, as represented in the media, related to their experiences (if they did).

THE INTERVIEW

Silverman (2010) argued that in the same way that thematic analysis provides the option to uncover both descriptive and interpretative data, interviews provide access to external reality (e.g., facts or events) and internal experience (e.g., feelings and meanings) through participants' responses. Hence one might suggest that the goal would be to secure a meaningful fit between my interpretations as a researcher and the participant's external reality. This will be explored in greater detail in the reflexivity section of this chapter. Interviews, in particular, are said to offer a means to exploring understandings, perceptions, and constructions of phenomena that participants have some kind of personal investment in and can also be used to ask influencing-factor style questions (Braun & Clarke, 2013). In the current context, this was seen to be most useful when exploring participants' motivations for exercising during pregnancy.

A semi-structured interview was chosen as a preferred method as it allowed for emerging and unanticipated issues to be explored in greater depth. Consequently, this offered the participant freedom to discuss additional contextual matters important to them, as opposed to feeling constrained to discuss topics formulated by myself, as the researcher. A woman's pregnancy is such a personal and unique experience; for that reason alone a structured interview or questionnaire might have constrained responses, rather than potentially yielding discussion around other transpiring topics that might otherwise have been very meaningful to the individual.

When embracing a contextualist approach, one acknowledges that the interview provides a setting for discussion of not only subjective experiences, but the opportunity to recognise the wider social environment (Silverman, 2010) in which these pregnant women were embedded. When participants show willing to move off topic and discuss issues relevant to them, the interview can generate a more profound insight of the social phenomena and multiple realities women experience, than might have been accomplished through solely quantitative data. In addition to this, the inclusion of themes derived from the media study provided the background from which women were then able to narrate their own experiences and discuss their own opinions about such material; hence another reason to select thematic analysis over another that is more phenomenologically-grounded.

NEGOTIATING THE DECISION TO EMPLOY INDIVIDUAL INTERVIEWS OVER FOCUS GROUPS

Initial thought was given to solely conducting a focus group study which would allow participants the opportunity to share experiences amongst other women in a

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purposive sample (i.e., women concurrently experiencing first-time pregnancy). Focus groups in health research are said to have many advantages. They offer the researcher the opportunity to act as group moderator in an environment where individuals share experiences on a particular topic or set of issues and are actively encouraged to interact with one another (Wilkinson, 2011). They can also provide a setting in which participants can openly discuss, at length, topics that may be of a more sensitive nature, whilst being amongst similar others, which can consequently result in very meaningful and detailed accounts (Wilkinson, 1998).

They are however, not designed with participants in mind who are geographically dispersed and find travelling at a particular time inconvenient (Braun & Clarke, 2013). Although it was my intention to plan for the use of focus groups with small groups of pregnant women, this was problematic in terms of coordination. Women who initially responded to the study advertisement were unable to meet collectively for a variety of reasons: work commitments on specific days, distance (particularly if in their third trimester), with the main issue being location. The practicalities of locating women across Leeds and neighbouring towns into one location at the same time proved to be a difficult task. It was also evident that, depending on how the women were feeling on a given day, this would dictate whether they would be able to attend a group discussion, which meant that a new date then had to be arranged with all participants. Due to these difficulties, it was decided that participants would also be offered the chance to take part on a one-to-one basis, if this was to be more convenient and the study subsequently received approval from Leeds Metropolitan University Ethics Committee (see Appendix A) to conduct interviews as such. This proved to be a much more successful method of recruiting as women were able to arrange a time and location that was convenient for them and the length of the overall interview did not have to be as long for participants as it would have been within a group. Hence, all discussions took place in the form of individual interviews.

From an ethics standpoint, individual interviews resulted in less concerns about withdrawal of data (i.e.; the removal of utterances that only made sense within a shared context) and breaches in confidentiality and disclosure, which can sometimes be more problematic in a focus group situation where experiences are shared amongst others (Braun & Clarke, 2013). It is not believed that switching to individual interviews de-valued the essence of the findings as these still allowed for the same schedule and style of open-ended response. Analytically, interviews are the more simple to transcribe, simply because one does not have to determine and distinguish voices from a collective discussion and therefore the data from individual interviews can be less burdensome (Mathieson, 1999).

DESIGNING THE INTERVIEW SCHEDULE

The interview schedule (see Appendix B) was designed with two fundamental components in mind. First, questions needed to incorporate elements of the findings from the media text study in order to assess women's perceptions of media material in relation to pregnancy and how they related to media constructions of the pregnant body. Second, there was a need to include topic-based questions around social influence, the role of exercise, and personal thoughts about body image in pregnancy, derived from a review of the current literature discussed in Chapters 1, 3, and 7.

The role of exercise in pregnant women's lives was also important to address. I had reflected upon findings that suggest pregnant women who exercise experience increased body satisfaction (Boscaglia et al., 2003; Mutrie & Choi, 2000), yet was also mindful of the barriers and difficulties some pregnant women face (Grogan, 2008; Keiffer et al., 2002; Pereira et al., 2007) particularly as they approach the third trimester with greater levels of gestational weight-gain (Haakstad, Voldner, Henriksen, & Bø, 2009). In addition to the main interview questions, prompts were included to encourage participants to expand on answers and disclose further detail, in addition to offering a helping-hand to a participant if they were struggling to find an answer immediately.

In the early stages of the interview, questions were loosely based around body image that were considered to be less probing and direct. For instance, once the participant had been asked to introduce themselves and provide their chronological and gestational age and occupation, they were then asked for their thoughts about how their body size and shape was changing as their pregnancy developed and in particular asked to describe some of the more positive aspects. It was felt that by focusing on a positive outlook first, this would help to put the participant at ease and start on a more upbeat note.

Questions were then purposefully clustered around specific topic areas and had a logical, sequential flow. In each section, questions were funnelled so that they started very generally and became more specific as the discussion progressed (Braun & Clarke, 2013). Still on the topic of body image, once participants discussed general thoughts about their bodies, questions became more focused on other appearance-related aspects, for example, their 'bump' and social commentary or feedback from others.

The schedule then moved on to include questions around the role of exercise, again starting off with general thoughts. All women were asked if they engaged in any form of exercise prior to their pregnancy and if they did, they were the asked about

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their current exercise programme and motivations for remaining physically active through pregnancy. For those who exercised prior to pregnancy then stopped, questions were aimed at addressing the reasons for this. For those who had never been physically active prior to or during pregnancy, questions were tailored to address the potential barriers towards exercise or reasons for choosing a more sedentary lifestyle. Again, wanting to address the issue of social influence, the women were asked to what extent their decisions about exercise were personal to them or perhaps had been influenced by those around them. Recent evidence suggests that despite seeking advice from healthcare professionals and various other sources, the information pregnant women receive about exercise is not consistent (Weir et al., 2010), as has emerged in the conflicting messages in Study 1. Tiggemann, Polivy, and Hargreaves (2009) argued that it is the way in which women process the messages presented to them in the media that will determine how they respond. As discussed in Chapter 7, it was important to understand where women sourced information related to pregnancy, exercise, and nutrition.

Moving on to the final topic, the women were initially asked about how they felt pregnancy and the pregnant body were represented in the media. The topic of media representation was then narrowed to include specific questions around the women's own reading habits and the way in which they may or may not have related to the content they were exposed to in the media. Again, wanting to address the issue of social influence, the women were asked about the extent to which they felt the media influenced how they thought or felt about their body and the reasons for this. Finally, all women were asked if they wanted to share any further information that had not necessarily been covered or which they felt was important to them. A summary of the interview discussion was then verbally presented to the participant. The reasons for this will be discussed later in this chapter (where the issue of rigour is discussed).

The schedule allowed for complete flexibility in that further items were added as more participants were interviewed, particularly when topics were covered that had not been anticipated at the start of the research process (e.g., discussions around advice from their midwives). Mathieson (1999) supported the use of small samples and advocated the flexibility of an interview schedule, because responses are highly individualised and therefore the researcher is required to tailor the questions as the interview progresses. He argued against a more structured format due to the 'question – answer' volley being characteristic of a more quantitative paradigm, which often exercises control over the participants' responses. Hence, the schedule can be seen to evolve throughout the course of data collection, where questions can be reworked or added if new topics arise unexpectedly (Charmaz, 2002). As such, interviews and subsequent analytic techniques, like thematic analysis, support the use of a smaller

sample. An example of when this occurred came after the first interview, when the topic of 'health professionals' advice' arose, having asked the first participant where they sourced their information about exercise. By keeping the schedule flexible, this did not exert control over the response format and meant that participants were free to convey their opinions and express themselves, without being forced to elicit a response by way of pre-defined options (Wilkinson et al., 2004). A question was then included in subsequent interviews to address the advice the women had received from their health professional (e.g., midwife).

BRIEF PREGNANCY QUESTIONNAIRE

In addition to the interview schedule, a brief pregnancy questionnaire was sent to each interested participant (see Appendix C) via email following initial contact. The purpose of this document was merely to capture demographic information which related to age, gestation (i.e., number of weeks pregnant women were at the time of the interview), exercise behaviour prior to and during pregnancy, and distance to the University. These questions were not designed to exclude anyone from participating, but to allow myself the opportunity to shape the interview schedule beforehand so that it was relevant to the women on the day, and also to address any travel needs. These forms were completed by each participant and stored securely, separate to the transcripts and completed consent forms.

ETHICAL CONSIDERATIONS: RISKS TO PARTICIPANTS

I endeavoured to make the interview as positive and relaxed an experience as possible, by adopting a sensitive, inclusive, and non-critical approach. I purposefully did not set out to discuss my personal situation²³ as I did not wish this to sway participants' responses, however if I was asked, I did not deceive them. There was no requirement for any level of deception in this study however participants were fully debriefed following the interview. Hence, the aims of the research were fully explained and a copy of a brief report of the study's findings was offered to them if they were interested. No participant requested this or was able to commit to reading a full transcript. This will be discussed further later in this chapter.

The purpose of a qualitative interview is to provide rich, detailed and in-depth information and as this typically involves exploring subjective experience, careful consideration was given to the possibility that discussions could evoke intense emotional responses. Hence, the potential for harm is argued to be somewhat 'unpredictable' in that, whilst some participants may find an interview therapeutic,

²³ i.e., a mother of two children

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others may find it a more stressful experience (Manning, 2004). Thought was given to such a situation, in which a short refreshment break would have been suggested, during which time, the participant would have had the opportunity to compose themselves and choose whether they wished to continue. The aims were to essentially explore women's thoughts about their changing body shape and appearance, exercise during pregnancy, and pregnancy representation in the media. Women were to be asked questions about their bodies which may have led some to re-evaluate how they felt about themselves, if they hadn't already done so prior to the interview. Therefore questions were worded in such a way as to not provoke a highly emotive response. Questions were guided by a list of topic areas, but there was ample reassurance at the beginning of the interview that they were under no obligation to answer them or disclose information that was deemed to be too personal. Examples of slightly more sensitive questions and a clear discussion of potential topics were included in the Information Sheet (see Appendix D) so the women knew what to expect on the day. There was no intention to make them feel embarrassed or to place them in a distressing position where they would have to discuss issues they would rather not. Having taken the decision to offer individual interviews with the women, meant that pregnant women who were perhaps more sedentary than others were not expected to share their experiences with other women.

Irrespective of methodological approach, a Participant Information Sheet must encompass three main elements: the sharing of information, the promotion of participant understanding, and the assurance for voluntariness (Manning, 2004). In the present study, the Information Sheet clearly documented the purpose of the study and guidance in terms of what was expected from them. They were also made aware that the interview would be audio-recorded and then subsequently deleted, once transcribed. Both positive aspects of the interview and potential negative feelings were highlighted. Support telephone lines and websites were also noted in case of any concerns and participants were also invited to discuss any concerns they might have had with a third party (e.g., their midwife and / or GP). It was also advised that the women bring contact details of someone close to them, in the unlikely event of an emergency.

The women were fully informed of the different ways in which their data might be used and communicated (i.e., contributing to a conference paper or journal article). Although there is much debate about whether to reward individuals for their participation (Lavender, & Briscoe, 2000), it is generally regarded as acceptable for a participant to receive a modest level of recompense for inconvenience and / or commitment, so long as the amount is not so great that it assists in persuading participation (Manning, 2004). The study was advertised as being wholly voluntary,

but participants were offered a £10.00 gift voucher as a token of appreciation, which was funded from my expenses budget. This was handed to them at the interview and women were reassured that they could retain this, even if they chose to withdraw their data following completion of the interview.

RISKS TO PARTICIPANTS: CONFIDENTIALITY

According to Murphy, Dingwall, Greatbatch, Parker, and Watson (1998, as cited in Manning, 2004), anonymity in qualitative research may be, at times, harder to protect than in quantitative research because of the likelihood of smaller samples and hence, a greater potential for individuals to become identifiable. It was crucial to ensure confidentiality for the women that took part, not only to fulfil the BPS Code of Human Research Ethics (2010), but as a means of reassurance for these women. For instance, thought was given to a woman arriving with their partner, in which case their partner would be asked to wait outside of the interview room until conclusion. This however, did not occur at any time.

It was also imperative to consider the balance between the protection of participants' anonymity and a moral and legal obligation to breach confidentiality. Therefore consideration was given to the unlikely event that a participant might have inadvertently disclosed information in the interview that either compromised her welfare or might have been of interest to the courts or police. In such a scenario, the research team would have been obligated to forward such information on to the appropriate authorities (Murphy et al., 1998, as cited in Manning, 2004). As a consequence, this would have resulted in a potential breach of our confidentiality commitment. This was made clear to participants in the Information Sheet and they were reassured that disclosure of confidential information would only be made in an exceptional circumstance where it could be justified in the public interest (e.g., to protect her or others) or where the team were required to by law. Again, this instance never arose. As interviews took place in an individual setting, there was less concern about participants sharing confidential information outside of the interview setting. Despite the need for confidentiality on our part as researchers, the women were nonetheless informed that they were free to discuss their experience with a third party, both before and after the interview took place, if they felt the need to do so.

To protect participants and myself as the researcher, a Consent Sheet (see Appendix E) was provided once a participant agreed to take part. Informed consent demands not only the sound exchange of relevant information, but also the participant's ability to understand this information and autonomy to choose whether or not to participate (Beauchamp & Childress, 2001, as cited in Manning, 2004).

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Hence, participants were required to confirm that they had read and fully understood the information sheet and that they had been given the opportunity to ask questions. Further statements related to voluntary participation, a right to withdraw within 14 days without consequence, and consent to being audio-recorded. Again, emphasis was centred on ensuring confidentiality and secure storage of data, in compliance with the Data Protection Act (1988), whilst making participants aware of the aforementioned limits to confidentiality in the information sheet. The consent form and pregnancy questionnaire were stored securely in a locked cabinet at the University, to which only I had access and all electronic data were password-protected on a computer. When transcribing the interview, participants were assured that, through the use of a pseudonym, their name and any other identifying information would be changed to protect their anonymity. Hence, participants were required to give consent to the use of anonymised direct quotes from the interview in publications and presentations arising from the study.

As stipulated in the BPS Code of Human Research Ethics (2010), a participant has the right to withdraw for any reason and such a scenario was considered. First, the interview and recording would be stopped. Withdrawing participants would then be given the option to allow the researcher to retain their data within the partial recording, however the team would comply immediately with any request to destroy any information provided within the recording (as this is easily achieved using digital recording devices), together with the Brief Pregnancy Questionnaire (which also contained confidential information). The women were not expected to offer any reason to myself, as the researcher, but would have to make contact within 14 days, as this was the point at which coding would have commenced. This instance never arose and none of the women requested either partial or full withdrawal of their responses.

ETHICAL CONSIDERATIONS: RISKS TO THE RESEARCHER

As the researcher, I was able to negotiate the location of the interview and as such, had some level of control over the environment in which the interview took place. That said, it was important to consider my own safety and wellbeing. All interviews were conducted in a safe and familiar environment. Various locations were used that were mutually convenient for both participant and myself, such as a private room on the University campus, a room in a local village hall, or a place of work for the participant.

Consideration was given to negative feelings that may have arisen following discussions with the women about their experiences. Although student counselling services were available to me in such an event, there was no requirement for this as each interview was a most positive and enjoyable experience.

RECRUITMENT OF PARTICIPANTS

The interviews were restricted to a nulliparous population as they were expected to have no prior experience of bodily change that occurs during pregnancy and postpartum period. Hence, women who had multiple parities were excluded from taking part in the study. Whilst this definition naturally implies a first pregnancy, it was agreed amongst the research team, that women who may have experienced a miscarriage or abortion from a previous pregnancy were not to be excluded from participating, if they wished to do so. This decision was also supported by the University Ethics Committee and hence, approval for the study to proceed was granted in November, 2010 (see Appendix A).

Recruitment involved writing letters (see Appendix F) and placing advertisements (see Appendix G) in the form of posters and flyers in various different locations. These included local leisure centres, children's centres (for instance where 'bumps and babes' classes were taking place), local swimming pools and village halls on advertising noticeboards. In the case of children's centres, each centre was telephoned first to make contact with the manager. Upon receiving approval to place an advert, posters were accompanied with a letter (see Appendix F) and Participant Information Sheet to confirm that we had approval to conduct the study. These were then left with the manager to display at their discretion.

Prospective participants were provided with both an email address and telephone number on each advertisement in order for them to make contact with myself. Following initial contact, the Information Sheet, Consent Form and Brief Pregnancy Questionnaire were emailed to them. Participants were given a week to read the documents. After such time, they were contacted again and asked if they were still willing to participate having been given time to read these documents at their leisure. If so, a date and time was then subsequently arranged to meet for the interview.

SAMPLING

A purposive sample of pregnant mothers-to-be were selected to take part in a one-to-one interview. This method allows the researcher to select a sample group, in which the phenomena under study are most likely to be evident (Silverman, 2010) and which will aid better understanding of a problem or research question (Creswell, 2014). Selecting a cohesive sample that shares characteristics relevant to the research topic is also said to assist with speedier data saturation (Morse, 1995). The nature of this relatively small sample derived from the importance of selecting

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information-rich cases to achieve in-depth understanding of a phenomenon (Patton, 2002), in this case, first-time pregnancy.

Purposeful sampling ensured that participants were at least 18 years of age or over, for evident ethical reasons²⁴. Women, in any trimester of their first pregnancy were invited to participate. Initially, 11 women responded to the advertisement and sought further information, however there were practical difficulties in arranging a mutually convenient location for a focus group. In total, nine nulliparous women, gave written consent and took part in individual interviews during the month of March, 2011.

Body image change over time was of interest and conducting repeat interviews with participants as part of a longitudinal study, would have been the preferred option as it may have offered the opportunity to develop a closer rapport with participants, tracked self-reported exercise behaviour across the developing trimesters, and given rise to a much richer data set. Due to time constraints however, this was not possible to do.

PARTICIPANT DEMOGRAPHICS

There was a distinct over-representation in terms of the ethnicity of the women; all nine women were White. They all lived in the West and North Yorkshire regions of the UK. Further, all of the women were in paid employment, although two of the women in their third trimester, were on their maternity leave as they were near-approaching the imminent birth of their child. There was one further woman in her third trimester, five in their second trimester and one approaching the end of her first trimester. The women ranged in age from 24 to 35 years ($X = 30.11$, $SD = 1.30$). Physical activity levels were self-classified. Each woman had been provided with a pseudonym for the purposes of transcription (i.e., all names have been changed to the ones below) but could be described, following the completion of their Brief Pregnancy Questionnaire and interview discussion, in the following ways:

- 1) Sarah, aged 29 years, was at 38 weeks gestation (3rd trimester) at the time of interview. She had worked for a local Children's Centre as an Assistant Manager before taking maternity leave. Before becoming pregnant, Sarah had engaged in twice-weekly sessions of moderate to high-intensity fitness (e.g., kickboxing and bootcamp), however had been forced to stop for medical reasons since becoming pregnant.
- 2) Rachel, aged 25 years, was at 16 weeks gestation (2nd trimester) at the time of interview. Working as a Customer Services Representative, Rachel professed to having never really engaged in any form of regular exercise and had no intention to exercise whilst she was pregnant.

²⁴ i.e., ability to self-consent.

- 3) Nicola, aged 30 years, was at 22 weeks gestation (2nd trimester) at the time of interview. Working as a Sales Office Supervisor, Nicola had been regularly exercising prior to pregnancy and at times, had engaged in high-intensity training and high-action sports (e.g., running half-marathons, attending a gym, mountain biking and snowboarding). Since becoming pregnant, she reluctantly had to adapt her exercise routine and thus, had taken up lower-impact exercise (such as swimming, Yoga and Pilates).
- 4) Heidi, aged 35 years, was at 30 weeks gestation (3rd trimester) at the time of interview. Working as an administrator for the NHS and despite being fairly active and having a gym membership prior to pregnancy, she had found exercising in pregnancy difficult due to various pregnancy-related symptoms and medical issues and hence had stopped in early pregnancy.
- 5) Phoebe, aged 24 years, was at 20 weeks gestation (2nd trimester) at the time of interview. Phoebe professed to not having much interest in exercising or knowledge about exercise, and despite being aware of the main benefits, she felt she did not enjoy it enough to want to start exercising during pregnancy. Although not active outside of work, Phoebe spent much of her day on her feet, working as a hairdresser.
- 6) Charlotte, aged 29 years, was at 24 weeks gestation (2nd trimester) at the time of interview. She had previously worked in sports science and therefore held a high regard for exercise. Working as an Events Manager, Charlotte played football and attended a gym two to three times per week prior to her pregnancy. Since becoming pregnant, she chose to adapt her exercise programme to incorporate lighter cardio exercises, less weights and more swimming.
- 7) Naomi, aged 32 years, was at 38 weeks gestation (3rd trimester) at the time of interview. Prior to going on maternity leave, Naomi had worked as a Science Teacher. She had exercised prior to pregnancy, approximately four times per week, doing a combination of Thai kickboxing, running, fitness classes, and swimming. She was able to continue running and swimming until four months into the pregnancy, when she reduced the frequency to once or twice a week and changed to doing Pilates and walking. Due to specific health issues and the physical demands of pregnancy, she had to cease exercising in the latter stages of pregnancy.
- 8) Gill, aged 35 years, was at 23 weeks gestation (2nd trimester) at the time of interview. Working as a Product Developer, Gill had previously taken up Pilates to help with specific health-related issues. Since becoming pregnant,

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she had also taken up swimming. Gill planned to continue swimming and doing Pilates until the end of the pregnancy, despite exercise becoming increasingly more difficult as her pregnancy progressed.

- 9) Claire, aged 32 years, was at 12 weeks gestation (end of first trimester) at the time of interview. Working as a Pharmacist, Claire exercised three times per week using gym equipment. Once pregnant, she had initially stopped for specific health concerns, however had resumed exercising once a week in shorter sessions. She planned to start pregnancy yoga at 16 weeks gestation.

PROCEDURE

On arrival, participants were formally welcomed and thanked, before being given a brief reminder of what the study involved and the ethical guidelines underpinning the study. They were invited to ask questions at any point during the interview. They were then reminded that our discussions would be audio-recorded, but that all recorded information would be anonymised, before being stored securely. If they were still happy to proceed, the consent form was then signed, before the interview commenced.

Once participants were ready to begin, the recording was started and the women were led through questions on the interview schedule. Inviting the participants to introduce themselves provided an opportunity to break the ice and develop rapport. Prompts were used throughout all discussions to ensure that all points were fully explored and understood. Some participants required more prompting (perhaps on occasions due to nerves), whilst others settled in well to the discussions and less prompts were required. Once a topic had been fully explored, the next topic or question was introduced. Finally, the discussion was concluded by asking participants to raise any topics or aspects that they felt might have been missed. I took the decision to only make essential notes whilst speaking with the participant. I wanted to maintain eye contact and make the participant feel that she was very much being *listened to*. These notes however, meant that I could keep track of issues worth following up on, summarise at the end of the interview, and ask for feedback. All the feedback received was positive. All the women were offered a copy of the transcript so as to verify our discussions (i.e., member-checking). Despite this offer, no participant requested a copy of the transcript (or a brief report of my findings) and so no alterations were required. A deeper, reflexive discussion of the interview process can be found later in this chapter. Interviews were between 42 minutes and 1 hour 32 minutes in length.

AUDIO RECORDING AND TRANSCRIPTION

A precise record of an interview, in terms of capturing detailed responses, language and context is best achieved by audio-recording the interview and producing a transcript (Braun & Clarke, 2013). The interview was audio-recorded using a SONY IC Recorder (ICD – PX820) which was positioned near to the participant, without being too intrusive. This software enabled instant access to, and efficient transcription of, the audio files using digital recording software at a later date. The audio recordings were converted to MP3 files and downloaded onto a password-protected computer. The original recordings were then immediately erased from the recording device. Specific transcription software allowed for the speeding up or slowing down of the pace of playback, which was particularly useful at a time when a word, or set of words, were difficult to decipher.

Transcription of each interview took place almost immediately following the interview itself. This was to ensure that the conversations were still fresh in my mind and to ensure that they were easier to manage in terms of workload. Transcription quality was of the utmost importance. The transcript is argued to be “the product of an interaction between the recording and the transcriber, who listens to the recording, and makes choices about what to preserve, and how to represent what they hear” (Braun & Clarke, 2013, p. 162). As such, the transcript was not necessarily to be described as *accurate* (see Potter, 1996), but more of a representation (Braun & Clarke, 2013).

It is argued that even the ‘hm’ and ‘hms’ and other sound particles (e.g., laughter and pauses) are essential to note within the process, as they exist as part of the context in which the interview was set and help to guide the interviewee in a particular direction (e.g., Rapley, 2004). That said however, the transcript did not include the more detailed phonetic elements (e.g., in terms of *how* responses were said) that might be found in a discursive or conversational analysis. Hence, the transcript was more of a *verbatim* style, focusing on the spoken words or utterances in recorded data. Braun and Clarke (2013) assert that a *verbatim* or *orthographic* transcript is suitably sufficient in terms of the information it provides in order for a thematic analysis to be conducted on the data.

Pauses were demarcated by three full stops to signify a thought, hesitation or where the conversation naturally trailed off. All verbal utterances were transcribed as clearly as feasibly possible, such as ‘erm’, ‘er’ and ‘mmm’. Any use of slang words remained as such in the transcript (e.g., ‘wanna’ and ‘gonna’ were not translated into ‘want to’ and ‘going to’ respectively). The only paralinguistic feature that was transcribed was ‘laughter’ (annotated in brackets) as this was considered meaningful

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to the context in which a person spoke. Punctuation was inserted as and when used by the respondent (using intonation and language use) and not determined by the researcher simply to aid readability, as advocated by Braun and Clarke (2013). The use of question and exclamation marks were used when there was a clear variation in spoken pitch²⁵. As illustrated on the transcript (see the example of an annotated transcript in Appendix H) both the respondent and interviewer were identified by the first letter of their role²⁶, followed by a colon and a tab space before they spoke. A new line was given for each 'turn of talk'. Where speech was cut off mid-sentence, then the audible sounds were transcribed with a dash added afterwards (e.g., "you're brilli-").

Small segments of the recording were played and then stopped, and the words or utterances documented. This was then rewound to check for any errors. This process was continually repeated. Once a full transcript had been completed, the recording was then played again to check for any further errors and if necessary, the transcript was edited. Throughout this process, any mention of a participant's name was anonymised and marked with an asterisk (*) so it was clear where a change had been made. This was not uncommon as participants often referred to their name, notably when trying to advise themselves of something or reciting a conversation with someone else (e.g., "...and they said 'Hi Heidi*' and I turned around and they went like 'whoa!...'"). A secure electronic word document was created, which detailed the correspondence between participant pseudonym and related transcript²⁷. For ease of reference, all transcripts were line-numbered and coded with the participant's pseudonym initial, together with the date and month (e.g., in the case of Heidi*, the code used was H-17.03).

RATIONALE FOR THE SELECTED METHOD OF ANALYSIS

Thematic analysis (Braun & Clarke, 2006) was again employed to identify, analyse and report on themes found across the data set. The focus was to be on relevance, as opposed to frequency, as prioritised in the media text study. This is where counting as an exercise can be misleading. A certain number of respondents taking a specific viewpoint does not necessarily imply that all others in the study believe the opposite; it may be possible that they have chosen not to address it as a priority for them. This is, in essence, why a content analysis was discarded as a method.

²⁵ e.g., a question mark to depict rising intonation and where it was clear that a question had been raised.

²⁶ i.e., 'P' for participant and 'I' for interviewer

²⁷ This file still exists, currently stored on a separate hard drive at the researcher's home and will be kept, away from the original recordings, until such time where it becomes necessary to destroy the original data (i.e., five years following publication).

The study was concerned with individual lived experiences (i.e., women's experiences of pregnancy) and thus, on the face of it, one might question why a more phenomenological approach was not considered for the analysis. That said, one of the research questions was concerned with how women interpreted appearance-related messages and therefore it was important to consider their perspectives and opinions, which Interpretative Phenomenological Analysis (Smith, 1999) is not necessarily suitable for. It is also acknowledged that there are other specific approaches to thematic analysis that are particularly suited to and demarcated as a phenomenological method (see Guest, MacQueen, & Namey, 2012; Joffe, 2011). Again, in some respects this might have been appropriate had the focus of this study centred solely on lived experiences and understandings.

As discussed in the media text method however, thematic analysis, as a stand-alone, theoretically-free method, is argued to be suited to a much broader range of questions and theoretical perspectives (Braun & Clarke, 2006). In this case, it was important not to be constrained by a framework focused on experiences or practices, but to analyse data that derives both from research questions around lived experiences and understandings, in addition to the representation and construction of contextual phenomena (Clarke & Braun, 2013). As an example, the concept of the *Yummy Mummy* (as referred to in the analysis of the media study) was to be explored in relation to women's own experiences and also located within the wider, social context.

DATA- VERSUS THEORETICALLY-DRIVEN APPROACH?

The analysis of the first media text study was largely driven by the data, essentially due to the lack of research on pregnancy representation. In keeping with a new realist epistemology, there was a specific emphasis in this instance on remaining close to the data (i.e., individual responses and experiences) whilst simultaneously contextualising emerging codes and themes and reflecting on the wider sociocultural context and pre-existing body of knowledge (Braun & Clarke, 2006). Hence, focusing on the understanding that knowledge is context-bound and social processes form part of that level of materiality that underpins patterns of meaning. Hence the use of thematic analysis offered not only some form of consistency in my overall qualitative method, but also a more flexible, pattern-based approach, without having to delve into or depend upon theoretical constructs or frameworks to analyse the data (Braun & Clarke, 2013).

In contrast here however, it was important from a research perspective, to acknowledge the body of qualitative work that has already been conducted in this

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area (such as Bailey, 2001; Clarke et al., 2009b; Earle, 2003; Johnson et al., 2004 amongst several others) and to be mindful of this previous work when considering context as part of the process. Thus, it would have been inaccurate to have defined this study as an exploratory one, therefore it was decided that incorporating both a research-driven yet data-specific approach was appropriate in this case. For example, it has been said that despite the level of criticism aimed at the mass media overall in their persistent portrayal of thin-ideal images, there still remains a lack of research that aims to address the ways in which certain audiences interpret such representations (Wykes & Gunter, 2005)²⁸.

This was not necessarily the same as adopting a theoretical stance, which is sometimes argued to constrain findings within a more prescriptive framework (Braun & Clarke, 2006). By bringing disciplinary knowledge and research training to the process however, one must acknowledge that it would be nigh impossible to claim that an analysis can ever be wholly inductive. This reflexive element will be discussed later in this chapter.

WHAT IS A THEME?

As with the media text study, the key focus centred on relevance over frequency. Due to the number of interviews involved however, it was essential to have some form of consensus in terms of the data required to comprise a theme²⁹. Hence, not only did the resulting themes derive from the number of different respondents who articulated the theme (during each interview and across the entire data set) but also from the strength of feeling and/or importance as expressed by the women concerned. This will be explained in more detail throughout the analysis in Chapter 9.

PROCESS OF THEMATIC ANALYSIS

As was implemented in the previous media study, the five main recursive steps of thematic analysis (Braun & Clarke, 2006) were adopted before the written account was prepared as evidence of step six. A full account of this general method has been presented in Chapter 5. That said, each stage will now be contextualised for the purposes of the present study.

STEP 1: FAMILIARISATION OF DATA SET

As part of the first phase, I familiarised myself with the data by reading and re-reading each individual transcript, making notes down the margins to highlight

²⁸ particularly in the case of pregnant women; hence the nature of the present study.

²⁹ e.g., a theme that became prominent throughout one interview might not have been pertinent in others' responses.

interesting aspects about the data. As part of stage two, I chose to include both semantic and latent codes, in keeping with a contextualist and new realist approach, as per the media text study. As mentioned in an earlier paragraph about the decision to adopt a research- yet data-driven approach, I remained mindful of previous literature throughout this iterative process, to ensure sensitivity and vigilance to any nuanced elements of the data (Braun & Clarke, 2006; Tuckett, 2005). Notes were systematically made throughout all of the transcripts but particular attention was paid to topic areas related to the research aims. These were done using colour-coding initially. For example, any bodily-related reference (e.g., weight-gain, breast size) was annotated (e.g., “*Well at the moment, I’m in between looking fat and pregnant*” [Rachel, R-16.03]). Remarks related to general appearance such as hair and skin changes or stretch marks were commented on (e.g., “*...mine [hair] feels a bit drier but it’s quite wild anyway*” [Claire, C-31.03]). For exercise, this included any comment related to fitness or physical activity (e.g., “*My thing was can I carry on? Do I stop right now and do nothing for nine months?*” [Nicola, N-16.03]). Having made notes throughout the transcript, it became apparent where there were topics that had not formed part of the original research aims (i.e., sources of information for pregnant women and concerns around the physical symptoms of pregnancy). An extract from one interview [N-16.03, p. 2-3] can be found in Appendix H, which documents the annotated notes in the margins, prior to being coded³⁰.

STEP 2: CODING

A decision was again made to code into multiple categories, rather than exclusively into one category. This was essential for, at times, remarks were made in one sentence that covered more than just one topic of interest. For example in the following comment, “*But I’m just now more conscious like...a week ago someone said ‘oh turn to your side, can I have a look’...*” [Nicola, N-16.03], the earlier remark referred to personal feelings about body image but then moved on to discussing appearance-related commentary in the same sentence. As per the media text study, coding was primarily data-led, guided by the characteristics within the data. Initially, semantic coding assisted in describing what was happening in the data and can be illustrated in Figure 6 as an example, whereby a chunk of text was coded alongside:

Data extract	Codes (semantic)
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³⁰ The first page has been omitted as it contains personal information.

<p><i>P: I feel quite comfortable about it really. Because I've always been quite lucky with my weight, that I haven't really had to try really hard. I think I must have good genes. But I've enjoyed getting my bump. I'm liking it now it's at the stage where it's a bit more visible. To start with you go through that period where you just feel a bit fat and it's that change of your body isn't it. But yeah I've been kind of fortunate that I haven't put a lot of weight on elsewhere because I was quite sick the first 12 weeks so that's maybe why I was quite lucky enough not to put too much on. [Charlotte, C-23.03, p. 1]</i></p>	<p>Comfortable with body change Feels lucky – not gained weight Enjoyed bump growth Prefers a visible bump Transition from initially feeling fat Perception that sickness prevented weight gain</p>
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Figure 6: Data extract with semantic codes applied.

Once semantic codes had been noted throughout the transcript, a coding summary was produced in a separate Word file for each participant, which included colour-coding, according to whether the codes related to body image or appearance (including that of appearance-related commentary) exercise, and / or media portrayals. In the example provided in Appendix I, the page shows coloured tabs of paper which illustrated appearance-related codes in orange and exercise codes in green. These coloured tabs did not dictate the way in which the analysis was shaped, and coding was not theoretically-targeted to a specific research question, but this simply made it easier to find extracts related to specific topic areas once the coding process was complete.

The transcript was systematically examined on a subsequent occasion; this time with the aim of searching for latent codes. This was achieved using my own interpretation and informed by previous research that has already been alluded to in this area. Once semantic and latent codes had been generated, this second stage was concluded by creating a further Word file for each participant, with a full list of codes, together with relevant extracts of the data presented alongside. An example of a coding summary, which includes both semantic and latent codes, can be found in Appendix J. Using the same interview as discussed in Figure 6, the following extract provided in Figure 7 includes both semantic and latent codes alongside questions from the interviewer and responses from the participant. Latent codes are highlighted in bold as being distinctive from the semantic codes:

Data extract	Codes (semantic and latent)
<p>I: So tell me about those feelings when that bump first became visible.</p> <p>P: <i>I was quite excited. I really liked it. I wasn't at all bothered about the fact that my tummy was getting bigger or anything. I quite liked it. Even now it's exciting to see the changes week by week. I was quite happy with it. I just wanted it to come one, yeah.</i></p> <p>I: And when your bump appeared, how did this make you feel? Differently? As you mentioned before about trying to hide your appearance?</p> <p>P: <i>Yeah I felt different then. Once it's a bit more significant to me that's when the whole pregnancy started sinking in I think...I've started feeling kicks and things and I think it was all...It took really quite a while to sink in actually I was pregnant. So I think once you've got more of a substantial bump, I think yeah I did. I didn't mind wearing tighter tops and things because I then didn't feel just that paunchy-type shape. [Charlotte, C-23.03, p. 4]</i></p>	<p>Excited about bump</p> <p>Excited by changes</p> <p>Willing for the changes</p> <p>Bump reaffirms reality of pregnancy</p> <p>Bump provides licence to display -</p> <p>Proud to display</p> <p>No longer felt that size was down to weight gain</p>

Figure 7: Data extract with semantic (non-bold) and latent (bold) codes applied.

STEP 3: SEARCHING FOR THEMES

During the process of step three, the coded data were organised into prospective themes. As per the media text study, this was achieved in several ways: some codes were essentially 'promoted' to form a stand-alone theme due to their importance whilst others were clustered to form relevant themes where patterns across the data set were apparent (e.g., a prominent theme named *resigning control* included codes that were both relevant to appearance and bodily-related changes and the perception that the women's babies were to become first priority, over their own needs). Some themes were categorised as sub-themes and grouped under one overarching theme, whilst others remained separate or were discarded, as suggested by Braun and Clarke (2006). Whilst in the process of step three, I encountered codes around the role of the midwife and sources of information and support. These themes

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were not necessarily specific to the research questions, however appeared important to the women interviewed. These were categorised separately and placed within a larger thematic map, generated as part of step three. Throughout this active process, it was important to think about the potential relationship between themes, in terms of building an analytic narrative. In Figure 8, an initial thematic map documented potential themes and relevant codes regarding patterns in discussions around appearance during the early trimesters and the women's ability to exercise. In Figure 9, a thematic map documented patterns in discussions around social comparison, appearance post-partum, sources of information, and feelings of control in terms of one's pregnant body and its appearance³¹:

³¹ These two maps (Figure 8 & 9) were originally drawn on one large A3 sheet however, this could not be reduced to fit adequately into this manuscript, therefore have been displayed as two separate maps.

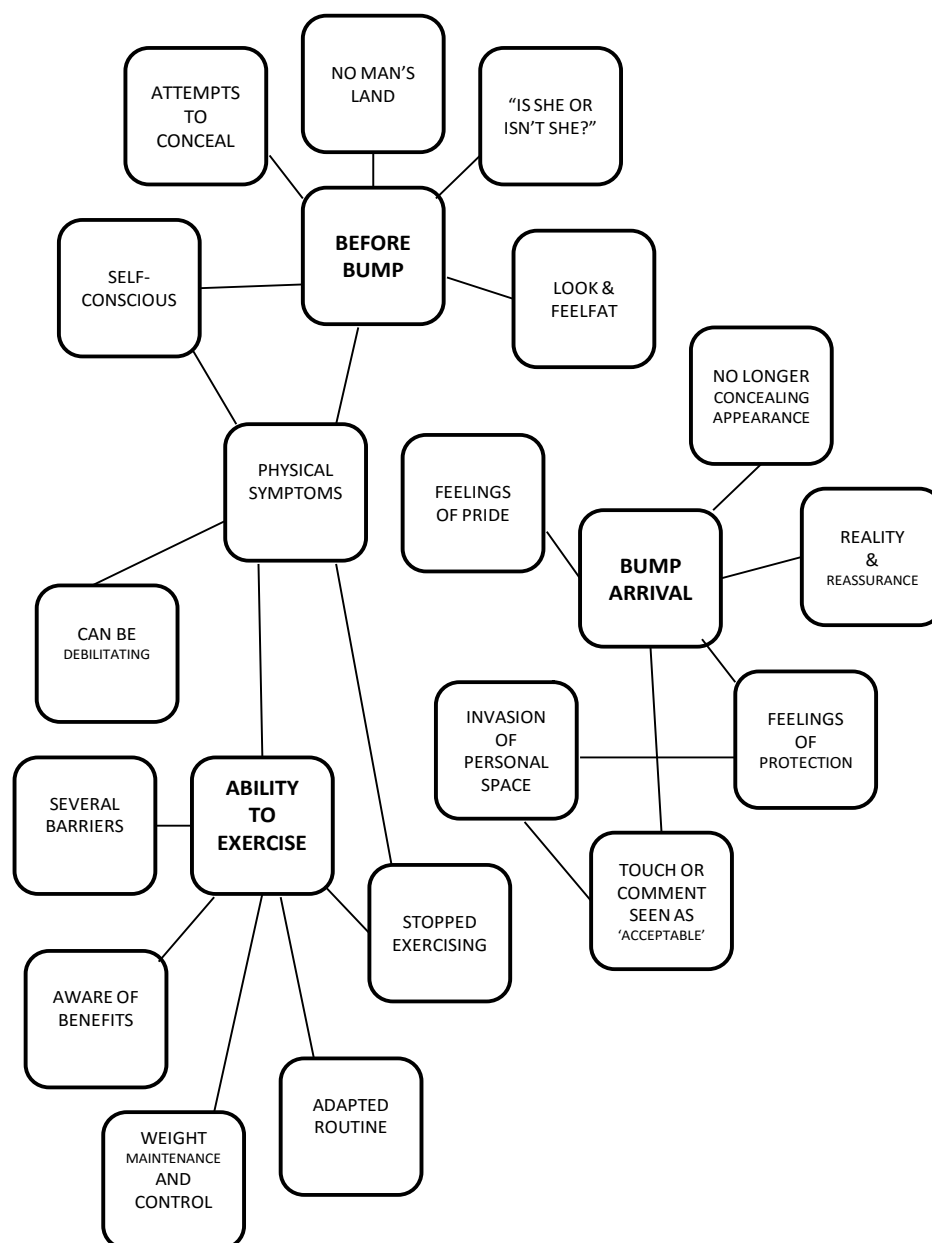


Figure 8: Initial thematic map featuring patterns in discussions around appearance during the early trimesters and the women’s ability to exercise.

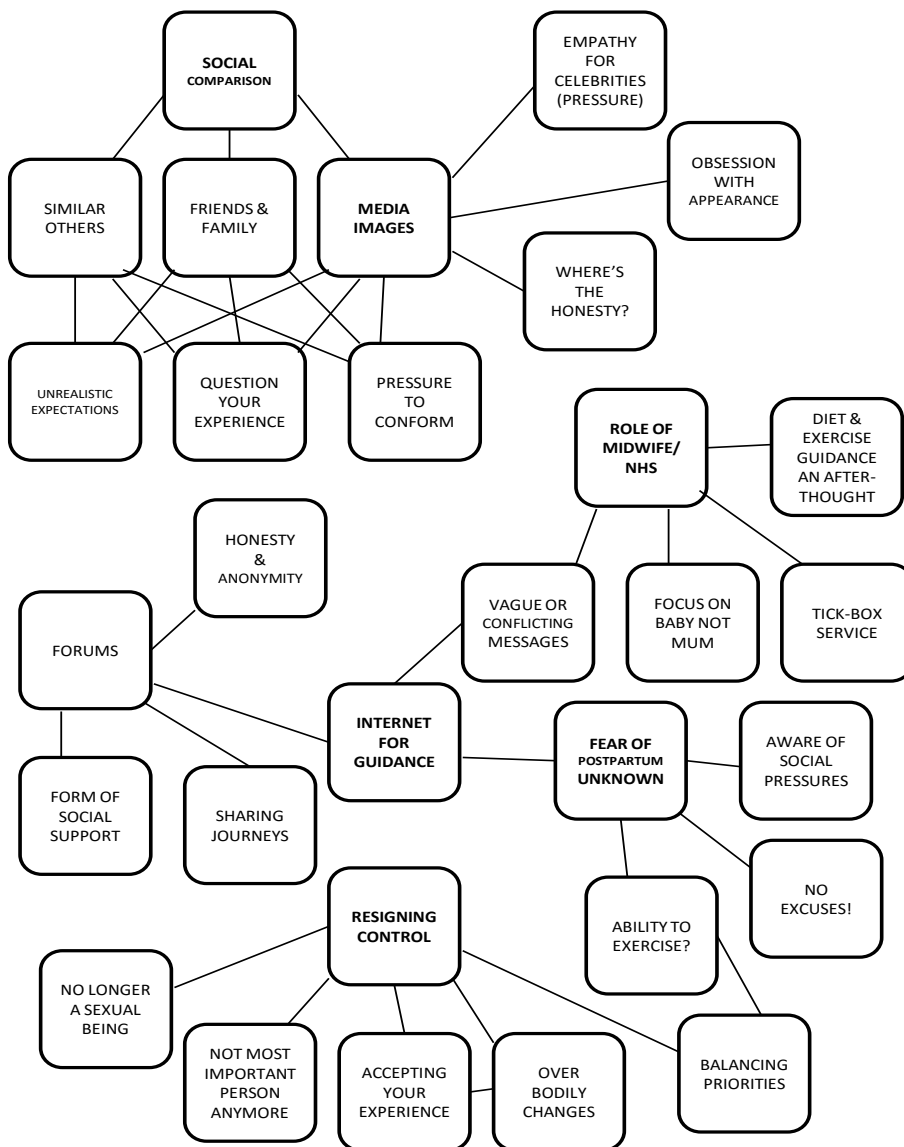


Figure 9: Initial thematic map which featured patterns in discussions around social comparison, appearance post-partum, sources of information, and resigning control in terms of one's pregnant body and its appearance.

STEP 4: REVIEWING POTENTIAL THEMES

As per the media study, this stage involved an examination of the quality of the themes proposed, the relevance of meaningful data attached to each theme, and whether the themes would work in relation to a) the coded extracts and b) (the entire data set). This process was undertaken by both me and my Director of Studies. Once the process of reviewing the themes was complete, extracts were checked to ensure a coherent pattern was evident. A further thematic map was generated to begin to reflect a more coherent and concise account within the data set and is presented in Figure 10:

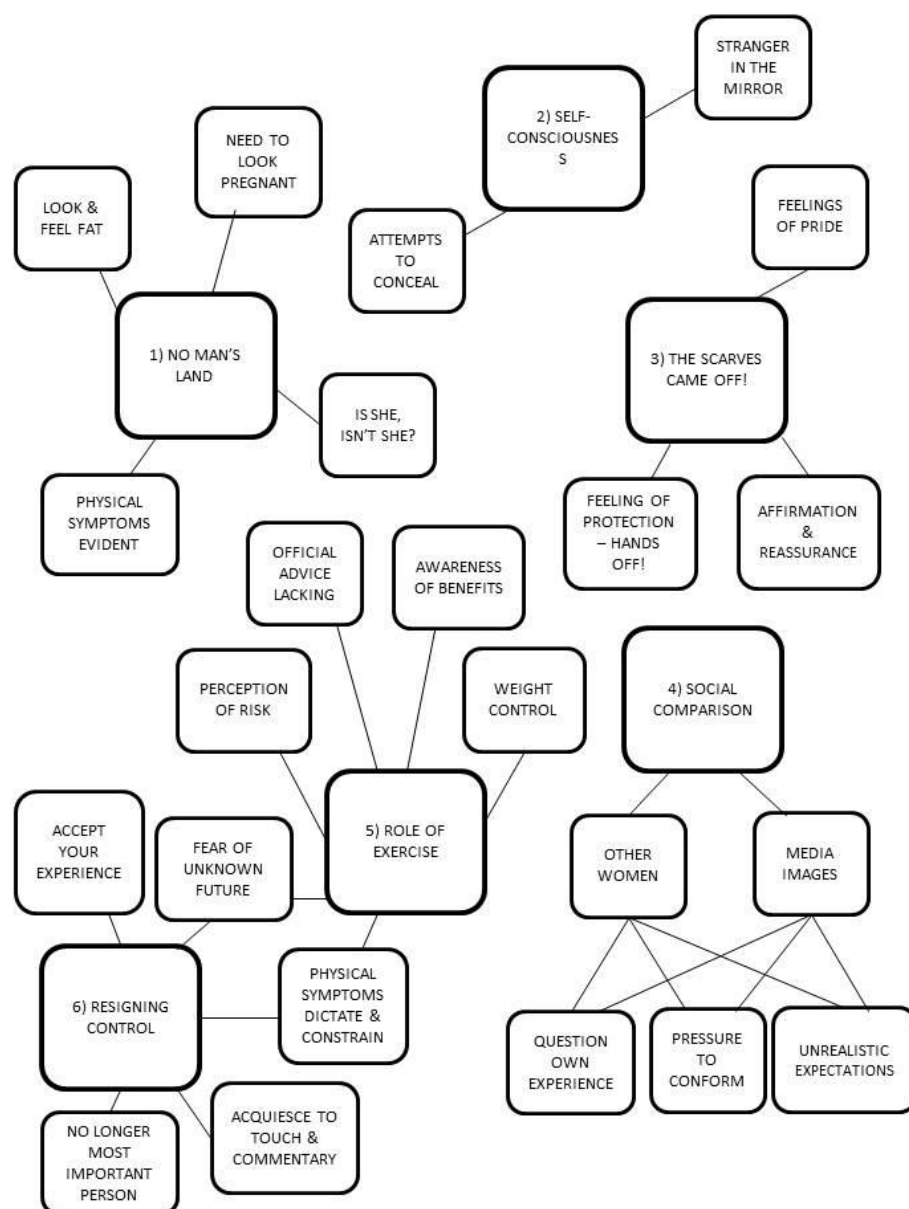


Figure 10: Thematic map detailing reviewed themes as part of stage 4.

STEP 5: REFINING THEMES

This stage involved refining themes and naming them. Each main theme was defined and clearly named as a means of constructing a story. Some names derived from a participant's direct quotation, which appeared to reflect the essence of the theme (e.g., "The scarves came off!" was an illustration of one participant's delight when her bump finally appeared. This will be discussed later in the analysis in Chapter 9). Each theme was related back to the research questions, with illustrative extracts selected for each. This final level of organisation created a timely opportunity at which to commence a written account to accompany each extract and produce a final thematic map, which is presented in Figure 11:

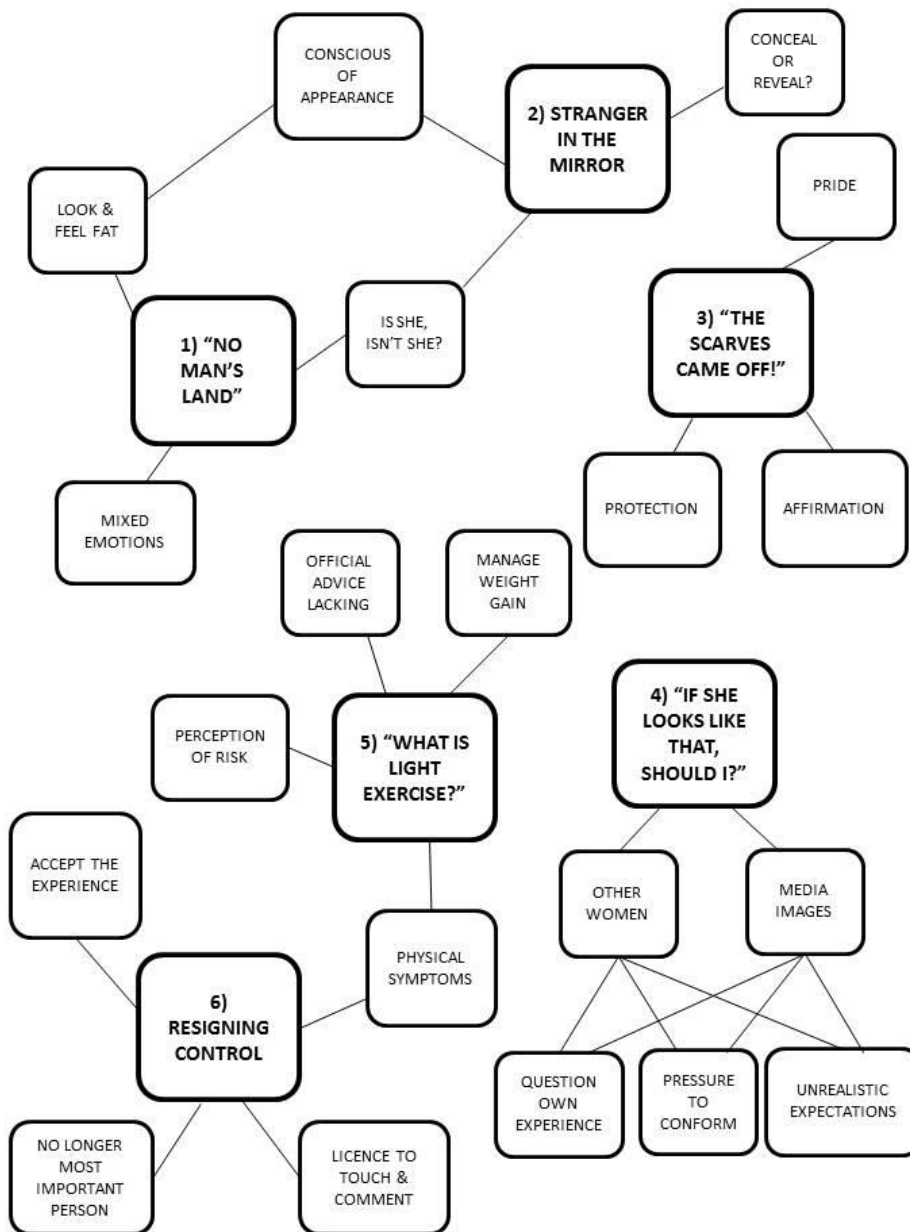


Figure 11: Final thematic map, created following completion of stage 5.

STEP 6: PRODUCING THE WRITTEN REPORT

The final stage of the analysis involved producing a written report of the findings. The full analysis and discussion will be presented in Chapter 9. Even throughout this stage, decisions needed to be made in terms of deciding the order in which to present the main themes and sub-themes or which extracts to use to illustrate each theme. It remained crucial to remain true to the original extracts to retain meaning, whilst reflecting on broader meanings within existing qualitative research. The final map in Figure 11 included both examples of sematic and latent themes.

METHODOLOGICAL RIGOUR IN THE QUALITATIVE ANALYSIS OF STUDY 2

Lincoln and Guba (1985) are said to have offered the most definitive critique of applying conventional quantitative criteria for scientific rigour to qualitative research (Smith, 2004). They argued that it is inappropriate to apply criteria from a positivist paradigm to naturalist research. The remainder of this chapter will therefore address methodological rigour in terms of their alternative *trustworthiness*; which Lincoln and Guba (1985) argued is demonstrated through credibility, transferability, dependability, and confirmability criteria. This concept of trustworthiness was felt to be appropriate for this study, given that a new realist approach places importance on both individual meanings and the construction of knowledge through shared communication.

CREDIBILITY

The criterion of credibility³² addresses the issue of 'fit' between the views of respondents and the researcher's interpretation (Schwandt, 2001). One important process is to establish an 'audit trail' to verify the rigour of the interview process, and credibility and confirmability of the data collected (Guba & Lincoln, 1981; Patton, 2002). This comprises an accurate record of the various stages of data collection and analysis which would subsequently allow another researcher to follow on with clear directives as to how conclusions were reached (Walsh & Baker, 2004). All methodological directives are detailed within the earlier method section of this chapter.

In addition to this, in the present study, each participant was offered a copy of their transcript to review; a process also termed as a *member-check* procedure (Koch & Harrington, 1998). In reality however, it is not always feasible to have participants check the data collected or consider the outcomes drawn from the research (Koch & Harrington, 1998). In the present study, no participant was able to commit to reading a full interview transcript or read detailed findings, mostly for time reasons and particularly as some of them were due to give birth imminently. Hence, a verbal summary of the discussion (topic by topic), was provided at the end of the interview, which allowed participants to concur with or dispute emerging interpretations immediately. This was particularly useful as a means of reassuring participants that the researcher's initial understandings were accurate. This was audio-recorded (as part of the end of the interview) and reflections were documented in my field notes following the interview. When analysing the data, it was important to use verbatim quotes (in keeping with the verbatim transcript) from the interviews when generating codes and themes, in order to verify the authenticity of the findings (Polit & Hungler,

³² comparable with the positivist term *internal validity*

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1998). The fact that interviews were audio-recorded and directly transcribed provided a guarantee of at least verbal accuracy (Koch & Harrington, 1998). In addition to this, full discussions and a review of the coding process were had between researcher and supervisors. This is addressed in more detail when discussing inter-rater reliability issues later in this chapter.

TRANSFERABILITY

Transferability³³ refers to the generalisability (or similar meaning) of qualitative inquiry on a case-by-case basis (Tobin & Begley, 2004). As an interpretation, this term refers to whether research findings are applicable to other settings or populations, given adequate description of context, which qualitative research is frequently criticised for lacking (Smith, 2004). In view of this criterion, it is important to acknowledge that recruiting from a purposive sample means that the findings are only likely to apply in the setting in which the research is conducted (Smith, 2004); in this case, with nulliparous, pregnant women. Hence, the findings must be interpreted with regard to the characteristics of my purposive sample and the participatory nature of the research. That said, if a researcher is tasked with providing sufficient descriptive detail of the study setting, it may be possible to determine the applicability of the findings elsewhere (Smith, 2004). Hence, in order for the reader to visualise the context in which this research occurred, the above method section descriptively details the sampling strategy and rationale, together with individual details regarding chronological and gestational age, gender as an obvious characteristic, ethnicity, occupation, and self-reported fitness level. These details were recorded in my audit trail, as suggested by Guba and Lincoln (1981). Having documented such explicit details, it is theoretically plausible that both findings and implications may later be assessed in terms of a cross-cultural study or research with women of varying parities.

DEPENDABILITY

The concept of dependability³⁴ is achieved through a process of auditing (Guba & Lincoln, 1985; Tobin & Begley, 2004). It is crucial that researchers are responsible for ensuring that the process has a logical flow, is traceable, and is clearly documented (Schwandt, 2001). The audit trail forms a vital part of recording all methods employed and decisions taken (Smith, 2004). Findings are auditable when an investigator's decision trail provides sufficient detail for another researcher to follow; this may also imply that another researcher might arrive at the same or comparable conclusions given the investigator's data, perspective, and situation

³³ comparable with the positivist term *external validity*

³⁴ comparable with the positivist term *reliability*

(Sandelowski, 1986). Hence, the method section of this chapter and this current section on rigour detail the sampling strategy and rationale for this study, the manner in which the data were collected, and how the data were coded for analysis. Chapter 9 will document a full discussion of the interpretation and presentation of the findings.

CONFIRMABILITY

Confirmability³⁵ is said to be complete when credibility, transferability, and dependability issues have been addressed (Lincoln & Guba, 1985). The main concern is to ensure that my interpretations are clearly derived from the data and not my imagination (Tobin & Begley, 2004); thereby showing the way in which interpretations have been reached, via the research process (Koch, 2006). This includes my research decisions and influences. Influences will be discussed in the afterword at the end of the thesis.

In order to record potential misconceptions or personal 'biases' (as often referred to in positivist research), notes were written following each interview, regarding personal thoughts on each interviewee, the rapport developed, the setting in which the interview took place and ethical considerations. I wrote about how I thought participants appeared to have perceived me, both as a researcher and a mother, if they had asked. With regards to the setting, I documented my thoughts in terms of how relaxed the participant appeared to be, whether they were being interviewed in their home, their place of work, or in a research lab at the University. There seemed to be a distinct connection between rapport and the length of time the interview lasted; a longer interview appeared to signify a more relaxed atmosphere and good rapport between myself and the participant. It was also particularly important for me to reflect upon participants' conversations about their antenatal health care and my own experiences as a mother. For some women this became an opportunity for them to vent their frustrations at the current level of care they were receiving. Hence, it was important for me to ensure that I responded with empathy, whilst remaining fairly detached and resisting the temptation to openly compare their experiences with my own.

INTER-RATER RELIABILITY

As has been discussed in the method of Study 1, I was primarily responsible for the coding process. Coded extracts were available to and examined by the supervisory team when discussing theme generation. An audio recording of each interview helped to reduce variation in interpretation by providing a source of

³⁵ comparable with the term *objectivity*

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consistent information during transcription (Boyatzis, 1998). In addition, collaborative decisions were made to review themes to ensure i) support for each candidate theme, ii) that there was sufficient data to form a coherent pattern, and iii) to identify clear distinctions between themes (Braun & Clarke, 2006). The process of refining themes from earlier thematic maps (see Figures 4 and 5) to a final map (see Figure 6) took place following discussion between me and my Director of Studies.

Baker, Wuest, and Stem (1992, as cited in Tobin & Begley, 2004) warned against using rigid member-checking procedures when analysing data, which, instead of contributing to trustworthiness could lead to a lack of rigour, particularly if there is any confusion in recognising the philosophical approaches adopted (i.e., that of a new realist perspective in the present study). This remains an inconsistency and contradiction that has not been addressed by Lincoln and Guba's work (Tobin & Begley, 2004) and therefore it was felt that taking advice from Clarke and Braun would be the appropriate way forward (see Chapter 5 where this advice has previously been discussed).

REFLEXIVITY

As has been explained earlier in this chapter, qualitative research aims to elicit knowledge, understanding, and the meaning of experiences through the lens of the individual (Silverman, 2001). The use of semi-structured, in-depth interviews are commonly used as a means of gathering data in qualitative research (Silverman, 2010). The researcher is a fundamental component of the research process and in order to enhance learning of this process, the researcher must engage in reflexivity, characterised as critical self-awareness and self-appraisal (Koch & Harrington, 1998). This process facilitates a critical outlook towards positioning the influence of researcher context and subjectivity on study design, collection and analysis of data and subsequent presentation of findings (Gough, 2003).

It is important to reflect upon my motivations and interests and how these might have impacted on the research. Some of this will be discussed in the afterword. In terms of the choice of topic, it was crucial for me to gain an insight into women's subjective experiences before attempting to determine variables (in a later quantitative study), which I might have felt were pertinent. Although it is reasonable for multiple meanings to be gleaned from a qualitative response given by these women, the subjective nature of the interview allowed me to fully understand what they were experiencing and the social context in which they were surrounded. The choice of interview questions were, as previously discussed, partly informed by the findings of the previous media text analysis and those of earlier qualitative studies, although many questions were specifically focused on eliciting responses from first-

time pregnant women about their expectations and experiences of pregnancy. I was particularly motivated to understand what this period might yield in terms of women's emotions (i.e., whether they found the experience challenging, fulfilling, or isolating perhaps).

Self-awareness can help inform data collection and develop rich understandings of a phenomenon, particularly if the researcher has experience of the subject matter under study (Gough, 2003). Having experienced pregnancy on two occasions, this facilitated a sense of respect and feelings of empathy for these women when they spoke of their experiences, particularly if they had found certain aspects troubling (e.g., debilitating physical symptoms). These subjective reflections were recorded in field notes made following the interview, which not only set the interview into context, but helped inform the data analysis, in addition to the interviewees' responses. It is plausible that having experienced pregnancy myself also allowed me to consider prompts and further questions with the women, which might not have been thought of by a researcher with no subjective understanding. On that basis alone, it is plausible that mutually-understood meanings between myself and participant evolved and were fundamentally constructed through this unique interaction.

This follows on with a discussion about *functional reflexivity*, termed by Wilkinson (1998), which relates to one's role as the researcher, but focuses on the interactions between participant and researcher. Gough (2003) argued that it is practically impossible to escape an inequality in the relationship (see Parker, 1992) given that the researcher determines the research aims, generates the interview schedule, and organises the research format. Hence, I endeavoured to keep all conversations informal and allow the women to communicate freely and openly about their experiences and perceptions. Although it may appear that my position as researcher would inevitably be favoured, there were times when participants departed from the script entirely or asked me questions that I felt rather uncomfortable answering, particularly from those in the early stages of pregnancy. For example, having approached the subject of antenatal care, one woman asked after the interview for advice in terms of questions to ask her midwife. This was difficult as she had just spoken about specific body image-related concerns and tested my ability to remain empathetic but detached, particularly when she remarked "well you'll understand what I'm talking about". Reasons for any change in topic direction, certain decisions or personal reactions were recorded in field notes; these are all argued to enhance reflexivity and greater understanding of the phenomenon under study (Gough, 2003). If it was appropriate and without breaking participant confidentiality, issues raised were brought back to the supervisory team for discussion.

SUMMARY

In conclusion, this chapter has offered a comprehensive discussion of the study's design and aims, interview technique employed and method of qualitative analysis followed. A detailed report of the ethical considerations for both the researcher and women involved and a full account of the procedure then followed, before a final rationale for qualitative rigour and reflexivity was presented. The analysis and discussion for this study, together with illustrative extracts, will follow in Chapter 9.

CHAPTER 9

STUDY 2: QUALITATIVE ANALYSIS AND DISCUSSION

INTRODUCTION

Key advice from Braun and Clarke's pattern-based method is that a theme should "capture something important about the data in relation to the research question, and represent some level of patterned response or meaning within the data set." (2006, p. 82). Hence, the nature of the theme was at the heart of what I was trying to address and prevalence was not necessarily the most important criterion for determining a theme. My stance throughout the process of the present research was that knowledge is context-bound but that social processes are part of that level of materiality that underpins patterns of meaning. Making clear one's theoretical position is argued to be a crucial aspect when explaining the nature of the analysis (Holloway & Todres, 2003). This chapter will first present the main findings, incorporating illustrative extracts³⁶, before moving on to interpretation of the themes in the context of existing research and theory. Strengths and limitations, together with thoughts for future research will be addressed, before finally considering how this research enhances the current body of knowledge. Research questions were divided into four main topic areas and are outlined as follows:

1. Body Image in pregnancy: What are women's thoughts and feelings about their bodies during pregnancy?
2. The significance of external social influence on perceptions and behaviour: To what extent do support and / or pressure from family / partner / media have an influence on women's body image and exercise behaviour during pregnancy?
3. The role of exercise in pregnancy: What perceptions do women have about exercise in pregnancy (i.e., what motivates them or what barriers present?)
4. Media representation of the pregnant body: What are women's perceptions of the way in which the pregnant body is represented in the media?

³⁶ line numbers have not been included for each extract as the full interviews have not been included in the Appendices.

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In total, six themes arose from analysis of the data and sequentially appear to form an analytic narrative: 1) “No man’s land”, 2) Stranger in the mirror: feelings of self-consciousness, 3) “The scarves came off!”, 4) Negotiating social comparison: “If she looks like that, should I?”, 5) “Light exercise? What is that?”, and 6) Resigning control. These themes give the reader a sense of patterned responses across some of the progressing stages of pregnancy in rich detail. As discussed in the previous chapter, Figure 11 illustrated each main theme, together with sub-themes that were clustered together to form an explanation.

1) “NO MAN’S LAND”.

This abridged quotation summarises the women’s feelings prior to their bumps becoming visible, both to themselves and others. During this time, they reported *looking and feeling fat*, where they had become increasingly aware of the weight-gain or feelings of bloatedness, despite there being no other apparent signs of pregnancy. This was illustrated by Phoebe and Claire respectively when describing their appearance between the period of conception and the arrival of their bumps:

Phoebe: *“yeah, where I could have looked like I’d eaten a few too many pies.”*
(P-22.03)

Claire: *“It’s [points to stomach] more just...podgy probably is quite a good word cos you do just feel like it’s a bit flabby.”* (C-31.03)

Even for those who felt relatively relaxed with their appearance prior to becoming pregnant, the period when their bump arrived was patently preferable than the period beforehand:

Charlotte: *“...I’ve always been quite lucky with my weight that I haven’t had to try really hard. I think I must have good genes. But I’ve enjoyed getting my bump; I’m liking it now it’s at the stage where it’s a bit more visible. To start with I think you go through that period where you just feel a bit fat and it’s that change of your body isn’t it.”* (C-23.03)

Naomi: *“I was fine, it was fine. I didn’t mind it [people wondering if she was pregnant]. I suppose I did rather them think that I was pregnant rather than just piling on weight...so if that’s what they thought [pregnant] then fine.”* (N-29.03)

This feeling was not specifically restricted to the first trimester. Although in the second trimester, the bump was not always evident for some first-time pregnant

mothers-to-be. At 16 weeks gestation, Rachel described her thoughts about how her body size and shape was changing:

Rachel: "Well at the moment, I'm in between looking fat and pregnant...I want people to see that [bump] now, but a few weeks ago I just felt fat and was just thinking that people are gonna think that I'm just fat." (R-16.03)

For some women, this was to be a time of conflicting, mixed emotions. The early stages were a period when women undoubtedly knew they were pregnant, yet their bodies did not show the obvious sign of a bump. This led to coinciding feelings of elation and discontent. The presence of a baby bump was, for some, the point at which they could start to appreciate their current pregnant status:

Claire: "...we're just out of that 12 weeks and you kind of want now for there to be a bump now or to feel it, because you kind of feel in no man's land...I'm not at that point when I can start feeling it, so it's, not horrible, but it's like you can't quite fully enjoy it." (C-31.03)

Feelings of discontent tended to relate to either the increased weight-gain and/or experience of pregnancy-related symptoms (such as nausea or tiredness); despite there being no apparent evidence that it was attributed to pregnancy. For some, the initial few weeks were particularly unpleasant in terms of how some viewed their changing appearance:

Sarah: "Yeah it was kind of a bit strange because I'm not a thin person naturally. So it was in the middle of...people looking at you would say 'Are you just fat?' or 'Are you actually pregnant?' and trying...they're looking at you to try and work out what's going on and then you're just expanding and expanding." (S-09.03).

Charlotte raised the issue of mixed feelings when she described her apprehension at the thought of having to disclose her pregnancy publicly before her first scan. Due to the size of her pre-pregnancy frame, she was mindful that others may start to notice the appearance-related changes taking place:

Charlotte: "I think initially, well I just felt very bloated...and we didn't want to tell anybody so you've got kind of mixed feelings really. Obviously quite excited

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but obviously you know your body's gonna be changing but you can't tell anybody why...I've always had a flat tummy and I thought I was getting, like I say I felt bloated but you feel like you've got a bit of a paunch (laughs) and I thought people would probably notice because I have always been fortunate enough to have a flat tummy.” (C-23.03)

Heidi described her first trimester in terms of an increased awareness of weight-gain, coupled with the anxiety about having to disclose her pregnancy, which was made all the more poignant when she reflected upon her smaller body shape pre-pregnancy:

Heidi: “You spend the first 12 weeks or however long, there's nothing there and it's really difficult because you can't tell anyone but at the same time you don't have a bump but you're just putting on weight and that's kind of the difficult point. Because it's like you are putting on weight but you're putting on body fat really and you're just kind of changing shape a little bit and I've always had quite a flat stomach.” (H-17.03).

In addition to anxieties around increased weight-gain, pregnancy-related physiological symptoms (such as sickness, tiredness and weight-gain) were difficult to comprehend when there was no bump. For some this continued well into their second trimester. This made it hard for them to value their pregnancy or understand why their body was changing, without a bump. It was only when a mother-to-be experienced a pregnancy-specific indication (such as the movement of the baby or the obvious sign of a bump) that the experience of pregnancy became real (this will be discussed in greater detail in theme three). Hence women tended to remark that *if they didn't look pregnant, they didn't feel pregnant*. Sarah illustrates the difficulties of coping with unwelcomed pregnancy-related symptoms and weight-gain, despite not 'looking pregnant'; that is until she felt the baby move:

Sarah: “I was when I felt the movement that's when it became more ‘Oh yeah there's something growing inside of me’. Until then it just felt like I was getting tired-er and bigger, the exhaustion and the sickness at the beginning you know is for a reason but you can't quite understand why. It's like I first got pregnant I didn't think I was pregnant, I thought it was in my head.” (S-09.03).

Nicola described the anticipation she felt waiting for her bump to become visible, before which she remarked on not being able to feel pregnant. The arrival of her bump was clearly a momentous event for her:

Nicola: "Yeah it took a while I suppose for anybody else to notice it [bump] and for the first two months in, I'm thinking 'Oh when am I supposed to get a bump?' bearing in mind I couldn't ask anybody cos you know, nobody knew at that point. And I actually remember, I remember the actual day. It was like one of those moments you write down cos you're gonna look back on this in years...I was...thinking 'Why haven't? Where is it? I don't feel pregnant, I don't look it, I don't feel it' and I'm laid flat back and I sort of breathed in and there was a tiny little bump and I thought 'Oh it's there!'" (N-16.03)

Interestingly, Nicola also remarked upon her partner's reflections about how her body shape was changing. She said that whilst her partner's comments had been positive throughout, she described one of his observations during the early stage of pregnancy. Consistent with how many of the women were feeling, his remarks seemed to reflect that of increased weight-gain as the most noticeable change:

Nicola: "It was maybe only a week or two ago [approximately 20 weeks] when he said 'Oh maybe you do actually look a little bit pregnant now'. He hasn't really noticed the change much. He just says 'Well you don't really look pregnant. You just look like a sort of normal curvy woman with a bit of a tummy at the moment. It's not like easy to spot kind of thing'." (N-16.03)

This theme specifically relates to the earlier stages of pregnancy, although not necessarily restricted to the first trimester (i.e., up to 12 weeks). This was a period during which women were undergoing appearance-related changes that bore resemblance to a person gaining weight rather than a person experiencing pregnancy. Pregnancy-specific symptoms, without the evidence of a bump, often made it harder for women to appreciate their pregnancy experience. For some, this was a time of conflicting emotions. Women felt the joy of knowing they were pregnant, but also restlessness as they quietly anticipated the arrival of their baby bump, despite many being unable to discuss their feelings with others, outside of their immediate family or partner. This, for many, led to feelings of self-consciousness and measures to conceal their pregnancies, which will be discussed in the next main theme.

2) STRANGER IN THE MIRROR – FEELINGS OF SELF-CONSCIOUSNESS

During the early stages, women described feeling insecure in terms of their appearance. This feeling began to manifest when their bump was not clearly visible and was often attributed to two factors. First, the women perceived themselves as looking fat or feeling fat (but not pregnant), as discussed in the earlier theme. In addition, they were becoming acutely aware of others' uncertainty about their changing appearance. These two factors brought about an overwhelming feeling of self-consciousness. For the women, there were two repercussions: i) the sense that they were losing their pre-pregnancy identity, as reflected in the main theme's title "Stranger in the mirror" and ii) the urge to conceal various parts of their bodies, possibly due to the perception that their pregnant body was no longer a sexual one.

On occasions, women spoke openly about feelings of self-consciousness when evaluating appearance-related changes. This resulted in a period of self-reflection and self-adjustment in their new identity as a pregnant woman. Heidi and Naomi's quotes clearly illustrate that their pregnant body is no longer perceived as sexual:

Heidi: *"...There's this thing whereby my boobs are a lot bigger and you know he [partner] is appreciative of that. But I think I'm at that stage where I'm starting to look at them as my baby-feeding things now...I'm conscious of the fact that I have nipples the size of a small country and it's like that's what they're there for and that's why they're changing. So he's appreciating them in an aesthetic way and I'm kind of saying 'you need to leave them alone because they're going to be having to feed dinner to someone quite soon'."* (H-17.03)

Naomi: *"Your boobs go from being a sexual thing to...I'm quite aware now that you can't really go near them without [implies leaking with her hands]. It's not very nice. So yeah it really does change the way that you view yourself, in a sexual way definitely."* (N-29.03)

Phoebe: *"It's not me. I'm used to seeing me as me. I think I just need to get used to the change a little bit more to feel a bit more comfortable."* (P-22.03)

Sarah: *"Keeping your own identity whilst you're pregnant is really important because that's who you are and I think it can be difficult sometimes."* (S-09.03)

Gill: *"I don't want to change my look and my wardrobe just because I'm pregnant. I don't want to not be me just because I'm pregnant."* (G-30.3)

Women felt self-conscious when they either perceived others to be quietly questioning their changing appearance, or reflected on those who chose to comment on their appearance as the trimesters progressed. This was a shared experience

amongst all the women; it was perceived as though people were wondering 'Is she? Isn't she?' but had not perhaps approached them to ask:

Heidi: *"And there was this kind of funny period whereby obviously it kind of gets out by osmosis, so some people knew and some people didn't know and some people would look at me funny cos you know there gets to a point when there is a bit of a bump and they don't wanna say anything"* (H-17.03)

Claire: *"...Someone at work had said to another colleague that I have started to look a bit podgy. I mean I haven't told work yet cos obviously I'm still really very early...But I'm a bit more conscious that may be I'm not holding myself in anymore cos you kind of think well it doesn't matter now, I'm gonna get fat. So tomorrow when I'm back at work I'm gonna be feeling that I've got to hold myself in a bit more [laughs]."* (C-31.03)

Phoebe wanted to tell her clients at work that she was pregnant but was aware that instead of being asked directly, she was simply being observed:

Phoebe: *"Clients looked at your face and then went almost immediately to your stomach and I thought, 'Yeah ask me, ask if I've eaten too much or something [laughs] because I want to tell you'...But I do think that a lot of people make the mistake of asking people and then it turns out that they're not and actually they've put a bit of weight on or they're bloated or something. So I think people shy away from asking, definitely."* (P-22.03)

Appearance-related self-consciousness was not necessarily constrained to the early trimesters. As women moved into the latter stages of pregnancy, they described moments of self-reflection about the transformation they were experiencing. Some longed for their pre-pregnancy body whilst some debated whether their pre-pregnancy body would ever return:

Naomi (three extracts): *"You are aware of the person that you look in the mirror and see being completely, amazingly different to the person that was there six months ago and then wondering if you'll ever get back to there or how it's all going to go in the future."* (N-29.03)

"The more huge I feel that I've got, the more I'm wondering whether I'll ever get back to the person I was before." (N-29.03)

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“My boobs grew before my belly did which was quite nice. But now they’ve changed shape and not necessarily in a good way, so I’m wondering whether they’ll ever go back to being the same...I don’t know how they’ll end up.” (N-29.03)

Sarah: “I just wanna be back...to me and then the main place I’ve seen...is my face and I found that quite difficult to deal with because it’s...everyone looks at your face and that’s what changed...cos you can always disguise your body but everyone sees your face. So it’s knocked me seeing photographs of myself whilst being pregnant.” (S-09.03)

Clothing was strategically used to disguise certain areas of their bodies where women felt most self-conscious. This was not always confined to the stomach area. Some chose to do this because they had not yet disclosed their pregnancy to others (e.g., their employers). Phoebe, who worked as a hairdresser and therefore was always visible to her clients in a mirror, described how she used scarves to conceal parts of her neck and face, as this area was a clear indicator where she had gained weight. The use of scarves seemed to be a common tool of deception and illustrates how clothing was used to deal with the image they faced of the ‘stranger in the mirror’:

Phoebe: “I try not looking in the mirror (laughs). It doesn’t bother me too much but especially at work the mirrors aren’t very flattering and obviously we have to look in the mirrors, so I try to wear scarves and things to try and...I probably am a bit conscious about it actually, yeah.” (P-22.03)

Gill: “I was more conscious of my stomach, particularly the first 12 weeks before you can tell anybody and hiding it because people would notice on me, because I’m always so slim...I also wore scarves around my neck and that was my biggest concern was people finding out before I was ready to tell them...and people aren’t sure whether you’ve just put a bit of weight on or whether you are pregnant.” (G-30.03)

Other women chose to wear loose-fitting (floaty) clothes to conceal their stomach area whilst awaiting the arrival of their bump:

Rachel: “I actually now, like see the top I’m wearing [tight-fitting], I’m not hiding the fact that I’ve got something there now, whereas before I would wear stuff to hide it. Just because I was in that in-between stage.” (R-16.03)

Charlotte: “I think because I’m quite slim, I was lucky that I could hide it very easily, whereas I know quite a few of my friends who are a bit bigger or have got a bit more weight on anyway, they seem to show quite quickly...I knew I

could hide it quite well. The only person that did notice was my mum initially. Before I'd even told her, she just thought I looked a bit bloated, yeah, which was really strange.” (C-23.03)

Naomi: “I told the staff but I didn't want the kids to know for ages. So you end up wearing baggy clothes...you know you pick up on little whispers in the classroom...so eventually, I left it a lot longer to tell the children than I did the staff...some were like, we were wondering and some were like wow that's amazing. But quite a few people did say ‘Oh we did wonder’.” (N-29.03)

Despite women's attempts to conceal their appearance, there was a unanimous distaste and dislike of traditional-style maternity wear for two reasons: for some it made them feel all the more self-conscious and for others it signified the identity of a 'mumsy-mum'³⁷; a 'look' which all of the women wished to avoid. Loose-fitting clothes were always preferred over maternity wear:

Heidi: “...I do have someone at work who said to me when I first put my maternity trousers on, and I thought ‘Well you [I] look big but you'll grow into them’ and I walked into work and she said ‘Your arse looks absolutely massive in those!’ And I went ‘Thanks very much’ cos I'll only be wearing them for the next five months! She hasn't mentioned it since, so I've probably grown into the material now [laughs].” (H-17.03)

Charlotte: “I find some of them [maternity clothes] a bit frumpy...I think it's more the style of them. They're not particularly styled. I think it's all about comfort.” (C-23.03)

Claire: “It's lucky the styles [fashion] at the minute are quite floaty. They're all the maxi dresses and stuff so it's quite good that you can probably get some clothes that aren't maternity that will do the job just as well.” (C-31.03)

Sarah: “...I haven't bought many maternity clothes because they're quite frumpy and ‘mumsy’...It's very obvious it's a maternity dress because of the way it's cut and everything and...but yeah it does feel like you've got [wearing] a big maternity bag and it's just like ‘label me now!’ [laughs]...You don't want to associate yourself with that stereotypical image of the pregnant woman! [laughs]. You just want people to treat you the same.” (S-09.03)

This theme reflects feelings of self-consciousness. For some, this was attributable to their own self-perceptions of weight-gain, for others, this was related to

³⁷ i.e., someone who dresses in a drab or old-fashioned manner

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appearance-related commentary or perceived thoughts from others. Some reflected on the positives of their pre-pregnancy appearance in comparison to the identity they currently occupied, or longed for the return of their pre-pregnancy appearance. Some reflected on parts of their body that they no longer saw as sexual. Self-consciousness about specific bodily areas meant that, in the early stages, women went to great lengths to conceal their pregnancies, at a time when they needed to keep it a secret from others.

3) “THE SCARVES CAME OFF!”

As the thematic account develops, this quotation encapsulates the women’s emotions the moment their bumps’ arrived, which were visible to both themselves and those around them. This marked a period of relief for many of the women as they felt free to stop concealing their pregnant bodies. This was also confirmation to both themselves and those around them that their weight-gain was justifiably due to pregnancy and hence, their bump became an object of indisputable evidence. This long-awaited arrival led to a pattern of three distinct feelings amongst the women, that of: i) pride, particularly for those women who had longed to display their bumps, ii) affirmation, in that their pregnancy was now officially ‘real’, and iii) protection, in that the women now wanted others to be aware of their circumstance. These will be described in detail respectively.

Feelings of pride

From this point onwards, women felt proud to show off and display their bump. For many this meant immediately changing the type of clothes they had been wearing (from loose to tight-fitting) or choosing an alternative way of dressing to accentuate their bump, instead of previously hiding it. For Phoebe, the arrival of her bump marked a point at which she no longer wished to or needed to conceal her body, instead chose to publicly display it proudly:

Phoebe: “Oh the scarves came off! Scarves came off and everything... Yeah I never hide it. We went to a charity dinner dance...and I had this black dress and it was slightly tight and I could have gone and bought another [larger] but I didn’t. I chose to sort of wear it and yeah you could see my bump but I wasn’t bothered. I didn’t want to look slim for the night...I was proud.” (P-22.03)

For most women, their bump resulted in positive feelings, particularly for those who had suffered long bouts of early sickness and tiredness. Some women also described how they felt more forgiving about their appearance once their bump

arrived, as if their bump provided an official justification for the weight-gain. Others felt that it was their right to display their bump and bodies:

Charlotte: *"It took really quite a while to sink in actually I was pregnant. So I think once you've got more of a substantial bump, I think yeah I did [feel differently]. I didn't mind wearing tighter tops and things because I then didn't feel just that paunchy-type shape."* (C-23.03)

Phoebe: *"Before the bump came, I was like almost wishing it to come cos I wanted to show it off. I think because I felt like I'd put weight on, I didn't want to have to explain to people. I wanted them just to be able to see. I think for me because I knew I'd put the weight on, I wanted the bump to show why and to feel like it wasn't just me putting weight on. But yeah I was willing my bump to come. And I was obsessed. Like on a morning and getting out of the shower; looking to see whether I'd moved like an inch or a centimetre. Is it any bigger? [laughs]. So when it finally came it was like 'Ok yea I finally have it!'"* (Phoebe-22.03)

For those who had felt self-conscious of weight-gain, this period gave rise to feelings of increased self-confidence to display their pregnant bodies, particularly for those concerned about their partners' perceptions:

Rachel: *"Maybe two or three weeks ago [prior to bump] when I was going through that phase 'Oh my God I looked fat' then it did kind of have an effect on our relationship but now he has made a point of saying that he loves my bump and he wants to get bigger and it has made me feel more confident about myself. You know whereas before I'd almost like hide when I was getting changed; like I wouldn't want him to see me like getting changed, cos I'd think 'God he must think I'm a right fat whale'...I think that part of what he's said and done has made me feel more like wearing the tighter tops."* (R-16.03)

Feelings of affirmation

For many, the bump validated the reality of pregnancy. Although they may have heard a heartbeat during a scan or experienced physiological symptoms, their bump made their experience much more real and made them feel 'officially pregnant'. Linked to the comments made by women in the first theme (No man's land) where the experience did not feel real until they showed visible physical signs of looking pregnant, this bump was for some, one of the first signs of pregnancy:

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Sarah: *"I think seeing a bump then helps you actually think 'Yeah OK [laughs] this is real'."* (S-09.03)

Charlotte responded to a question as to whether she felt differently about her body shape once her bump became visible:

Charlotte: *"Yeah I think I did, yeah. Once it's a bit more significant to me, that's when the whole pregnancy started sinking in I think...It took really quite a while to sink in actually that I was pregnant. So I think once you've got more of a substantial bump, I think yeah I did."* (C-23.03)

The arrival of a bump not only verified women's experiences, but led to a sense of comfort which was a welcomed change from the feelings of negativity many women had been experiencing up until this point:

Naomi: *"Yeah positive really [feelings about one's bump arriving]. It was nice. I was really pleased to see it almost cos it's the first physical symptom that you have and even though you have scans and everything and you can see its real, part of you now thinks 'Oh it is real' and it's almost like reassurance. I found it quite a nice feeling."* (N-29.03)

Claire who, at 12 weeks, had not yet experienced the arrival of her bump imagined the impending occurrence, which compared to those already familiar with such a feeling:

Claire: *"I just don't feel like it's there yet. I expect it's kind of a comfort thing."* (C-31.03)

Feelings of protection

Despite the women's bumps being an overwhelmingly positive experience, there were those who chose to use this as an opportunity to display their bump for protective reasons; to make people aware that they were pregnant. This meant that others knew to be careful around them. In some sense, this implied an unspoken intention to shout 'hands-off!' To illustrate this, Charlotte responded to a question regarding the display of her bump as:

Charlotte: *"Yeah I've started to wear a few more clingy tops now, just to, not show it off I suppose, but just to be a bit more proud of it, isn't it and so people are aware."* (C-23.03)

Phoebe, whilst feeling a sense of euphoria about the arrival of her bump, also made the following remark when people attempted to move closer to her:

Phoebe: *"It's weird but like I've become a little bit protective but yeah."* (P-22.03)

This feeling of protectiveness was not merely restricted to the early trimesters. At 38 weeks gestation, Sarah felt even more protective and therefore continued to make her current state highly visible to those around her:

Sarah: *"I've experienced like when we've gone to the supermarket, people just barge you and they don't even think. They'll get passed you with a trolley or whatever and you find yourself protecting yourself."* (S-09.03)

In summary, I was drawn to discussions with women about the emotions they felt upon experiencing the arrival of their baby bump. Overall, this was a most positive experience for the women. For some, this event bestowed great feelings of pride in which women openly displayed their pregnant form to all. In some cases, their bump represented irrefutable evidence that their pregnancy was, indeed, a reality. Up until this point, many had neither felt nor looked pregnant and found the mid-way point difficult to cope with. This also became the proof they needed to justify to both themselves, and others, that the weight-gain and / or physical symptoms they were experiencing were justified and characteristic of pregnancy, and not attributable to merely looking 'fat'.

4) NEGOTIATING SOCIAL COMPARISON: "IF SHE LOOKS LIKE THAT, SHOULD I?"

Women described the impact of social comparison, not only as a result of exposure to images within the media, but also amongst other women (e.g., family, friends, and work colleagues). The women in this study (but more specifically their bump, weight-gain or size) were on many occasions compared to other women who were either known to them or seen by them. On the whole, comparison comments were distressing for the women and made them feel uncomfortable in others'

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presence or insecure when alone. The women's reactions to appearance-related commentary will be discussed in greater detail as part of theme six.

The experience of social comparison was not necessarily derived however, from appearance-related commentary by others. This also occurred when women actively engaged in self-comparison tendencies. The impact that comparison (regardless of how it emanated) had on the women was three-fold: first these instances made the women question their own pregnancy experience or self-evaluate their appearance. The key aspect here is that feelings of doubt amongst the women arose as a direct result of social comparison. Second, some women felt increased pressure to 'measure up' to either those known to them who might have either had babies previously or who they had heard about or that they felt increasingly insecure about their appearance having viewed thin-ideal images of celebrity mothers-to-be in the media. Finally, these instances meant that some of the women had somewhat unrealistic expectations, particularly about their appearance postpartum, but also about other aspects of pregnancy, for instance the exercise they should or should not be engaging in or how much weight they should have gained during pregnancy or lost following the birth. These three outcomes will be discussed both in the context of those around the women and media imagery.

Questioning one's experience or appearance

First, women began to question or doubt their own pregnancy experience or have reservations about their appearance (whether or not they already had concerns). This led to further anxieties, for example, worrying whether they, or their bump, ought to be smaller or larger, or whether there was a problem because they were not experiencing certain symptoms as others did, or whether their pregnancy was progressing as it might have done from talking to or seeing others. The women reflected on comments from others around them (particularly about their size and shape) which specifically made them re-evaluate their appearance or amount of weight-gain; this occurred despite their bump becoming visible:

Naomi: *"The lady over the road has literally just given birth. She was taller and bigger-framed than me but her bump seemed to be a lot smaller so I was...then you end up comparing yourself to others and thinking oh god, maybe it's not normal."* (N-29.03)

Nicola: *"...and you know somebody says 'Jeez, I look more pregnant than you belly-wise and I'm not even pregnant' and I thought you know you make it sound like I've done something bad because I'm not big enough yet. So everybody seems to think 'Oh when I was this many weeks I was this big, why*

aren't you?' I can't help it, it grows as it grows. Like there's a set size you should be at a certain time or something. " (N-16.03)

Heidi's reflections not only involved those around her who had some form of opinion, but also the midwife. Despite being fully appreciative of her expertise, Heidi still felt compelled to question her status to the midwife because of the comments she'd experienced:

Heidi: "...Oh you know, everyone's saying 'Oh you've got a little bump' and then within 2 or 3 weeks people say 'Oh my God you're massive.' And pointing at you when you walk down the corridor at work and going 'Oh my God, saw you 2 weeks ago and there was nothing there and now look at you.' And you think I am gestating a baby in here! [laughs]... You go from everybody saying 'I can't see anything yet' to people saying 'God you're huge, are you sure you're not due till?...whenver'... And then you go to the midwife and the midwife says 'Oh no, you're measuring exactly right.' And you just kind of think 'Ha! You see!' And then you're like saying to the midwife 'Are you absolutely sure? It is absolutely massive.' But they're right." (H-17.03)

Whilst Charlotte was not necessarily troubled by other people's comments, she reaffirmed the need to question her experience against that of others:

Charlotte: "No they [comments] don't worry me but they do make you think 'Oh what size should I be?' I think that's the thing, with people saying all these different things and I know there's no norm, but you do sort of think to yourself, try and think of other friends and what size they were at the same stage." (C-23.03)

For some, feelings about their own appearance were triggered following self-comparison with media images of pregnant celebrities and resulted in concerns about their current pregnancy-related appearance, regardless of how at-ease they appeared to be about their appearance or how much they already exercised:

Nicola: "...It's kind of I guess, a weight-issue thing in my mind. I always think there's these tiny, slim people just with these perfect bumps and you just kind of think 'Am I supposed to look like that? Am I supposed to be tiny, skinny, with just this neat little round bump on the front? But you just can't help that,

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it's just...I always think 'God I hope I look like that [celebrity mum] when I'm 8 months pregnant'...How do they manage to be skinny all over with just this little bump thing here? I'll probably get a fact face, arms, everything, but you just get on with it." (N-16.03)

Heidi: "I'm really conscious of the media. I'm conscious of people of telling me what I should be feeling, what I should be looking like, what I should be buying, how my baby should be...I just don't wanna start buying into this like this is how I should be and this is how the baby should be...I just feel there's so much pressure that I just don't need anymore" (H-17.03)

Phoebe discussed the appearance of celebrity mothers in the magazines and whilst she was aware that such images were not representative of real life, she still compared her experience to the way in which she perceived women in the media to be represented and whether she ought to adjust her own everyday behaviours accordingly:

Phoebe: "Groomed. They never have a down-day. They're always make-up full on, nice party dress on and things like that. I just think it's not like that at all. It would be nice just to see them in tracksuit bottoms and having a normal day where they have a chocolate bar in their hand and a milkshake, just to be normal. It kind of makes you think well, should I be putting my full face of make-up on, going out every day and being like that and having to get dressed up?" (P-22.03)

The impact of comparison not only made the women re-evaluate their current status, but led to concerns about their appearance postpartum. This was a point at which none of them had yet reached, but were already conscious of. The following three extracts embody that sense of apprehension, when women reflected on those around them, about how their appearance might be judged:

Naomi: "...and he said 'Yeah my daughter-in-law she gave birth 3 weeks ago and she still looks pregnant'... So I think that will be interesting after the birth, to see then how people think 'Well what's wrong with you, you should be thin again now.'" (N-29.03)

Gill: "A lot of people at work have had children and they always come back and some of them have come back looking...they were slimmer than they were before so they've come back looking the same...yeah lucky. So yeah I suppose it's in the back of my mind." (G-30.03)

Heidi: *"I think when I go into work, you know six weeks later, take the baby into work, will I be thinking [whispers] I'm wearing kaftans still! Just hiding what's beneath.' I've got a friend at work who's Muslim and she says she'd never enjoyed being Muslim more than when she'd just given birth cos she got to like...she said 'I just wore massive, massive clothes.' I thought yeah it's alright for you! Can you lend me some? [laughs]"* (H-17.03)

Pressure to conform

Self-comparison or comparison by others also led to women sensing the need to justify their weight-gain or size. This was, in part, owing to comments about their weight-gain early on (as discussed in theme three) but more so, was as a result of exposure to media thin-ideal images or appearance-related commentary. These instances meant that women fully acknowledged the pressure to 'measure up' in terms of their appearance. In terms of media imagery, this was despite the acknowledgement that every woman's body is different and that celebrity life was not 'real' or something they could honestly relate to:

Nicola: *"It just makes everything out to be some sort of competition if you like. You can imagine that afterwards there's the whole kind of...'Well so-and-so got back into her size 10 jeans after this many weeks.' And you're looking at me now saying I'm not big enough or small enough or afterwards it's going to be 'Oh look you're still...' You know there is a bit of pressure to sort of look a certain way."* (N-16.03)

Sarah: *"It just makes you think 'I'm meant to be this perfect, shining, pregnant person' when all you feel is like 'I just wanna lay down and go to sleep.' You don't have time to be messing around sorting your make-up out after you've been sick that morning before you go to work. So there is a lot of pressure and it's not realistic at all."* (S-09.03)

Charlotte: *"It tends to be the tiny ones and then once they've given birth, 2 weeks later, they're at an awards ceremony looking fabulous again so there's that pressure there to lose post-baby weight."* (C-31.03)

Self-awareness of the societal pressure to lose one's pregnancy weight soon after the birth was already on some of the women's minds, despite this being an aspect that they were unable to have much control over. There was a distinct impression that they were on 'borrowed time' in terms of feeling relaxed about their current state:

Naomi: "...I know I want to lose weight and I know that I can't do it now, but I know that I want to do it as soon...partly because I've got a wardrobe full of clothes that I can't wear, but partly because I think there is a social expectation that if you do keep your weight on, you are sort of lazy or I don't know...It's not acceptable. You have to get back and be this thin person again and that I'm really aware of. So I'm not giving myself a hard time now but I know that I will do eventually so I can get this shifted." (N-29.03)

Nicola: "I mean I think when you're actually pregnant, everybody's quite nice to you really. Everybody likes to see a big baby bump and it's not like you know, 'She's let herself go' [laughs]. It's the one time you can get on and look like this and everyone thinks it's cute and it's lovely. Afterwards it's like, 'Why is she?...she's still carrying a lot of weight and it's not baby anymore and it's all her.' So yeah I [will] feel more under pressure afterwards definitely, but not now." (N-16.03)

For some, negative comments about exercise or pressure to stop exercising by others, made women reflect on the exercise they already engaged in:

Charlotte: "His mum [partner's mum] was quite shocked to hear that I'd been to the gym, which was quite interesting...I was about 16, 17 weeks and I spoke to her one night and said 'Oh I've just got back from the gym' and she said 'Oh you've been to the gym?' I think she didn't really know what to say...It didn't particularly bother me but I think some people do obviously think you shouldn't be doing that...maybe there's certain types of exercise that you should be doing but gym's maybe seen as something you shouldn't do." (C-23.03)

Nicola: "My mum being a worrier said 'you've gotta take it easy, don't be riding your bike and lifting heavy things and don't you be going down to that gym anymore.' And I thought 'OK I just won't tell her.'" (N-16.03)

Unrealistic expectations

Finally, comparisons from others around them and media images led to women deliberating over unrealistic expectations that they already knew were implausible in their circumstances. This occurred as a result of being told that others looked slimmer or larger than them, or had lost weight quickly after birth. Again the sense of pressure from seeing media images of pregnant celebrities or hearing from others about their experiences gave rise to self-comparison tendencies, in the hope that their own experience might be similar or different respectively:

Heidi: *"I think there's the two sides of pregnancy. There's the pregnancy that you want to have and that you envisage before you actually get pregnant, which is this holistic, really healthy actually I do talk to my baby every night and I do rub my bump and I am playing it Mozart and I am reading it storybooks and there's the reality which is that I work from 8:30 till 4:30 every single day. I get home, I sit in front of the TV, I'm like and that's life....On the holistic side you would have a Doula and a nutritionist and you'd do the exercise and you'd go to pregnancy yoga and you'd be the Victoria Beckham, whereas actually I'm the Kat from Eastenders, I'm just struggling through."* (H-17.03)

Sarah: *"I do want to get back into shape but it takes a while for your body to recover...and I know I'm not going to go back to how I was straightaway and it will take time and whether you ever go back. But then it's not about you're bigger cos you've got a baby, it's you now, the baby is out so now what's your excuse [laughs]."* (S-09.03)

Naomi discussed weight-gain in terms of others she had spoken to around her:

Naomi: *"Well I'd heard, talking to people at work who said they'd put on three stone or four stone. I thought 'Well I won't be one of those people that put on all that weight, I'll be fine'. But to then put on over 2½ stone...I just didn't think that I had. I just didn't, so yeah that was a bit of a shock."* (N-29.03)

Having discussed her intentions to exercise to lose pregnancy weight using exercise DVD's, Heidi then evaluated these intentions and the pressure to lose weight, in terms of what was more likely to be a prospect for her:

Heidi: *"...And then there's part of me that thinks 'Yeah you're dreaming, when the baby's asleep, you'll probably be asleep as well. So I think that'll be the testing time will be straight after because I do feel that there's kind of a sense that you are what you are during pregnancy and when you look at media and you look at stars, they are what they are during pregnancy. But the moment that baby is born, there's this thing that 'She only gave birth eight weeks ago and now she's at Oscars...Penelope Cruz you're amazing!' It's like well yeah if I had your chef and your personal trainer I would be too. But there's still that expectation."* (H-17.03)

In essence, this theme related to issues around social comparison which, in some form or other had an impact on women's perceptions about their appearance during pregnancy and the postpartum. Comments from others were, on the whole, unwelcomed particularly as these comments focused on a woman's expanding shape or size as their pregnancy progressed. Following a discussion about media images and appearance-related commentary by others, women perceived their bodies to be under continued scrutiny through pregnancy and felt a sense of pressure to conform to others' or society's appearance-related expectations into the postpartum. Comments and media images also made women question their own pregnancy experience or their current appearance, despite the majority feeling relatively comfortable with how they looked and felt. Although seemingly fully aware of society's expectations in terms of postpartum weight loss and regaining one's pre-pregnancy shape, the women remained disconcerted by this sense of pressure.

5) "LIGHT EXERCISE? WHAT IS THAT?" - ROLE OF EXERCISE IN PREGNANCY

The theme's quotation relates to an overwhelming perception that advice related to exercise was either lacking or conflicting. All were in agreement that they were not provided exercise-specific information by either their General Practitioner (GP) or midwife during ante-natal appointments. Much of the information sought derived from internet sources or pregnancy books. Some women remarked that they received the most amount of support or guidance via the online forums, often because this was perceived as honest advice from those who were also going through similar experiences. As a result women felt drawn to people who already had children and who were willing to share their stories.

In keeping with the thematic map in Figure 11, three other sub-themes around the role of exercise were considered. First, women who stopped or reduced exercise, in particular those who perceived information to be lacking, subsequently did so owing to the perception of risk. Second, physical symptoms dictated women's choice of and ability to exercise, regardless of the importance they placed upon its role during pregnancy. Finally, exercise was predominantly described as a mechanism for weight-control. Each element will be discussed in turn.

Exercise advice: both lacking and conflicting

As can be seen from the participant demographics, some women exercised, whilst others did not. This analysis however, focuses specifically on women's motivations and / or barriers to exercise and their perception about the role of exercise in pregnancy. To set this theme into context, generally speaking most women were aware of the basic benefits of exercise, irrespective of exercise participation, or at

least knew that pregnancy exercise was beneficial in some way. For those who did not exercise prior to pregnancy, this knowledge was relatively basic. When asked what they knew about exercise in pregnancy, Phoebe and Rachel commented respectively:

Phoebe: *“Nothing, no. Just that I did read that yoga’s meant to be good and maybe swimming but that’s it.”* (P-22.03)

Rachel: *“All I know is that...well the midwife hasn’t covered anything really as such. All I know is if you exercised before I’ve heard that you carry on doing it. Obviously bearing in mind that you can’t do anything that could harm the baby like kick-boxing. But to be honest I don’t really know. I haven’t really had anything explained to me as such.”* (R-16.03)

All the women spoke of their concern that the role of exercise had not been addressed in any of their ante-natal appointments with the midwife. In addition, the majority of women felt that even if they had questions or concerns about exercise, their midwife was reported as not being the most appropriate person to ask or who was perceived as not being qualified to give any advice. The overall view was that midwives’ knowledge was somewhat lacking. Exercise advice was described as being either over-simplified or too broad (described as ‘light exercise’ or ‘gentle exercise’) which left those who did exercise, remarking on this advice as inadequate:

Charlotte: *“It was a bit of a shock the first appointment cos she kind of just said ‘Where do you want to have your baby?’ It was just kind of like congratulations or chit-chat. It was quite formal form-filling. So I’ve never really had a full conversation about exercise or anything like that. You’re just told to read a few paragraphs or there’s a few information slips in your notebook thing.”* (C-23.03)

Heidi: *“My midwife? Nothing! Nothing about exercise, nothing about diet...I said ‘What about exercise?’, she said ‘Oh yeah do gentle exercise and swimming’. What is gentle exercise?...I’m sure it’s different for Victoria Beckham . I’m sure she has someone at her beck and call, but you know you kind of have like your allotted five minutes and what you wanna do is make sure your blood pressure’s OK and listen to the baby’s heartbeat and that’s it. Wee in the pot and then you’re out of there until the next time, so no...I’ve worked in the NHS for years and the people working in the NHS are very often the last people you’d want to ask advice from. I mean my midwife is lovely but she quite obviously smokes 40 fags a day or whatever, she’s got terrible chest*

problems...She told me that when she had her baby she put five stone on."
(H-17.03)

Nicola: *"Everything that I've learned, I've had to learn myself."* (N-16.03)

Naomi: *"I did feel like I had to go and source the information, I mean I did use the internet a lot. But there isn't a lot of information that is any good. I mean...in terms of reliable information...So there's general guidelines on the NHS thing, don't do this, do this, eat this but...there isn't any organised approach. The midwife never, I mean I did ask about things, there isn't any kind of coordinated thing that I could find."* Interviewer then asked: *"Did you ask your midwife about guidance for exercise?"* Naomi replied: *"Yeah and she said do whatever. I suppose everyone is different s they can't sort of say do this or don't do that. It would have been helpful if there was some more information around."* (N-29.03)

Claire: *"I mean she's [midwife] been brilliant in getting me the scans but I mean I'm in week 12 and I've seen her for about half an hour for my booking-in appointment and basically she took my name and address, asked me a couple of things and that was it. So the only medical advice I've had from them as opposed to me having to go out and look for it was my doctor when I rang him up to say I had a positive pregnancy test. He said 'Congratulations, right basically don't eat paté, stay away from cat's poo and you know, congratulations'. That was it and then this from the midwife [discussed first]. If I wasn't internet-based or you know, you wouldn't have had that [exercise & nutrition] information...There will be mums out there will just think, eat what you like."* (C-31.03)

Heidi: *"I've worked with health visitors before bless them a lot of them are lovely, but a lot of them are bloody obese. They're overweight and you can't tell me that they're like living peak examples..."* (H-17.03)

Sarah: *"...If I'm feeling down about my body image, they'd probably just say 'Oh yeah you're fine, everybody else feels like that.' I don't think they'd listen to you."* (S-09.03)

Perception of risk

Despite women's desire to continue exercising and their awareness of its benefits, many women reported to have stopped their pre-existing routine owing to a perception of risk to their baby. Some women described how this sense of risk was attributed to advice from external sources or perceptions of others' routines. This often resulted in a decision to adapt their previous exercise routine or stop exercising altogether, so as not to endanger their baby:

Naomi: *"...well like the first trimester they [information read] say don't do this because of the risk of miscarriage and then I suppose I just got over-protective of myself because I really wanted, you know you just really want everything to be fine and you don't want to do anything that might jeopardise anything or put anything at risk."* (N-29.03)

Gill: *"...You get varying reports from people and there was a girl in our department and went swimming every night when she was pregnant. I mean she took it to the other degree and she went really far and going to the gym and I thought that's a little bit too much."* (G-30.03)

Interestingly, Rachel discussed her feelings about risk, but took the view that she was ultimately taking more care of herself by choosing not to exercise during pregnancy:

Rachel: *"...You instantly get protective over your tummy and your body and you seem to take more care of yourself and be more protective of yourself. So that's probably why I'd prefer to stick to something more gentle [Rachel walked for exercise]."* (R-16.03)

Pregnancy dictates one's choice and ability to exercise:

In conjunction with the sub-theme above related to risk perception, there were some women who, despite wanting to continue exercising, were unable to. Pregnancy-specific symptoms or certain medical conditions were seen as a distinct barrier for women. Some women's medical problems meant that during their pregnancies, their ability to maintain previous levels of exercise were diminished. This was particularly difficult for those who exercised prior to pregnancy:

Naomi: *"If I have gone out for walks, the next day is really painful and I just have to lie down for the day so physically it's a lot more demanding on my body than I thought it would be."* (N-29.03)

Sarah: *"...so they didn't know if I'd be able to carry the child full term...But they said 'You've gotta take it easy...So I couldn't do anything like that [British Military Fitness and kick-boxing]...I don't want that on my conscience so I've stopped the exercise, stopped everything so that I know that I'm not gonna put her [baby] at risk."* (S-09.03)

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Frustrations around the inability to exercise were particularly salient for women in the first trimester, whereby prolonged periods of tiredness and sickness or other pregnancy-related symptoms made exercising difficult. Some were forced to stop temporarily and in some cases, women stopped completely, particularly once they felt 'out of it' for a long period of time:

Charlotte: *"[I did exercise] Although during the first 12 weeks I probably had maybe three or four weeks off when I felt really rough."* (C-23.03)

Heidi: *"I couldn't really do anything afterwards [pregnancy-related condition], couldn't exercise...and I remember getting to the point where a couple of months, 2½ months afterwards I'd kind of let myself go a little bit and the tops of my thighs were rubbing together. And I remember thinking this is not right, you've gotta start exercising again, you're fine now, get back into shape because that's just wrong...But unfortunately I think because I've got so far into my pregnancy without exercising now I just wouldn't know where to start. So you know, I'd go swimming, but then I'd think, I can't do that much anyway...So you kind of lose that impetus."* (H-17.03)

Nicola: *"I would have probably been safe to carry on running but I stopped just because I was being sick so much and it was just the last thing [exercise] I wanted to do and by the time I'd got over the sickness, I just thought 'I've kind of lost the knack really.' It'd be like starting again now anyway so let's not. Let's do some countryside walking instead [laughs] or anything to keep fit just not with the same kind of impact really."* (N-16.03)

Heidi: *"It's difficult isn't it because you know I feel very lucky to be pregnant. It's not a barrel of laughs though and before I did become pregnant and people used to moan and I used to say 'You're pregnant, you're not dying', but actually it's quite physically debilitating."* (H-17.03)

Exercise to control weight-gain

As previously discussed, some women either continued to exercise in pregnancy but had adapted their routine, some women were forced to stop due to health reasons, and others chose not to exercise at all. For those women who did engage in exercise in pregnancy, several motivations were reported. Two reasons given were to enhance the health of the baby and prepare the body for labour. Charlotte, who had been exercising regularly for years prior to pregnancy maintained that exercise was beneficial for both her and her unborn baby and advocated exercise for health and fitness reasons:

Charlotte: *"Well I just feel like I get a bit of a lift if I've done some exercise. I tend to feel sluggish if I don't."* (C23.03)

Naomi: *"To keep healthy really. To maintain some sort of level of fitness. Both for long-term and also because labour's hard isn't it, so you want to be able to be reasonably fit and able to give birth and then look after baby and then the physical demands of motherhood, just to be fit and well really."* (N-29.03)

Nicola: *"I think I want to stay fit. I suppose the whole Yoga and Pilates thing I'm thinking about the birth more than anything. You know everything I read is that the breathing exercises are really gonna help, anything that helps the birth and getting back into shape afterwards, I guess."* (N-16.03)

The principal motivation however, for most of the women that did exercise, was for weight management or control. Although the drive for health and fitness was mentioned, it was generally remarked upon as an after-thought or secondary to their principal motivation:

Gill: *"I thought that if I exercised at least twice a week, do an hour of Pilates and then 35-40 minutes of swimming then at least it's something. Just because I want to try and regain the figure that I had afterwards, if I possibly can and just keep fit as well."* (G-30.03)

Heidi: *"I'm already thinking after the baby's born whatever I put on has to come off again...I think the moment of truth will be like those first 3 months because it will be what I should be focusing on is the baby and I will be...but I'm already thinking well when the baby sleeps through, I can obviously do Davina [celebrity exercise DVD] or something like that. Get out the Kettleworks [exercise DVD] and do a quick exercise session."* (H-17.03)

Nicola, who had previously stated that her intent was to make labour easier (see above paragraph) conveyed her thoughts when asked how she would feel if she were unable to exercise. Her emphasis quickly changed to concerns related to weight-gain:

Nicola: *"Oh I'd feel horrible [laughs]. I'd probably be really paranoid about eating too much even though I know I'm 'supposed' to be gaining weight. I think I'd be really curbing back on what I was eating."* (N-16.03)

When the topic of breast-feeding was raised by the women, some even commented on the perceived associations with weight-loss there:

Sarah: *"I want to breastfeed obviously because I want to support baby and it'll get all the nutrients but it'll also help me because it aids weight loss, it makes your stomach muscles go back, so I'm doing it on the selfish level as well."* (S-09.03)

Gill: *"Yeah I've heard that you burn a lot of calories by breastfeeding, yeah."* (G-30.03)

This theme related specifically to the role of exercise and an overwhelming view that advice related to exercise was either lacking or conflicting. Information from health professionals was deemed to be inadequate and therefore all of the women turned to other sources. These were mainly via the internet or books, but some also relied on the experiences of others. Three other sub-themes around the role of exercise were discussed. First, the perception of risk put stop to engagement in exercise for many. Second, pregnancy-related physiological symptoms dictated women's ability to exercise, regardless of the salience placed upon the role of exercise. Finally, exercise was commonly described as a mechanism for weight-control.

6) RESIGNING CONTROL

The final theme was concerned with the concept of control. Women overwhelmingly felt that they were no longer in control of their bodies or appearance, regardless of whether they exercised or not. Driven by others' comments, some were resigned to think that regardless of how they felt and what they wanted to do or achieve, that their baby and their pregnancy was in control of their future and their body. Naomi summed up this sentiment and hence, this formed the title of this theme:

Naomi: *"That [breast leakage] changes the way that you view your body as well. It goes from being yours to basically not. I'm not in full control of things that are happening anymore so I feel like I have to resign control for a while and then eventually maybe 6 months to a year, I'll get it back then."* (N-29.03)

Pregnancy was said to impose upon all aspects of their life and more specifically, physical symptoms dictated how the women felt physically and emotionally. These symptoms also controlled their ability to exercise. For some, this meant having to accept that the risks outweighed the benefits. This was discussed in the earlier theme and can be seen on the thematic map in Figure 11 as being linked to both themes. There were two other sub-themes associated with resigning control. First, women felt compelled to accept their experience for what it was as they

perceived themselves to be not the most important person anymore. Second, women felt that despite their condemnation of other people invading their personal space, they felt compelled to acquiesce to, or were unable to challenge, other people's touch and commentary. Both sub-themes will be explained using illustrative extracts.

Accept the experience for what it is

Notwithstanding the perceived pressure to conform to others' or media expectations (as discussed in theme four), women were aware that they could not change nor control their experience and therefore felt they had no choice but to accept it. This meant for some, having to accept that sometimes debilitating physical symptoms prevented them from experiencing (the rather clichéd term) 'joys of pregnancy' as depicted in images of celebrity mothers-to-be in the media. Regardless of the representation of 'self-control' depicted in celebrity media images, women felt unable to control the internal and external changes occurring and as such felt compelled to simply accept their experience for what it was:

Heidi: *"There's the non-rational side which thinks 'Oh God! If I could just look like that [referring to the context of a celebrity mum] then everything would be fine and I'd be really happy and everything that's missing in my life is just because my backside is not only 34 inches all the way round [said as if laughing/crying]. But you obviously quell that. I think it's a lot easier to quell now that I am actually pregnant because actually I'm not the most important person in this body at the moment. As much [laughs] as I'd like to think I am. But as I said what can you do, you just gotta relax. I can't do anything about it. I'm like not in charge anymore, I'm just not."* (H-17.03)

Sarah: *"But it's not been a negative experience, it's how you deal with the changes in your body and because every baby is different and every person is difficult, everything's very individual but you still have the same kind of things going on and it's [about] you being able to accept that ok this is not how I want to be, but it's for a reason...yeah it'll be worth it in the end, but I'm not happy right now."* (S-09.03)

Phoebe: *"I think if I wasn't pregnant and I was putting weight on, I'd be thinking 'Oh my God I need to go on a diet, I need to do this and that', but because I'm pregnant, it's kind of like 'Well I'm pregnant. It's giving the goodness to the baby so I'm just gonna carry on eating and if I put weight on, I put weight on.' I just got to deal with it."* (P-22.03)

Charlotte: *"I know I'm probably having a little bit too much chocolate or whatever it is, biscuits, but I'm not bothered...I'm comfortable with that and*

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I've just accepted that that's probably what's going to happen. So the exercise can maintain it to a certain level but then after that, that's just part of being pregnant.” (C-23.03)

Naomi: *“The thing is in my last trimester I haven't done any exercise and I don't feel like I've eaten an awful lot more than I would usually...I have eaten some more so I just have to accept that this is my experience.” (N-29.03)*

Heidi: *“I'm not a massive control freak but up until this point I've been in charge of my life.” (H-17.03)*

Heidi: *“I can't...there's nothing I can do about the baby bump. I mean I've got a really good friend who's 4 weeks behind me in her pregnancy and she's got a really thin body shape, she's always been slim and her bump's like the size of my fist you know. And I stand next to her and I feel like an absolute elephant...But then I kind of think that that's her pregnancy and my pregnancy is like this and this is what I look like and this is how I am and you know I'm not gonna starve myself because that would be ridiculous.” (H-17.03)*

For many women, trying to balance their own needs and wishes with the health priorities of their unborn baby was a challenge. As a result, many were in agreement that they were no longer the most important person. For example, Sarah felt unable to dye her hair or have another tattoo because of the perceived health risks to her baby. In addition to the concerns she had about weight-gain, this was particularly difficult for her as her brightly-coloured hair and love for body art shaped a core aspect of her identity:

Sarah (on the topic of hair dye and tattoos): *“You can't do what you want to do. It is hard but you know at the end of the day, nine months later you'll be able to do it again...so that keeps me going [laughs]...(on the topic of weight-gain): “I know that your confidence levels will go down a bit and your self-esteem because your body's not how it was before and its dealing with those changes...I think for me it's gonna take time to get back into how I want to be, but it's like I've got a baby and that's my number 1 priority.” (S-09.03)*

Naomi also commented on losing elements of her identity:

Naomi: *“Although I know I've had to give up control of bits and pieces [referred to her identity in an earlier sentence] I still feel like me, yeah that's fine. You know there's a reason for it [baby] and that's at the heart of everything so you sort of accept everything because of that.” (N-29.03)*

Others' licence to touch or comment

The majority of women felt uneasy about being touched by others during pregnancy and the extracts presented will demonstrate the depths of some of the women's feelings. That said, it is important to acknowledge that one woman was not troubled about other people's touch at all. On the whole however, such contact was uninvited. Hence women felt that their personal space was being invaded but that they were often unable to stop it before it had already happened. They remarked how reluctantly they had come to realise that touching someone who was pregnant was deemed to be acceptable and expected, even if uninvited and that their pregnancy provided others with a licence to touch. As a result, they offered no protest, despite their reluctance and disapproval:

Phoebe: *"There have been a few people. There's one lady at work. You know the customers you know and they come in and say 'Oh how's baby?' and they pat your belly and [!] just think 'Get off!' Yeah it's weird but like I've become a little bit protective....sometimes I just think you know give me some warning before you do it."* (P-22.03)

Sarah: *"And I've had a few people come and touch my bump and people like work colleagues that I'm not really close with or just random people. You just think 'Back off!' [laughs] and I don't like it at all, because I don't know these people and they're touching my bump and it's like 'Whoa!'"* (S-09.03)

Rachel: *"Erm Like work colleagues have actually come up to me and touched my tummy without asking saying 'Oh look at you', you know, which I don't mind but kind of think you wouldn't just go up to someone and touch them you know."* (R-16.03)

Naomi: *"That was the one thing that I was really worried about because I'm quite, I don't like people touching me unless obviously they've been invited in...I've had one person in a shop do it once...I wouldn't come and stroke you so why are you?"* (N-29.03)

Even those who had not yet experienced this remarked on their expectation to receive some form of touch regardless:

Nicola: *"It's not got to the point where everybody's patting me and trying to touch it. I can see that might get annoying."* (N-16.03)

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With regards to appearance-related commentary, these comments were at times, relentless and all-consuming and only generally tended to focus on the woman's size. On the whole, as with the issue of touch, women felt that many comments were unwelcomed (particularly comments such as 'Oh you're massive'). This sometimes gave the women the impression that they were constantly on show for others to discuss and offer opinion:

Naomi: *"We've been having some work done in the house and the builder says 'Oh you're massive and you're this and you're that' and you think well thanks for sharing but you can keep that to yourself. My husband's been lovely but even in the last couple of weeks he's been like 'Jesus Christ!' [laughs] 'What's going on?' I'm constantly expanding."* (N-29.03)

Nicola: *"But I'm just now more conscious like...a week ago someone said 'Oh turn to your side, can I have a look' and I think every time I go into a room is everybody...you know 'How big's her bump this week?' and everybody sort of has a bit of an opinion...not in a bad way, but people tend to have an opinion"* (N-16.03)

Naomi described comments as almost being customary during pregnancy, whilst in other circumstances such comments may not be seen as politically correct:

Naomi: *"I think that people feel more able to say things and make comments about your appearance than they would do normally. If there was a fat person in the room they wouldn't come in and say oh my god look how fat you are, but the fact that you're pregnant somehow makes it acceptable to comment on how you look, even if they don't mean it in a horrible way."* (N-29.03)

Claire: *"I mean I think it's very hard. This is the culture now isn't it that everyone feels the right that they can have an opinion on whether so-and-so has put on 3 stone."* (C-31.03)

Charlotte: *"You know what do you say 'Oh thanks' or [laughs], you know they're just passing comment when they see you, but it [your appearance] is the first thing that people seem to mention."* (C-23.03)

Rachel: *"I do find that now I'm pregnant they think it's ok to ask things and do things that you wouldn't normally do to someone that wasn't...You wouldn't do it normally so don't do it now...I just have to go along with it and I don't like confrontation anyway so I just ignore it really."* (R-16.03)

The final theme related specifically to the issue of control. Women were resigned to feeling that their pregnancy, their baby, or the symptoms they were experiencing were dictating how they felt emotionally and physically. Many no longer felt in control of their body (or their bodily functions at times) and this was quite a challenging aspect to cope with. Despite appearance-related commentary and pressure perceived by the media (as discussed in theme four), women felt compelled to accept their experience for what it was. They saw themselves as no longer the most important person. A final aspect of resigning control involved the invasion of their personal space by others around them. They felt powerless to challenge other people's touch and commentary. Commentary on their appearance was, despite being unasked for, seen to be expected as customary; part-and-parcel of the pregnancy experience.

DISCUSSION

The aim of the discussion section was to make broader analytic statements regarding the overall story that the themes tell us about pregnant women's relationship with their bodies. From an ethnographic perspective, the intention was to provide meaning that individuals give to their behaviours and interactions that are socially situated within their cultural context (Holloway & Todres, 2003). As such, the interviewer becomes absorbed into the 'life-world' of the interviewees and the research is framed by both the participants and researcher as experts (Spradley, 1979, cited in Parker, 1992). The remaining sections within this chapter will draw together the key findings of the analysis and emphasise the key strengths and limitations of the study. It will then close by summarising the findings, discussing implications for Study 3, and highlighting what the research adds to knowledge in this area.

DISCUSSION OF MAIN THEMES

Six main themes were generated from an analysis of the data using Braun and Clarke's (2006) method. These have been developed as a means of portraying an analytic account of the women's experiences as they progressed through the stages of pregnancy. This was achievable due to the spread of women who participated, being at various stages of pregnancy. Each theme will be discussed in turn (as per the media text study) whilst drawing on existing research.

“No man’s land”

This was a period in which women were beginning to experience appearance-related changes, perceived as being more representative of a person gaining weight rather than a person experiencing pregnancy. During this time women were concurrently experiencing pregnancy-specific symptoms, such as nausea, sickness, tiredness etc. Without the visual evidence of a baby bump, both appearance-related changes (e.g., feelings of bloatedness) and physical symptoms made it difficult for the women to appreciate or begin to enjoy their pregnancy experience. As such, women described a time of conflicting emotions. Joy at knowing they were pregnant, yet struggling to cope with symptoms and appearance-related changes that were problematic to hide. This, for many, led to feelings of self-consciousness and measures to conceal their pregnancies, as described more fully in the second theme.

Some women commented on their first meeting with their midwife as being little more than a ‘form-filling session’ and no participant ever mentioned that they had been weighed, let alone being given the chance to discuss bodily-changes. This is contrary to the current guidance available on the NHS’ website (NHS Choices, n.d.) which states that women are weighed during their first booking-in appointment to calculate BMI. Women often remarked on either not seeing the same midwife twice, or having little more than 15 minute appointments, which therefore made the prospect of developing a relationship or finding the time to discuss pertinent body image issues difficult. Body dissatisfaction has been well documented to persist into pregnancy (Heinberg & Guarda, 2002; Strang & Sullivan, 1985) and those with more severe body image concerns have a tendency to report increased depressive symptoms (Duncombe et al., 2008; Rauff & Symons Down, 2011) and disordered eating (Lai et al. 2006). This early period was cited as being the most concerning for Clark et al.’s (2009b) participants, when despite knowing they were pregnant, they were troubled by the weight they were gaining. Hence, the present study would support Clark and colleagues’ findings. There was a general consensus that the focus of the midwife was on the baby and its development, rather than the mother and any concerns of a psychosocial nature. Any initial anxieties that the women discussed in terms of their appearance (e.g., difficulties in managing sudden weight-gain) were perceived as being trivial in the midwife’s eyes. Thus, there is a real need for women to be provided the opportunity to discuss individual concerns with a trained professional during antenatal appointments which may help to mitigate the onset of more serious problems, such as early eating disorders that are argued to be precipitated by pregnancy (Astrachan-Fletcher et al., 2008; James, 2001; Stein & Fairburn, 1996).

Stranger in the mirror – feelings of self-consciousness

Reasons for feelings of self-consciousness were diverse. For some, this was attributable to their own self-perceptions of weight-gain, for others, this was related to appearance-related commentary or perceived thoughts from others. Some reflected on how they felt prior to getting pregnant in comparison to the identity they currently occupied, or reported to long for the return of their pre-pregnancy appearance. Some reflected on parts of their body that they no longer saw as sexual. As a result, women went to great lengths to conceal their pregnancies. One woman specifically commented on concealing her body from her partner, despite voicing how supportive he had been. These feelings were particularly salient in women who did not wish to disclose their pregnancies to others too early (e.g., work colleagues) or prior to their 12-week ultrasound scan.

Interestingly the discussions around concealment are similar to the findings from the media text study whereby women were often 'depicted' as attempting to conceal their pregnancies in the early stages. In the present study, women were actively doing this, for the reasons discussed previously. Dramatic appearance-related changes appeared to have a similar impact on five of the women in Clark et al.'s (2009b) study who also reported to feeling like they were living in a new body. One woman in particular described herself as feeling detached from the image she saw in the mirror, which was a significant adjustment to cope with. In addition, all 20 of their participants reflected upon concerns they had about others' perceptions of their bodily changes.

In contrast however with Johnson's (2010) study, where women reported feeling more positive about the size of their breasts, the women in the present study referred to their breasts more in terms of their impending functionality, despite their partners' desire to continue to see them for their sexual function. A loss of pre-pregnancy self-identity has been documented in the research as being associated with negative appearance-related emotions, despite the understanding of one's pregnancy status (Patel et al., 2005; Upton & Han, 2003). This tends to be particularly prevalent in the early trimesters (Clark et al., 2009b) when the most-commonly cited concern is attributable to being seen as pregnant, not fat (Nash, 2012; Skouteris et al., 2005). The present findings reiterate Patel et al.'s (2005) concerns that reflecting on one's pre-pregnancy self-identity can be particularly problematic for those experiencing pregnancy for the first time and in this instance, more so during the early stages. Despite this, all women reported having the support of a loved one or partner, which helped them to cope with appearance-related changes or commentary from

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others. This was particularly poignant when partners or husbands had commented on how much they enjoyed watching their partner's bodily-changes taking place.

Bailey's (2001) study demonstrated that negative appearance-related concerns worsened as women progressed through trimesters and for some, any protective feeling they initially experienced was only temporary. In the present study, it is acknowledged that women were anxious in the early stages of pregnancy and did reflect upon a loss of pre-pregnancy identity; that said, those feelings tended to ameliorate as they approached third trimester. In contrast with Bailey's research, the third trimester became a period of acceptance and understanding of the body's functionality, particularly as their size and shape became more restrictive, the growing fetus became more noticeable (both internally and externally), and symptoms returned. This is also demonstrated in the final theme around the loss of control.

The present study also demonstrates that the use of clothing was a strategic mechanism for managing one's pregnant appearance, whereby women aimed to retain control of their expanding form for as long as possible by means of concealment tactics. As Upton and Han (2003) suggested, this is a particular motivation in women who perceive that they will be treated differently in the workplace or be subject to unwanted judgement by others. This again highlights the need for women to be given the opportunity to voice their concerns to a trained health professional and that more importantly, health professionals recognise body image in pregnancy as a real cause for concern for some women.

The scarves came off!

This quotation embodies the behaviours and emotions women experienced once their "baby bump" was visible. Overall, this was a most positive experience for the women, although there were mixed emotions for some. First, some women felt great pride and openly displayed their pregnant form to all. Second, for some, their bump represented indisputable evidence that their pregnancy was, indeed, a reality. This was particularly salient in women who up until this point, had neither felt nor looked pregnant. These feelings of affirmation and pride are echoed in the findings of Nash (2012), where the pregnant belly became a definitive marker and in the findings of Earle (2003), whereby the public display of a woman's bump signified a sense of achievement and pride. Furthermore, in the present study, the bump also became the 'proof' some women needed to justify to both themselves, and others, that the weight-gain and/or physiological symptoms were justified and characteristic of pregnancy, and not attributable to merely looking 'fat'. Finally, some women however, felt the need to display their bump for protective reasons, so that people knew to be careful when in their vicinity.

Likewise, all women in Clark et al.'s (2009b) study referred to a period of excitement and anticipation once their stomach started to 'show' and as the present study shows, this stage of pregnancy appears to represent freedom from concealment. The present findings support Clark et al.'s comment that women's baby bumps were an outward validation of weight gained, however in this study, women's bumps also served two other functions: first to positively demonstrate feelings of pride but also to serve as a warning to others to keep their distance.

There is a paucity of research that has considered the meanings women attach to their clothing practices in terms of appearance management (Frith & Gleeson, 2008; Tiggemann & Lacey, 2009) however there is one particular study worth commenting on in this context. Tiggemann and Andrew (2012) assessed the link between clothing choice and aspects of body image. First, they found that clothes used by women fulfilled multiple objectives. In relation to this study, this finding supports that statement. Women used clothing here to either conceal their pregnant form or to openly display it. Second, the authors investigated the relationship between clothing functions and self-objectification (i.e., continued monitoring of the body from an external perspective) and self-presentational concerns. Here they described three functions of clothing. The first was comfort which the authors suggested was a direct opposite and negative correlation of self-objectification. In the present study, women during the latter stages of pregnancy were also more concerned with how their body felt and less so on how it looked and therefore clothing was then used for comfort. This supports a negative association with self-objectification, however it must be acknowledged that maternity wear was postponed for as long as possible because of i) the conservative, 'frumpy mum' image this evoked and ii) the fact that it was perceived to be most unflattering. Despite women having the option to choose maternity-wear for comfort, they clearly still felt an awareness of self-presentation. This was notably the case during the earlier trimesters when women were actively trying to conceal their pregnancies through the use of baggy (or more comfortable) clothing. During this time, I would advocate that in the earlier stages the use of baggy clothing fulfilled self-objectification objectives. As per the media study, findings suggest that the use of baggy clothing serves for concealment in the early stages, over comfort. This was in total contrast with the latter stages when the use of baggy clothing served for mainly comfort purposes.

The widespread criticism of maternity-wear in the present study supports Tiggemann and Andrew's (2012) second finding that related to clothes worn for fashion. They implied wearing clothes for fashion was an externally-driven pursuit, by which appearance is emphasised, thereby supporting a positive correlation with self-

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objectification. Their third finding suggested that clothes serve a function of assurance by boosting one's mood and how one feels about oneself. In the present study, the disparagement of maternity-wear and subsequent use of women's own clothing (such as leggings or tighter tops) actually served as a confidence boost to the women and rather than being associated with the negative connotations of self-objectification, essentially did more to lift the women once their baby bumps began to show. When women chose to wear their own clothes as opposed to maternity-wear, this was their way of retaining their own identity and was less-so centred on others' perceptions. This present assertion echoes the findings of Longhurst (2005) whereby women actively choose to wear their own fashionable clothes, thus in the same way resisting the social construction of a modest, domestic, 'frumpy' mother. Tiggemann and Andrew (2012) implied that the function of assurance serves to represent a balance between inner-feelings and self-presentational concerns. In this respect, the findings within this theme wholly support that last statement.

Negotiating social comparison: "If she looks like that, should I?"

Social comparison had some impact on women's self-perceptions about appearance during pregnancy and the postpartum. Comments from others overwhelmingly focused on the women's expanding body shape or size as their pregnancy progressed and were therefore unwelcomed. The women also perceived their bodies to be under continued scrutiny through pregnancy and felt a sense of pressure to conform to others' or society's appearance-related expectations into the postpartum. Some felt compelled to question their own pregnancy experience or their current appearance, despite the majority feeling relatively comfortable with how they looked and felt. Although reportedly fully aware of society's expectations in terms of postpartum weight loss and regaining one's pre-pregnancy shape, this perceived stress was disconcerting.

This sense of pressure is to be expected given that pregnant women in the media are portrayed to exist as 'yummy mummies' (see media text findings; Hine, 2012; Jette, 2006; McRobbie, 2006). This study also supports findings highlighting the burden of celebrity culture on pregnant women by the Royal College of Midwives and Netmums (2010) and the appearance-related vulnerabilities that can be exacerbated by receptiveness to thin-ideal media imagery (Sumner et al., 1993). It may not be surprising therefore that research has shown that many women feel overwhelmingly unattractive during pregnancy, particularly because their bodies are in a state of uncontrollable change, which makes the media image of a tight, toned body even more unachievable (Hofmeyr, Marcus & Butchart, 1990). Whilst pregnancy is an important time in a woman's life, during which the health and well-being of her

unborn child and herself are paramount (Franko & Walton, 1993), it is also a time in which she is likely to re-evaluate her appearance as her body size increases and changes in shape take place (Skouteris et al., 2005).

Interestingly, the women in the present study commented on the invisibility of the 'average pregnant woman' in the media. This supports the media text findings that if the pregnant form is to be depicted in the newspapers, images that are presented clearly emphasise the positive aspects of pregnancy only and use thin-ideal celebrity images wherever possible to accentuate this. As such, it is self-evident that the media ought to play a more supportive role in promoting a more positive body image in pregnant women.

That said, women perceived themselves to be fairly rational when thinking about this issue. They knew the media images of women were unrealistic and yet they were unable to resist engaging in upward-comparisons. For the women in the present study, self-comparison with media images that depict celebrity pregnancies and other pregnant women around them, precipitated anxieties about such expectations early on in pregnancy, irrespective of how irrational and unrealistic they saw such expectations to be. Half of the women in Clark et al.'s (2009b) study reported to have received comments about the size of their stomach, which had made them worried about the health of their pregnancy.

In terms of unrealistic expectations, Clark et al.'s respondents described postpartum experiences of their body as being more negative than they had anticipated and one woman discussed her desire to have been provided with more of a realistic outlook. These two issues were voiced by the still-pregnant women in the present study, which demonstrates that even at a time when women should feel free to relax about societal expectations, pregnancy does not necessarily provide a period of respite from appearance-related concerns as they might have hoped. As has been documented in Chapter 7, the postpartum period represents the most significant period of body image vulnerability (Jenkin & Tiggemann, 1997; Rallis et al., 2007; Skouteris et al., 2005; Stein & Fairburn, 1996). If, as has been suggested, unrealistic expectations contribute to negative body attitudes postpartum (Clark et al. 2009b; Heinberg & Guarda, 2002), this again highlights the need to provide a woman with information that is 'realistic' and 'honest' during pregnancy, thus giving them the opportunity to relax about appearance-related expectations and enjoy the experience of pregnancy for what it is. As has previously been found, women who do wish to restore their pre-pregnancy body shape find it difficult to cope balancing their own expectations with a disrupted routine, sleep patterns, and mealtimes following the birth of their baby (Stein & Fairburn, 1996). This is particularly more problematic for

women living in a society where a high value is placed upon 'thinness' (Stern & Kruckman, 1983). As has been reported previously in a review (Johnson et al., 2013), some women in the present study wanted clear guidance and specific advice regarding weight objectives and exercise goals that was unique to them. If this information was more readily available and openly discussed during maternity care provision, then it is plausible to suggest that this information would start to filter into wider society. This may then have an indirect effect of reducing societal perceptions that merely focus on outward appearance. Both the media text and present study can offer evidence for this assertion.

“Light exercise? What is that?” – Role of exercise in pregnancy

The overwhelming perception was that advice related to exercise was either lacking or conflicting. All of the women turned to other sources because they deemed any information from health professionals as inadequate. For many however, the perception of risk put stop to engagement in exercise. In some situations, pregnancy-related physiological symptoms restricted exercise participation, regardless of the importance placed upon its role. For some, exercise was expected to serve its purpose in terms of facilitating weight-control and weight-loss postpartum.

In Clark and colleagues' (2009b) study, women were not asked specifically about physical activity during pregnancy, however some had described a decreased ability to exercise which had forced them to relax about having to control their body through exercise. Some participants in their study also spoke openly about relaxing dietary restraint procedures. As the media text analysis demonstrates, media messages still appear to be prevalent in terms of guidelines around calorie intake and eating behaviours, and yet according to Clark et al.'s findings, women appeared to be taking more ownership of their behaviours and perhaps retaining some level of control over their pregnancy experience. Contrary to this suggestion, the women in the present study were more likely to report resigning control than relaxing control as is demonstrated in the final theme.

Irrespective of risk perception, the present study clearly demonstrates that physiological symptoms in pregnancy dictate a woman's choice and ability to participate in exercise. This finding has supported previous meta-analytic research that suggests increased fatigue and anxiety as commonly cited barriers to exercise (Poudevigne & O'Conner, 2006) and thus helped to explain the 60% of women that were inactive during their pregnancies.

For the women who exercised prior to pregnancy and subsequently stopped (in the present study), the lack of physical activity was frustrating for a number of reasons. For the majority of women this was related to either medical-related

conditions or pregnancy-specific symptoms (such as nausea or fatigue). As has been found previously, frustrations around a self-perception of poor fitness, lack of strength, and even unattractiveness have been intensified by debilitating, physical symptoms (Duncombe et al., 2009; Evenson et al., 2009; Hofmeyer et al., 1990; Johnson et al., 2004; Kamysheva et al., 2008; Symons Downs & Hausenblas, 2004). In the present study, the inability to exercise hindered most from holding on to a familiar routine that was important to them prior to becoming pregnant. Once women had stopped their routine for a prolonged period, most found it difficult to resume even low levels of physical activity. For some, this meant they were unable to run or participate in exercise classes or had to adapt their routine to accommodate the physicality of being pregnant. Others voiced their frustration as they felt unequipped, in terms of official guidance or advice, to make an informed decision as to whether to continue or not. As this advice was perceived as either lacking or inadequate, many women chose to stop simply due to a perception of risk to the fetus, which has been emphasised as an issue in previous research (Clarke & Gross, 2004; Lewis et al., 2008; Weir et al., 2010). As Cioffi and colleagues (2010) discovered, those in the present study who continued to exercise adapted their routines significantly, which helped to strike a balance between the individual drive to remain active with the perceived need to avoid potential harm to their baby. Two of the nine women in the present study, had no interest in pursuing any form of exercise (other than walking) despite a relatively sound awareness of its benefits to both mother and developing fetus.

Despite some women regarding exercise as being beneficial for labour preparation and/or fitness, on the whole, exercise was generally expected to serve its purpose in terms of aiding weight-control and weight-loss postpartum. This indicates that despite still being pregnant, most women were already thinking about the need to exercise post-birth and understood exercise as facilitating the loss of gestational weight-gain. The majority of women interviewed reported that they had not purposefully bought pregnancy-specific magazines and if they had, they were only purchased upon discovering that they were pregnant. Thus the perception about exercise is unsurprising given that findings from the media text study saw exercise represented in UK news media as predominantly a weight-loss tool.

Again, by focusing on the health benefits of exercise during maternity care provision, this might help to educate women as to how some symptoms can actually be attenuated by participation in exercise. More so for women who, by their third trimester, can experience a significant reduction in symptoms (e.g., lower levels of backache and fatigue), despite entering the most challenging period (Wallace et al., 1986). As Da Costa and colleagues (2003) stated, a sound awareness of the health

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benefits of exercise can facilitate continued exercising through pregnancy. That said, there is a clear need to ensure that health professionals (who have direct contact with pregnant women) are fully trained and knowledgeable to discuss exercise programmes and nutrition advice (see previous concerns raised by Brown & Avery, 2012, Heslehurst et al. 2013, and Johnson et al., 2013). Given that findings suggest exercise for appearance-related reasons is associated with lower levels of body satisfaction (Tiggemann & Williamson, 2000) and eating disturbance (McDonald & Thompson, 1992), the need to raise the profile of exercise as a health-related issue would seem more pertinent and timely than ever whilst women are experiencing pregnancy, rather than leaving it for them to discover to the contrary in mass media.

Resigning control

The final theme related specifically to the perception of control, or lack of it. Women felt resigned to thinking that whether it was their pregnancy, their baby, or the symptoms they were experiencing, they themselves were no longer in control; emotionally or physically. Consistent with Skouteris' findings (2011), women experienced standard symptoms of pregnancy: some described internal symptoms as pertinent (such as nausea and backache), others external (such as oedema and stretch marks). Many women no longer felt in control of their body (or their bodily functions at times) and this was rather a challenging aspect to cope with. That said, regardless of the pressure they experienced from media imagery or appearance-related commentary, women felt acquiescent to accept their experience for what it was. This was sometimes attributable to no longer feeling the most important person anymore. Acquiescence towards others however, also involved the invasion of their personal space. Commentary on the women's appearance was generally unwelcomed and unasked for, yet seen to be expected as customary and part-and-parcel of the pregnancy experience. Hence, women felt reluctant to accept, but powerless to challenge, others' touch and commentary.

Interestingly, five women in Clark and colleagues' research referred to a social connection they sensed when approached by people to discuss their pregnancy. This was appreciated in the sense that they felt connected to people in ways they had not been previously. This however was only reported when in the receipt of positive commentary and therefore it is difficult to ascertain how Clark et al.'s respondents felt upon receipt of negative commentary. In the present study, this was clearly a cause for concern for these women and highlights the potentially damaging effect that negative comments can have on a pregnant mother-to-be's self-esteem and self-perceptions.

In Chapter 3, research was presented that documented an increased sense of power (during pregnancy) for those who exhibited symptoms of disordered eating (Crow et al., 2004; Rocco et al., 2005; Von Soest & Wichstøm, 2008). Present findings would suggest that any sense of power my sample of women felt they possessed was somewhat diminished by the time they reached their third trimester. This was often attributed to their size and frequency of pregnancy-related symptoms. The women in the present sample however, did not report any disordered eating behaviours (and this was not asked of them) and yet still reported a loss of control. Hence, it would be worth reiterating that, as an implication of these findings, women who 'do' have a history of disordered eating or report disordered eating behaviours as a direct result of pregnancy, are more closely supported by health professionals as they reach their third trimester.

Sixteen women in Clark et al.'s (2009b) study also perceived changes in their appearance to be 'tolerable, whilst undesirable' and for most, this was attributable to a sense that that their bodies were performing an important function in pregnancy. In some cases, women had reported episodes of sickness as signs of a healthy pregnancy. Fourteen participants were reported as saying that the health and well-being of their developing fetus took priority over their bodies' aesthetic appeal. Participants within the present study echoed these sentiments, although these feelings were particularly more evident in women in their third trimester. Similar to findings by Baker et al. (1999) whereby women manage to adapt positively due to an internalisation of a change in role (i.e. motherhood), this new meaning attributed to women's bodies suggests that as the fetus expands (and potentially as movements become more pronounced), that the reality of pregnancy is ever more salient, and functionality over appearance becomes ever more prioritised, due to the length of time women have spent being pregnant.

ANALYTICAL REFLEXIVITY

As has been described, the data from the interviews were analysed through the identification of themes and conceptual issues in current research. The six-step approach to thematic analysis (Braun & Clarke, 2006) was followed in a systematic manner, whilst focusing on my research aims. This was then reflected in the way in which women experienced, described, and accounted for body image, the role of exercise, and media messages during their pregnancies. This, in addition to reflexive reading of their transcripts helped me understand meaning and produce the analysis. It is hoped that the selected extracts provided in this chapter reflect, as accurately as possible, an account of the women's feelings and experiences; if not just for the

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reader, but on a more personal level, to do justice to the conversations had with the women, who made the effort to confide in me on such matters.

That said, it is important to acknowledge that my own subjective experiences with pregnancy and personal feelings about body image may have influenced the way in which the conversations flowed during the interviews and the way in which I might have been sensitive to particular themes derived from the data. An example that the reader might focus on relates to the theme about a lack of official advice from the women's health professionals. This was an issue that I raised and presented in the *afterword* at the end of this manuscript. That said, this issue was written long after the analysis of the data set but was something that later struck me as a real concern during the journey. As documented previously, the issue of maternity health provision was not initially planned within the interview schedule but was raised once it was regarded to be an important aspect for the women. I have ensured therefore that this theme contains a wealth of quotations to demonstrate the strength of feeling amongst the women that were interviewed.

LIMITATIONS OF THE STUDY AND FUTURE RESEARCH

It is important to acknowledge that these findings may have been more insightful had these women participated in follow-up interviews after their births to discuss feelings in the postpartum. Clark and colleagues' (2009) study interviewed both women during pregnancy and in the postpartum. That said, these were not the same women and therefore it is difficult to say whether postpartum experiences might have been different had they followed through with the same respondents. In order to further knowledge on the transition into the postpartum, future research would benefit from a more longitudinal period of contact. Despite this acknowledgement, Clark et al.'s (2009b) study suggested similar findings to this analysis. For instance, in the present study, participants also commented on the social expectation for their bodies to not look visibly 'large' post-birth. This was something they were especially concerned about having to cope with. One might argue that these concerns therefore are not necessarily restricted to the postpartum period and therefore should be something that should be acknowledged and investigated more thoroughly during pregnancy.

Prospective research would benefit from exploring the experiences of both nulliparous and multiparous women, given that all the women in this study were first-time, pregnant mothers-to-be. As has been reported in the present study, women found internet forums useful when trying to ascertain information on specific aspects such as appearance-related issues, exercise, and diet. The main reason cited for this was because they wanted to learn from and communicate directly with women who

had previously experienced similar occurrences (e.g., experience of stretch marks or eating certain foods). One might therefore suggest that as women long for realistic information, then a study employing focus groups with women of varying parities might serve as a positive and enlightening experience for those experiencing pregnancy for the first time; women of multiple parities would then have the opportunity to share their knowledge and expertise.

With regards to maternity care provision, it must be acknowledged that the research findings of the present study relate solely to individuals' perceptions and experiences, and therefore may not be a true reflection of antenatal care provided across the UK. That said, it would be beneficial to conduct future research incorporating body image issues within an antenatal class as an intervention, as this tends to be an area that is most overlooked during a woman's antenatal appointments, as reported by the women in the present study.

Recent concerns have also been raised about the issue of 'weight stigma', currently prevalent in Australian maternity care settings, thus highlighting disparity between the care of normal-weight, overweight, and obese women in clinical practice (Mulherin, Miller, Barlow, Diedrichs, & Thompson, 2013). There is a need therefore to incorporate both women's experiences and maternity care providers' perspectives within future research to assess whether this issue is prevalent in the UK. This is particularly timely as weight stigma has been reported to be the fourth most frequent form of discrimination in the United States (third most common form reported by women) and studies from Australia, Europe, and North America have begun to document incidences within professional settings, such as employment (Puhl, Andreyeva, & Brownell, 2008).

CONTRIBUTION OF THE FINDINGS

The findings of the present study confirmed that experiences of pregnancy were enhanced in both physical and psychological ways. Women felt overwhelmingly positive upon the arrival of their baby bump, so much so that this gave them the freedom to openly display their pregnant form to others. This affirmative event brought both a sense of pride and verification. This indisputable sign of pregnancy becomes a time when a woman can relax about previous appearance- or weight-related concerns. Whilst this feeling may only be short-lived as she approaches the later trimesters and symptoms become more cumbersome, this becomes a salient period when women begin to appreciate the functionality of their body and acknowledge it for what it can do and not how it appears to others. Despite having to resign control over to their body in terms of symptoms and weight-gain, this poses a crucial time

when women begin to bond more closely with their developing baby and appreciate the wonder of the pregnancy experience.

CONTRIBUTION OF THE METHOD

A critical consideration of psychological research is to assess the value the research project brings to the existing body of knowledge. This will inevitably be for the reader to judge. The critical outlook on how the overall research project functions and is located within broader theoretical and methodological debates, also known as *disciplinary reflexivity* (Wilkinson, 1988), will be discussed towards the end of the thesis in Chapter 14. It was emphasised in the media text study that in order to progress, it was important to explore how women constructed meaning in relation to health messages in the media to account for the practice of certain health behaviours (Madden & Chamberlain, 2004). The use of a qualitative, semi-structured interview, in a one-to-one setting has facilitated women being able to express themselves and their subjective understandings of first-time pregnancy. This has given me the opportunity to explore their perceptions in terms of exercise behaviour and gain a meaningful understanding of how women account for appearance-related pregnancy messages conveyed by the media.

The rapport between interviewer and respondent and resulting conversations have the potential to be perceived as helpful, even therapeutic, particularly when participants are enabled to express their feelings, anxieties, and antagonisms (Nicolson, 2003). In terms of value, this appears to have been a mutually rewarding and personally gratifying process, validated by the feedback I have received from the women I interviewed. Although none of the women were able to commit to reading a full report of the findings, most thanked me for attending to certain research issues (e.g., the acknowledgement of body-image concerns for first-time pregnant women) that they had been either concerned about themselves or where they had felt that advice was lacking. Some commented on how interesting our discussions had been and how it had encouraged them to think more positively about their bodies. One woman remarked that she felt it was “about time someone took this seriously”. Three women unexpectedly contacted me via email following the birth of their babies to pass on the news of their children’s names and birth weights and wish me well in my research endeavours. For me, this was incredibly gratifying and humbling, and at times, spurred me on through the challenging stages of data analysis. Moreover, this reinforced my confidence in conducting qualitative research and the power of a meaningful interview.

IMPLICATIONS FOR STUDY 3

The present study did not focus on mood or depressive symptoms during pregnancy. As Poudevigne and O'Connor (2006) stated, mood was negatively affected following reduced levels of physical activity and was explored by Clark et al. (2009) in relation to bodily experiences. This suggests that motivations for exercise are worthy of further investigation, to explore not only their association with exercise behaviour, but with body image attitudes too.

On the basis that women during the postpartum period are at high risk of body image disturbances, in an attempt to return to a pre-pregnancy shape (Heinberg & Guarda, 2002), further research into whether such concerns are exacerbated during pregnancy (see Duncombe et al., 2008) is warranted, in addition to assessing any practical and adjustive behaviours pregnant women may adopt that might help to retain a positive body-image attitude.

These findings have informed variables for the final study in this thesis. As Clark and colleagues (2009) state, it is necessary to ensure that any measured study of women's experiences incorporate specific elements unique to this time (e.g., documented decline in physical activity). This provides another justification for employing the use of qualitative research that precedes a study underpinned by theoretical measures.

SUMMARY

The present chapter has reported findings from the second piece of qualitative research. The aim of this study was to develop a rich and meaningful understanding of women's appearance-related experiences of first-time pregnancy. This included an examination of the role of exercise during pregnancy and perceptions regarding the representation of the pregnant body within media messages. Six main themes provided an analytic account of the women's experiences as have been accounted for in the discussion. Both strengths and limitations of the study have been acknowledged and implications for Study 3 have been outlined in brief. Chapter 10 will briefly present the reader with a thesis development thus far, before moving on to a discussion of body image theories that have been shown to be relevant from Study 2.

CHAPTER 10

THEORIES OF BODY IMAGE & CASH'S COGNITIVE-BEHAVIOURAL MODEL OF BODY IMAGE

INTRODUCTION

The present chapter begins with a thesis development section, briefly documenting the main findings, thus far, from Studies 1 and 2. The chapter then moves on to review the literature on body image theory and research (specifically that of Social Comparison theory and Objectification theory) that will bear relevance to findings from Study 2 and strengthen the rationale for Study 3. The sociocultural perspective and concept of thin-ideal internalisation have already been introduced in Chapter 4 to contextualise current media research and the findings from Study 1. Finally, the chapter will document the multi-dimensional factors within Cash's latest cognitive-behavioural model (2011a) and the role that each dimension plays in the development of body image experience, before detailing the aims of the final study within the summary.

THESIS DEVELOPMENT

Findings from Study 1 imply that the pregnant body is overlooked within popular fashion magazines. In conjunction with the news publications, where the emphasis is on celebrity women, the media overtly promote the notion that beauty equates with the concept of the thin-ideal. This was achieved through the use of appearance-related messages that had an overwhelming emphasis on disciplining the postpartum body in order to regain one's pre-pregnancy shape.

In total, six major findings arose from the media analysis. First, it was notable that there was an overall invisibility of the pregnant body or pregnancy within UK women's lifestyle / fashion magazines. Furthermore, themes were identified across the two main sources (magazines and online news content) to reflect conflicting messages about i) bodily change, ii) postpartum weight loss, and iii) the role of exercise. On the whole, messages regarding bodily change and postpartum weight loss were more realistic in magazines than news-sites. Moreover, news-sites promoted exercise as a weight-loss tool, while magazines suggested exercise promoted health and fitness. In addition, there was consensus across all media categories that pregnant women should not be "eating for two". Finally, tabloid news depicted women negotiating whether to conceal *or* reveal their pregnant appearance.

The next stage in the process was to gain an understanding of how first-time, pregnant women felt about their bodies and perceived their appearance during

pregnancy. The prominent themes from the media analysis helped to inform the foundations of an interview schedule for Study 2. Women were therefore questioned about their thoughts in terms of how they perceived the pregnant body being represented in the media and their thoughts about the role of exercise during their pregnancy. This was an opportunity for women to ascribe meaning to their individual pregnancy experiences and discuss certain psychosocial factors that were pertinent to them.

Six main themes were generated from an analysis of the interview data. In summary, the early stages of pregnancy showed to be the most challenging for first-time pregnant women. Despite feeling elation in the knowledge that they were pregnant, they concurrently experienced the onset of somewhat debilitating physiological symptoms together with sudden physical change, in particular that of increased weight-gain. This was problematic for women in terms of making decisions around disclosure. Feelings of self-consciousness developed, attributable to self-perceptions of weight-gain or triggered by appearance-related commentary or perceived thoughts from others. Hence, the women in this study went to great lengths to conceal their bodies whilst anticipating the visibility of a baby bump. The appearance of a baby bump was both significant and meaningful for many women. Women suddenly had validation of their pregnancy and a justification for their expanding bodies. The bump also marked a shift in clothing practices. Henceforth, women chose to openly display their pregnant form using close-fitted clothing. In some respects however, this was also an implicit gesture to others to keep their distance.

Study 2 also highlighted that pregnancy does not necessarily provide women with the respite from appearance-related concerns as they might have been expecting. Some women perceived their bodies to be under continued scrutiny through pregnancy and thus, felt pressure to conform to others' or society's appearance-related expectations. Perceived expectations about weight loss and recovery of their pre-pregnant shape were not restricted to the postpartum as has been established in previous research (Clark et al. 2009b; Heinberg & Guarda, 2002). In addition, when women engaged in social comparison, they felt compelled to question their own pregnancy experience or appearance.

There was an overwhelming strength of feeling towards the lack of information from health professionals regarding pregnancy exercise and nutrition. Exercise appeared to serve its purpose in terms of facilitating weight-control during pregnancy and weight-loss postpartum. Hence, the absence of information, perception of risk, and encumbering physiological symptoms all had a negative impact on women's

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confidence and ability to exercise. Women remarked on relinquishing control to both their body and their developing fetus as their pregnancy progressed. More positively however, they were motivated to accept their experience for what it was, irrespective of thin-ideal media pressure or comparison with women around them, because of an appreciation of their body's functionality. That said, in accepting their experience, they reluctantly tolerated others' expectations to touch them or make comment. Hence, women experienced displeasure at the invasion of their personal space. The chapter now moves to a discussion of body image theories that have resonance with findings from Study 2.

SOCIAL COMPARISON THEORY

From a sociocultural perspective, societal norms of appearance and pervasive images depicting thinness have, thus far, shown to be particularly problematic for women, more so if they have a tendency to embrace and internalise those same values. If one accepts the concept of 'normative discontent', first coined by Rodin et al. (1984), then one might expect weight dissatisfaction and body-related concerns, predominantly in women, to now be the norm, as opposed to an atypical occurrence. This theory has been supported by recent research whereby fat and calorie restriction, for example, are considered more normative for women than men (Tantleff-Dunn, Barnes, & Larose, 2011). Yet sociocultural theory has been critiqued for its inability to explain the diverse nature of body image experiences which appear to occur along a continuum (Thompson et al., 1999). An alternative process that attempts to explain body dissatisfaction in a cognitive sense is social comparison theory, initially proposed by Festinger (1954) to apply to the evaluation of abilities and opinions. Festinger posited that individuals establish their personal identity by making self-comparisons with those who have similar opinions or abilities, based on valued and salient characteristics. Such individual differences moderate our ability to define ourselves and evaluate our strengths, against an objective standard or other person. He used the example of a chess novice who would not be likely to evaluate their own skill as high, in comparison to a chess master. This implies that individuals are less likely to make 'upward-comparisons' during the process of self-appraisal, as a master's superiority is considered less relevant.

This theory has since been applied in appearance research when assessing levels of body dissatisfaction and examining exposure to idealised media images (e.g., Dittmar & Howard, 2004; Tiggemann & McGill, 2004). Broadly speaking, individuals' strategically employ social comparisons to enhance or maintain self-esteem, although there is great variability in the extent to which individuals engage in social comparison (Halliwel, 2012). In keeping with Festinger's position, one would

rationality expect an average woman to regard a professional model or celebrity as an irrelevant target for comparison (Strahan, Wilson, Cressman, & Buote, 2006). Consistent with Festinger's view and notwithstanding a small sample, participants' have been found to rate themselves lower on self-perceived attractiveness, when exposed in the short-term to images of 'non-professional' models compared with 'professional' models (Cash, Cash, & Butters, 1983). This, the authors suggested, implies that short-term exposure to beautiful models in magazines would result in only a modest impact on women's self-image.

Studies have also shown that appearance-related comparison with peers and immediate family members may demonstrate significant influence upon an individual's self-image, particularly in terms of levels of perceived attractiveness amongst siblings (see Rieves & Cash, 1996) and decreased levels of body satisfaction and exercise duration in the presence of confederate 'slender' and 'fit' peers (Wasilenko, Kulik, & Wanic, 2007). When exercising in a group context, it is unsurprising that pregnant women might use other pregnant women as possible sources of social comparison, which may in turn impact on levels of body satisfaction (Boscaglia et al., 2003). This was evident in Nash's (2012, p. 315) work whose participants described feeling the greatest amount of pressure when reflecting upon their sisters' experiences of pregnancy, who were perceived to provide a "more realistic template", as opposed to comparison with celebrities. Wasilenko et al. (2007) highlight that whilst the media is regarded as the chief determinant of idealised values, the number of comparisons amongst everyday, similar others is likely to be more frequent, which may have more deleterious and direct implications. One might expect this to be the case during adolescence, when peers' critical role in the characterisation of self-identity and definition of social standards can have an impact on those with body image vulnerability (Davison, 2012).

Nonetheless, it is not always the case that individuals' focus solely on similar others when assessing personal goals. Traditionally, 'upward' comparisons have been regarded to facilitate self-improvement, as a source of motivation, where downward comparisons can be regarded as self-enhancing, surpassing those who are inferior on a certain attribute or ability (Wood, 1989). Yet despite Cash et al.'s (1983) findings, research has since shown that in an upward comparison condition, exposure to 'thin and beautiful' images need only last a few minutes before body dissatisfaction is increased (Groesz, Levine, & Murnen, 2002; Yamamiya, Cash, Melnyk, Posavac, & Posavac, 2005) and ascribed comparison targets, such as professional models, are not necessarily so irrelevant when predicting body-image disturbance (Heinberg & Thompson, 1992). This body of evidence therefore suggests

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that upward social comparisons are actually associated with increased negative affect and decreased self-esteem; similarly that downward comparisons occur when individuals feel threatened and result in positive self-regard (Halliwell, 2012). In addition to this, the significance of the attribute or aspect under evaluation (e.g., beauty) may have a direct influence on the comparison process, not just the target itself (Wood, 1989). Hence, the growth and advancement in contemporary theory over the past sixty years seem to have demonstrated Festinger's apparent underestimation of social comparison salience and all its complexities (Halliwell, 2012).

According to Thompson et al. (1999), appearance-related social comparison has generally been studied using correlational methods (e.g., Heinberg & Thompson, 1992; Rieves & Cash, 1996) and experimental methods, whereby comparison targets (see Strahan et al., 2006) or upward and downward comparisons have been manipulated to examine their impact on attitudinal body image. Despite a non-significant difference between upward (i.e., attractive images) and control conditions (i.e., blank slides with no images), Van den Berg and Thompson (2007) found, after an examination of means, a downward (i.e., less attractive) condition produced greater satisfaction, positive mood, and self-confidence scores, which further supported Groesz et al.'s (2002) meta-analysis findings that viewing media images of highly attractive women results in increased body dissatisfaction compared to viewing less attractive women.

There is also evidence to suggest that those with higher trait thin-ideal internalisation are also more likely to make appearance-related comparisons, strengthening the association between upward comparisons and body image disturbance (Engeln-Maddox, 2005; Myers, Ridolfi, Crowther, & Ciesla, 2012). In an earlier meta-analysis, Myers and Crowther (2009) found a compelling relationship between social comparison and body dissatisfaction, having gathered data from 170 studies ($N = 35,218$) and a total of 186 effect sizes (average $d = 0.77$) thus supporting the theory that critically comparing oneself to others in terms of appearance is associated with increased feelings of body dissatisfaction. In addition to upward appearance-related comparisons strongly predicting body image disturbance, so too has an association been established between perceived appearance-related commentary and social comparison, where the higher the frequency of negative comments, the higher the number of upward comparisons were made, and the greater the number of positive comments, the more frequent downward comparisons were made (Bailey & Ricciardelli, 2010). Hence, the authors inferred that although using cross-sectional data, negative appearance-related commentary can reinforce societal standards of the ideal body appearance, resulting in an increased tendency for an individual to critically evaluate themselves through social comparisons.

Yet despite this well-documented link, it is too simplistic to assume that appearance-related comparisons inevitably lead to negative emotional outcomes. Recent evidence by McKee and colleagues (2013) suggests that having a positive body image (i.e., viewing one's body as having a positive impact on one's life) can increase feelings of inspiration and lessen feelings of envy following physical appearance comparisons. Despite the authors recruiting a rather homogenous sample of young, European, or American women, they also noted how diversity amongst close friends can act as a protective buffer against negative emotional reactions that are linked with appearance-related comparisons.

Although experimental studies have greatly enhanced our understanding of the outcomes of appearance-related social comparisons, more recently, qualitative methods, using interviews and diaries have been effective in gathering data on social comparison behaviours in naturally-occurring and everyday instances and the emergence of individual differences (Halliwell, 2012). Diaries allow the participant to record their naturally-occurring social comparisons as they make them and interviews allow participants to provide rich information on their reasons for social comparison tendencies in everyday life. In light of these advances however, more work needs to be conducted on social comparison tendencies throughout adulthood, due to the bias in previous sampling methods. Too much of the existing research on appearance in general (and more specifically in the development of body image measures) has relied upon student samples (Rumsey & Harcourt, 2005). For example, Tiggemann and Polivy (2010) acknowledged that their sample was, in the main, constrained to young, female, White university students, which offers little prospect for generalisation across the lifespan. In addition to this, further research should not only attend to the nature of the condition under which participants are exposed, but also to how women actually respond to media imagery and the cognitive processes that may trigger social comparison outcomes. This is particularly important given that much of the research has produced largely quantitative findings.

OBJECTIFICATION AND THE CONSTRUCTION OF FEMININITY

"We may be obsessed with our bodies, but we are hardly accepting of them."

Susan Bordo (2003, p. 15.)

Rather than being viewed as a universal and objective reality, in her book "The Beauty Myth", Naomi Wolf (1991) described 'beauty' as a currency system and a

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manifestation of power relations, whereby differing cultural ideals rapidly change and from which a woman's identity is founded. Having struggled with body-image issues for a significant period in her life, the feminist academic, Susan Bordo (2003) described the pervasive nature of Western ideology and representations of the female body which makes women vulnerable and preoccupied by slenderness. Such thin-ideal images were prevalent in the media text study. Once women internalise these ideals, they inevitably hold themselves to account using body shame and self-loathing. Susie Orbach, the British psychotherapist, social critic and activist has also written extensively about women's bodies being regarded as commodities and regularly exploited (see Orbach, 1997; 2009).

Originated from feminist research that has centred on the sexual objectification of women, among various other oppressive practices against women, was the notion that the female body is placed in a sociocultural context, as a collection of body parts, existing for its consumption or sexualised evaluation by others. Objectification theory, developed by Fredrickson and Roberts (1997) offered a way to understand the psychological consequences of internalising lived experiences of such treatment that appears to be uniquely directed towards females. Fredrickson and Roberts (1997) used the example of an objectifying gaze, which occurs either in interpersonal or social encounters or within visual media depicting such encounters or highlighting body parts (e.g. in music videos). Where men are often depicted with an emphasis on their head or face, women are very much portrayed by the use of their bodies and using sexualised images. Through a process of socialisation, women take possession of such values and assimilate them into their sense of self (Costanzo, 1992). This internalisation of others' perceptions or evaluations leads to self-objectification (argued to be an individual-difference variable by Fredrickson & Roberts, 1997), exhibited by mechanisms such as self-surveillance (e.g., persistent self-monitoring) on the premise that physical attractiveness and beauty brings forth social and economic success (Unger, 1979). Self-surveillance leads to emotions of body shame (when one falls short of these universalised ideal standards), anxiety, self-consciousness and an inadequate awareness of internal bodily states, for example, hunger (Fredrickson & Roberts, 1997). In viewing our bodies through this objectified lens, this allows women to dissociate themselves psychologically from and develop negative emotions towards their bodies (Calogero, Davis & Thompson, 2005).

Objectification theory and an earlier empirically validated measure of surveillance, body shame and appearance control beliefs (Objectified Body Consciousness Scale: OBCS, McKinley & Hyde, 1996) have offered a unique framework for assessing the link between socialisation and sexual objectification,

which are then translated into negative mental and physical health outcomes. Such outcomes are marked by depressive symptoms (Tiggemann & Kuring, 2004) and disordered eating (Calogero, et al., 2005; McKinley & Hyde, 1996) and adjustive behaviours: such as the propensity for body change through cosmetic surgery (Henderson-King & Henderson-King, 2005) and smoking as a weight-control mechanism (Fiissel & Lafreniere, 2006). This theory has also been empirically tested and applied to adolescent girls (Slater & Tiggemann, 2002) in that self-objectification and self-monitoring were moderately strongly correlated with body shame, appearance anxiety, and disordered eating. More recently, this theory has been applied to a pregnant sample (see Rubin & Steinberg, 2011) whereby having found that increased body surveillance was linked with depressive symptoms, Rubin and Steinberg highlighted a need to include body functionality satisfaction as a potential protective factor. This would suggest supporting the inclusion of positive facets into the wider study of body image, rather than consistently focusing on the more negative aspects.

SUMMARY

The chapter, thus far, has acknowledged and contextualised the body of work that has been applied to appearance-related theory and research. Although not an exhaustive list, this chapter has focused on Social Comparison theory and Objectification theory as these were particularly relevant to the findings from Study 2 and the current literature that is specific to body image and pregnancy. The chapter now proceeds to discuss Cash's (2011a) cognitive-behavioural model and the role that each dimension plays in the development of body image experience as this model theoretically underpins Study 3.

CASH'S COGNITIVE-BEHAVIOURAL MODEL OF BODY IMAGE DEVELOPMENT

As described in the thesis overview, body image is widely considered to be a multi-faceted concept (Cash, 1990, 1996; Thompson, 1990). Of the numerous multi-dimensional models proposed, Cash's original (1996) cognitive-social learning framework presented body image as a variable state, shaped by an array of contextual events. This model was inclusive of a number of complex processes (e.g., self-schema) and social constructs (e.g., personality) and aimed to conceptualise

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body image attitudes in terms of disturbance. This causal framework has since been revised (Cash, 2002, 2011a) using a model that draws on the interaction among “social learning and conditioning processes and the cognitive mediation of behaviours and emotions” (2011a, p. 39).

Thus far, the thesis has directed the reader towards existing research that points to the importance of appearance-related factors and exercise behaviours amongst pregnant and postpartum women. The findings from both Studies 1 and 2 have identified individual determinants that may have an impact on women’s appearance-related experiences during pregnancy (e.g., messages associating exercise with weight loss, experiences of pregnancy-specific physical symptoms, inadequate health-related information, increased gestational weight-gain). These factors have been presented in support or in contrast with existing research. That said, there is a lack of consideration given to the possible interrelationship between these determinants within established findings.

The remainder of this chapter will focus specifically on the multi-dimensional historical and proximal factors within Cash’s revised cognitive-behavioural model (2011a). Cash (2011a) has since argued that many aspects (e.g., a historical factor or proximal event) hold influence over another (e.g., body image emotions and coping strategies within the model), hence the inclusion of bi-directional arrows within the revised model to demonstrate interactions (i.e., reciprocal loops) among the different variables. That said, Cash (2002, 2011a) acknowledged certain caveats, that although the models were intended to facilitate the organisation of multidimensional body image variables and have since included directional arrows, by no means do they deliver a causal explanation for the development of body image or represent definitively the complexity of interactions between internal, external, and behavioural factors. The relevant components for this thesis will be discussed using findings from Studies 1 and 2 to contextualise their meaning. Cash’s (2011a) revised version is displayed in Figure 12:

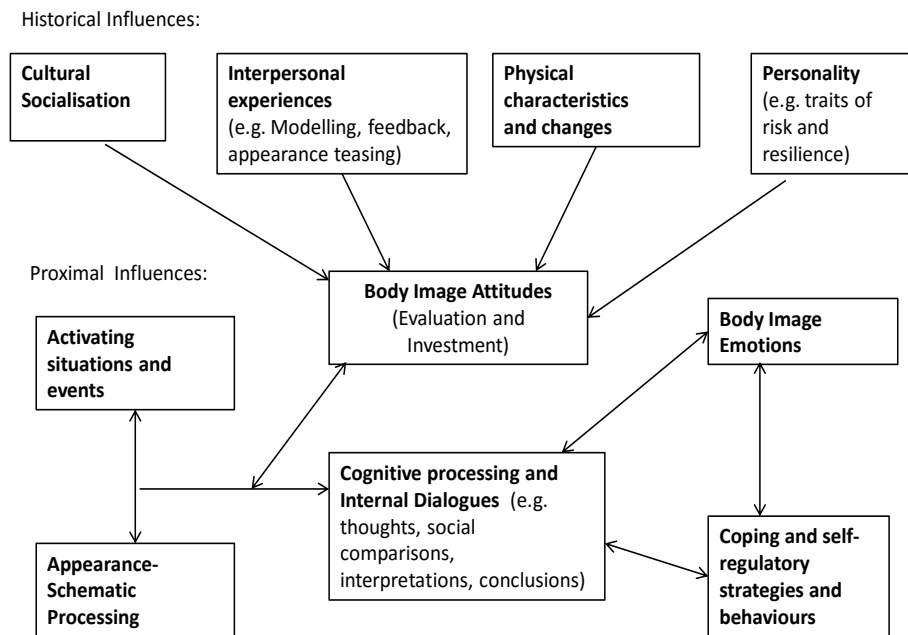


Figure 12: Body image: Dimensions, determinants, and processes. Reproduced from Cash (2011a, p. 41).

HISTORICAL INFLUENCES

Historical factors refer to past events, attributes, and experiences that i) predispose how people come to think, feel, and behave in relation to their body (Cash 2002, 2011a), and ii) shape the acquisition of our body image attitudes (Cash, 1996). Historical factors (e.g., sociocultural factors, interpersonal experiences, physical characteristics, and personality attributes) are distinguishable from proximal or concurrent events and processes (e.g., body image schemas and attitudes, body image emotions, internal dialogues and adjustive strategies and / or coping behaviours) that govern body experiences in daily life (1996).

Cultural socialisation

Cultural socialisation (or 'sociocultural influence' as it will be referred to from this point on) can include the internalisation of cultural messages which convey normative (and often gender-based) standards, values, and expectations about appearance (e.g., media messages, societal norms). The tendency to internalise the socially-constructed value of thinness can be influenced by perceived sociocultural pressure to be thin (Stice et al., 1996) and is thus deemed to be a principal correlate of and risk factor for body image disturbance, if individuals' yearn for and make every effort to

achieve a thin body. The source of perceived pressure can originate from family, peers, partners, and / or the media (Stice, Nemeroff & Shaw, 1996). It has been extensively-documented in this thesis that media communicate stringent sociocultural ideals of appearance for women (Tiggemann, 2002; Wykes & Gunter, 2005), which is particularly problematic if they have a tendency to embrace and internalise those same ideals and values (Thompson et al., 1999).

As has been demonstrated in both Studies 1 and 2, cultural messages about appearance reinforce the value of the thin-ideal body shape and have the power to negatively influence women's perceptions of their appearance in comparison with what is considered to be socially-valued. The use of 'fat-talk', as one example, has now become a social norm and is said to correlate strongly with increased body dissatisfaction and internalisation of a thin-ideal body shape (Salk & Engeln-Maddox, 2011). In Study 2, women frequently commented on their concerns about feeling 'fat' or being viewed as 'fat' rather than pregnant. These concerns originated not only from exposure to media messages, but as a result of conversations with others around them. That said, positive appearance-related commentary (from partners) had the effect of reassuring the women when they were feeling less confidence about their appearance. It is plausible to suggest that direct or indirect interaction with peers, family, or partners may have some impact on pregnant women's body image attitudes. Cultural messages may also advocate body-modifying behaviours, such as dieting or exercise, to attain societal standards (Cash, 2011a). This was demonstrated not only in the findings of Study 1, but also in Study 2 where respondents, during pregnancy, perceived exercise in the postpartum as a mechanism to achieve weight loss.

Interpersonal experiences

Interpersonal experiences encompass interactions with peers, family, friends, and even strangers who express the value of appearance. During these interactions, verbal and non-verbal communications about appearance norms and societal expectations can influence feelings of body image dissatisfaction. Research has shown that societal messages regarding thinness and attractiveness, upheld by parents, peers, partners, and strangers, through appearance- or weight-related commentary, can affect both children (Smolak & Levine, 2001b; Ricciardelli & McCabe, 2001) and adults (Thompson, Herbozo, Himes & Yamamiya, 2005). This was illustrated in the findings of Study 2, whereby appearance-related commentary or opinions from work colleagues and even strangers had the capacity to negatively impact on women's self-image and made them question their appearance or experience according to perceived ideals. These were at times, standards by which they compared themselves, although also included external comparison by others. In

the present study, this was a cause for concern for these women and highlights the potentially damaging effect that negative comments can have on a pregnant woman's self-esteem and self-evaluations.

That said, research is limited that addresses the impact of appearance-related commentary (Herbozo & Thompson 2006a; Calogero, Herbozo, & Thompson, 2009) and samples are generally restricted to Caucasian female undergraduates (Calogero et al., 2009; Herbozo, Menzel, & Thompson, 2013). Where both criticisms and compliments have been assessed, the findings are equivocal. Positive weight and positive general appearance comments can result in improved body image (Herbozo et al., 2013) and self-esteem (Herbozo & Thompson, 2006b). As was found in Study 2, positive appearance-related commentary and complimentary feedback received from spouses or partners had the effect of reassuring the women if they felt less secure about their appearance. In contrast, experiences of complimentary appearance commentary can also be associated with higher levels of body surveillance and body dissatisfaction (Calogero et al., 2009). Calogero and colleagues inferred that although complimenting a woman on her weight and shape may appear uplifting, the compliment is a reminder to her that she is being assessed and valued based on her appearance, and more specifically in terms of how her body shape approximates that of the thin-ideal (2009).

Interpersonal experiences may also involve social or self-comparison on some level. It has previously been documented in the present chapter that levels of body satisfaction and exercise duration can decrease significantly when an individual is in the presence of a 'slender' and 'fit' peer (Wasilenko et al., 2007) or where pregnant women might use other pregnant women as possible sources of social comparison when exercising (Boscaglia et al., 2003). As has been discussed, siblings have been found to instil the greatest amount of pressure on individuals' experiencing pregnancy (Nash, 2012).

Physical characteristics and changes

Physical characteristics refer to how one's body image development is affected by actual physical appearance and how this corresponds with societal expectations (e.g., pregnancy, pubertal maturation, obesity). As has been documented in the thesis overview, understanding cultural expectations of physical attractiveness is crucial to addressing self-evaluations of appearance and other attributes (Tiggemann & Polivy, 2010). As the body changes physically, from childhood to adulthood, so does the development of one's body image.

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As reported in Chapter 7, pregnancy is a time when a woman's body, shape, and weight can alter dramatically over a short period (Kamysheva et al., 2008), consequently deviating from society's thin-ideal standard (Dworkin & Wachs, 2004; Rumsey & Harcourt, 2005). Besides weight and shape, women also experience other appearance-related changes, some of which may be welcomed and some not so. These changes may be perceived as either an improvement or deterioration, and may be either temporary or become permanent (Heinberg & Guarda, 2002). Women are likely to experience hormonal fluctuations and pregnancy-related physical symptoms which can present both internally and externally (Skouteris, 2011). As has been demonstrated in Study 2, pregnancy was perceived as a time of rapid expansion, in which women experienced appearance-related changes that were not necessarily just weight-related, but directly caused by pregnancy (e.g., appearance of striae gravidarum (stretch marks), leakage of colostrum from the breasts, and / or breast ptosis). These changes directly had an impact on how women felt about and perceived their bodies. As Cash (2011a) noted, it is important to consider that this factor within the model may also be mediated by social feedback or commentary (e.g., overweight appearance may prompt more negative appearance-related teasing or a larger bump size may prompt physical contact or commentary from others). To support this assertion, Herbozo et al. (2013) found that overweight and obese women experienced an increased frequency of negative weight and shape-related comments and decreased positive weight- and shape-related comments than that of underweight or normal weight women when assessing levels of body dissatisfaction and eating behaviours.

Personality attributes

Personality attributes include traits such as self-esteem and / or public self-consciousness which may also influence the development of body image attitudes. Some represent risk factors for body image disturbance, such as poor self-esteem or perfectionism for self-presentational purposes (Cash, 2011a). The concept of self-esteem is regarded as a central aspect of psychological well-being, which represents an overall evaluation of one's worth or value (Rosenberg, 1965). As Rumsey and Harcourt (2005) suggested, the self is a fluid and fluctuating entity, and thus is likely to be affected by bodily changes that move closer to or further away from individual and societal ideals. In Study 2, one woman commented that having reflected upon her physical appearance prior to becoming pregnant, she admitted to feeling that she has lost confidence and that it had affected her self-esteem since becoming pregnant. The experience of pregnancy, as explained in Chapter 7 represents a definitive, yet naturally-occurring deviation from a bodily ideal during adulthood. In pregnancy,

higher levels of self-esteem can be regarded as both a predictor (of increased perceived attractiveness) and mediator (between depressive symptoms and salience of weight and shape) due to the rapid, physiological changes that occur (e.g., in Kamysheva et al.'s model, 2008). Likewise, lower levels of self-esteem (along with increased depressive symptoms and anxiety) are associated with EGWG (Hill et al., 2013). Associated with aspects of social support, individuals who are more comfortable receiving help or who have higher levels of self-esteem also report receiving more emotional support (Dunkel-Schetter et al., 1987).

Public self-consciousness, whereby an individual becomes aware of themselves as a social object (Fenigstein, Scheier & Buss, 1975), can facilitate increased self-monitoring and processing of appearance-related information. As has been shown in this chapter, self-objectification (Fredrickson & Roberts, 1997) and body-surveillance (e.g., persistent self-monitoring) can occur on the basis that physical attractiveness and beauty are perceived to yield social and economic success (Unger, 1979). In viewing our bodies through this objectified lens, women may dissociate themselves psychologically from and develop negative emotions towards their bodies (Calogero et al., 2005). Private self-consciousness however, is considered to focus on thoughts and feelings that relate solely to the self (Fenigstein et al., 1975). In Study 2, self-consciousness was perceived to be attributable in part to women's own self-evaluations of weight-gain (i.e., private), yet was also related to appearance-related commentary or perceived thoughts from others (i.e., public). As a result of these evaluations, particularly about specific bodily areas, women went to great lengths to conceal their pregnancies, because of the heightened anxiety they were experiencing. In contrast, as women reached the latter stages of their pregnancies, there was a sense of resilience and positive self-concept, attributed to the appreciation of body functionality. Hence, this more favourable evaluation served as a protective buffer and fostered lower levels of body dissatisfaction that had been reported in the earlier stages.

In addition to self-esteem and self-consciousness, locus of control has been shown to explain health-related behaviours (Wallston & Wallston, 1978; Wallston, Wallston & DeVellis, 1978), albeit playing a modest role when assessed solely (Wallston, 2005). Health locus of control refers to an individual's beliefs or expectancies regarding where the control over his / her health lies; those who hold internal locus of control beliefs or expectancies believe that their own behaviour influences their health status, whilst those who believe that their health is influenced by the actions of others or is due to fate or chance is said to hold an external locus of control expectancy (Wallston, Stein, & Smith, 1994). In Study 2, the women

approaching their final trimester remarked on losing a sense of control in various ways. Some believed they had resigned control to their body, in terms of bodily functions (e.g., constipation or frequent urination), their physiological symptoms (e.g., sickness or fatigue), and weight-gain, whilst others remarked on resigning control to their developing fetus (e.g., a loss of sleep or experiences of uterine pressure dependent upon where their baby was positioned). Regarding physical activity, some believed that the reason they chose to stop exercising was due to a perceived lack of information from health professionals or perception of risk.

Again, it is important to be reminded that appearance psychology should not merely focus on pathology, weakness, and disturbance (Cash, 2002, 2011a). Positive personality traits (e.g., optimism) have the capacity to contribute to and support physical and psychological health; the identification and inclusion of these within research may help us to capture positive body attitudes, such as acceptance of and respect for the body (Avalos, Tylka & Wood-Barcalow, 2005).

BODY IMAGE ATTITUDES

Cash (2002, 2011a) maintained that through cognitive and social learning, historical or developmental factors inform body image attitudes and schemas, which include degrees of investment and dispositional body image evaluation. Body image attitudes are constructs said to organise the interaction between cognitive, behavioural, and emotional processes that occur within a situational context (Cash, 2011a). Attitudes towards one's appearance are likely to also encompass evaluations towards fitness (body competence) and health or illness (biological integrity) (Cash, 2000). Such attitudes are argued to overlap with almost every aspect of our behaviour (Fisher, 1986) and are comprised of two core elements (Cash, 1994; Muth & Cash, 1997): 1) body image *investment* (attentional self-focus, self-schemas; the degree of cognitive-behavioural importance an individual places on their appearance) and 2) body image *evaluation* (self-evaluative beliefs and appraisals; the degree of satisfaction or dissatisfaction a person feels about their appearance).

Body image affect

Body image *affect* pertains to the precise emotional experiences that self-evaluations and investment aspects may elicit in any given, situational circumstance (Muth & Cash, 1997). The affective element of body image includes emotions associated with the body or appearance, such as feelings of anxiety or distress; these may be directed at specific body areas or weight status or may be contextual whereby an individual becomes self-conscious about their appearance in the presence of others (Menzel, Krawczyk, & Thompson, 2011). Those who are said to be more

invested in their appearance and/or negatively self-evaluate their appearance are more likely to experience negative affective states than those who have low investment in their appearance and / or positively self-evaluate their appearance (Cash, 1994; Muth & Cash, 1997). For example, a negative body experience that involves viewing one's body through an external lens or internalising cultural standards, can lead to emotions related to objectified body consciousness involving body surveillance, body shame, and control beliefs (McKinley & Hyde, 1996).

When attempting to measure attitudinal body image, it is important to consider four aspects, one of which involves affect: i) global subjective satisfaction or disturbance (measures that tap into an overall evaluation of the body in terms of satisfaction), ii) affective appearance-related distress (measures that assess one's emotions, such as anxiety, stress, or discomfort), iii) cognitive aspects (measures that examine appearance-related schemas, cognitive investment, or distorted thought processes or beliefs), and iv) behavioural aspects (measures that address avoidance of situations, body-monitoring behaviours, and / or objects or events that evoke body image emotions) (Menzel et al., 2011).

PROXIMAL INFLUENCES

Proximal factors or processes involve current or contextual life events which activate or sustain schema-driven processing of information pertinent to one's appearance. These activating events and cognitive processes are what tend to trigger and maintain body image experiences (Cash, Santos, & Williams, 2004). Schematic content (in a body- or appearance-related context) reflects an individual's attitudes, assumptions, or beliefs. These are central to our sense of self and appearance and guide our thought processes, emotions, and subsequent behaviours (Cash, 2002). An individual who is schematic about their body and appearance is likely to process information about that aspect differently to someone who is not (Cash, 2002; 2011a), governed by rules, past experiences, and cognitive generalisations (Markus, 1977).

Activating events and cognitive processes

Cognitions (e.g., beliefs or thoughts about appearance, attributions of body ideals, self-schemas about salience of appearance and self-worth) form an integral element of body image that contribute to or maintain levels of body satisfaction (Menzel et al., 2011). In the context of this thesis, self-evaluations and schema-driven processing would be activated by situational occurrences or reactions such as social comparison, appearance-related feedback, media exposure, clothing practices, exercising, and changes in appearance which then results in what Cash (2002, p. 43)

termed “private body talk” and induced self-regulatory behaviours. Private body-talk (or internal dialogue) involves interpretations and conclusions about our appearance. These however can be habitual and erroneous in those who hold problematic body image attitudes (e.g., those who engage in biased social comparison or over-generalisation tendencies). It is imperative therefore, to understand how appearance-related self-schemas contribute to body image experiences in everyday life and feelings of self-worth (Cash, Melnyk, & Hrabosky, 2004) and particularly in a pregnant population.

Self-regulatory and / or coping strategies

In order to manage affect-laden interpretations and reinforce positive self-evaluations about one’s body or appearance, individuals may resort to an array of adjustive strategies and coping mechanisms. These may take the form of cognitive strategies that an individual has been well-versed in over time or they may be a reactive approach to a specific perceived environmental event or situational context (Cash, 2011a). An adjustive reaction may be illustrated by body-concealment behaviours, appearance-modification, or self-monitoring as a means of escaping or avoiding body image distress. Certain practices involving dressing or grooming have tended to stem from or co-occur with negative body image, particularly in women (Rosen, Srebnik, Saltzberg, & Wendt, 1991). Although coping mechanisms generally produce a response aimed at abating psychological, emotional, or physical pressure associated with a stressful situation (Folkman & Lazarus, 1988) they are largely dependent upon the context in which it occurs and the individual involved (Lazarus & Folkman, 1984).

Research into body image-related coping behaviours is relatively limited nonetheless (Cash, 2011a; Cash, Santos & Williams, 2004). That said, it is crucial to gain a meaningful understanding of coping strategies to determine their association with body image attitudes, schemas, and body image quality of life (Cash et al., 2004). As is recognised by Cash (2011a), it is important to state that not all self-regulating or appearance-management behaviours are negatively motivated. In some instances, everyday grooming behaviours have the capacity to instil positive experiences, whereby individuals can feel a sense of pride or pleasure in their physical appearance (e.g., the purchase of new clothing or trying out a new hairstyle). For those experiencing pregnancy, it is plausible to suggest that such behaviours (e.g., use of clothing or change in hairstyle) might be a means of helping women actively cope with the rapid changes in their appearance thus increasing their self-esteem, despite having less control of their expanding body shape and size.

The relationship between exercise and the body is argued to be crucial to understanding how women maintain a level of self-esteem, given the strong link between self-esteem and perceived physical attractiveness (Sonstroem, 1997). As has previously been explained, exercising for health reasons is positively associated with high levels of self-esteem (McDonald & Thompson, 1992). In pregnancy, those that engaged in pre-natal exercise have been found to report significantly higher self-esteem scores than those in sedentary control groups (Wallace, Boyer, Dan & Holm, 1986). Those who exercised less had regarded pregnancy as their 'excuse' (Clark et al., 2009b). The risks of a sedentary lifestyle, in addition to the numerous maternal physical and psychological health outcomes of exercise (for pregnant women) have been comprehensively explained in Chapter 3. The associations between exercise participation and body image have also been discussed in Chapter 7. Findings from Study 1 demonstrate the conflicting manner in which exercise is promoted, whether for health / fitness or weight management purposes. In Study 2, there was an overwhelming consensus that advice related to exercise was either lacking or conflicting. More specifically, all women were in agreement that they had not been provided with exercise-specific information by either their General Practitioner (GP) or midwife during ante-natal appointments. It is unsurprising then that women have been more likely to engage in exercise in the postpartum in an attempt to return to their pre-pregnancy weight and shape (Baker et al., 1999; Fairburn & Welch, 1990; Rocco et al., 2005). Physical activity is evidently influenced by an array of intrapersonal, interpersonal, and environmental factors (Evenson et al., 2009; Symons Downs et al., 2012) therefore it is timely to assess pregnant women's motivations for exercise on a larger scale, than was previously intended for Study 2.

INCORPORATING A POSITIVE APPROACH TO THE STUDY OF BODY IMAGE

Cash and Pruzinsky (2002, p. 511) have long advocated a "paradigm-shift" towards a focus where a more "positive" body image is both recognised and promoted within contemporary research. Positive psychology encompasses the study of positive emotions and positive personality traits (Seligman, Steen, Park & Peterson, 2005). This alternative outlook, with its roots in hygiology (the preservation of health) is said to offer a more balanced and inclusive perspective of an individual's lived experience (Seligman, 2002). The concept of positive psychology has advanced as an innovative way of viewing traditional, mainstream psychological constructs, in contrast with clinical psychology's emphasis on pathology, prevention, negative effects of environmental stressors, and dissatisfaction (Cash, 2002). Such a narrow focus is argued to "neglect the fulfilled individual and the thriving community"

(Seligman & Csikszentmihalyi, 2000, p. 5). Proponents of this perspective have also argued that positive / negative body image should not be framed as one single dimension (e.g. Cash, 2002), and that a positive body image is not automatically equivalent of a low or negative body image, existing on a polarised scale (Tylka, 2011). To illustrate this, Striegel-Moore and Cachelin (1999) theorised that some components of positive body image (e.g., family, environment, and life event factors) were unique and act to increase resistance to unhealthy dieting and disordered eating.

To date however, studies that have included aspects of body acceptance and the examination of body satisfaction have been limited to recent times, in part due to the focus on pathology-driven findings. As part of the revisions made within his 2002 version, Cash emphasised that whilst the field had been dominated in the study of pathology and body dissatisfaction over the years, there was no reason why his framework could not be applied to develop a greater understanding of a prospective positive relationship between individuals and their bodies. In 2004, Williams, Cash, and Santos sought to define 'positive body image' as a validated construct based upon body image evaluation, emotions, and impact on quality of life. Using an array of body image assessment, personality, and psychosocial functioning measures, the authors identified three clusters of women: those with positive body image (PBI), negative body image (NBI) and normative body image discontent (NBID). Those in the NBID group experienced similar body image dissatisfaction as the NBI group, yet experienced less distress and adverse life impact (i.e., maladaptivity). Of the overall sample, 54% who were identified as having PBI reported less body image distress, more appearance-related satisfaction, and a more positive body image impact on life than the other groups of women. More specifically, PBI women experienced less frequent teasing / criticism, were less invested in their appearance, reported the highest level of self-esteem and social support, and used adaptive coping strategies such as positive rational acceptance, rather than avoidance or appearance-fixing tactics (Williams et al., 2004). Thus demonstrating that certain attempts to manage one's appearance (e.g., grooming behaviours) can have positive outcomes or instil positive emotions.

Exploring the concept of positivity and recognising factors that predict body image satisfaction may assist in generating data that promote a more positive body image for those experiencing dissatisfaction, as a means of enhancing well-being (Grogan, 2008). This is particularly imperative during pregnancy as optimal physical and psychological well-being is important for both the pregnant mother and developing child (Kamysheva et al., 2008). As has been demonstrated in Study 2, there are periods within a woman's pregnancy when appearance-related concerns can be abated. For the women interviewed this represented a positive period when

their bump became evidently apparent in the early trimesters and again, during the latter stages, when women began to appreciate the functionality of their bodies.

We have come to understand that negative body image often results from sociocultural pressures to attain the thin-ideal (Thompson et al., 1999). One might suggest however, that it is as necessary to explore how some women have managed to maintain some level of body satisfaction and acceptance and adopted adjustive strategies to retain a positive body image, even when their bodies do not conform to society's standards (Grogan, 2008). That said, the existent body of research has disproportionately investigated appearance and developed body image measures with a heavy reliance on student populations for convenience (Rumsey & Harcourt, 2005). As has been documented, the transition to parenthood can be viewed as a psychological crisis in the lifespan and hence represents a vulnerable period (Choi & Mutrie, 1996). Hence, the identification of specific factors associated with positive body image and general well-being during pregnancy is fundamentally important (Kamysheva et al., 2008).

SUMMARY

If body image attitudes and adjustive behaviours (e.g., exercise behaviour, body concealment) are in some way influenced by sociocultural factors (e.g., media influence), interpersonal experiences (e.g., social support among friends or family), physical characteristics (e.g., weight-gain, physiological symptoms) and personality attributes (e.g., self-esteem), then drawing on aspects of Cash's (2011a) model and findings from previous research provides a rationale for studying these components during pregnancy. This is timely within the UK as the majority of research on individual factors over recent years in this area has been conducted on Australian and American samples. Poudevigne and O'Connor (2006) claimed that research has been particularly limited when exploring motivations to exercise (e.g., addressing the relationship between physical activity and mood state) in pregnant women and only a handful have examined changes in self-esteem through pregnancy (e.g., Wallace, Boyer, Dan & Holm, 1986).

As Cash (2002) described, establishing causality is complex when attempting to link interactions among external events (environmental), internal personal factors (cognitive, affective, and physical processes), and individuals' own behaviours. That said, Cash's (1996) framework and techniques have been empirically-tested and applied to generate body-image improvement programmes, designed to increase self-awareness and greater self-acceptance, by incorporating cognitive and behavioural strategies (Cash, 2008). It is plausible to suggest therefore that there is value in

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incorporating a conceptual, cognitive-behavioural framework in research on pregnant samples, from which the relationship among body image and psychological, physical health, and lifestyle factors can be examined, particularly if this can be applied just as readily to explore the development of a positive relationship between an individual and their body (Cash, 2002, 2011a).

SUMMARY AND AIMS OF FINAL STUDY

The overall aim of the third and final study therefore, was to quantitatively explore the appearance- and body-related experiences of nulliparous women during pregnancy. More specifically, to identify and explore the relationships among body image and a wide range of psychological, physical health, and lifestyle factors. To this end, the study was underpinned by the dimensions, determinants, and processes of Cash's (2011a) revised cognitive-behavioural model of body image development, together with variables identified from the qualitative findings of Studies 1 and 2.

CHAPTER 11

STUDY 3: QUANTITATIVE METHOD AND MEASUREMENT CONSIDERATIONS

INTRODUCTION

In order to examine data relative to a pre-specified model and assess influences on dependent (endogenous) variables within the model, path analysis was employed. Path analysis is an extension of multiple regression which facilitates the examination of relations among different variables (rather than having several independent variables predicting one dependent variable) and compares models against one another to see which one best fits the data (Streiner, 2005). Details pertaining to the development of the structural model and model fit will be discussed in more detail in Chapter 13. Following a specific account of the present study's aims, the present chapter begins by documenting a rationale for sample size using path analysis. The discussion then moves on to the selection of measures employed to assess the various aspects of Cash's model, before detailing the procedural events of Study 3. References to Thompson's (2004) guidelines on body image measurement will be made throughout this chapter as justification for the selection of measures and the use of multiple measures.

AIMS OF THE PRESENT STUDY

As has been described in the previous chapter, body image can be influenced by an array of complex cognitive and behavioural factors; conceptualised as historical or proximal (Cash, 2011a). These cognitive, emotional, and behavioural processes inform specific body image attitudes and schemas, dependent upon degrees of appearance investment and dispositional body image evaluation. Thus, the aim of the final study was to further explore the appearance and body-related experiences in a larger sample of nulliparous women, using an online survey. Specifically, this project aimed to address the following research questions;

- 1) Do cultural expectations, interpersonal experiences (e.g., comments from peers, partners), physical characteristics, and personality attributes (e.g., self-esteem, self-consciousness) influence body image (e.g., appearance schematicity, investment in and satisfaction with appearance, fitness, and health) in pregnant women? If so, how do these factors influence body image?

- 2) Is there a link between body image and coping and self-regulatory strategies (e.g., appearance self-management, body concealment, appearance control beliefs) in pregnant women?

In keeping with Cash's (2011a) model, it was anticipated that four factors shape body image attitudes: sociocultural, interpersonal experiences, physical characteristics and changes, and personality attributes. Furthermore, based on findings from Study 2, it was proposed that there would be an association between cognitive processes and body image attitudes. Finally, the study sought to explore whether body image attitudes had any direct association with self-regulatory and / or coping strategies and behaviours.

NEGOTIATING THE DECISION TO USE SELF-REPORT MEASURES OVER FIGURAL RATING SCALES

Many studies have used figural rating scales that incorporate a series of silhouettes from very underweight to overweight (see Stunkard, Sorensen, & Schulsinger's original nine figure rating scale, 1983) to measure the degree of body dissatisfaction and discrepancies between one's current figure and one's ideal figure. Subsequent studies have used this scale to offer support for normative discontent amongst young, white, British women (e.g., Wardle, Bindra, Fairclough, & Westcombe, 1993). That said, findings have been equivocal, particularly when no significant differences have been established between personal and perceived other-sex ideals (Jacobi & Cash, 1994). Figures reported by women over the age of 30 suggested that despite younger women's selected 'ideal' and 'attractive' images being similar, older women's 'ideal' and 'attractive' images were not; this highlights a lack of generalisation across the lifespan, and the possibility that women may be better equipped to resist media images because of their experience and maturity (Stevens & Tiggemann, 1998).

Researchers have attempted to address specific methodological concerns that have been previously raised regarding the design of figural rating scale studies (e.g., presentation of figures in ascending size and influence of demand characteristics). Cororve Fingeret, Gleaves and Pearson (2004, p. 207) stated that regardless of the method of data collection (within- or between-groups design), the use of figural rating scales produced "robust and large effects", although they argued against asking multiple body-size questions about personal and perceived other-sex ideals. Despite this support, the potential issue that the size and dimension of figure drawings are not always necessarily reflective of the individual participant (Thompson et al., 1999) was not addressed by Cororve Fingeret and colleagues' study. One further critique conveyed by Cash and Szymanski (1995) is that body image is often

confined to and expressed simply in terms of body size estimates, hence overlooking other physical attributes (e.g., facial features). In addition to this, many figural rating scales have low or unknown test-retest reliabilities and are therefore unable to demonstrate adequate psychometric properties (Thompson & Van den Berg, 2002).

As a result, self-report questionnaires have also been constructed to measure levels of body satisfaction; some of which either focus specifically on aspects of appearance (e.g., Multidimensional Body-Self Relations Questionnaire; Cash, 2000) or are cognitive in nature, assessing thoughts, beliefs, and investment in one's appearance (e.g., the Appearance Schemas Inventory - Revised; Cash, Melnyk & Hrabosky, 2004) and internalisation of societal standards (e.g., the Sociocultural Attitudes Towards Appearance Questionnaire – 3; Thompson et al., 2004). Questionnaires that are specific to individual aspects of appearance (see Cash, 2000) are argued to provide a more comprehensive assessment and can reveal varying degrees of satisfaction across different parts of the body, such as thighs and breast size, generally blanketed by the use of a whole-body silhouette in a figural rating scale (Grogan, 2008).

MODIFYING MEASURES FOR A SPECIFIC, CONTEXTUAL PURPOSE

The central focus of any questionnaire study is to source the right scale to test a research question and to document specific aspects of body image (Thompson, 2004). In addition to a thorough literature review, the findings of both Studies 1 and 2 were fundamental to selecting existing scales and in some cases, modifying measures for body image attitudes. The main reason for this has been explained in the paragraph above, whereby a measure perhaps needed to capture a focal aspect of body image specific to the period of pregnancy. Thus, where they were available and appropriate, pregnancy-specific measures were employed. If such a measure was not applicable for a specific variable, an alternative measure that had extensive validation with diverse samples (Thompson, 2004) was selected, where possible. In such an instance, additional items were integrated into an existing scale or alterations were made to items, as required by the research question (Thompson, 2004). The rationale for modification was described when seeking permission from the original author(s) of these scales.

PARTICIPANTS

Target Sample Size

Rather than estimating sample size per variable (as is common in standard regression analyses), researchers should consider sample size per parameter when employing path analysis (Tabachnik & Fidell, 1996). Sample size in path analysis is determined by the number of parameters, whereby each measured variable usually has three parameters (its regression coefficient, its variance, and its covariance). Among the measures to assess the fit of the model, path analysis produces a chi-square statistic. Parameter estimates and chi-square (χ^2) tests of fit are very sensitive to sample size and covariances, and like correlations, are less stable when estimated from small sample sizes (Tabachnik & Fidell, 1996). Too small a sample and any model will fit, but too large a sample, and any model will essentially be rejected (Blunch, 2008). That said, conflicting recommendations and various 'rules-of-thumb' have made it difficult to determine sample size for Structural Equation Modelling (SEM). For instance, it has been argued that any SEM analyses of a sample less than 200 should be rejected (Barrett, 2007), which has subsequently been critiqued for being too arbitrary a cut-off for sample size (Markland, 2007). Markland claimed that whilst a sample size should be adequate (in order to obtain stable parameter estimates and have the power to reject the null hypothesis), it would be permissible to have a relatively small sample, if the sample in question was suitably representative for the population of interest (2007). Others have suggested either a minimum sample size of 100 or 200 (Boomsma, 1985, cited in Wolf, Harrington, Clark & Miller, 2013), or a minimum of five to 10 observations per estimated parameter (Bentler & Chou, 1987), or more specifically, a minimum ratio of ten observations per parameter (Kline, 2011). Kenny (2014) argues that for models with approximately 75-200 cases, the chi-square test is a reasonable measure of fit and therefore one should aim for a sample size of 200. Hence, in the present study the target sample size was 200. This was based on 19 observed predictor variables within a small to medium sized model (see Figure 13 of Chapter 13 which illustrates the hypothesised model for the historical and proximal factors and coping strategies / behaviours associated with body image attitudes).

Sampling

Purposeful sampling targeted participants at least 18 years of age or over, for reasons discussed in Chapter 8. Women who were in any trimester of their first pregnancy were invited to participate. In line with previous research (Clarke & Gross, 2004; Fairburn & Welch, 1990; Goodwin et al., 2000; Stein & Fairburn, 1996) and the interviews conducted in Study 2, the present study specifically targeted nulliparous populations, so that the women had no prior experience of weight and shape change that occurs during pregnancy and the postpartum period. Hence, women with multiple

parities were excluded from taking part in the online survey. Whilst this definition naturally implies a first pregnancy, it was agreed amongst the supervisory team, that women who may have experienced a miscarriage or abortion from a previous pregnancy were not to be excluded from participating, if they wished to do so. Nor were they expected to disclose such information. This decision was also supported by the University Research Ethics Committee and hence, approval for the study to proceed was granted in January, 2012 (see Appendix A).

Recruitment of participants

Recruitment involved placing posters around the University campus (see Appendix K) and posting web-based notices on various pregnancy and parenting websites. Websites included *Emma's Diary*, *BabyCentre*, *Bounty Club*, and *Netmums*. *Netmums*, as an example, dedicated a specific section to survey requests for those who were associated with a college or University. Permission was also sought and granted by site moderators (see Appendix L which contains an example of permission granted by *Emma's Diary*) who administered UK pregnancy forum websites, such as *Pregnancyforum.co.uk* and *Pregnancyforum.org.uk*. In addition to my own advertising strategy, support was provided by the University's communications and media centre. On the researcher's behalf and with Head of School approval, the University department drafted an article which was then circulated across the University's website, Facebook, and Twitter page. In addition, they forwarded the article on to local newspapers (see Appendix M) and promoted the article to known parenting magazine websites. This was noticed and disseminated by *BabyWorld* (see Appendix N). In total, 265 online survey links were sent out to individual IP addresses. The number of participants that submitted a questionnaire package by the time the survey was closed was 184.

MATERIALS

Questionnaire Package Design

It was important to determine variables for examination by incorporating the findings from both Studies 1 and 2 with aspects of Cash's (2011a) model of body image dimensions, determinants, and processes as a theoretical framework. Each aspect of Cash's model will now be presented, with a rationale for the measures selected.

Sociocultural influences

As discussed in Chapter 6, the media overtly promoted the notion that beauty equated with the thin-ideal body. In Study 2, women described perceived sources of sociocultural pressure (e.g., from media, family, and / or work colleagues) in relation to their own appearance. There was a consensus over the inconsistency of information available to them regarding their health and exercise. Thus two measures were employed to address aspects of sociocultural influence.

Sociocultural Attitudes Towards Appearance (SATAQ – 3)

In order to address the impact of media and sociocultural influence on body image attitudes, the Sociocultural Attitudes Towards Appearance Scale – 3 (SATAQ – 3) was employed (Thompson, van den Berg, Roehrig, Guarda & Heinberg, 2004). This 30-item scale is a widely used measure of societal influences on body image and eating disturbances and consists of four subscales that assess Internalisation (general, athlete), Pressures, and Information. The Internalisation subscales reflect i) a generic awareness of media influence (9 items, e.g., *'I compare my body to the bodies of people who are on TV'*) and ii) an internalisation of athletic figures (5 items, e.g., *'I wish I looked as athletic as sports stars'*). As acknowledged in the literature (Bordo, 2003; Grogan, 2008; Jette, 2006; Thompson et al., 2004), a recent focus on athleticism and sports speaks to a shifting body ideal. The pressures subscale relates specifically to media pressures (7 items, e.g., *'I've felt pressure from TV or magazines to lose weight'*). The Information subscale reflects media as an information source (9 items, e.g., *'Famous people are an important source of information about fashion and "being attractive"'*). In the present study, participants were asked to consider the extent to which they agreed with the 30 statements on a 5-point Likert-type scale, ranging from 1 (definitely agree) to 5 (definitely disagree). A lower score indicated increased levels of internalisation, increased pressure, and greater agreement to media influences being an important source of information respectively. Eight of the 30 items were reverse-scored (see Appendix O).

In the original investigation (Thompson et al., 2004), participants received a total score for each variable and an overall scale score. Each of the scales, including the two internalisation factors, showed good convergent validity and test-retest correlation coefficients of .92 (I-General), .89 (I-Athlete), .94 (Pressures), .94 (Information), and .94 (total scale score).

Perceived Sociocultural Pressure Scale (PSCP–2)

In order to specifically address perceived pressure from significant others, the Perceived Sociocultural Pressure Scale (PSCP–2) was employed (Stice et al., 1996). The original 10-item scale was devised to assess the degree to which women

experienced pressure to be thin from family members, friends, dating partners, and the media (e.g., *'I've felt pressure from my friends to lose weight'*). In the present study, the phrase *"following the birth"* was added to items 1 to 8. Item 9 was modified to state *"Friends have teased... whilst pregnant"* instead of family members. Item 10 was modified to replace the phrase *"Kids at school"* with *"Colleagues at work"*. Item 11 was added to state *"My partner has teased me about my weight and shape whilst pregnant"*. Item 12 was added to state *"Strangers have commented on my weight and shape whilst pregnant"*. These alterations were made to make the scale more specific to pregnancy and to reflect discussions had with women in Study 2 about appearance-related commentary from those around them. In the original study, the scale revealed excellent test-retest coefficients of .93 for the full scale. This measure has also been employed in previous pregnancy-specific research (Skouteris et al., 2005) whereby the items were amended to reflect a state measure. In Skouteris et al.,'s sample, Cronbach's alpha measured $\alpha = .89$ for the 8-item scale. In the present study, responses were averaged to form an overall scale score from the 12 items. Items were scored on a Likert-type scale, ranging from 1 (always) to 5 (never), with lower scores indicating perception of greater pressures to maintain weight loss following the birth or have a thin body. No items required reverse-scoring. Permission to modify this scale and include additional items in the present study was granted by the corresponding author (see Appendix P).

Interpersonal experiences

As described in the previous chapter, interpersonal experiences include interactions with peers, family, friends, and even strangers. During these interactions, verbal and non-verbal communications about appearance norms and societal expectations can influence body image attitudes. In Study 2, the impact of appearance-related commentary and social comparison has been well documented. Thus, one measure was employed to address interpersonal experiences.

Verbal Commentary on Physical Appearance Scale (VCOPAS)

In order to quantifiably address the issue of appearance-related commentary, the Verbal Commentary on Physical Appearance Scale (VCOPAS) was employed (Herbozo & Thompson, 2006b). This measure was developed to enhance research into positive appearance-related commentary and to allow for the evaluation of both positive and negative appearance-related comments and their association with a variety of indicators of body image disturbance (Herbozo & Thompson, 2006b). Prior to this, measures had focused on various aspects of teasing and negative feedback regarding one's physical appearance, such as the Perceptions of Teasing Scale (POTS; Thompson and colleagues, 1995), Appearance Teasing Inventory (ATI; Cash,

1995; Rieves & Cash, 1996), and the Feedback on Physical Appearance Scale (FOPAS; Tantleff-Dunn, Thompson & Dunn, 1995).

The VCOPAS is a 21-item measure (see Herbozo & Thompson, 2006a) that assesses two components: frequency (VCOPAS – FREQ) and effect (VCOPAS – FEEL) of physical appearance-related commentary. The VCOPAS – FREQ comprises of three subscales: i) Negative Weight and Shape (NWS; 9 items which measure body-related comments that are considered to be more negative or potentially offensive, e.g., '*You've gained weight.*'), ii) Positive Weight and Shape (PWS, 5 items which measure body-related comments considered to be more positive or potentially flattering, e.g., '*I wish I had a body like yours.*'), and iii) Positive General Appearance (PGA; 7 items designed to measure positive comments related to overall physical appearance, e.g., '*You have a beautiful smile.*'). Participants were asked to rate the frequency (VCOPAS-FREQ) of such comments, ranging from 1 (never) to 5 (always). If they rated an answer as 1 (never) they were asked to move on to the next item. If, however they rated an answer between 2 and 5, they were then asked to rate how that particular comment made them feel (VCOPAS-FEEL). The VCOPAS-FEEL scale will be contextualised in terms of exploring body image affect later in the materials section. The Likert-type scale ranged from 1 (very positive) to 5 (very negative). Participants were originally required to rate the items based on exposure to comments '*within the past 2 years*'. The scale (Herbozo & Thompson, 2006b) was cross-validated using a confirmatory factor analysis (RMSEA value of .07) and test-retest reliability was established for each subscale: .78 (NWS), .91 (PWS), and .87 (PGA). Both the PWS and PGA subscales were significantly correlated with a more positive subjective body image and increased self-esteem.

In the present study, the 21 items of the VCOPAS-FREQ were scored from 1 (never) to 5 (very often). The 21 items of the VCOPAS-FEEL were scored from 1 (very positive) to 5 (very negative), as per the original scale. To illustrate the scoring, a positive-related body comment with a score of 5 indicated that it was associated with a very negative effect and such a comment with a score approaching 1, indicated that it was associated with a very positive effect, in keeping with Herbozo and Thompson (2006). However a value of 999 was used to reflect a 'not applicable (N / A)' response and was coded as missing data. This seemed an intelligible alternative if a participant responded on the frequency scale with 'never'. Permission was granted by the authors (see Appendix P) to modify the VCOPAS to end a statement with '*whilst you have been pregnant*' (instead of '*within the past 2 years*'). To their knowledge, this was the first study to address a period such as pregnancy (see personal communication in Appendix P).

Physical characteristics and changes

As discussed in Chapter 10, one's body image can be affected by actual physical appearance (e.g., pregnancy). As the body changes physically, it is plausible that pregnancy changes and related physical symptoms may have a bearing upon one's body image attitudes (see Skouteris, 2011). Thus three measures were employed to assess both physical characteristics and changes.

Pregnancy Discomfort Checklist

First developed and investigated by Wallace et al. (1986) (in conjunction with advice from practitioners), the Pregnancy Discomfort Checklist was intended to measure an individual's self-reported perception of the frequency and intensity of minor symptoms occurring during pregnancy. This was assessed across the trimesters. Ratings were scored from 0 (never) to 3 (very often). No specific reliability values were provided in the original paper. When assessed cross-sectionally amongst a group of aerobic exercisers and non-exercisers, against scores to measure global self-esteem (RSE; Rosenberg, 1965), the authors established two main findings: self-esteem scores were significantly higher and pregnancy-discomforts were significantly lower in the exercise group.

In the present study, all 29 symptoms (e.g., '*nausea*', '*heartburn*', '*backache*') were included within the measure, however US spellings were changed to reflect UK spellings. Where required, a brief definition was provided in case a respondent was unaware of the medical term (e.g., '*Edema*' was changed to the UK spelling of '*Oedema*' with a description of '*fluid retention*'). The scale was scored from 1 (never) to 4 (very often), however symptoms were not specifically assessed across the trimesters. Permission to use the measure was granted by the corresponding author (see Appendix P). This scale has since been employed in conjunction with other measures by Kamysheva and colleagues (2008). In their study, the four most commonly reported symptoms were fatigue (94%), increased urination (88.3%), nausea (85.6%), and tender breasts (81.4%). The authors compared intercorrelations ($r \geq .70$, $p < .0005$) among total symptom scores (number, frequency, severity, and effect on life). Totals for the four symptom dimensions were then summed to form a composite score, with a Cronbach's $\alpha = .89$. In the present study however, only total symptom frequency scores were recorded, in addition to the total number of symptoms experienced for each respondent. The reason for this was because discomforts and their effect on a respondent's pregnancy experience were assessed more specifically in terms of a hassle or uplift, as will now be described in the next scale.

The Pregnancy Experience Scale – brief version (PES)

The original Pregnancy Experience Scale (PES; DiPietro et al., 2004) was modelled on the non-pregnancy Hassles and Uplifts Scale (DeLongis, Folkman & Lazarus, 1988), which examined the association of daily stress processes with various psychosocial factors (such as illness, mood disturbance, and self-esteem) among married couples. The PES however, intended to assess elements of psychological distress along with positive emotions generated by pregnancy, as a means of exploring their potential role in fostering good maternal outcomes. Hence the original scale comprised of 41 items. Each item was rated as both a hassle and an uplift, which resulted in a measure to assess the effects of pregnancy-specific stressors. Internal reliability values for the PES were high ($\alpha = .95$ for hassles and $\alpha = .91$ for uplifts). Nonetheless, it was later determined by DiPietro et al. (2008) that requiring each item to be rated along both positive and negative dimensions was too difficult to administer and cumbersome to score (e.g., the original 41-item scale comprised of 5 different subscales) and thus, the PES – Brief (DiPietro et al., 2008) was designed to incorporate the top 10 pregnancy hassles and top 10 pregnancy uplifts. Each was rated along one dimension only (i.e., either as a hassle or an uplift) from 0 (not at all) to 3 (a great deal). Scores for each were calculated in terms of frequency, intensity, and ratio to measure the affective emotion towards the pregnancy (2008). Internal reliability was psychometrically comparable with the full PES ($\alpha = .83$ for hassles and $\alpha = .82$ for uplifts), based on a reduction from 41 to 10 items for each scale. Test-retest correlation coefficients ranged from $r = .63$ to $.73$ compared with the full PES ($r = .69$ to $.77$).

In the present study, it was felt that the top 10 pregnancy hassles and uplifts (as per the revised PES – Brief) were appropriate, however, on the basis that each item was rated along both dimensions. In other words, what one individual might consider a hassle, another might consider an uplift. To demonstrate this using an example, the PES – Brief denotes '*How much the baby is moving*' as a specific *uplift* only. In the present study, this was also rated as a potential hassle, as per the full PES. To justify this, some women in Study 2 commented on the baby's movement as having an impact on urination frequency and therefore this was not always considered an uplifting experience. Hence, each of the top 10 items were rated as both a hassle and uplift, with score values ranging from 1 (not at all) to 4 (a great deal). A high score equated to either a high level of hassle or a high level of uplift and vice versa. Permission was granted to incorporate both elements of the PES and PES – Brief by the corresponding author (see Appendix P).

Pregnancy and Weight-Gain Attitude Scale (PWGAS)

It was agreed to include a measure that was explicitly related to weight-gain in pregnancy. Based on the findings of Study 2, the issue of weight-gain was a fundamental concern for women in the early trimesters. The Pregnancy and Weight-Gain Attitude Scale (PWGAS) was devised by Palmer, Jennings, and Massey (1986) to determine whether attitudes towards slimness affected weight-gain during pregnancy. Content validity of the original 40-item measure was evaluated by a panel of 30 external judges (inclusive of pregnant women, academics, students, and physicians) and the resulting scale comprised of 18 items. Each statement related to feelings and concerns about weight-gain in pregnancy.

Respondents were asked to rate each statement in accordance with their level of agreement on a Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). Statements were both positive (e.g., *'I'm proud of looking pregnant'*) and negative (e.g., *'I am embarrassed at how big I have gotten during this pregnancy'*). A low score reflected a more negative attitude, whilst a high score reflected a more positive attitude. Negatively worded items were reversed (denoted by an asterisk in Appendix O) and values were summed to yield a composite score for each respondent.

Psychometric properties of the original measure were adequate. Internal reliability ($r = .67$) was determined using the split-half method with the Spearman Brown Prophecy Formula (Palmer et al., 1985). That said, it was tested on only 29 women. The measure has since been employed in two other pregnancy studies. In Kendall, Olson, and Frongillo's (2001) study, 10 statements from the PWGAS (Palmer et al., 1985) and three additional items were assessed to examine psychosocial influences on various health behaviours in pregnancy. Construct validity was demonstrated according to significant associations with six variables (including locus of control, self-efficacy, weight attitudes, feelings towards motherhood, career orientation, and body image measures).

In DiPietro et al.'s (2003) research, the original 18-item PWGAS was tested among 130 "singleton" (i.e., primiparous) pregnant women, alongside the original PES (DiPietro et al., 2004) to examine psychosocial influences on weight-gain attitudes and behaviours during pregnancy. Following a principal components analysis and Pearson correlations, reliability was relatively high ($\alpha = .75$) and four factors were identified: i) positive pregnancy body image (3 items), ii) negative pregnancy body image (6 items), iii) indifference toward weight-gain (4 items), and iv) weight-gain restrictive behaviours (3 items). Two factors that loaded poorly related to specific weight-gain in pounds (lbs) (see DiPietro et al., 2003). Once these were dropped, this increased the overall α to .84. For the present study, all 18 items remained in the questionnaire, but mindful of DiPietro and colleagues' factor exclusions, these two

items were excluded from the analysis. Neither of the two items reflected a positive or negative attitude and it is unsurprising that a factor analysis yielded such findings. That said, the scale was scored in terms of being a composite (as per Palmer et al., 1985) rather than analysing the subscales separately. Both negative and weight-gain restrictive items were reverse-scored, in keeping with DiPietro et al. (2003), but the scale remained unidimensional in terms of a positive-negative continuum. Items that displayed weight-gain in pounds (lbs) included the approximate stones value in parentheses (e.g., 40 lbs equated to approximately 3 stones, 21-30 lbs equated to between 1 ½ to 2 stones). The terms 'nurse' and 'doctor' were amended to say 'midwife'. Such amendments were made to reflect British terminologies. Contact with the original corresponding author (Dr. J. Palmer) was attempted, but was unsuccessful. Contact was therefore made with the corresponding author of DiPietro et al.'s study who used the original measure. No contact details or forwarding address were known and therefore the advice given by Professor DiPietro, was to use the measure and reference it accurately (see Appendix P).

Personality attributes

As discussed in Chapter 10, personality attributes have a role in influencing the development of body image attitudes. Based upon a comprehensive literature review and findings from the two previous studies, the constructs 'self-esteem' and 'self-consciousness' were determined as most relevant for inclusion in Study 3. In addition, Study 2 revealed the importance of control expectancies (see Chapter 9), and as there is evidence that these trait-like expectancies or locus of control beliefs are associated with and can be predictive of health behaviours (Wallston, 2005; Wallston & Wallston, 1978; Wallston et al., 1978), a pregnancy-specific locus of control measure was also included. In total, three measures were employed to assess personality attributes.

The construct of self-esteem is regarded as a stable and central aspect of psychological well-being, which represents an overall evaluation of one's worth or value (Rosenberg, 1965). Linked specifically with body-image attitudes, a woman's satisfaction with her weight is considered likely to form a fundamental facet of her self-esteem (Jenkin & Tiggemann, 1997). In Study 2 (see Chapter 9), it was acknowledged by some women, that their self-esteem had been affected when they self-appraised their changing body shape and identity as a pregnant woman. Yet as Boscaglia and colleagues (2003) acknowledge in their study, self-esteem has often been omitted as a variable from studies involving pregnant populations.

The Rosenberg Self-Esteem Scale (RSES)

Developed in the 1960's, Rosenberg's Self-Esteem Scale (RSES; 1965) has become one of the most widely-used and world-renowned self-esteem measures in social science research. The RSES is a 10-item measure, with responses rated on a Likert-type scale from 1 (strongly disagree) to 4 (strongly agree). In the present study, using a four-point scale, respondents were asked to state their level of agreement to 10 statements. Examples include '*I feel that I'm a person of worth, at least on an equal plane with others*' and '*I take a positive attitude toward myself*'. A high score equated with a high level of self-esteem.

Of the 10 statements, 50% were reverse-scored, thus reflecting low self-esteem e.g., '*I feel I do not have much to be proud of*'. These items are denoted with an asterisk on the scale (see Appendix O). A cumulative score was calculated by summing the 10 items.

The scale has since been approved for public use by the Morris Rosenberg Foundation. The reliability and validity of this measure have been well established across many studies (see the University of Maryland's website: www.socy.umd.edu). At the time of construction, test-retest reliability was reported to be .85 (Rosenberg, 1965). The measure has since been employed in Kamysheva and colleagues' (2008) multi-factorial study of pregnancy ($\alpha = .88$). Using path analysis, Kamysheva et al. (2008) found a distinct association among frequency and intensity of negative physical symptoms with low self-esteem, poorer sleep quality, and increased depressive symptoms. Lower self-esteem was also associated with body image variables such as feeling fatter and less attractive and greater salience of shape and weight.

Self-Consciousness Scale (SCS): Public and private self-consciousness

A review of the literature related to both public and private self-consciousness has been presented in Chapter 10 when discussing personality attributes. In brief, self-consciousness can be associated with self-surveillance, body shame, anxiety, and an inadequate awareness of internal bodily states (Fredrickson & Roberts, 1997). As has been described in the findings of Study 2 and previous research (see Chapters 7 and 9), the early trimesters can be particularly problematic for women when self-evaluating their appearance.

The Self-Consciousness Scale (SCS) by Fenigstein et al. (1975) was constructed to reflect specific dimensions of self-consciousness: i) Public and Private self-consciousness, which referred to a process of self-focused attention and ii) Social Anxiety which referred to a reaction to or by-product of this process. The final version of the scale resulted in 23 items: Private (PRIV, 10 items), Public (PUB, 7), and Social

Anxiety (SA, 6). The Private factor was concerned with attending to one's inner thoughts and feelings (e.g., '*I'm always trying to figure myself out*'). The Public factor was specifically defined as an overall awareness of the self as a social object that has some effect on others (e.g., '*I'm concerned about what other people think of me*'). Examples of statements within these two subscales appeared to fit with the findings from Study 2. The SA subscale however, contained specific statements which related to speaking to or nervousness of large groups and overcoming shyness in unfamiliar situations. As these items did not appear particularly relevant to the present sample, this subscale was omitted from the questionnaire package. Test-retest correlations for the PRIV and PUB subscales employed in the original construction were $r = .79$ and $.84$ respectively. A total scale score (including the social anxiety subscale) was $r = .80$ (Fenigstein et al., 1975). This is a publically available measure and the SCS - PUB has since been used to measure perceived pressure in a pregnant population with the words '*during my pregnancy*' added to each of the seven items (Skouteris et al., 2005). Skouteris and colleagues (2005) reported good reliability of this subscale across two time points (T1 $\alpha = .82$; T3 $\alpha = .85$). That said, they opted not to employ the SCS – PRIV.

Hence, 17 items remained in the SCS (PRIV and PUB) for the purposes of the present study. Each item was rated on a four-point, Likert-type scale from 1 (extremely uncharacteristic) to 4 (extremely characteristic). Responses rated as 1 indicated high levels of both private and public self-consciousness, whilst a 4 indicated low levels of both. Therefore a lower score represented greater tendencies to self-evaluate inner thoughts and feelings and an increased awareness of another's perspective. Two items on the SCS – PRIV subscale were reverse-scored (denoted by an asterisk in Appendix O).

Pregnancy Locus of Control: Weight-gain and exercise (PLOC – WE)

Health locus of control refers to an individual's beliefs or expectancies regarding where the control over his / her health lies. In developing health-specific measures, credit must be given to Rotter's (1954) original social-learning theory of personality and 'Internal-External Scale' which broadly measured the degree to which individuals believed that they could control events that affected them. This was an instrument developed to assess individual differences in control beliefs, whereby locus of control (defined originally as a single-construct) referred to the extent to which individuals perceive reinforcement to be dependent upon their own actions (Rotter, 1966). Whilst ground-breaking, this 'uni-dimensional' construct has since been challenged and a more multi-faceted approach was developed, including the role of powerful others (Levenson, 1974). This has since been modified further to assess

health behaviours (see Multi-Dimensional Health Locus of Control Scale MHLC, Wallston et al., 1978).

Those holding internal locus of control beliefs or expectancies believe that their own behaviour influences their health status, whilst those who believe that their health is influenced by the actions of others or is due to fate / chance are said to hold an external locus of control expectancy (Wallston et al., 1994). As such, one might hypothesise that those who value their health and believe that their behaviour determines their health status would be more likely to score highly on an internal (INT) subscale and potentially more likely to engage in healthy behaviours (Wallston, 1991; 2005). For example, research has shown that those scoring highly as internals have negative attitudes towards overweight people, since they view body weight as a controllable condition (Tiggemann & Rothblum 1997). Likewise, if an individual was to score highly on an external (EXT) ('Powerful others' or 'chance' subscale), this would indicate a lesser engagement in recommended health behaviours, due to a belief that their health is determined by luck, fate, or chance. The role of powerful others (PO) is slightly more complex to test, as it is contingent upon a number of factors: the belief that other people's behaviour affects their health, the possibility of whether it is perceived that PO's *want* them to carry out a behaviour, and / or whether they are trying to win approval from PO's (Wallston, 2005).

For the purposes of the present study, it was agreed to create a measure using a theoretical framework, whilst acknowledging the findings from Study 2. Existing measures were initially sought to address both health aspects and pregnancy. The MHLC (Wallston et al., 1978) was disregarded as this focused specifically on two dimensions: general health and condition-specific subscales. Given that a woman's pregnancy is not a health 'condition' as such and in light of critical research that has highlighted the role of medical discourse in pregnancy (Jette, 2006) and physical activity (Markula, 2001; Vertinsky, 1998), it was agreed that this measure was not appropriate in either addressing women's pregnancies, their appearance, or their physical activity levels. Other measures, such as those designed to address weight control and obesity (e.g., four-item WLOC devised by Saltzer (1982) and employed by Martin, Veer, and Pervan (2007) to assess the effect of model body size), parenting (Campis, Lynam, & Prentice-Dunn, 1986), and fetal health (Labs & Wurtele, 1986) all comprised relevant elements and yet were not specific enough to address pregnancy, weight-gain, and exercise. These were explicit factors that not only are underpinned by Cash's (2011a) model but were pertinent in the findings of Study 2. Hence, the resulting measure addressed each of these three factors.

Having disregarded existing scales that addressed fetal health and weight, the 17 – item Pregnancy Locus of Control Scale – Weight and Exercise (PLOC – WE) was designed for the purposes of the present study. As per the MHLC (Wallston et al., 1978), the state-like, three dimensions: Internal (INT, 9 items), External (EXT, 5 items) (i.e., fate / chance), and Powerful Others (PO, 3 items) were included, but were context-specific to pregnancy and expectations of the postpartum. It was important to recognise the potential influences of powerful others as Study 2 had revealed findings related to sources of information and advice from health professionals. Respondents rated their responses on a five-point, Likert-type scale from 1 (strongly disagree) to 5 (strongly agree) for each of the subscales. A high score (i.e., strongly agree) on the internal subscale reflected high levels of internality; the belief that an individual was directly responsible for the weight she gains in pregnancy (e.g., *'My current body size and shape is determined by my own behaviour during pregnancy'*), the exercise she participated in during pregnancy (e.g., *'How much I exercise affects how I feel during pregnancy'*), and the information learned about nutrition and/or physical activity (e.g., *'I have taken steps to learn about recommended dietary intake in pregnancy'*). A high score (i.e., strongly agree) on the two external subscales referred to strong beliefs that weight-gain and ability to exercise were the result of chance factors (e.g., *'As to my size and shape in pregnancy, what will be, will be'* and *'Regardless of how much I exercise, I am unable to control my weight-gain in pregnancy'*) and / or was reflected in the advice received from health professionals (e.g., *'Health professionals are the only ones I trust to give me advice about my behaviour in pregnancy'*). Reliability properties will be discussed in the following chapter.

Body image affect (emotions)

As discussed in Chapter 10, the affective component of body image includes emotions associated with the body or appearance. As found in Study 2, appearance-related commentary had the propensity to negatively impact on women's self-image and made them question their appearance or experience. In contrast, positive appearance-related commentary and complimentary feedback received from spouses or partners had the effect of reassuring the women. That said, in previous studies, experiences of complimentary appearance-commentary can also be associated with higher levels of body surveillance and body dissatisfaction (Calogero et al., 2009). As mentioned previously, the affective component (FEEL) of the VCOPAS (Herbozo & Thompson, 2006a) was employed to measure the effect of physical appearance-related commentary. Reliability information has already been established.

Cognitive processing (internal dialogue)

As discussed in Chapter 10, cognitions (e.g., beliefs or thoughts about appearance, attributions of body ideals, self-schemas about salience of appearance and self-worth) form an integral element of body image that contribute to levels of body satisfaction (Menzel et al., 2011). Thus far, findings from Studies 1 and 2 would suggest that self-evaluations and schema-driven processing may be activated by situational occurrences such as social comparison, appearance-related feedback, media exposure, reasons for exercising, and changes in appearance which can result in “private body talk” (Cash, 2002) and may induce self-regulatory strategies or behaviours (e.g., clothing practices). Hence, it is crucial to understand how appearance-related self-schemas contribute to body image experiences and feelings of self-worth in a pregnant population. Three measures were therefore employed to assess cognitive processing / internal dialogues.

The Appearance Schemas Inventory – Revised (ASI-R)

Body image attitudes comprise an evaluative and investment component (Cash, 2002; 2011a); however, most attitudinal work has focused on evaluation and less so on investment (Cash & Pruzinsky, 2002) and yet a fundamental element of body image investment concerns appearance-related self-schemas that pertain to physical appearance (Cash et al., 2004). Developed as an improvement to the original 14-item Appearance Schemas Inventory (ASI; Cash & Labarge, 1996), the Appearance Schemas Inventory – Revised (ASI-R³⁸; Cash et al., 2004) was constructed as a 20-item measure, following an examination of inter-item correlation matrices and a principal components analysis. This measure assessed two specific, self-related domains of the salience of an individual’s appearance: self-evaluative salience (SES, 12 items) and motivational salience (MS, 8 items). SES reflected the importance of physical appearance for self-worth and/or sense of identity (e.g., ‘*I seldom compare my appearance to that of other people I see*’). MS referred to the time spent doing appearance-management behaviours (e.g., ‘*I try to be as physically attractive as I can be*’).

The ASI-R required responses on a five-point, Likert-type scale ranging from 1 (strongly agree) to 5 (strongly disagree) to reflect the extent to which they agreed with a statement. Six items (three from each subscale) were reverse-scored (denoted by an asterisk in Appendix O). Three mean scores were calculated (i.e., SES, MS, and the composite ASI-R). A high score indicated less salience of appearance influencing self-worth or less time spent on managing appearance whilst a low score

³⁸ This measure has been indicated “Do not copy” in the appendix, due to licensing obligations

reflected the opposite. Convergent validity using Pearson correlations was demonstrated in the development paper (Cash et al., 2004), although it must be acknowledged that this was based upon a sample of US college students, aged 18 years or over. Internal consistency for both the SES and MS subscales were calculated for women (Cronbach's alpha = .82 and .90 respectively; the composite measure had a value $\alpha = .88$). Permission to use this measure and distribute it online as part of an invitation-only survey link was granted by the corresponding author (see Appendix P). This will be discussed in more detail in the procedure.

The Physical Appearance Comparison Scale (PACS)

To address social comparison as a potential influence on body image attitudes, and in light of findings from Study 2 where women experienced both self-comparison and social comparison by observers, the Physical Appearance Comparison Scale (PACS; Thompson, Heinberg & Tantleff, 1991) was employed. Developed as a five-item scale and originally tested on US undergraduate women, this scale measured an individual's tendency to compare their own appearance to the appearance of others (e.g., '*In social situations, I sometimes compare my figure to the figures of other people*'). One item was positively-worded and therefore reverse-scored (denoted by an asterisk in Appendix O). Respondents were asked to rate the frequency of social comparison statements from 1 (always) to 5 (never). A low score indicated a greater likelihood for an individual to make comparisons. The original paper demonstrated good internal consistency ($\alpha = .78$) and test-retest reliability of .72. The PACS has been found to correlate strongly with body dissatisfaction thus suggesting good construct validity, with a test-retest reliability of .72 - .78 and internal consistency of .78 - .95 (Schutz, Paxton & Wertheim, 2002; Thompson et al., 1999)³⁹. Used with a pregnancy sample, internal consistency was adequately demonstrated at .75 (Skouteris et al., 2005).

Reasons for Exercise Inventory (REI)

A comprehensive discussion of the link between physical activity and body image has been presented in Chapter 7. Hence, a rigorous assessment of exercise motivations among pregnant women is warranted in order to investigate the prevalence of positive, psychological outcomes and direct the focus towards health and fitness. Silberstein et al.'s (1988) Reasons for Exercise Inventory (REI) was employed to assess the women's varied motivations. This 24-item measure represents seven general domains or motives for exercising: weight control (3 items, e.g., '*To be slim*'), fitness (4 items, e.g., '*To improve my strength*'), mood (4 items,

³⁹ The PACS (Thompson et al., 1991) has very recently been revised and validated, resulting in a new 11-item measure (PACS – R; Schaeffer & Thompson, 2014 – in press), however this was not available for use at the time of data collection.

e.g., 'To cope with stress, anxiety'), health (4 items, e.g., 'To maintain my physical well-being'), attractiveness (3 items, e.g., 'To be sexually desirable'), enjoyment (3 items, e.g., 'To have fun'), and tone (3 items, e.g., 'To improve my overall body shape'). Respondents were asked specifically to rate the importance of each motive, using a seven-point, Likert-type scale from 1 (not at all important) to 7 (extremely important). In the original paper (Silberstein et al., 1988), the measure was used in conjunction with a range of body esteem and self-esteem measures (including RSES; Rosenberg, 1965).

No psychometric data were presented in Silberstein et al.'s (1988) paper, however Cronbach's alpha coefficients were cited by Cash, Novy and Grant (1994) in their validation paper of this scale (α between .67 and .81). Cash et al. (1994) developed the measure further to establish the actual factor structure of the instrument and examine its relation to exercise frequency. Following a principal components analysis, the resultant factor structure comprised four converging main factors labelled i) Fitness / Health Management (FHM), ii) Appearance / Weight Management (AWM), iii) Stress / Mood Management (SMM), and iv) Socialising (SOC). All factors and the composite score were deemed to be acceptably internally consistent ($\alpha = .91, .89, .88, \text{ and } .73$ respectively). The motive 'AWM' was moderately associated with a more negative body image and significantly associated with a higher frequency of exercise. Due to insufficient loading, Cash et al. chose to remove two items ('To improve my muscle tone' and 'To maintain my current weight'). It was deemed by the authors that 'maintaining weight' was not a salient motive for women as the normative motivator was to 'lose weight'. In the present study however, the need for women to perhaps 'maintain their weight' as opposed to losing weight was considered to be highly relevant in pregnancy and therefore these items remained and were analysed as part of an inter-item correlation matrix ('Maintaining current weight' was relevant to AWM and 'improving muscle tone' was relevant to FHM, as per Silberstein et al.'s original paper).

Coping and self-regulatory strategies and behaviours

Individuals' may resort to an array of adjustive strategies and coping mechanisms to manage affect-laden interpretations and reinforce positive self-evaluations about their body or appearance (Cash, 2002, 2011a). These may take the form of long-term cognitive strategies or they may be a reactive approach to a situational context (Cash, 2011a). Examples of such reactions may be illustrated by body-concealment behaviours, appearance-modification, or self-monitoring as a means of escaping or avoiding body image distress, as per the findings of Study 2.

Certain practices (e.g., dressing or grooming) can stem from or co-occur with negative body image (Rosen et al., 1991), although are generally dependent upon the context in which it occurs and the individual involved (Lazarus & Folkman, 1984).

Research into body image-related coping behaviours is limited (Cash, 2011a; Cash, Santos, & Williams, 2004). This is worthy of examination as not all self-regulating or appearance-management behaviours are negatively motivated (Cash, 2011a). Thus, for those experiencing pregnancy, measuring such coping and self-regulatory strategies on a larger scale is warranted, as informed by the findings of Study 2. Thus, three measures were employed to address this aspect of Cash's (2011a) model.

Body Image Coping Strategies Inventory (BICSI)

Cash et al. (2005) developed the 29-item Body Image Coping Strategies Inventory (BICSI⁴⁰) which measured the extent to which individuals' saw certain events or situations as being a threat to their body image and how they might manage these threats. Following a principal components analysis, three distinct coping strategies were identified: i) Appearance Fixing (AF, efforts to change one's appearance through correction or concealment, e.g., '*I fantasise about looking different*'), ii) Avoidance (AV, the effort to elude all threats to one's feelings about their body and/or appearance, e.g., '*I react by overeating*') and iii) Positive Rational Acceptance (PRA, the use of rational self-talk, emphasising positive self-care and acceptance, e.g., '*I tell myself that the situation will pass*').

Individuals were asked to rate how each response was characteristic of them personally, having been provided with each event or situation. Responses were rated on a four-point Likert-type scale from 1 (definitely not like me) to 4 (definitely like me). A high score reflected an increased effort to fix one's appearance (AF), an increased effort to avoid one's stressful emotions (AV), and an increased use of rational self-talk (PRA⁴¹). Internal consistency of the BICSI subscales was demonstrated for women using Cronbach's alpha (AF: .90, AV: .74, and PRA: .80). The measure was employed in conjunction with other body image and self-esteem measures (e.g., ASI-R and RSES), to demonstrate good convergent validity using Pearson correlations (Cash et al., 2005).

Body Image Avoidance Questionnaire (BIAQ)

Developed specifically to measure behavioural tendencies and avoidance of situations that frequently accompany body image disturbance, the BIAQ (Rosen et

⁴⁰ This measure has been indicated "Do not copy" in the appendix, due to licensing obligations

⁴¹ In the present study, PRA was treated as an attitudinal variable based upon the premise that it is a way of positively evaluating a situation in relation to one's body image. See Figure 13 of Chapter 13 to see where this component has been placed within the hypothesised model.

al., 1991) correlated highly with negative attitudes about weight and shape and perceptual distortion of body size. The resulting 19-item measure included four specific dimensions of avoidance: i) Clothing (CLO, 9 items which related to the tendency to disguise or conceal one's appearance by wearing baggy, non-revealing clothes, e.g., '*I wear a special set of clothing, e.g., my "fat clothes"*'), ii) Social Activities (SA, 4 items related to the avoidance of social situations in which food, appearance, or weight could become a focus of attention, e.g., '*I do not go out socially if I will be "checked out"*'), iii) Eating Restraint (EATR, 3 items representing the avoidance of food, e.g., '*I fast for a day or longer*'), and iv) Grooming and Weighing (GW, 3 items reflecting certain said practices, e.g., '*I weigh myself*'). These dimensions were reflected in the findings from Study 2 and therefore this measure seemed an appropriate inclusion. In the original scale, responses were rated on a six-point Likert-type scale to rate frequency of the situations (never, rarely, sometimes, often, usually, and always). In the present study, the researcher considered the potential similarity and confusion between the words 'often' and 'usually', and therefore the response scale was reduced to five options (1 = always, 2 = usually, 3 = sometimes, 4 = rarely, and 5 = never). A low score indicated a greater tendency to wear clothing to conceal appearance, a greater avoidance of social situations, an increased tendency to restrict eating, and an increased tendency to engage in grooming and/or weighing practices. In order to make the measure more reflective of a woman's current pregnant state, the researcher requested to amend two items by including the word 'pregnancy' (i.e., '*I do not go out socially if the people I am with will discuss my pregnancy weight*' and '*I wear clothes that will divert attention from my pregnancy weight*'). Permission to amend those two items and include the words "*during your pregnancy*" in the standardised instructions was granted by the corresponding author (see Appendix P).

Psychometric testing of the original scale revealed the following results. Internal consistency was considered high ($\alpha = .89$), test-retest correlations indicated stability of responses ($r(23) = .87, p < .0001$), and following a second factor analysis with a replication sample, resulting correlation coefficients for each subscale were .95 (CLO), .96 (SA), .98 (EATR), and .93 (GW).

Exercise Participation

The physical and psychological benefits of physical activity have been well documented thus far within this thesis (Chapters 3 and 7). One of the goals in selecting an exercise measure was to be to capture both current and retrospective exercise behaviour in pregnant women. In addition to this, it was important to capture both incidental and intentional activity, including both intensity and frequency. That

said, established measures considered were either i) more valid for men than women (e.g., revised Baecke measure; Pols et al., 1995), ii) lacking in complexity and acknowledgment of incidental exercise (e.g., Godin Leisure-Time Exercise Questionnaire; Godin & Shephard, 1985), or iii) too heavily-focused on incidental activities and less-so on intentional exercise (e.g., Kaiser Physical Activity Survey; Ainsworth, Sternfeld, Richardson & Jackson, 2000). Following a comprehensive literature search of existing physical activity scales and concerns about limited reliability and validity (see Shephard, 2003), a measure was created for the direct purposes of the present study, not only to incorporate the above elements, but to also include questions relating to sources of information.

A modified version of a physical activity questionnaire originally developed by Fawkner (2005) was employed (see Appendix O). This recorded both incidental (e.g., taking the stairs at home or work, gardening, walking to the shops) and intentional (e.g., swimming, running, cycling) activity. Alongside each activity, participants were asked to self-report the number of sessions per week, the number of minutes per session, and the level of intensity using a three-point categorisation: Low; not much puffing or sweating, Medium; a bit of puffing and sweating, and High; lots of puffing, lots of sweat. Examples were provided to participants to assist completion (e.g., swimming, 2 times per week, 40 minutes per session, medium intensity). Frequency and intensity of both incidental and intentional activity were requested both '*before pregnancy*' and '*since becoming pregnant*'. In order to categorise types of activity, an index was created. Each activity was classified as either *Aerobic* (e.g., running, swimming, tennis, netball, cycling), *Weight / Conditioning* (i.e., weight-training, yoga, pilates), *Combination* (e.g., bootcamp, exercise classes or DVDs, zumba, circuit training, gymnastics), or *Other* (e.g., gardening, leisurely-walking, housework, physio exercises) and the total number of hours per week was calculated for both incidental and intentional activity. Where an estimated time was provided (e.g., 1-2 hours, 15-30 minutes), an average was taken. If fortnightly was stated, this was calculated at 0.5 (to reflect a weekly figure). A Total *Exercise Hours* index was summed by the total numbers of hours engaged in aerobic, conditioning, and combination exercise, in keeping with methods employed in previous research (e.g., Davis & Cowles, 1991). As per the measure devised by Fawkner (2005), activities categorised as *Other* (e.g., gardening, housework etc.) were not included in the *Exercise Hours* index, irrespective of whether participants self-reported the intensity as these were too problematic to determine accurately in terms of time spent 'actively' and 'passively'.

The total number of hours engaged in physical activity, both prior to and since becoming pregnant, were categorised according to NICE (2010, p. 11) recommendations that women should engage in "at least 30 minutes per day of

moderate intensity activity” (i.e., 3.5 hours per week). Hence, participants were categorised as low-level exercisers (≤ 2 hours per week), medium level exercisers (2.1 – 3.5 hours per week), and high level exercisers (≥ 3.6 hours per week). The low level bracket represented less than current recommendation and the high level represented almost double the recommendation.

In addition to self-reported levels of physical activity, participants were asked whether they had sought physical activity advice from a health professional, and if not, where they might have sought advice from (2 items). A question regarding competitive sport prior to becoming pregnant and since becoming pregnant was also included (with a maximum of 5 items, if they responded yes). The main aim of this sub-section was to explore responses with scores on the Pregnancy Discomfort Checklist. Lastly, participants were asked who they exercised with, if they did engage in an exercise programme (1 item).

Body Image Attitudes

As discussed in Chapter 11, attitudes towards one’s appearance are likely to also encompass evaluations towards fitness (body competence) and health or illness (biological integrity) (Cash, 2000). Attitudes are comprised two core elements (Cash, 1994; Muth & Cash, 1997): body image *investment* and *evaluation*. To fully address this component within the model, an array of body image measures was employed in the present study: MBSRQ, OBCS, and BAS. Each will be discussed in turn.

The Multidimensional Body-Self Relations Questionnaire (MBSRQ)

The current version of the Multidimensional Body-Self Relations Questionnaire (MBSRQ⁴²; Cash, 2000, see Appendix O) employed in the present study was a 69-item attitudinal measure of body image (see Cash, Winstead & Janda, 1986 for the first version). Originated from the Body-Self Relations Questionnaire (BSRQ; Winstead & Cash, 1984), the measure has been modified on a number of occasions to include 10 subscales overall (Cash, 2000). The BSRQ component (54-items) measures attitudes in three somatic domains: i) ‘appearance’, ii) ‘fitness’, and iii) ‘health / illness’. The subscales within these domains reflect two dispositional dimensions: i) ‘evaluation’ (the degree of appraisal and achievement with each domain) and ii) cognitive-behavioural ‘orientation’ (the degree of investment paid to each domain). Of the 54 items, the BSRQ is split into seven subscales: i) Appearance Evaluation (AE, 7 items, e.g., ‘*My body is sexually appealing*’), ii) Appearance Orientation (AO, 12 items, e.g., ‘*I am self-conscious if my grooming isn’t right*’), iii)

⁴² This measure has been indicated “Do not copy” in the appendix, due to licensing obligations.

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Fitness Evaluation (FE, 3 items, e.g., '*I easily learn physical skills*'), iv) Fitness Orientation (FO, 13 items, e.g., '*I would pass most physical-fitness tests*'), v) Health Evaluation (HE, 6 items, e.g., '*I am in control of my health*'), vi) Health Orientation (HO, 8 items, e.g., '*I know a lot of things that affect my physical health*'), and vii) Illness Orientation (IO, 5 items, e.g., '*At the first sign of illness, I seek medical advice*'). Respondents indicated their level of agreement to all 54 statements on a five-point, Likert-type scale from 1 (definitely disagree) to 5 (definitely agree). Scores were summed and an average created for each subscale. A high score on any of the seven evaluation or orientation scales reflected a high level of satisfaction or investment respectively. In total and across seven subscales, 20 of the 69 items were reverse-scored (denoted by an asterisk in Appendix O).

In addition to the BSRQ, the MBSRQ includes a four-item Overweight Preoccupation Scale (OP, 4 items). The OP measures fat anxiety, weight vigilance, dieting, and eating restraint (Cash, 2000). Respondents rate the extent to which they agree with each of the three out of the four items on a five-point, Likert-type scale as per the BSRQ (e.g., '*I constantly worry about being or becoming fat*'). The fourth item '*I have tried to lose weight by fasting or going on crash diets*' requires a respondent to answer using a five point, Likert-type scale from 1 (never) to 5 (very often). A high score reflected an increased preoccupation with being overweight and increased frequency of dieting practices respectively.

The penultimate subscale within the MBSRQ is the Self-Classified Weight Scale (SCW, 2 items). The SCW measures how an individual perceives their weight status and how they perceive others as viewing their weight status. Respondents use a five-point, Likert-type scale format from 1 (very underweight) to 5 (very overweight).

Finally, the MBSRQ includes a nine-item version of the Body Areas Satisfaction Scale (BASS; originally constructed by Berscheid, Walster, & Bohrnstedt, 1973). The BASS assesses evaluation with specific body areas and attributes, such as hair, face, lower torso (e.g., buttocks), mid torso (e.g., waist), upper torso (e.g., breasts), muscle tone, weight, height, and overall appearance. Responding using a five-point, Likert type scale participants rated the extent of their satisfaction from 1 (very dissatisfied) to 5 (very satisfied). The scores were averaged to denote an overall composite score. A high score reflected a high level of satisfaction with appearance attributes, whilst a low score reflected a high level of dissatisfaction. The BASS has been used by Symons Downs et al. (2008) across the trimesters of pregnancy into the postpartum to assess body image satisfaction, exercise behaviour, and pregnancy and postpartum depression. Internal consistency of the total BASS score across four time points was good (T1 = .84, T2 = .84, T3 = .87, T4 = .82).

The psychometric properties are credible across the various revisions, however the data from the most recent manual will be reported here (Cash, 2000). Internal reliability scores for women ranged between .75 and .90 (BSRQ), .73 (BASS), .76 (OP), and .89 (SCW). One-month test-retest correlations ranged between .78 and .94 (BSRQ), .74 (BASS), .89 (OP), and .74 (SCW), although a caveat must be observed in that test-retest correlations were derived from college student samples. Construct validity (i.e., the extent to which a measure is related to other variables in expected ways) and convergent validity (i.e., which establishes construct validity when using different measurement procedures and research methods) have been determined in various studies (e.g., Cash, 1990; Cash & Green, 1986; Keeton, Cash & Brown, 1990), albeit from earlier versions.

The Objectified Body Consciousness Scale (OBCS)

As discussed in Chapter 10, the internalisation of others' perceptions or evaluations leads to self-objectification (Fredrickson & Roberts, 1997), exhibited by mechanisms such as self-surveillance (e.g., persistent self-monitoring). Self-surveillance leads to emotions of body shame, anxiety, self-consciousness, and an inadequate awareness of internal bodily states, for example, hunger (Fredrickson & Roberts, 1997). Subsequently, women are said to dissociate themselves psychologically from and develop negative emotions towards their bodies (Calogero et al., 2005).

In light of an increased emphasis on celebrity culture, media messages pertaining to the pursuit of an individual's pre-pregnancy body (Study 1), and women's changing perceptions of their pregnancy bodies (Study 2), it was agreed to employ an empirically-validated measure that addressed the issue of objectification. The 24-item Objectified Body Consciousness Scale (OBCS; McKinley & Hyde, 1996) was devised to measure a woman's contradictory relationship with her body and comprised of three subscales: i) Surveillance (SUR, 8 items: viewing the body as an outside observer, e.g., *'During the day, I often think about how my body looks'*), ii) Body Shame (BS, 8 items: feeling shame when the body does not conform, e.g., *'I would be ashamed for people to know what I really weigh'*), and iii) Control Beliefs (CB, 8 items: the belief that an individual can control their weight and appearance, e.g., *'I can weigh what I'm supposed to when I try hard enough'*).

Participants were asked to indicate the extent to which they agreed with each of the 24 statements, using all three subscales, ranging from 1 (strongly agree) to 7 (strongly disagree). A score of 999 was initially applied if participants responded using 'not applicable' and was counted as missing. A low scorer (e.g., 1 = strongly agree) on the surveillance subscale would watch her body frequently and evaluate it in terms

of its looks rather than its functionality. Likewise, a low scorer on the body shame subscale would believe themselves to be a bad person if their body did not meet cultural expectations. A low scorer on the appearance control beliefs subscale would believe that a woman can control her weight and appearance, if she works hard enough. In total, 14 of the 28 items were reverse-scored (SUR: 6, BS: 2, CB: 6), which are denoted with an asterisk in Appendix O.

This measure has previously been empirically tested and applied to adolescent girls (Slater & Tiggemann, 2002) and undergraduate women (Calogero & Pina, 2011). In a more meaningful and applicable context, the OBCS has also been tested with pregnant populations to assess women's appreciation of body functionality (Rubin & Steinberg, 2011) and to understand women's attitudes towards breastfeeding (Johnston-Robledo & Fred, 2008; Johnston-Robledo, Wares, Fricker & Pasek, 2007). In pregnant populations, solid internal consistency has been demonstrated for both the SUR and BS subscales ($\alpha = .81$ and $.83$ respectively) used in Johnston-Robledo et al.'s (2007) study and the SUR subscale ($\alpha = .86$) used in Rubin and Steinberg's (2011) study. As all three subscales were employed in the present study, it is worth acknowledging the original measure's moderate to high internal consistency scores for each subscale (SUR = $.89$, BS = $.75$, CB = $.72$). Used in conjunction with the SCS (Fenigstein et al. 1975), the OBCS (McKinley & Hyde, 1996) demonstrated good convergent validity (i.e., conceptual relatedness of surveillance and public self-consciousness) and discriminant validity (i.e., distinction from both attention paid to the internal aspects of the self and social anxiety). Satisfactory test-retest correlations were indicated between each of the three subscales at two time points (all at $p < .001$): SUR = $.79$, BS = $.79$, and CB = $.73$. Permission to use the OBCS was granted by the corresponding author (see Appendix P).

The Body Appreciation Scale (BAS)

Researchers, who see the limitations of a 'pathology-driven' paradigm in the psychology of appearance (see Chapter 10), have long advocated a body image measure that encompasses favourable opinions, acceptance and respect of the body and identifies protection against unrealistic ideals (Avalos et al., 2005). As Avalos et al. acknowledged there are a limited number of measures that assess neutral or positive body image attitudes. For example, the AE subscale of the MBSRQ (Cash, 2000) investigates the degree to which respondents believe they are good-looking or sexually appealing, but this subscale largely measures individual's satisfaction with their appearance and neglects other characteristics of positive body image (Avalos et al., 2005).

Hence, guided by the existing body image literature, the Body Appreciation Scale was developed (BAS; Avalos et al., 2005, see Appendix O) which reflected positive aspects of body image (e.g., acceptance of and respect for the body) and therefore correlated negatively with body surveillance and shame. The measure was primarily tested on US college women, in conjunction with other body image measures (including the SUR and BS subscales of the OBCS) and measures of self-esteem (including the RSES), optimism, and coping. The resulting scale comprised of 13 items to reflect the unidimensional construct of body appreciation (e.g., '*Despite its flaws, I accept my body for what it is*' and '*I engage in healthy behaviours to take care of my body*'). Participants were asked to respond to each of the items using a Likert-type scale in terms of how frequently they had perceived their body in such ways, ranging from 1 (never) to 5 (always). A high score reflected greater body appreciation. Values were averaged to obtain an overall body appreciation score.

With a Cronbach's alpha of .94, this measure demonstrated high internal consistency and correlated strongly with measures of self-esteem ($r = .53, p < .001$) as has been the predictive finding across self-esteem and BAS scores since its development (Swami, Stieger, Haubner, & Voracek, 2008; Swami, Aïrs, Chouhan, Leon, & Towell, 2009). Despite being guided by what the authors call "theoretical speculation as to what constitutes positive body image" (Avalos et al., 2005, p. 295) and although only sampled on young-adult, Caucasian, middle class, college students, mean scores across the various validation studies demonstrated a comparatively consistent response where on the whole, women held and exhibited relatively positive body attitudes, cognitions, and behaviours. The BAS has since been quantitatively examined in terms of ethnic differences (Swami et al., 2009) and gender differences (Swami et al., 2008; Tylka, 2013) and most notably to reveal the protective nature of high self-esteem; previously advocated as an effective mechanism to improve women's body image and protect against sociocultural or peer pressures (O'Dea & Abraham, 2000). Permission to use the measure was granted by the corresponding author (see Appendix O).

Demographic information

Demographic data were collected at the start of the questionnaire package. Items related to age, parity (i.e. '*Are you due to give birth to your first child?*', weeks' gestation, height (in cm's), weight prior to pregnancy (in stones / pounds), most current or previous occupation, ethnicity, employment and relationship status, living arrangements, and level of education. Occupation and employment categorisations were derived from the Office of National Statistics (www.ons.gov.uk). Week's

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gestation was calculated in trimesters (first: 1 - 12 weeks, second: 13 - 26 weeks, and third: 27 weeks onwards) (www.nhs.uk). In addition to these questions, participants were asked to rate their general health on a five-point scale from excellent to poor. All demographic and exercise questions were presented where participants could either free-type (e.g., age, height) or use a Likert-type scale (e.g. occupation, ethnicity) to respond.

Questionnaire Package Presentation

The series of measures discussed thus far were presented using Qualtrics© software. This is an online software tool for building surveys, for which the University currently holds a licence. Having advertised on national websites, this tool facilitated data capture across the UK, rather than being restricted to the researcher's geographical location. The order in which ethics documents (e.g., Participant Information Sheet and Consent form) and measures were presented will now follow.

Participant Information webpage

Before participants were presented with the series of questionnaires, it was important to display information pertinent to the study, including ethical issues (see Appendix Q). Participants were assured that the study was entirely voluntary, confidential, and could be withdrawn from at any point by simply exiting the webpage. Where a participant had already submitted their responses and completed the survey, instructions were provided if they chose to withdraw at a later date. Eligibility criteria were explicit: participants were required to be 18 years or older and expecting their first-born child.

The nature and expected length of the study were provided and potentially sensitive items were provided as examples (e.g., physical pregnancy-related symptoms such as constipation and vaginal discharge). The types of questions expected of participants were given and the total number displayed outright (i.e., 420 items). Although some items may have been considered sensitive, it was not expected that the questionnaire package would cause emotional distress. Nonetheless, support organisations and contact numbers were provided.

In order to increase recruitment, incentivise participants, and as a token of appreciation, participants were given the opportunity to leave their email address (if they wished to do so) and be included in a prize draw for £100 of High Street Gift vouchers. This page was not linked to their responses so their data remained anonymous. Once the study was concluded and an email was selected at random, the winner was contacted and the file containing all email addresses was destroyed.

Consent webpage

Once participants had read the information, they were instructed to click to the next page. This page included nine consent statements, all of which required a 'yes' response in order to proceed with the questionnaire (see Appendix R). Hence, all participants who submitted a survey had given consent. If a participant ticked 'no' to any statement, they were immediately taken to the Debrief page (see Appendix S) and thus excluded from the study.

Sequential order of measures

Careful consideration was given to the order in which measures were presented for various reasons. Given the length of the questionnaire, there was a concern over respondent fatigue (Brace, 2008). It is possible that of the 81 participants who did not submit their responses, there may have been a number who perceived the questionnaire to be too long. It was also acknowledged that some participants may have found certain measures difficult to answer due to their sensitive nature (e.g., items on the BIAQ related to food restriction and physical intimacy). That said, measures were put in place with a scale at the bottom of each page, to keep the participant informed of their progress. Participants were also given the option to amend any of their responses, using a 'back' button. One of the main advantages of using Qualtrics© over other survey tools, was that each survey link was unique to an IP address. This meant that if during the study, a participant wished to break off, the survey automatically saved their responses and allowed them to continue at another convenient time; even at another computer. In order to resume the study, participants simply had to click on the invitation link they initially received via email, which re-started the survey at the point they had paused.

It was agreed to commence the questionnaire with the Demographic, Exercise Participation and REI items, as a means of easing the participant into the survey. Following these three sections, participants were asked specific questions about their pregnancy experience (including the Physical Discomforts Checklist and PES). Next, items related to pregnancy-related appearance-commentary (VCOPAS), pregnancy locus of control (PLOC – WE), and pregnancy weight-gain attitudes (PWGAS) were presented. The MBSRQ and ASI – R followed, proceeded by measures related to sociocultural pressures and comparisons (PACS, PSPS, and SATAQ – 3 respectively). It was agreed to leave some of the more personal and sensitive measures until nearer the end (i.e., the BIAQ, BICSI, OBCS, RSES, and SCS in that sequential order). Finally, the questionnaire package ended with the measure to assess body appreciation (BAS). It is hoped that this measure helped to put some of

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the earlier measures into perspective for the participants and let them finish on a more positive note. Finally participants were asked if they wished to leave their email address. Irrespective of that decision, participants ended the survey on a debrief page (see Appendix S), which documented the nature of the study, thanked them for their participation, and once again, listed contact details of support organisations and helplines.

PROCEDURE

Pilot Study

Prior to the release of advertisements and web postings, a trial version of the questionnaire was piloted to five individuals who were known to the researcher and who were concurrently pregnant. In all cases, these were not their first pregnancies and therefore the data were not eligible for inclusion in the sample. The main aim was to obtain feedback on items presented within the questionnaires and ascertain an approximate completion time. No issues were reported and an estimated time of up to one hour was documented on the information page before the survey went live.

Questionnaire administration

As previously discussed, either permission was granted to use or modify the measures by the corresponding author or public, non-profit access was obtainable. That said, there were three specific measures whereby online access was conditional (i.e., MBSRQ, ASI-R, and BICSI). The only requirement (as advised by the corresponding author and evidenced in Appendix P) was that the survey could not be posted in a manner that allowed complete public access (i.e., simply posting a generic survey link to a website so that anyone could view the items). This was achievable using Qualtrics© through the use of an 'invitation-only' link. This meant that in order to receive this, participants were required to first contact the researcher via email to participate once they had viewed an advertisement. Following this contact, a link unique to the respondent's IP address was sent via email with a brief message of thanks. The University created an additional email address (pregnancysurvey@leedsmet.ac.uk) which was linked to my work email, so that participants could use this if they preferred. Once a link was sent, the participant's request email was deleted.

Data collection commenced in February 2012 until August, 2012. At this point, it was agreed to close the survey, as recruitment had slowed substantially. It is acknowledged that the target of 200 participants had not quite been reached, but a consensus amongst the supervisory team determined the need to commence data

analysis. Once data collection was complete, a separate data file for each measure was created. All data were screened for missing data, outliers, normality, and reliability. Mean scores, standard deviations, frequencies, and reliability properties were recorded. Subscales that required merging were combined. Details pertaining to the data screening process will be discussed in the following chapter. Upon completion of the data screening, path analyses were performed on the data in order to test the fit of the model. As previously mentioned, an account of structural equation modelling and path analysis, the development of the structural model, and subsequent statistical data will be presented in Chapter 13. Preceding this information will be an account of sample characteristics and descriptive statistics in Chapter 12.

SUMMARY

The present chapter has documented a rationale for sample size using path analysis and provided a comprehensive overview of measures that were employed to assess the various aspects of Cash's model, before detailing the procedural events of Study 3. The following chapter now documents the procedure involved in screening the data and presents both sample characteristics and descriptive statistics.

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STUDY 3: SAMPLE CHARACTERISTICS & DESCRIPTIVE STATISTICS

INTRODUCTION

The principle aim of Study 3 was to examine an array of historical and proximal influences on body image attitudes in a cross-sectional sample of pregnant women, using Cash's (2011a) theoretical framework. In order to achieve this aim, path analysis was employed. Prior to commencing data modelling however, the data set required examination. The present chapter documents the statistical considerations and precautions taken when preparing the data set for analysis. Further, descriptive statistics for all variables related to cultural and interpersonal factors, physical characteristics, personality attributes, cognitive processing, and adjustive strategies and behaviours will be presented.

DELETED CASES

Of the 184 submitted surveys, three cases were deleted before any analysis commenced. One data set was deleted as the participant had omitted responses to five measures, one data set was deleted as there were missing data from 14 measures, and one participant answered 'no' to the question relating to primiparous status in error, and therefore the survey ended. She later requested another link and therefore will have been included within the remaining 181 cases.

RELIABILITY OF MEASURES AND DATA TREATMENT

Scale reliabilities for measures relating to body image attitudes, historical influences (i.e., cultural socialisation, interpersonal experiences, physical characteristics, and personality attributes), proximal influences (i.e., cognitive processing), and coping/self-regulatory strategies are presented in Tables 4 to 10. As can be seen in Tables 4 to 10, the majority of measures demonstrated acceptable to high levels of reliability (i.e., Cronbach's $\alpha > .70$) (Cortina, 1993). Although a Cronbach's alpha could not be computed for the scale designed to assess level of physical activity, the measure appeared to be reliable. For instance, all participants who reported engagement in activities such as running, jogging, cardio fitness, or netball (as examples) described these as high-intensity activities. The items column

demarcates the finalised number of items per sub-scale following any necessary deletions⁴³.

Table 4: Scale reliabilities for measures of sociocultural influence.

Variable	Measure	Items (n)	Cronbach's α
Societal influence	SATAQ-3 COMP	30	.95
Salience of media information	SATAQ-3_I	9	.93
Internalisation (general)	SATAQ-3_IG	9	.92
Internalisation (athlete)	SATAQ-3_IA	5	.78
Media pressure	SATAQ-3_P	7	.95
Perceived pressure	PSCP-2	12	.86

Table 5: Scale reliabilities for measures of interpersonal experiences.

Variable	Measure	Items (n)	Cronbach's α
Verbal commentary (frequency)	VCOPAS_FR	21	.86
Positive general appearance	VCOPAS_PGA	7	.84
Negative weight and shape	VCOPAS_NWS	9	.81
Positive weight and shape	VCOPAS_PWS	5	.72
Verbal commentary (affect)	VCOPAS_FE	21	.87 ¹

¹Although a reliability analysis produced a high level of internal consistency for the affective component of the VCOPAS measure ($\alpha = .87$), it appeared that participants had not quite responded to this subscale in the way they had been asked. This component was only to be answered if they had received appearance-related commentary on the VCOPAS – FREQ subscale. Despite a number of participants never having received such commentary, many still responded on the VCOPAS – FEEL subscale with a negative or positive answer. Likewise, some participants who had received some form of appearance-related commentary then proceeded to respond with a '*not applicable*' answer. A decision was taken to remove this subscale from any further analyses.

⁴³ Where an asterisk is denoted, a full rationale for each resulting alpha or deleted item is presented in the footnotes beneath the table.

Table 6: Scale reliabilities for measures of physical characteristics and changes.

Variable	Measure	Items (n)	Cronbach's α
Physical discomfort	PHYDISC	29	.78
Pregnancy experience	PES_HASS_UPL	40	.79
Pregnancy Hassles	PES_HASS	20	.83
Pregnancy Uplifts	PES_UPL	20	.85
Pregnancy weight-gain	PWGAS	16	.85 ¹

¹Reliability for the composite PWGAS was measured in keeping with DiPietro and colleagues' (2003) paper which developed the original PWGAS (Palmer et al., 1986). As per the authors' findings, the two poorly-loaded items related to weight-gain of 11-20lbs and 21-30lbs were dropped from the present scale when measuring reliability.

Table 7: Scale reliabilities for measures of personality attributes.

Variable	Measure	Items (n)	Cronbach's α
Self-esteem	RSES	10	.79 ¹
Self-consciousness (private)	SCS_PRIV	10	.71
Self-consciousness (public)	SCS_PUB	7	.75
Locus of control (internal)	PLOC_INT	8	.70 ²
Locus of control (external)	PLOC_EXT	5	.84
Locus of control (powerful others)	PLOC_PO	2	.83 ³

¹Although it may have been possible to remove item 3 to increase the alpha to .89, it was decided to keep the RSES intact, so that potential comparisons could be made against other studies that have used the measure.

²Internal consistency for the *Internal* (I) subscale was originally below recommended levels of .7 (DeVellis, 2012). An examination of item-total statistics revealed an improved satisfactory alpha of .70 if item 16 was deleted (i.e., '*I am directly responsible for my body's size and shape following the birth of my baby*') and therefore this item was removed from this subscale to leave a total of eight items.

³Internal consistency for the *Powerful Others* (PO) subscale was initially below recommended levels ($\alpha = .59$). By removing item 6 (i.e., '*Health professionals are the only ones I trust to give me advice about my behaviour in pregnancy*') from the subscale, this increased the Cronbach's alpha as denoted in the table. Hence, two items remained on the PO subscale.

Table 8: Scale reliabilities for measures of cognitive processes (internal dialogue).

Variable	Measure	Items (n)	Cronbach's α
Appearance beliefs	ASI-R_COMP	20	.90
Self-evaluative salience	ASI-R_SES	12	.86
Motivational salience	ASI-R_MS	8	.87
Appearance comparison	PACS	5	.73 ¹
Exercise motivation	REI_COMP	24	.84 ²
Fitness/health motivation	REI_FHM	8	.89
Appearance/weight motivation	REI_AWM	9	.87
Stress/mood management	REI_SMM	4	.80
Socialising motivation	REI_SOC	2	.80

¹Although removing item 5 would have improved the reliability, it was agreed to keep the full PACS scale intact, so that comparisons could be made against other studies.

²As discussed earlier, a decision was taken to adopt the factor structure of the REI in keeping with Cash et al. (1994), with two exceptions: i) that the FHM subscale included item 5 (i.e., 'To improve my muscle tone') and ii) that the AWM subscale included item 17 ('To maintain my current weight') as per Silberstein et al., 1988). It was felt that both of these items might have potential relevance to the present sample of pregnant women. Hence four factors needed to be measured in terms of their reliability in addition to the composite scale: FHM, AWM, SMM, and SOC. Internal consistency for all five measurements was high.

Table 9: Scale reliabilities for measures of body image attitudes.

Variable	Measure	Items (n)	Cronbach's α
Appearance evaluation	MBSRQ_AE	7	.92
Appearance orientation	MBSRQ_AO	12	.89
Fitness evaluation	MBSRQ_FE	3	.76
Fitness orientation	MBSRQ_FO	13	.91
Health evaluation	MBSRQ_HE	6	.76
Health orientation	MBSRQ_HO	8	.79
Illness orientation	MBSRQ_IO	5	.75
Body areas satisfaction	MBSRQ_BASS	9	.82
Self-classified weight	MBSRQ_SCW	2	.89
Overweight preoccupation	MBSRQ_OWP	4	.69 ¹
Body surveillance	OBCS_SUR	6	.85
Body shame	OBCS_BS	2	.79
Control beliefs	OBCS_CB	6	.79
Body appreciation	BAS	13	.95

¹Reliability was slightly less than recommended for the OP subscale ($\alpha = .69$). Despite potential improvements by removing item 58, it was felt that as this subscale was so close to adequate internal consistency levels, this item would remain as part of the OP subscale.

Table 10: Scale reliabilities for measures of coping / self-regulatory strategies or behaviours.

Variable	Measure	Items (n)	Cronbach's α
Appearance fixing	BICSI_AF	10	.88
Appearance avoidance	BICSI_A	8	.80
Positive rational acceptance	BICSI_PRA	11	.85
Body image avoidance	BIAQ_COMP	19	.82 ¹

¹As per the original paper (Rosen et al., 1991), reliability was measured on the composite BIAQ.

DATA SCREENING

Prior to analysis, all continuous variables were screened for missing values and outliers and tested to meet assumptions for multivariate analysis. The level of data for all measures was continuous and the data set comprised of 181 cases, following the decision made to exclude three cases described earlier.

MISSING DATA

There can be an array of reasons for missing data within a data set, and it is unsurprising when a questionnaire package has a substantial number of individual measures. The important thing in dealing with missing data is to understand whether this has occurred randomly or whether this was more systematic in terms of a pattern (Tabachnick & Fidell, 1996). In the case of the latter, this can be more problematic in terms of generalisability of the results. In the present study, missing data were coded as 999 in SPSS to identify specific cases. This discrete value was used as there was no possibility of it occurring in the cumulative values within the collected data (Field, 2009). According to Tabachnick and Fidell (1996), if only a few data points are missing in a random pattern from a large data set, almost any procedure for handling missing values will yield similar results and should be considered to be less serious. It is not necessarily the simplest option to delete all cases with missing values as this can then distort values on other variables (Tabachnick & Fidell, 1996) and severely limit one's sample size (Pallant, 2007). This was only done where one measure or more had been completely omitted, as described earlier when discussing the three deleted cases. Each missing value was reviewed individually, in conjunction with the measure, and adjusted either by using a mean value of other responses where the context was similar (e.g., looking at other non-exercisers' responses) or by inserting an identical value where all other subscale items had been reported with identical values. This was felt to be a more conservative procedure than simply inserting a group mean value or using prior knowledge to make an educated guess (Tabachnick & Fidell,

1996). In total there were 11 cases where data were missing from their submitted questionnaires. The measures and cases involved where missing values were treated are listed in Appendices T and U.

OUTLIERS

Outliers are cases with extreme values on a specific variable or combination of variables that distort statistics and can be found in both univariate (i.e., on one variable alone) and multivariate (i.e., on a combination of variables) situations, and among both IVs and DVs (Tabachnick & Fidell, 1996). The first step in the procedure was to check to ensure that all data entered were entered correctly. One main advantage of using Qualtrics© was that it automatically converted all raw data into an excel file before it was transferred into SPSS. This helped to reduce incorrect data entry on my part.

Univariate outliers within continuous variables can be identified from an inspection of Z scores (i.e., very large standardised scores) that have a value in excess of 3.29 (Tabachnick & Fidell, 1996). This depends on the *N* in the sample however and in a larger sample, “few standardised scores in excess of 3.29 are expected” (1996, p. 67). All variables were checked and no values > 3.29 were identified. In the case of multivariate outliers, Mahalanobis distance was computed and scores were screened in the same manner as univariate outliers. In addition, a more visual method involved an inspection of both the histograms for each variable (to assess the tails of the distribution) and the boxplots (where scores deemed as outliers are specific to the case ID, determined as being > 1.5 box-lengths from the edge of the box) (Pallant, 2007). Outliers were not automatically deleted from the data file, but changed to reflect a less excessive value. This therefore included the person in the analysis but meant that the score did not distort the statistics (Pallant, 2007; Tabachnick & Fidell, 1996). As there were only a small number of outliers (total *N* = 24), these were examined individually. As suggested by Tabachnick and Fidell (1996), each time an outlier was treated, the data were screened again until finally, no further or new outliers were identified.

NORMALITY

All variables were examined for normality using SPSS for Windows (Version 21). Normality is generally characterised by a symmetrical, bell-shaped curve, whereby the greatest frequency of scores feature around the centre of the distribution with smaller frequencies towards the outer edges (Field, 2009; Gravetter & Wallnau, 2004). One way to assess normality is to examine a Kolmogorov-Smirnov test which

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compares the scores in the sample to a normally distributed set of scores with the same mean and standard deviation. This test has its limitations however, particularly with large sample sizes. This is because significant results are likely to occur from often negligible deviations from normality and therefore it is not adequate to denote whether any deviation is enough to bias statistical procedures applied to the data (Field, 2009). That said, normality is particularly important in path analysis as testing for goodness of fit relies on an assumption of normality or at least, nearly symmetrical distributions with a kurtosis near zero (Blunch, 2008). Hence, it was necessary to examine the data further.

Kurtosis (which refers to peakedness e.g., a distribution that is too peaked or too flat) and skewness (which refers to symmetry e.g., where the mean is not in the centre) are two ways in which a distribution can deviate from normal (Field, 2009; Tabachnick & Fidell, 1996). In a normal distribution, the values of skew and kurtosis are zero (Field, 2009). One strategy for detecting normality violations can be to divide the skewness or kurtosis value by its respective standard error and evaluate this against a table of z-scores (Meyers, Gamst & Guarino, 2005; Tabachnick & Fidell, 1996). In the present study, the majority of z values were between -1.96 and +1.96 ($p < .05$). The exceptions were VCOPAS-FREQ (skew z: 3.02), MBSRQ: SCW (skew z: 3.90), MBSRQ: OWP (kurt z: -2.14), ASI-R: MS (skew z: 2.32), PSCP (skew z: 3.06), SATAQ – 3: composite (skew z: -2.12), and BIAQ: SA (skew z: -2.66, kurt z: -2.76).

In larger sample sizes however, it is considered to be more important to check the actual size of skewness rather than the significance because a variable with statistically significant skewness often does not deviate sufficiently from normal to make a substantive difference in the analysis (Tabachnick & Fidell, 1996). In addition, the impact of a deviation from zero kurtosis is also reduced in a large sample (e.g., underestimates of variances with negative kurtosis or a flat distribution disappears with a sample size > 100). Miles and Shevlin (2001) suggested that if the actual skewness statistic is less than 1.0, then there is little problem. If the skewness is greater than 1.0 but less than 2.0, it is important to acknowledge that there may be an effect on parameter estimates, but that it is not something to be unduly concerned about (2001). As each of these values depends on sample size, the larger the sample size, the less that deviations from normality matter. For all variables, skewness was less than 1.0 and following a visual inspection of histograms, all variations were perceived to be minor and therefore no transformations were required.

MULTICOLLINEARITY AND SINGULARITY

Multicollinearity exists when independent variables are too highly linearly correlated ($r = .9$ and above) (Field, 2009; Tabachnick & Fidell, 1996). Singularity occurs when one independent variable is actually a combination of other independent

Study 3: Sample Characteristics & Descriptive Statistics

variables (e.g., when both subscale scores and the total score of a scale are included). These two issues cause logical and statistical problems for path analysis or structural equation modelling. It is not ideal to include redundant variables in the same analysis and they can inflate the size of error terms, thus weakening the analysis (Tabachnick & Fidell, 1996). Tabachnick and Fidell suggested either omitting one of the variables or creating a composite score from redundant variables, when $r = .70$ or higher. It was decided to include only subscale scores rather than composite scores, unless composite scores were the only variables within a measure. No correlations between variables were $.9$ or higher. In addition, collinearity diagnostics were performed which included an examination of Tolerance values (i.e., how much of the variability of a specified variable is not explained by the other variables in the model) and VIF values (i.e., Variance Inflation Factor which is the inverse of Tolerance). No VIF values were above 10 and no Tolerance values were less than $.10$ which indicated that multicollinearity was not a concern (Pallant, 2007).

That said, it is important to acknowledge Thompson's (2004) advice when dealing with multicollinearity. As discussed in Chapter 11, using multiple measures of body image ensures a broad coverage of pertinent dimensions and reduces the likelihood of misleading interpretations being made (Thompson, 2004). But when multicollinearity occurs at a slightly lower level, theoretical decisions must be made in addition to satisfying statistical assumptions. In total, there were 13 correlations at $.07$ or within the data set. Thompson recommended evaluating the shared variance between measures (i.e., the square of the simple Pearson correlation coefficient). Two of the 13 correlations (BAS and OBCS_BS; OBCS_SUR and PACS) shared less than 50% variance (i.e., $R^2 = .49$, $r = .70$) and therefore remained as separate subscales in all subsequent analyses. Thompson (2004) indicated substantial overlap between measures if $R^2 \geq .50$. Two subscales within the MBSRQ correlated highly with each other (BASS and AE: $R^2 = .62$), which is unsurprising considering they both measure satisfaction with appearance (AE) and more explicitly satisfaction with specific bodily areas (BASS). Hence, these were combined into a composite AE_BASS scale⁴⁴. In addition, there was substantial overlap between MBSRQ_AO and ASIR_MS ($R^2 = .77$). These two subscales are similar in that they both address the extent of benign investment in appearance and appearance-management behaviours, thus a composite AO_MS scale was used when modelling the data⁴⁵. That said, two MBSRQ subscales (AE and BASS) also correlated highly with the BAS ($R^2 = .61$ and $.59$

⁴⁴ The composite AE_BASS score was created by standardising each AE and BASS score, summing these scores, and averaging them to form a z-score.

⁴⁵ The composite AO_MS score was created by standardising each MBSRQ_AO and ASIR_MS score, summing these scores, and averaging them to form a z-score.

respectively). In this case however, these remained separate, precisely for the theoretical reasons for initial inclusion of the Body Appreciation Scale; as it measures respect and acceptance for the body in addition to evaluation (see Chapter 12). Likewise, there were seven further subscales where it made no theoretical sense to combine them as they were measuring different constructs (e.g., internalisation of ideals (SATAQ – 3_IG) and exercising for stress and mood management (REI_SMM).

SAMPLE CHARACTERISTICS

DEMOGRAPHIC FREQUENCIES AND CROSS-TABULATIONS

Of the 181 participants remaining within the data set, ages ranged from 18 to 41 years, the mean age was 27.7 years ($SD = 5.20$). The sample overwhelmingly comprised of White, British participants ($n = 161$, 89%). The remainder of the sample was spread across different mixed-heritages. All participants self-reported their gestation in weeks. This was calculated into trimesters where first was classified from 1 – 12 weeks, second from 13 – 26 weeks, and third from 27 weeks onwards (www.nhs.uk). Table 11 represents the spread of participants across the three trimesters:

Table 11: Distribution of the sample according to trimester.

Trimester	<i>N</i>	% of sample
First	22	12.2
Second	73	40.3
Third	86	47.5

There were five options for participants to self-report their general health status. All participants in first trimester reported their general health between good and excellent, whilst 95.9% of those in their second and 95.4% of those in their third reported the same. The self-reported ratings of the overall sample are presented in Table 12:

Table 12: Distribution of the overall sample according to general health status.

Health Status	<i>N</i>	% of sample
Excellent	43	23.8
Very Good	90	49.7
Good	41	22.7
Fair	6	3.3
Poor	1	0.6

Study 3: Sample Characteristics & Descriptive Statistics

In terms of estimating weight prior to pregnancy, participants were asked to self-report an approximate figure (in stones). This percentage of women within each of the seven weight-bands is in Table 13:

Table 13: Distribution of the sample according to approximate weight prior to pregnancy.

Weight (Stones)	<i>N</i>	% of sample
< 8	11	6.1
8 - 9	13	18.2
9 – 10	42	23.2
10 – 11	27	14.9
11 – 12	25	13.8
12 – 13	15	8.3
> 13	28	15.5

As described previously, a participant’s occupation was categorised according to the Office of National Statistics’ classification listings which can be found on the ONS website and is presented in Table 14. Participants described their occupation, which was grouped accordingly. Examples of certain classifications are listed in the footnotes beneath Table 14:

Table 14: Distribution of the sample according to occupation classification.

Occupation Classification*	<i>N</i>	% of sample
Management/Director/Senior Official	10	5.5
Professional	50	27.6
Associate Professional	36	19.9
Administrative/Secretarial	26	14.4
Skilled/Trades	6	3.3
Caring/Leisure and other services	13	7.2
Sales/Customer Service	19	10.5

Process/Plant/Machinery Operations	1	.6
Elementary	3	1.7
Student	12	6.6
Unclassified/Unemployed	5	2.8

Examples of potentially ambiguous classifications include Professional (e.g., scientist, health professional, nurse, teacher, surveyor); Associate Professional (e.g., paramedic, counsellor, insurance broker, prison officer); Administrative/Secretarial (e.g., credit controller, bank clerk, office manager); Skilled/Trades (e.g., Dressmaker, chef, florist); Caring/Leisure (e.g., nursery nurse, care worker, hairdresser); Sales/Customer Service (e.g., call centre operator, market researcher); Elementary (e.g., postal worker, cleaner, waitress).

The majority of participants were in a relationship ($N = 174$; 96.1%). The frequencies for living arrangements are displayed in Table 15:

Table 15: Distribution of the sample according to living arrangements.

Living Arrangements	N	% of sample
With partner	149	82.3
Alone	7	.03
With parents	24	.13
Shared household	1	.01

Over half of the sample were educated to University degree level ($n = 98$, 54.1%). Level of education is displayed according to the following categories in Table 16:

Table 16: Distribution of the sample according to level of education.

Level of Education	N	% of sample
Post-Doctoral	2	1.1
Doctoral	2	1.1
University degree	98	54.1
College (or equiv.)	44	24.3
Secondary School (up to A-Level)	35	19.3

When the women were asked whether they had sourced advice relating to physical activity from a health professional (e.g., midwife), a total of 73 had done so (10 in their first trimester, 26 in their second, and 37 in their third). In addition, participants were asked if they had also actively accessed other sources. The following breakdown is displayed in Table 17 by source:

Table 17: Distribution of the sample according to advice related to physical activity.

Source of advice	N	% of sample
Health Professional	73	40.3

Internet	69	38.1
Books	31	17.1
Parenting Magazines	17	.09
Instructor	7	.04

Participation in sport and exercise

Of the total sample, only 13 women reported they participated in *competitive sport prior* to becoming pregnant. All 13 of those women had ceased competitive sport once they became pregnant. Of the 181 women asked, 91 (50.3% of the total sample) reported as *not currently engaging in an intentional exercise programme*. This was split as 11 in their first trimester, 39 in their second trimester, and 41 in their third trimester. According to overall *intentional exercise* calculations (described in Chapter 12) that relate specifically to the period since becoming pregnant, 141 (77.9%) women were categorised as *low level exercisers* (≤ 2 hours per week), 20 (11%) women were categorised as *medium level exercisers* (2.1 – 3.5 hours per week), and 20 (11%) were categorised as *high level exercisers* (≥ 3.6 hours per week). Of those who continued to exercise, 35 (19.3%) women preferred to exercise *alone*.

Sociocultural influences

Mean scores and *SD* for each aspect of sociocultural influence are displayed in Table 18 and were within the normal range. Mean scores demonstrate that overall, participants reported they perceived a substantial level of pressure from the media, friends, and significant others in terms of their appearance. On the PSCP (i.e., pressure from friends / family / colleagues) the mean response was mostly *often* to each item. In terms of media influence, a fairly neutral response (i.e., a score close to 3) was indicated in terms of all four subscales:

Table 18: Mean scores and *SD* for aspects of sociocultural influence.

Sociocultural Influence	Mean	<i>SD</i>
PSCP	1.77	.04
SATAQ_IG	3.04	.07
SATAQ_IA	2.77	.05
SATAQ_P	3.18	.08
SATAQ_I	2.78	.06
SATAQ_COMP	2.95	.06

Interpersonal experiences

The mean scores and *SD* for frequencies related to appearance-related verbal commentary are displayed in Table 19, again within the normal range of skewness and kurtosis:

Table 19: Mean scores and SD for the frequency of appearance-related verbal commentary.

Interpersonal Experiences	Mean	<i>SD</i>
VCOPAS_PGA	2.18	.06
VCOPAS_NWS	1.60	.04
VCOPAS_PWS	1.66	.05
VCOPAS_FREQ	1.81	.03

A high score implied an increased frequency of appearance-related comments during pregnancy. Mean scores reflected a greater frequency of positive comments related to general appearance than positive or negative comments relating to weight and shape. This is relatively unsurprising for the period of pregnancy as items for positive weight and shape were described as comments about having a *great shape* or *body*, or *looking skinny*, or having *nice abdominals*.

Physical characteristics and changes

The top five pregnancy discomforts (i.e., those experienced *very often* or *sometimes*) among the women are displayed in Table 20. Having successfully tested for homogeneity of variance, a one-way ANOVA with post-hoc comparisons (Bonferonni test) revealed a significant main effect of trimester on the intensity of pregnancy-related physical discomforts ($F(2, 178) = 15.44, p < .001, \eta^2 = .15$). As expected, post-hoc comparisons revealed that women in their third trimester experienced a significantly greater intensity of physical symptoms than those women in their first trimester ($MD = -11.18, p < .001$). In addition, those in their second trimester experienced greater symptoms than those women in their first ($MD = -5.53, p < .05$):

Table 20: Distribution of the sample according to intensity of the top five pregnancy discomforts.

Pregnancy Discomfort	Very Often (%)	Sometimes (%)
Fatigue	50.8	38.1
Urinary Frequency	52.5	28.7
Vaginal Discharge	44.2	34.8
Nausea	40.9	35.4
Backache	33.7	35.4

Mean scores related to pregnancy weight-gain (PWGAS: $X = 2.54$, $SD = .05$) suggested that overall, feelings towards this aspect were between that of being slightly negative and feeling relatively neutral (i.e., participants were neither unduly concerned nor overly pleased with the amount of weight they had gained in pregnancy). With respect to the women's overall experience of pregnancy (PES), means scores and SD are displayed in Table 21. As can be seen from the two scores, participants tended to report a slightly greater number of experiences as uplifts in their pregnancy, rather than as potential hassles, although these values are relatively similar. One might suggest as discussed previously, that what one woman considers an uplift, another may consider a hassle. To illustrate this, mean scores were relatively similar when women were asked to think about comments from others about their appearance in pregnancy. As a hassle, the mean score was 1.85 ($SD = .07$), yet as an uplift, the mean was 2.17 ($SD = .07$). The response reported as the greatest hassle for women was the experience of physical discomforts in pregnancy ($X = 2.73$, $SD = .08$), whilst the response reported as the greatest uplift was the experience of how much the baby was moving ($X = 3.23$, $SD = .08$):

Table 21: Distribution of the sample according to hassles and uplifts of the pregnancy experience.

Pregnancy experience	Mean	SD
PES_UPL	2.07	.03
PES_HASS	1.89	.03

Personality attributes

Mean scores and SD for each measure related to personality attributes are displayed in Table 22 and were within the normal range. Mean scores indicate that overall, participants reported positive global self-esteem (i.e., *agree*) but slightly higher than average levels of private and public self-consciousness (i.e., moderately characteristic). Scores were slightly higher than the mid-point average for internality, whilst responses related to external locus of control and powerful others were relatively neutral:

Table 22: Distribution of the sample according to (sub)scales measuring personality attributes.

Personality attribute	Mean	SD
RSES	3.00	.04
SCS_PRI	2.66	.03
SCS_PUB	2.78	.03

PLOC_INT	3.50	.04
PLOC_EXT	2.88	.06
PLOC_PO	2.63	.07

Cognitive processes (internal dialogue)

As can be seen in Table 23, mean scores and *SD* for measures related to thought processes and internal dialogue show that overall, participants reported a slightly higher tendency to compare their appearance with that of others (i.e., responses on average were *sometimes* on the PACS). That said, scores were relatively neutral when women were asked if they evaluated their appearance in terms of their self-worth (on the ASI-R_SES).

With regards to exercise motivations and its importance, the highest mean score was related to fitness and health management (REI_FHM). Just slightly lower were responses related to exercise for the purposes of appearance or weight management (REI_AWM). That is, despite a clear decrease observed in total exercise hours across the trimesters and the number of participants reporting sedentary behaviours ($N = 91$). Exercising for stress and mood management and socialising were relatively unimportant for the women in the sample:

Table 23: Distribution of the sample according to (sub)scales measuring cognitive processes.

Cognitive Process	Mean	<i>SD</i>
ASI-R_SES	3.38	.05
ASI-R_MS_MBSRQ_AO_COMP	0.00	.97
PACS	3.08	.05
REI_AWM	5.01	.07
REI_FHM	5.06	.06
REI_SMM	4.29	.09
REI_SOC	3.90	.06

Coping and self-regulatory strategies and behaviours

The mean scores relating to coping strategies and adjustive behaviours of the women are displayed in Table 24. It was noted that across all the measures, many participants engaged in some form of appearance-enhancing behaviour. On a positive note, responses were very low in terms of attempting to restrain eating. Overall, participants did not feel they needed to avoid engaging in social activities (i.e., responses were *rarely to never*) but *sometimes* felt the need to use clothing to conceal their appearance. Overall, the women reported relatively neutral scores related to positive acceptance of their experience and appearance-fixing (i.e., BICSI_PRA and BICSI_AF). For the purposes of path analysis and in keeping with findings related to

specific aspects of body avoidance in Study 1 and 2, the BIAQ subscales were examined separately.

Table 24: Distribution of the sample according to (sub)scales measuring coping and self-regulatory strategies and behaviours.

Coping strategy	Mean	SD
BIAQ_CLO	3.39	.05
BIAQ_SA	4.48	.03
BIAQ_EATR	4.30	.04
BIAQ_GW	2.73	.07
BICSI_AF	2.60	.04
BICSI_PRA	2.60	.03
BICSI_A	2.06	.04

Body image attitudes

The mean scores and SD for the scales that measured body image attitudes of the pregnant women are displayed in Table 25. Data were gathered using three attitudinal body image measures: The MBSRQ, OBCS, and BAS. The correlations found between four subscales of the MBSRQ have already been discussed in the section on multicollinearity. Scores in the present study were relatively similar to that of adult norms reported in Cash’s (2000) sample. Means were slightly less for fitness evaluation and orientation than they were for health evaluation and orientation. This is perhaps unsurprising given the noted decrease in physical activity levels and increase in pregnancy-related physical discomforts reported by the women in the present study. Interestingly however, mean scores are very slightly higher in Cash’s (2000) sample for both overweight preoccupation and self-classified weight than they are for the women in the present study. Again, this is perhaps reflective of the point that pregnant women are less likely to self-appraise their weight during this period (in terms of being overweight or underweight) and likewise, are less likely to experience dieting and eating restraint during their pregnancy.

In terms of experiencing objectified body consciousness, the OBCS subscales reflected a slightly higher tendency for the women to feel body shame than surveillance and control beliefs as those latter scores were relatively neutral (i.e., neither agree nor disagree). In terms of embracing body appreciation, mean scores on the BAS appear to represent overall appearance acceptance and respect for their pregnant bodies (i.e., an average response of *sometimes* to *often*):

Table 25: Distribution of the sample according to (sub)scales measuring body image attitudes.

Body Image Attitude	Mean	SD
MBSRQ_AE_BASS_COMP	0.00	.95
MBSRQ_AO_ASI-R_MS_COMP	0.00	.97
MBSRQ_FE	3.19	.06
MBSRQ_FO	2.82	.06
MBSRQ_HE	3.44	.05
MBSRQ_HO	3.27	.05
MBSRQ_IO	3.12	.05
MBSRQ_SCW	2.53	.06
MBSRQ_OWP	3.44	.05
OBCS_SUR	4.40	.08
OBCS_BS	3.51	.08
OBCS_CB	4.47	.07
BAS	3.33	.06

The following chapter will now present an introduction to Path analysis / Structural Equation Modelling, including model testing and development. The findings will include Study 3's model interpretation.

SUMMARY

The current chapter has presented the statistical considerations and detailed the precautions taken when the data set was prepared for analysis. Further, descriptive statistics for all variables related to cultural and interpersonal factors, physical characteristics, personality attributes, cognitive processing, and adjustive strategies and behaviours were documented. The following chapter focuses specifically on path analysis and model testing.

CHAPTER 13

STUDY 3 RESULTS: TESTING OF THE CONCEPTUAL MODEL AND PATH ANALYSIS

INTRODUCTION

The aim of the present study was to conduct an exploratory, quantitative examination of the historical and proximal influences that are thought to contribute to the development of body image attitudes and body-image related coping and self-regulatory strategies in pregnant women. Cash's (2011a) theoretical model of body image dimensions, determinants, and processes underpinned the conceptual model that was proposed. Path analysis / Structural Equation Modelling (SEM) was employed to examine the relationships among these variables and test the conceptual model via Analysis of Moment Structures (AMOS, version 21.0). The present chapter provides a brief introduction to SEM, including model testing and development, along with a rationale for adopting path analysis. Finally, the findings will include the process of model re-specification and subsequent model interpretation.

TESTING OF CONCEPTUAL MODELS

SEM is a term used when the relations among variables are modelled using parameter estimation from variances and covariances (Kline, 2012) and is one which represents an amalgamation of factor analysis and path analysis into one comprehensive statistical methodology (Kaplan, 2000). The technique of SEM is *a priori*; hence a researcher must specify a model in order to conduct an analysis and this model must have some basis (even if a relatively exploratory one), whether it be theoretical or resulting from previous studies (Kline, 2011). These *a priori* specifications represent hypotheses, and in total, comprise the model to be evaluated in the analysis.

Model-testing provides a means of testing a specified theory about the relationship between theoretical constructs and determines how well a model fits one's data (Jöreskog, 1993), typically conveyed as a diagram. Models can be evaluated according to one of three modelling approaches taken: strictly confirmatory analysis, alternative model testing, or model generating.

Using a strictly confirmatory analysis approach, the goal is to evaluate the extent to which one single, *a priori* model accounts for a set of observed relationships between variables (Hoyle, 2011). The model is then accepted or rejected on its

correspondence to the data (Kline, 2011). Rather than focusing on one single model, a researcher might adopt an alternative model approach whereby SEM is used to test two or more competing models and, based on the analysis of a single set of empirical data, one of the models is accepted as the model of best fit (Hoyle, 2011). Finally, model-generating, which is the more common method (Jöreskog, 1993; Kline, 2011), can be adopted when an initial model fails to fit the data and thus is modified or re-specified and tested again with the same data. Although the practice of using data to generate a model of the data has been questioned (MacCallum, Roznowski & Necowitz, 1992), the goal of this process is to uncover a theory-driven or data-driven model with two properties: i) one that makes sense from a theoretical perspective and ii) one where its statistical correspondence to the data is reasonable (Jöreskog, 1993; Kline, 2011). Hence, the model generating approach was employed in the current study.

PATH ANALYSIS

As mentioned previously, SEM seeks to evaluate correlations among the means, variances, and covariances of a set of variables, by means of a smaller number of 'structural parameters' (Kaplan, 2000). For example, these structural parameters represent hypothesised relationships among a set of *observed* variables (sometimes referred to as manifest variables and ones for which there are values in a case-level data matrix) (Hoyle, 2011). Parameters are typically referred to as *fixed* or *free*; fixed parameters are not estimated from the data and their value is generally fixed at zero or 1.0, whilst free parameters are estimated from the data (Hoyle, 2011). Usually in the model generating approach, the re-specification of an initial model to better account for the data, often involves freeing fixed parameters or to a lesser extent, fixing parameters that are free (Hoyle, 2011).

A path model is specifically structured for observed variables. The parameters of most interest within models are those which signify *paths* or directional relations / effects between two variables (in a similar manner whereby a predictor has an effect on an outcome in multiple regression analysis). The *path coefficient* represents the statistical estimate of these direct effects of one variable upon another. Path analysis is a possible technique when there is only one, single measure of each theoretical variable and the researcher has some logical hypotheses about possible causal relations among these variables (Kline, 2011). The path analytic origins developed by Wright (1918, 1921, 1934) have provided researchers with a technique that can display correlation coefficients among variables in relation to the parameters of a model, in the form of a path diagram.

MODEL ESTIMATION

A properly specified model can be estimated and its fit to the data evaluated. Specification involves designating all variables (observed in this case), characterising them by a set of relations (dependent upon whether they are non-directional (i.e., correlational) or directional (i.e., as in a regression). Each relation implies a parameter, with either a fixed or free value. Estimation is the statistical procedure by which estimates of free parameters from observed data are obtained and which yields a number of values used to generate statistics and descriptive indices to evaluate the fit of a model. The goal of estimation is to maximise fit (i.e., goodness of fit) and obtain values of free parameters that maximise the likelihood of or best fit the data given a specified model (Hoyle, 2011; Myung, 2003). In the present study, Maximum Likelihood Estimation (MLE) (via AMOS) was selected based upon the sample characteristics of continuous data and multivariate normality, to obtain parameter estimates, generate, and test all models.

In path analysis / SEM, all relationships in the model are concurrently estimated, thus reducing the confounding impact of measurement error. SEM identifies both direct and indirect effects on the data, estimates the amount of variance accounted for by the exogenous (i.e., independent) variables in predicting the endogenous (i.e., dependent) variables, and provides measures indicating the goodness of fit for the proposed model to the data (Byrne, 2001). That said, the pathways generated are expressed in terms of correlations and therefore it should be noted that although a model with good-fit indicates plausibility, it cannot establish causal relationships.

EVALUATION OF FIT

This section addresses a subset of indices and statistics for which specific criterion values have been proposed and which are generally endorsed (Hoyle, 2011). The validity of different approaches to evaluating fit is a topic of considerable debate (e.g., Meehl & Waller, 2002). That said, there is general consensus that Chi-square statistic (χ^2) with associated degrees of freedom, Comparative Fit Index (CFI; Bentler, 1990), and Root Mean Square Error of Approximation (RMSEA; Steiger & Lind, 1980) should be among those reported (Boomsma, 2000; Hoyle, 2011).

Chi-square follows the well-accepted, null hypothesis, statistical testing approach. The value of χ^2 for an estimate model is computed simply as the product of the minimised value of the MLE fitting function and the sample size, minus 1 (Hoyle, 2011). A non-significant χ^2 value indicates that the model is a good approximation of the data. That said, χ^2 has questionable value as a stand-alone statistic for the

reasons that it is sensitive to sample size, and it tests a hypothesis that will always be rejected with a sufficiently large sample (Hoyle, 2011), even if the differences between the observed and predicted covariances are slight (Kline, 2011).

CFI is based on the non-central χ^2 (which reflects a degree of misspecification, indexed as $\chi^2 - df$) (Hoyle, 2011). The rule of thumb for the CFI suggests that values greater than .90 are generally indicative of reasonably good fit (Hu & Bentler, 1999; Kline, 2011). The RMSEA is a “badness-of-fit” index whereby a value of zero indicates the best fit and higher values indicate worse fit (Hoyle, 2012; Kline, 2011). RMSEA (which includes a parsimony correction and approximates a non-central χ^2 distribution) is suggestive of a close fit if the value is less than .08, whilst less than .05 is indicative of a good fit (Browne & Cudeck, 1993, as cited in Hoyle, 2011). It is considered standard practice to also report the confidence limits (CL) for the 95% confidence interval (CI) on the point estimate of RMSEA, focusing primarily on the upper limit with reference to the cut-off (CI ranges from .058 to .100) (Hoyle, 2011).

In order to develop a model that has as few parameters as possible (i.e., parsimony of a model), the AIC (Akaike Information Criterion) addresses the issue of parsimony in the assessment of model fit, with smaller values representing a better fit of the proposed model (Hoyle, 2011). Therefore, these criteria were used as guidelines to interpret model fit in the present study.

DEVELOPMENT OF A MEASUREMENT MODEL

In the present study, all independent (exogenous) and dependent (endogenous) variables were regarded as observed variables; which was one of the main reasons for employing path analysis as opposed to full SEM with latent variables (i.e., sources of influence that cannot be directly measured or observed). This is the first known instance where multidimensional, independent constructs (e.g., different components of personality, cultural, physical, or interpersonal factors) have been examined, in conjunction with a theoretical model, to explain body image attitudes in pregnant women. From a theoretical perspective, to reduce these constructs to latent variables would have potentially reduced both the descriptive power of the analysis and the purpose of employing a multidimensional framework or multiple variables. Path analysis, when using AMOS, is more complex than multivariate multiple regression, as it allows for examination of the relationships among the dependent variables (e.g., in the present study, body image attitudes and / or coping / self-regulatory strategies or behaviours); which is not possible when conducting multivariate multiple regression with SPSS (Arbuckle, 2012).

DEVELOPMENT OF THE HYPOTHESISED, STRUCTURAL MODEL

When constructing the structural model the relationship between the independent and dependent variables need to be specified (Byrne, 2001). As has been presented in the literature review chapters (Chapters 4, 7, and 10), there are numerous factors that may contribute to the development of body image attitudes. The starting point for the initial structural model tested in the present study was Cash's (2011a) theoretical model. Figure 13 provides a conceptual overview of the initial measurement model as a starting point:

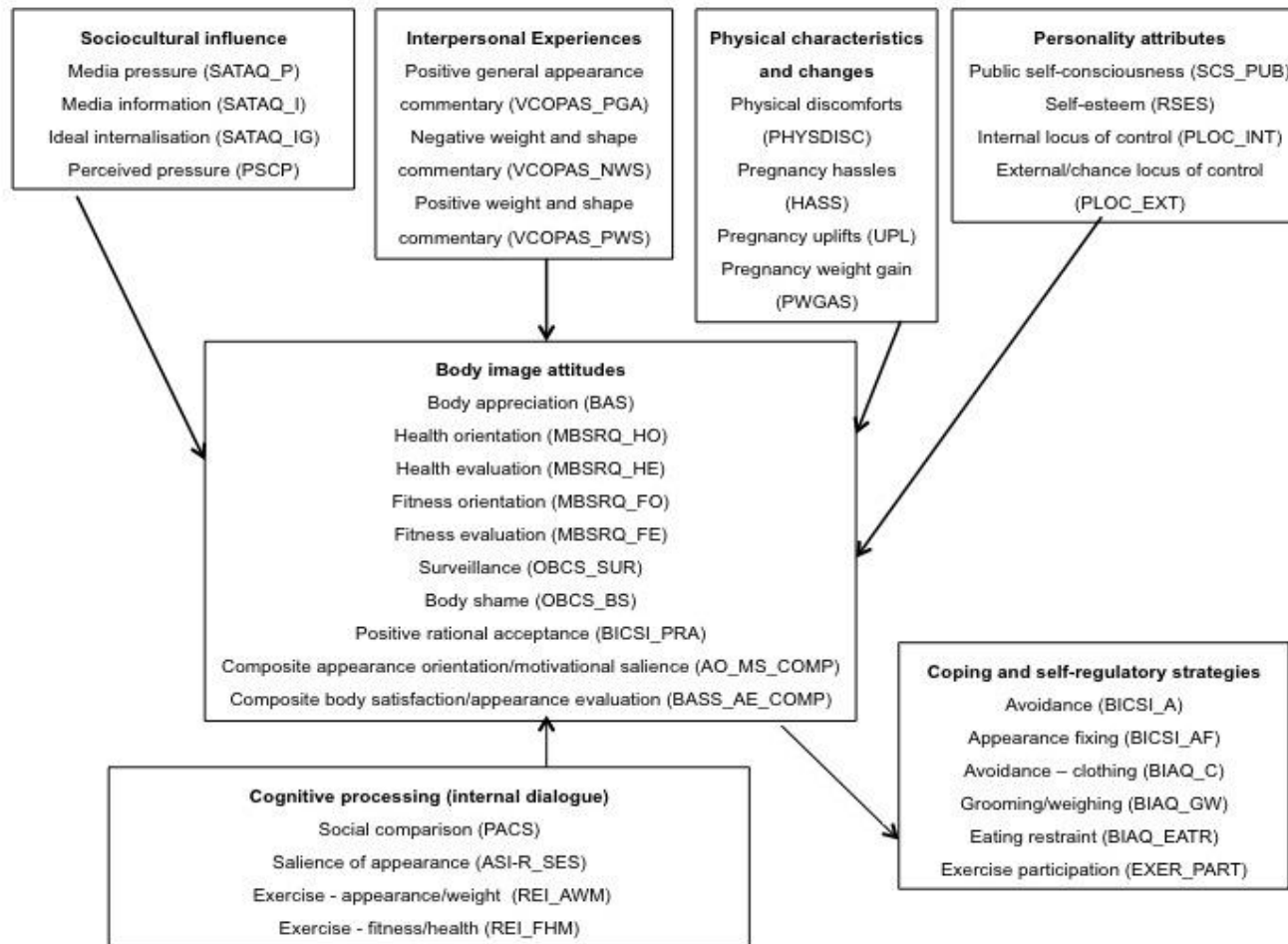


Figure 13: Conceptual model for the historical and proximal factors and coping strategies/behaviours associated with body image attitudes.

In keeping with Cash's (2011a) model, previous research and the findings from Study 1 and 2, it was first hypothesised that sociocultural and interpersonal factors, physical characteristics and changes, personality attributes, and cognitive processes (i.e., internal dialogue, thoughts, interpretations) would directly influence body image attitudes in pregnant women and second, that specific body image attitudes would have some predictive influence on subsequent coping / self-regulatory strategies or behaviours. Hence, the inclusion of directional arrows in the conceptual model depicted in Figure 13, leading from all historical and proximal factors to body image attitudes.

When constructing the initial structural model within AMOS, all historical and proximal variables were correlated with one another (and treated as predictor variables), as this is a prerequisite of path analysis and SEM (see an illustration of this in the final path model in Figure 14). Following a Pearson's correlation of all body image attitudes (of which there were 10 in Figure 13 selected for path analysis), error terms were inserted on to each attitudinal variable and those which were correlated (e.g., OBCS_BS and OBCS_SUR) were linked to account for the degree of shared variance (Hoyle, 2011). The same process was repeated for the error terms assigned to the six coping/self-regulatory strategies. Error terms and covariances are depicted as part of the final structural model (see Figure 14).

MODEL CONSTRAINTS

It is important to stress that despite the length of the questionnaire package and inclusion of 17 established measures, all aspects of Cash's (2011a) model were not included for testing. In addition, the testing of reciprocal loops among specific factors (e.g., activating situations and events) was not included as part of Study 3. The aim was not necessarily to test all components, but to focus specifically on the ones that thus far have appeared to be theoretically relevant to pregnant women in the literature. Hence, there were some variables that were not included in the model as they either did not make theoretical sense (e.g., *Self-Classified Weight* and *Overweight Pre-occupation* subscales of the MBSRQ) or they were deemed to be less relevant to pregnant women based on the findings from Studies 1 and 2 (e.g., *Illness Orientation* and the *Internalisation-Athlete* subscale of the SATAQ-3). Certain subscales were excluded due to problematic items as a result of earlier reliability testing (e.g., the *Powerful Others* subscale of the PLOC_WE had been reduced to two items). Furthermore, although the present study had intended to include body image affect, it was acknowledged that due to the inconsistency of responses on the VCOPAS_FEEL subscale, this component of Cash's model was also not tested and the complete subscale was removed from any further analyses.

FIT OF THE INITIAL MODEL

The fit statistics for the initial model revealed a reasonable fit (χ^2 (132) = 296.65, p = .000, CFI = .950, RMSEA = .083 (95% CI = .071, .096), AIC = 1292.65). That said, there were 196 non-significant pathways included in the initial model. In keeping with the model-generating approach (Jöreskog, 1993; Kline, 2011), post-hoc model re-specification and re-testing continued until a parsimonious model of best fit had been established.

POST-HOC MODEL RE-SPECIFICATION

Following the first re-specification of the model, an examination of the Modification Indices (MI) suggested the insertion of 22 pathways; the majority of these pathways specified direct relationships between the predictor variables (sociocultural / interpersonal / cognitive processing factors, and / or personality, and / or physical characteristics), and the coping / self-regulatory strategies and behaviours. Of these suggested MI, seven pathways were between error terms, or error terms and predictor variables, thus it made no theoretical sense to consider these for inclusion within the model. Thirteen of the remaining 15 pathways in the MI made theoretical sense (e.g., Physical discomforts → Avoidance – Clothing, as this was particularly in keeping with the findings of Study 2), thus these were included in the next re-specification of the model.

For each further re-specification, the MI and regression weights were examined. Using the regression weights for guidance, all non-significant pathways (p > .05) were deleted over the next 17 re-specifications of the model. At this point, there were 68 significant pathways remaining (p < .05). The fit statistics for the 17th re-specification revealed that the model had a relatively good fit and the χ^2 was non-significant (χ^2 (264.90) = 230.0, p = .057, CFI = .988, RMSEA = .029 (95% CI = .000, .044), AIC = 734.90). According to Jöreskog (1993), the process of model-generating is an iterative one, with the aim of not only finding a model that statistically fits the data, but generating one which includes theoretically meaningful parameters. Hence, in the final run of the model, an examination of the MI revealed statistical recommendations to include a further nine pathways between predictor variables and body image attitudes and / or coping / self-regulatory strategies. Of these nine, four pathways made theoretical sense to include in the model (e.g., Hassles → Exercise Participation and Physical Discomforts → Avoidance – Grooming and Weighing). The final structural model (see Figure 14) had a good fit to the data (χ^2 (233.53) = 226.0,

$\rho = .35$, CFI = 1.00, RMSEA = .01 (95% CI = .000, .030) and was more parsimonious than the original model (AIC = 711.53).

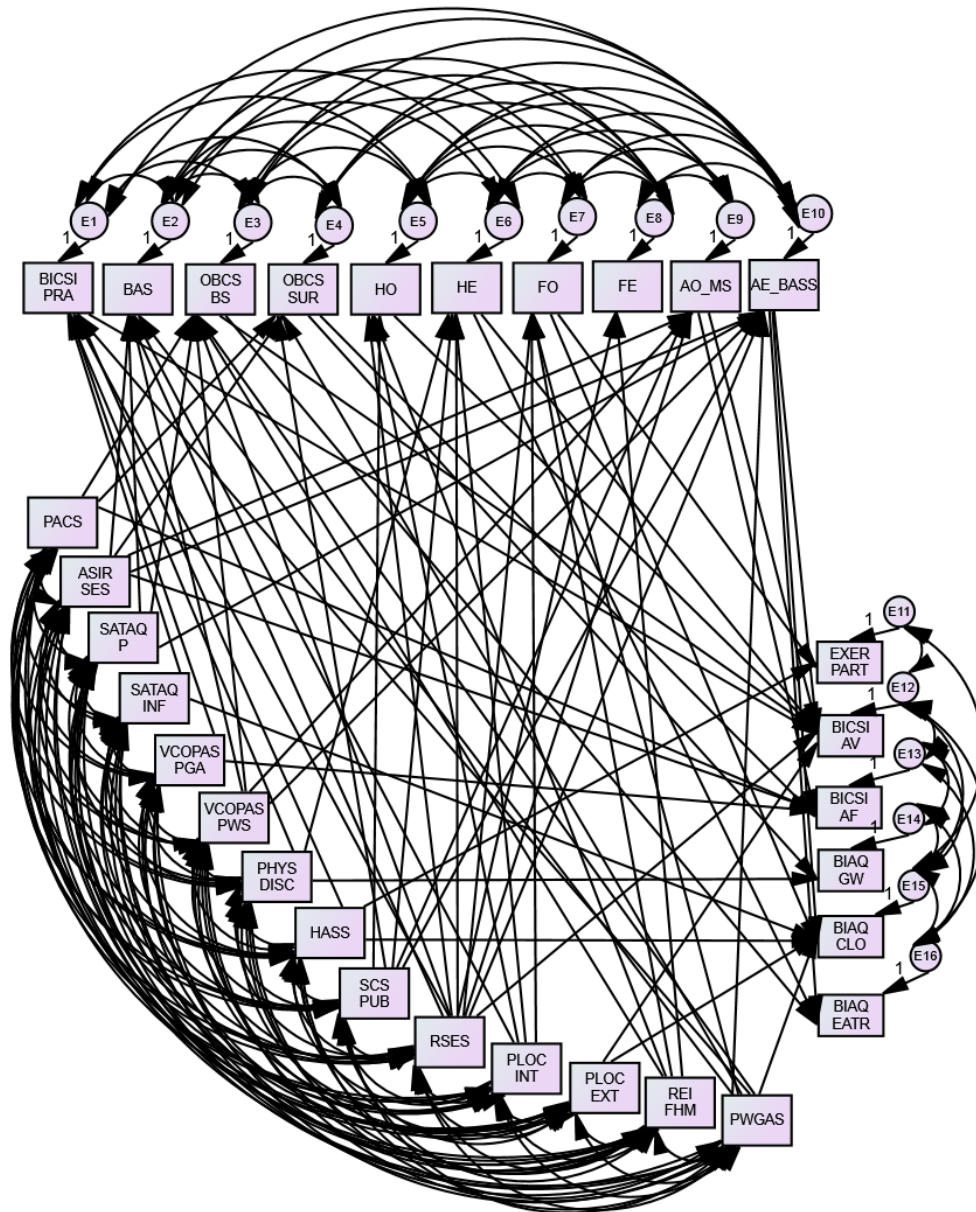


Figure 14: Final path model for the historical and proximal influences on body image attitudes in pregnant women.

MODEL INTERPRETATION

As can be seen in Figure 14, the model was separated into three main areas: i) historical and proximal factors (bottom left section of the diagram) that predicted body image attitudes in pregnant women (top section), ii) coping and self-regulatory strategies and behaviours (right of the diagram), that were directly predicted by body image attitudes and iii) coping and self-regulatory strategies (right) and behaviours

that were directly predicted by historical and proximal factors (bottom left). Importantly, all pathways in the model were significant.

Each line with a single arrowhead represents a direct effect of one variable on another, whereby the arrowhead points to the presumed effect and the line originates from a presumed cause (Kline, 2005). Further investigation of the model was conducted through an examination of the direct effects using standardised estimates (i.e., when an exogenous variable has an arrow directed towards the dependent variable, e.g., body image attitudes or coping/self-regulatory strategies). Direct effects are also called *paths*, and statistical estimates of direct effects are known as *path coefficients* (Kline, 2005). Effect sizes (i.e., the standardised measure of the magnitude of an observed effect) were guided by convention when used in conjunction with a χ^2 or goodness of fit test, with standardised coefficients at 0.5 considered large, 0.3 moderate, and 0.1 small (Cohen, 1992). The direct effects will be presented following Table 24. Prior to this, the following sections document the specific pathways that led from historical (sociocultural and interpersonal factors, physical characteristics, and personality attributes) and proximal factors (cognitive thought processes) to either body image attitudes and / or coping strategies:

Sociocultural influences

A path model for the sociocultural predictors is presented in Figure 15. Two sociocultural variables originally included in the model had some form of predictive influence, either directly towards body image attitudes or directly towards coping / self-regulatory strategies and behaviours:

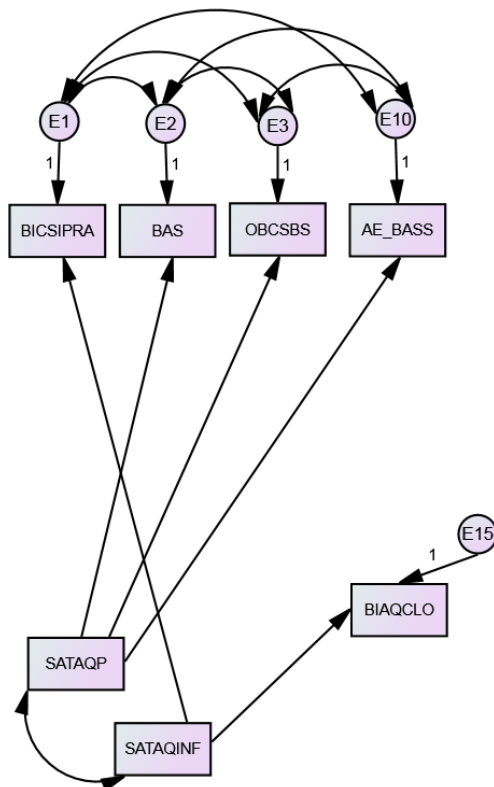


Figure 15: Final path model illustrating the predicted pathways from the sociocultural factors.

Parameter estimates for each significantly predictive sociocultural factor together with its associated body image attitude and / or coping strategy are presented in Table 26. This includes standardised regression weights, standard error, and p values for each pathway:

Table 26: Parameter estimates for each sociocultural predictor (in bold) and attitudinal / coping outcome variable within the final path model.

Sociocultural Parameters	Standardised Regression Weight	Standard Error	Sig. value (p)
Sociocultural Pressure			
Body Appreciation	-.12	.06	.006
Body Shame	.15	.06	.003
Appearance Evaluation/Body Area Satisfaction	-.14	.01	.005
Sociocultural Information			
Positive Acceptance	.18	.04	.002
Clothing	-.12	.04	.012

Note: The standardised regression weights demonstrate the proportion of change, expressed in standard deviations (SD), in the attitudinal / coping variable produced by a change of 1 SD in the variable presented in bold type. For example, an increase of 1 SD in Sociocultural Pressure produced a decrease of .14 SD in Appearance Evaluation / Body Areas Satisfaction.

Sociocultural pressure predicted three attitudinal components (see Table 26). First, it was negatively associated with body appreciation. Therefore, the women who were more likely to feel pressure from the media to lose weight postpartum, exercise, or change their appearance were more likely to experience lower feelings of body appreciation and acceptance. In addition, pressure predicted appearance evaluation and body areas satisfaction. That is, a greater tendency to feel media pressure resulted in lower feelings of attractiveness and lower satisfaction with specific body areas. Finally, sociocultural pressure predicted body shame, whereby an increased sense of media pressure resulted in greater feelings of body shame.

Sociocultural information related specifically to appearance-related, media information (see Table 26). Interestingly, there was a small link (in terms of beta weights) between regarding media information as important and increased levels of positive acceptance. That said, media information was also associated with body avoidance behaviours, whereby the women who regarded media information as important also were more likely to engage in body avoidance using clothing practices.

Interpersonal experiences

A path model for the interpersonal predictors is presented in Figure 16. Two of the three appearance-related commentary subscales predicted body image attitudes and one self-regulatory behaviour:

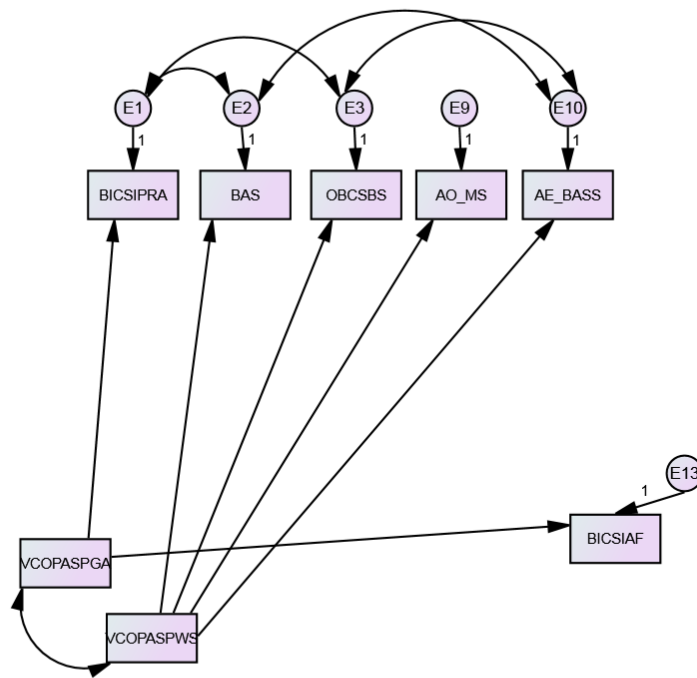


Figure 16: Final path model illustrating the predicted pathways from the interpersonal factors.

Parameter estimates for each significant, interpersonal predictor together with its associated body image attitude and / or self-regulatory strategy are presented in Table 27. Standardised regression weights, standard error, and *p* values are included for each pathway:

Table 27: Parameter estimates for each interpersonal predictor (in bold) and attitudinal / coping outcome variable within the final path model.

Interpersonal Parameters	Standardised Regression Weight	Standard Error	Sig. value (p)
Positive General Appearance Commentary			
Positive Acceptance	.16	.05	.005
Appearance Fixing	-.17	.04	<.001
Positive Weight / Shape Commentary			
Body Appreciation	.17	.14	<.001
Body Shame	-.12	.13	.020
Appearance Orientation / Motivational Salience	.21	.01	<.001
Appearance Evaluation / Body Area Satisfaction	.31	.01	<.001

As can be seen from Table 27, commentary that was both positive and specific to general appearance was associated with acceptance (i.e., BICSI_PRA) but also appearance fixing. Therefore, those women who received positive commentary related to their general appearance (e.g., “Your hair looks really good”) were more likely to use positive self-talk and less likely to attempt to change or ‘fix’ their appearance.

Alongside general-appearance commentary, those women who received positive commentary related specifically to their weight and shape were more likely to experience feelings of body appreciation and acceptance and lower feelings of body shame. Positive weight and shape commentary was a moderate predictor of appearance satisfaction. That said, those women who received this type of commentary were also more likely to be invested in their appearance and engage in appearance-management behaviours (albeit a relatively small predictor).

Physical characteristics and changes

A path model for the physical predictors is presented in Figure 17. Three variables (physical discomforts, pregnancy-related hassles, and pregnancy weight-gain) predicted body image attitudes and coping / self-regulatory strategies and behaviours:

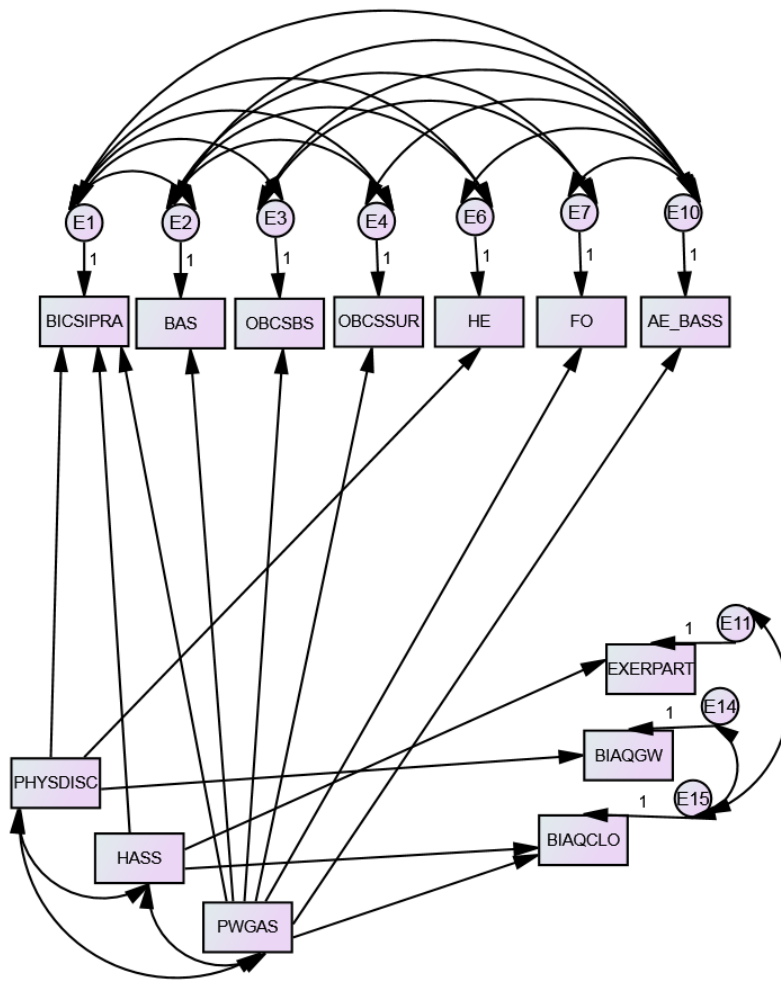


Figure 17: Final path model illustrating the predicted pathways from the physical characteristics and changes factors.

Parameter estimates for each significant, physical predictor together with its associated body image attitude and / or coping / self-regulatory strategy are presented in Table 28, including standardised regression weights, standard error, and *p* values for each pathway:

Table 28: Parameter estimates for each physical predictor (in bold) and attitudinal / coping outcome variable within the final path model.

Physical Parameters	Standardised Regression Weight	Standard Error	Sig. value (<i>p</i>)
Physical Discomforts			
Positive Acceptance	.14	.03	.020
Health Evaluation	-.14	.02	.010
Grooming/Weighing	.14	.01	.031
Pregnancy-related experiences (Hassles)			
Positive Acceptance	.18	.03	.004
Exercise Participation	.14	.01	.034
Clothing	.14	.03	<.001
Pregnancy Weight-Gain			
Positive Acceptance	.34	.03	<.001
Body Appreciation	-.22	.05	<.001
Body Shame	.30	.05	<.001
Body Surveillance	.14	.04	.001
Fitness Orientation	.14	.05	.005
Appearance Evaluation/Body Area Satisfaction	-.25	.01	<.001
Clothing	-.26	.03	<.001

As can be seen from Table 28, physical discomforts predicted positive self-care and acceptance. That is, increased number of physical symptoms was more likely to predict positive self-care and acceptance. That said, an increased number of physical discomforts meant that the women were also more likely to engage in grooming or weighing behaviours and were more likely to feel unhealthy or experience illness.

Pregnancy-related experiences, considered by the women to be a hassle, predicted both body image attitudes and coping strategies. First, hassles predicted positive self-talk (i.e., the women were more accepting if they also experienced pregnancy-related hassles). Interestingly, one of the variables suggested by the final MI indicated that those women who experienced hassles were also more likely to engage in exercise, but also predicted to engage in clothing practices that facilitated the disguise or cover-up of their appearance.

Feelings about pregnancy weight-gain predicted six body image attitude variables and one coping behaviour. Pregnancy weight-gain was a small predictor of positive acceptance. That said, those women who experienced more negative attitudes towards their weight-gain were also less appreciative and less accepting of their bodies and also less satisfied with specific aspects of their appearance. Pregnancy weight-gain also predicted body surveillance (i.e., those women were more likely to watch their body frequently) and predicted feelings of body shame. A

direct effect of this weight-gain meant that the women actively concealed their bodies using clothing.

Personality attributes

A path model for the personality predictors is presented in Figure 18. Four variables (public self-consciousness, self-esteem, internal and external locus of control) predicted body image attitudes and two specific coping / self-regulatory strategies and behaviours:

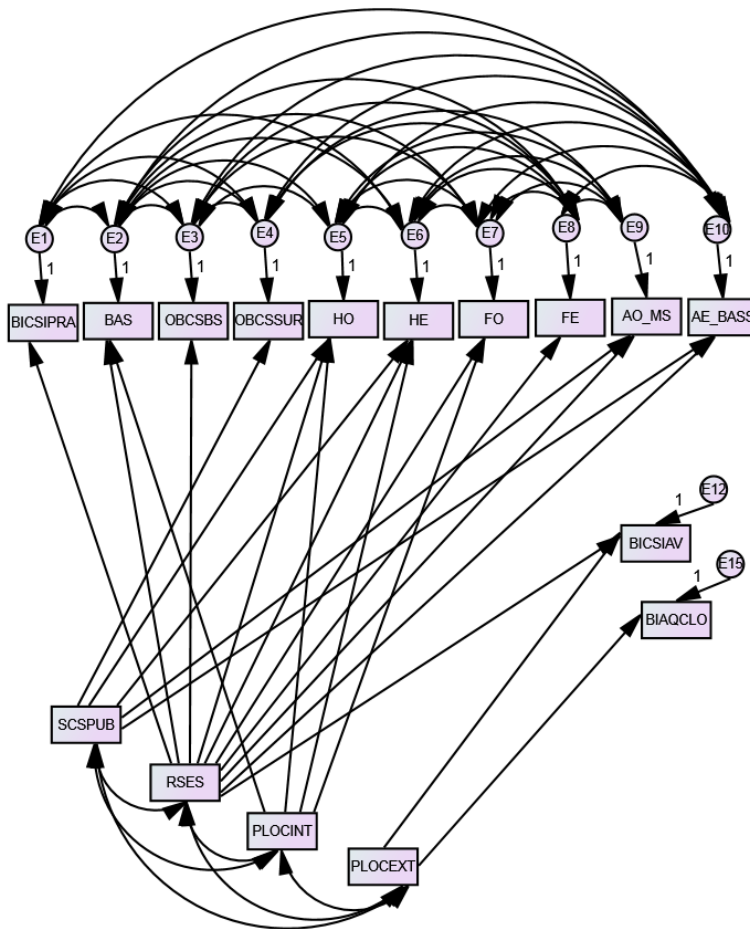


Figure 18: Final path model illustrating the pathways predicted by personality attributes.

Parameter estimates for each significant, personality predictor together with its associated body image attitude and / or coping / self-regulatory strategy are presented in Table 29. This includes standardised regression weights, standard error, and p values for each pathway:

Table 29: Parameter estimates for each personality predictor (in bold) and attitudinal / coping outcome variable within the final path model.

Personality Parameters	Standardised Regression Weight	Standard Error	Sig. value (p)
Public Self-Consciousness			
Body Surveillance	.24	.15	<.001
Health Orientation	.16	.08	.003
Health Evaluation	.15	.07	.012
Appearance Orientation/Motivational Salience	.38	.02	<.001
Appearance Evaluation/Body Area Satisfaction	.12	.02	.019
Self-Esteem			
Positive Acceptance	.39	.07	<.001
Body Appreciation	.47	.12	<.001
Body Shame	-.41	.11	<.001
Health Orientation	.28	.08	<.001
Health Evaluation	.45	.06	<.001
Fitness Orientation	.20	.14	.001
Fitness Evaluation	.26	.04	<.001
Appearance Orientation/Motivational Salience	.29	.01	<.001
Appearance Evaluation/Body Area Satisfaction	.39	.01	<.001
Avoidance	-.31	.06	<.001
Internal Locus of Control			
Body Appreciation	.11	.09	.003
Health Orientation	.19	.08	.003
Health Evaluation	.31	.06	<.001
Fitness Orientation	.25	.14	<.001
External Locus of Control			
Avoidance	.15	.05	.003
Clothing	-.11	.07	.035

As can be seen from Table 29, there were three consistent predictors within this component of the larger model directly associated with body image attitudes (public self-consciousness, self-esteem and internal locus of control). Self-esteem was also associated with body avoidance as a coping strategy. That is, the more that the women felt high self-worth and positive regard, the less likely they were to evade negative feelings about body image. External locus of control specifically predicted body avoidance and use of clothing for concealment. More specifically, a higher degree of externality amongst the women predicted an increased tendency for them to avoid feelings related to body image or their appearance. That said, a higher external locus of control (i.e., the expectancy or belief that the women's weight- and exercise-related circumstances were down to fate and / or chance) was associated with using clothing for concealment.

Public self-consciousness predicted five body image attitude variables. More specifically, it predicted body surveillance. That is, the women who felt more publically self-conscious (i.e., who were more aware of themselves as a social object) were increasingly likely to watch their body more frequently. In addition, those women were more likely to be health-conscious, however were also more likely to feel healthy overall. With regards to appearance evaluation, public self-consciousness was a small predictor, thus women were increasingly likely to feel satisfied with their appearance and specific body areas with increased feelings of self-consciousness. Appearance investment was strongly predicted, which indicated that women were also more strongly motivated to attend to their appearance, when feeling increasingly self-conscious.

By far, self-esteem was the strongest of all predictor variables, alone predicting nine body image attitude variables. This was also reflected in large effect sizes following an examination of standardised direct effects (see Table 29). Of all the attitudinal variables, self-esteem strongly predicted body appreciation ($d = .47$), positive acceptance / self-care, feeling healthy and physically fit, as well as predicting appearance satisfaction, appearance investment, and investment in fitness and a healthy lifestyle. In contrast, self-esteem was strongly associated with body shame ($d = -.41$). That is, the more the women positively evaluated their self-worth, the less likely they experienced feelings of body shame.

Finally, internal locus of control predicted body appreciation, and health and fitness orientation, albeit with small effect sizes. That is, the women who felt a greater sense of internality (i.e., held beliefs and expectancies that their own behaviour influenced weight or exercise-related outcomes) were more invested in incorporating fitness in their lives and leading a healthy lifestyle, in addition to feeling more appreciative and accepting of their pregnant bodies.

Cognitive processes / Internal dialogue

A path model for the internal dialogue predictors (i.e., thoughts, interpretations) is presented in Figure 19. Three variables (appearance comparison, self-evaluative salience and exercise motivations related to fitness and health management) predicted eight body image attitudes among them. Appearance comparison and self-evaluative salience was directly associated with one self-regulatory strategy:

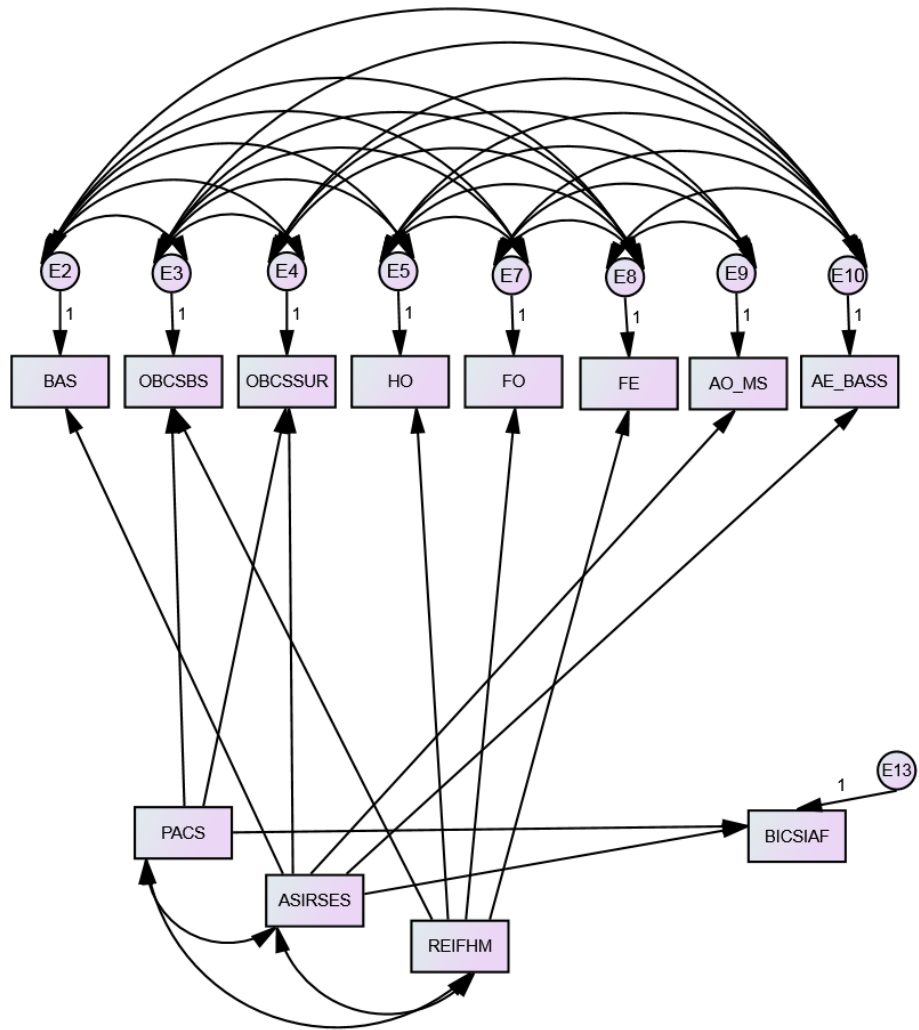


Figure 19: Final path model illustrating the pathways predicted by internal dialogue and cognitive processes.

Parameter estimates for each significant, cognitive predictor together with its associated body image attitude and / or coping strategy are presented in Table 30, including standardised regression weights, standard error, and *p* values for each pathway:

Table 30: Parameter estimates for each cognitive predictor (in bold) and corresponding attitudinal outcome variable and / or self-regulatory strategy within the final path model.

Cognitive Parameters	Standardised Regression Weight	Standard Error	Sig. value (<i>p</i>)
Appearance Comparison			
Body Shame	.19	.13	<.001
Body Surveillance	.19	.14	.002
Appearance Fixing	.17	.09	.006
Self-Evaluative Salience			
Body Appreciation	-.15	.07	.003
Body Surveillance	.39	.07	<.001
Appearance Orientation/Motivational Salience	.42	.01	<.001
Appearance Evaluation/Body Area Satisfaction	-.19	.01	.002
Appearance Fixing	.28	.04	<.001
Exercise Motivation – Health/Fitness			
Body Shame	.12	.06	.190
Health Orientation	.33	.04	<.001
Fitness Orientation	.42	.08	<.001
Fitness Evaluation	.27	.02	<.001

As can be seen in Table 30, appearance comparison was a moderate predictor of objectified body shame and surveillance. That is, the more the women tended to engage in appearance-related comparisons, the more likely they were to experience feelings of body shame, watch their body frequently, and view their body as an outside observer. Appearance comparison moderately predicted and had a direct effect on appearance fixing, indicating that the greater the women's tendency to compare their appearance with that of others, the more effort they made to change aspects of their appearance by either concealing or correcting a physical feature that might have been perceived to have been flawed (see Cash et al., 2005).

As can be seen in Table 30, self-evaluative salience (SES, which reflects the extent to which individuals define or measure themselves and their self-worth by their physical appearance) predicted four specific body image attitudes. SES strongly predicted appearance orientation / motivational salience and body surveillance. Therefore, those women who were more likely to define themselves in terms of their appearance were also predicted to be more attentive to their appearance. Likewise, SES was a small predictor of body appreciation and appearance satisfaction / motivational salience. Specifically, women who were more likely to evaluate their self-worth by their physical appearance were less likely to feel appreciative and accepting of their bodies, as well as feeling less satisfied with their appearance and specific body areas. In addition, SES directly predicted engagement in appearance-management behaviours.

The exercise motivation that was shown to be a predictor within the model was specifically related to fitness and health management. That is, those women who felt motivated to exercise for health and / or fitness reasons were moderately predicted to be more invested in their physical fitness (i.e., fitness orientation) and more invested in their health (i.e., health orientation), as well as feeling physically fit or valuing fitness (i.e., fitness evaluation). Interestingly, fitness / health motivation was a small predictor of body shame which would indicate that those specific motivations led to the women feeling body shame when their body did not conform.

Body Image Attitudes as direct predictors of self-regulatory / coping strategies or behaviours

The components of the model thus far, (depicted in Figures 15 – 19) have revealed direct, significant pathways from historical and proximal factors leading to body image attitudes and / or coping / self-regulatory strategies or behaviours. The final structural model (Figure 14) identified where a strategy or behaviour was directly predicted by an attitudinal factor. Parameter estimates for each significant, attitudinal predictor together with its associated outcome (strategy or behaviour) are presented in Table 31. This includes standardised regression weights, standard error, and *p* values for each pathway. The outcome strategies are highlighted in bold:

Table 31: Parameter estimates for the attitudinal predictors of coping / self-regulatory strategies or behaviours (in bold) within the final path model.

Coping/Self-regulatory strategy Attitudinal Parameters	Standardised Regression Weight	Standard Error	Sig. value (<i>p</i>)
Clothing			
Fitness Orientation	.18	.03	<.001
Appearance Evaluation/Body Part Satisfaction	.31	.33	<.001
Appearance Fixing			
Body Surveillance	.37	.04	<.001
Appearance Orientation/Motivational Salience	.11	.28	.033
Grooming/Weighing			
Body Surveillance	-.49	.01	<.001
Body Avoidance			
Positive Rational Acceptance	.21	.05	<.001
Body Shame	.37	.03	<.001
Health Orientation	-.13	.04	.024
Health Evaluation	.22	.06	<.001
Appearance Orientation/Motivational Salience	-.27	.20	<.001
Appearance Evaluation/Body Part Satisfaction	-.24	.29	<.001
Exercise Participation			
Fitness Orientation	.44	.01	<.001
Eating Restraint			
Health Evaluation	-.19	.03	.011
Appearance Evaluation/Body Part Satisfaction	.21	.15	.020
Body Shame	-.33	.02	<.001

Note: The standardised regression weights demonstrate the proportion of change, expressed in standard deviations (SD), in the coping variable (presented in bold type) produced by a change of 1 SD in the attitudinal variable. For example, an increase of 1 SD in Health evaluation produced a decrease of .19 SD in Eating Restraint.

DIRECT EFFECT SIZES

Direct effects of predictors of coping strategies are presented in Table 32. Notably the two strongest predictors of exercise participation and reduced body image avoidance behaviours were investment in fitness and self-esteem respectively. Direct effects of predictors of body image attitudes are presented within Tables 33 to 36. These are grouped into the following attitudinal categories: acceptance and appreciation, objectified shame and surveillance, health and fitness, and appearance orientation and evaluation. These attitudes have been grouped as such in terms of their theoretical relevance and explained in much more detail in the discussion in Chapter 14. That said, some of the main attitudinal findings, as presented earlier in Table 31, will be discussed during a summary of the direct effects that follows Table 36.

Table 32: Standardised direct effects of predictors on coping / self-regulatory strategies and behaviours.

Coping/Self-regulatory strategies Parameters	Standardised Direct Effect
Exercise Participation	
Fitness Orientation	.44
Hassles	.14
Avoidance	
Self-Esteem	-.31
External Locus of Control	.15
Appearance Fixing	
Appearance Comparison	.17
Self-Evaluative Saliency	.28
Positive General Commentary	-.17
Grooming/Weighing	
Physical Discomforts	.14
Clothing	
Fitness Orientation	.18
Sociocultural Information	-.12
Hassles	-.27
Pregnancy Weight-Gain	-.26
External Locus of Control	-.11

Table 33: Standardised direct effects of predictors on body image attitudes associated with positive acceptance and appreciation.

Acceptance and Appreciation Attitudes Parameters	Standardised Direct Effect
Positive Rational Acceptance	
Sociocultural Information	.18
Positive General Commentary	.16
Physical Discomforts	.14
Hassles	.18
Self-Esteem	.39
Pregnancy Weight-Gain	-.34
Body Appreciation	
Self-Evaluative Saliency	-.15
Sociocultural Pressure	-.12
Positive Weight Commentary	.17
Self-Esteem	.47
Internal Locus of Control	.11
Pregnancy Weight-Gain	-.22

Table 34: Standardised direct effects of predictors on body image attitudes associated with objectified shame and surveillance.

Objectified Shame and Surveillance Attitudes Parameters	Standardised Direct Effect
Body Shame	
Appearance Comparison	.19
Sociocultural Pressure	.15
Positive Weight Commentary	-.12
Self-Esteem	-.41
Exercise – Fitness/Health	.12
Pregnancy Weight-Gain	.30
Surveillance	
Appearance Comparison	.19
Self-Evaluative Saliency	.39
Public Self-Consciousness	.24
Pregnancy Weight-Gain	.14

Table 35: Standardised direct effects of predictors on body image attitudes associated with health and fitness-related body image attitudes.

Health and Fitness-related Attitudes Parameters	Standardised Direct Effect
Health Orientation	
Public Self-Consciousness	.16
Self-Esteem	.28
Internal Locus of Control	.19
Exercise – Fitness/Health	.33
Health Evaluation	
Physical Discomforts	-.14
Public Self-Consciousness	.15
Self-Esteem	.45
Internal Locus of Control	.31
Fitness Orientation	
Self-Esteem	.20
Internal Locus of Control	.25
Exercise - Fitness/Health	.42
Pregnancy Weight-Gain	.14
Fitness Evaluation	
Self-Esteem	.26
Exercise – Fitness/Health	.27

Table 36: Standardised direct effects of predictors on body image attitudes associated with body image orientation and evaluation.

Appearance Orientation and Evaluation Attitudes Parameters	Standardised Direct Effect
Appearance Orientation/Motivational Saliency	
Self-Evaluative Saliency	.42
Positive Weight Commentary	.21
Public Self-Consciousness	.38
Self-Esteem	.29
Appearance Evaluation/ Body Areas Satisfaction	
Self-Evaluative Saliency	-.19
Sociocultural Pressure	-.14
Positive Weight Commentary	.31
Public Self-Consciousness	.12
Self-Esteem	.39
Pregnancy Weight-Gain	-.25

SUMMARY OF DIRECT EFFECTS

Following an examination of the various factors within Cash's (2011a) model and their respective effect sizes (in Tables 32 to 36), personality attributes acted as the strongest predictive component, with the strongest predictor overall, in terms of effect sizes, being that of self-esteem (see Table 29). Self-esteem was a consistent predictor across the majority of body image attitudes (e.g., Positive Acceptance, $d = .39$, Body Appreciation $d = .47$). As was presented in Chapter 12, the women reported relatively high scores for body appreciation and acceptance which the model has since demonstrated as having associations with high self-esteem. There were multiple predictors of body appreciation overall (e.g., self-esteem, internal locus of control, and positive weight-related commentary). Self-esteem was also moderately associated with body avoidance behaviours, albeit in a negative direction ($d = -.31$).

Despite the decreased exercise hours as women progressed in their pregnancies⁴⁶, those who exercised for fitness and / or health reasons were also found to be strongly invested in their health and engaged in fitness-related behaviours, in addition to feeling relatively physically fit (see Table 35). Similarly, internal locus of control moderately predicted fitness orientation ($d = .25$) and health evaluation ($d = .31$). Again, self-esteem was found to be a strong predictor of overall health evaluation ($d = .45$).

Pregnancy weight-gain was also a moderately strong predictor, predominantly in terms of body image attitudes (and one specific strategy, that of clothing). Body shame and body surveillance were not only found to be associated with predictor variables such as appearance-related comparison, but were also found to predict further coping / self-regulatory strategies or behaviours (such as body image avoidance and appearance fixing respectively) (see Table 34). Despite there being a

⁴⁶ as revealed by the descriptive statistics in Chapter 12

link between body shame and eating restraint (Table 34), effect sizes for eating restraint and its associated pathways were negligible, which is consistent with mean scores that were found to be very low in the sample (see Chapter 12).

Levels of public self-consciousness were found to be high in the sample⁴⁷ and this appears to be reflected within the model. In terms of effect sizes, feeling self-conscious and publicly self-aware had an influence whereby the women were also more likely to engage in body surveillance ($d = .24$) and in addition, be invested in and attend to their appearance ($d = .38$). Interestingly however, as Table 34 suggests, increased body surveillance led to a lesser likelihood that the women would engage in grooming or weighing behaviours.

SUMMARY OF MODEL FINDINGS

The findings of the present study, as suggested by Cash's (2011a) model, revealed that body image attitudes in nulliparous pregnant women were predicted by an array of complex factors, including sociocultural influences (e.g., media-related pressure and information), interpersonal experiences (e.g., positive commentary related to both weight / shape, and to a lesser extent, general appearance), physical characteristics (e.g., physical discomforts, pregnancy-related hassles), and personality attributes (e.g. particularly that of self-esteem, public self-consciousness, internal locus of control, and to a lesser extent, external locus of control). In addition, body image attitudes were influenced by appearance-related comparisons, self-evaluative salience and motivations for exercising that were specific to health / fitness. Attitudinal outcome variables that were originally incorporated within the present model but were not found to be predicted by any factor included objectified control beliefs (OBCS_CB). Likewise, predictors such as perceived sociocultural pressure (PSCP; i.e., from significant others and / or friends / strangers), appearance / weight-related exercise motivations (REI_AWM), negative weight / shape-related commentary (VCOPAS_NWS), pregnancy-related uplifts (UPL), and general internalisation of the thin-ideal (SATAQ_IG) were not found to have any significant influence over body image attitudes or self-regulatory strategies.

The model revealed direct associations from both historical / proximal and body image attitudinal predictors towards coping / self-regulatory strategies. These tended to lead towards body image avoidance (e.g., evading feelings about body image) and appearance-management behaviours (e.g., appearance-fixing, grooming, and use of clothing for the express purpose of appearance-concealment). Effect sizes demonstrated that all associations with eating restraint were negligible ($d = \text{zero}$). Despite exercise participation lessening as the women's pregnancies developed,

⁴⁷ as noted in the descriptive statistics in Chapter 12

exercise was found to be influenced strongly by those women who were invested in maintaining physical fitness, and to a lesser extent, by pregnancy-specific experiences considered to be a hassle (as suggested by the MI in the final re-specification of the model).

Chapters 12 and 13 illustrate the findings from the quantitative component of the present research project. Consistent with the composite analysis framework adopted for the overall project, the final chapter that now follows will discuss these present findings, contextualising them with findings from Studies 1 and 2, in relation to previous research.

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DISCUSSION

INTRODUCTION

This final chapter will first include a brief discussion of the descriptive statistics that were presented in Chapter 12, followed by a detailed explanation of the path findings. In order to prevent repetition wherever possible, the discussion will focus on five groupings of body image attitudes rather than explaining each historical / proximal predictor identified in the structural model. These were collectively categorised as attitudes related to i) body appreciation and acceptance, ii) body shame and surveillance, iii) health evaluation and orientation, iv) fitness evaluation and orientation, and v) appearance satisfaction / investment. The discussion will then move to an explanation for the predominant coping strategies identified in the model. These included exercise participation, body image avoidance and appearance-fixing, and clothing for concealment. Consistent with the composite framework adopted for this research, findings from both Studies 1 and 2 will be incorporated to validate these explanations. Following a discussion of the findings, the chapter proceeds to a section that acknowledges both the strengths and limitations of the research, theoretical implications and practical applications of the findings, finishing with thoughts for future research. The chapter then concludes by presenting a concise summary of findings together with my personal reflections in an afterword.

SUMMARY OF DESCRIPTIVE STATISTICS

The majority of participants described themselves as being in their second and third trimesters. In general, the women's self-reported health was good to excellent and the majority of them resided with their partner. The questionnaire was distributed across numerous UK websites which meant that it was not constrained by geographical location or community population. That said, the sample was relatively homogenous in terms of their White, British heritage and over half of the sample was educated to University degree level. Mean scores suggested that physical discomforts intensified as women moved through the trimesters. Five specific discomforts were more commonly reported: fatigue, urinary frequency, vaginal discharge, nausea, and backache. With regards to self-perceptions of pregnancy weight-gain, the women tended to feel neither unduly concerned nor overly pleased with the weight-gain they had experienced in pregnancy.

Overall, mean scores would indicate that despite reporting moderately high levels of global self-esteem, participants also experienced relatively high levels of private and public self-consciousness; although private self-consciousness did not appear to predict either a body image attitude or a coping mechanism in the path model. Private self-consciousness is considered to focus on thoughts and feelings that relate solely to the self (Fenigstein et al., 1975). In Study 2, self-consciousness was perceived to be attributable in part to women's own self-evaluations of weight-gain (i.e., private), yet was also associated with appearance-related commentary or perceived thoughts from others (i.e., public). As a result of these evaluations, particularly about specific bodily areas, women went to great lengths to conceal their pregnancies due to the heightened anxiety they were experiencing. That said, Study 3 would indicate that, whilst it is an associated factor in the development of body image attitudes, it does not appear to be a definitive one.

Over half of the total sample reported to be 'not currently engaging in an intentional exercise programme' and over three-quarters were thus categorised as low level exercisers (≤ 2 hours per week) since becoming pregnant. As RCOG (2006) stated, a pregnant women might expect to see some decline in activity levels as her pregnancy reaches full term and figures from Study 3 appear to reflect this decline. That said, despite a notable decrease in total exercise hours and half of the women describing themselves as sedentary in pregnancy, women still self-reported exercising for health and fitness purposes and overall, placed a strong emphasis on the importance of fitness. That said, mean scores indicated that they felt less fit and placed less emphasis on fitness than they did in terms of feeling healthy and considering health important. This is perhaps unsurprising given the noted decrease in physical activity levels and increase in pregnancy-related discomforts reported. It is important to consider the role that physical discomforts may have played in women's decision-making to cease exercising. Whilst this was not specifically assessed in Study 3, the women interviewed in Study 2 found discomforts particularly problematic in terms of being able to participate in or continue with exercise.

Study 3 also showed that although 40% of women sought advice from a health professional about exercise, over 38% of women accessed information via the internet. What is not clear from this study is whether this information (from either source) was regarded as either helpful and / or accurate. The concern over the inconsistency of health-related information has been previously reported elsewhere in the literature (Campbell et al., 2011; Cioffi et al., 2010; Clarke & Gross, 2004; Duncombe et al., 2009; Johnson et al., 2013; Symons Downs & Hausenblas, 2004;

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Weir et al., 2010) and was expressed by the women of Study 2, however will be contextualised later in terms of health- and fitness-related body image attitudes.

In regard to coping strategies, across all the measures, many participants engaged in some form of appearance-enhancing behaviour. On a positive note, responses were very low in terms of eating restraint which meant that overall, this was not a practice they wished to pursue whilst pregnant. The use of clothing practices to conceal their appearance appeared to be a more popular option in terms of an avoidance behaviour, which would support findings in Study 2 where this was done specifically to mask their pregnancies from others. In regard to notable body image attitudes, women appeared to experience objectified body consciousness, feeling body shame more so than surveillance. In terms of embracing body appreciation, the women reported appearance acceptance and respect for their pregnant bodies (i.e., with participants responding *sometimes* to *often*). This would support Study 2's findings whereby the women seemed to appreciate body functionality over aesthetic appeal as their pregnancies progressed. Body image attitudes (including that of appreciation and shame / surveillance) will now be discussed in more detail in the following sections.

BODY IMAGE ATTITUDES IN PREGNANT WOMEN

As demonstrated in Chapter 13, historical and / or proximal factors predicted a total of 10 body image attitudes in the sample of nulliparous women. These attitudes were Body Appreciation (predicted by six factors), Positive Rational Acceptance (predicted by six factors), Body Shame (predicted by six factors), Body Surveillance (predicted by four factors), Health Evaluation (predicted by four factors), Health Orientation (predicted by four factors), Fitness Evaluation (predicted by two factors), Fitness Orientation (predicted by four factors), Appearance Evaluation / Body Areas Satisfaction (predicted by six factors), and Appearance Orientation / Motivational Salience (predicted by four factors). These attitudes will be grouped in terms of their theoretical relevance and discussed in turn, incorporating findings from Studies 1 and 2.

BODY APPRECIATION AND ACCEPTANCE

Both body appreciation and acceptance will be collectively discussed in this section as they tend to represent more positive attitudes. Body appreciation reflects acceptance of and respect for the body (Avalos et al., 2005). Positive Rational Acceptance (PRA) was an attitudinal component of the Body Images Coping Strategies Inventory (Cash et al., 2005). This emphasised the use of rational self-talk, positive self-care, and acceptance.

As has been highlighted by Poudevigne and O'Connor (2006) only a handful of studies thus far have examined changes in self-esteem in pregnant women (e.g., Wallace et al., 1986; Kamysheva et al., 2008). In Study 3, self-esteem was a very strong predictor of body appreciation. When women positively evaluated their self-worth, they felt more appreciative of their pregnant bodies. In addition, those women who received positive commentary related specifically to their weight and shape were more likely to feel a sense of appreciation and acceptance. It is therefore important to acknowledge that positive commentary continues to play a role in boosting women's positive body image attitudes. Study 3 also demonstrated that internal locus of control predicted body appreciation. If they held expectancies that their own behaviour influenced pregnancy weight or exercise-related outcomes, they were more appreciative and accepting of their pregnant bodies. This suggests that when women adopted a sense of responsibility about their actions in pregnancy, this subsequently resulted in a positive outcome.

That said, body appreciation was not likely to occur if women experienced sociocultural pressures (to lose weight postpartum, exercise, or change their appearance), felt negative about pregnancy weight-gain, or evaluated their self-worth in terms of their appearance. This is perhaps unsurprising given the way in which pregnant celebrity women are represented in the media. Elements of Study 1 and previous findings have shown that rapid weight loss is often glamorised using celebrities' bodies as 'benchmarks' (Roth et al., 2012), and celebrity mothers-to-be are habitually praised for their bodily-appearance. In addition, few articles tend to focus on the realities of weight-gain in pregnancy (Gow et al., 2012). The slender or fit appearance of celebrity women and minimal weight-gain therefore are generally portrayed in a much more positive light and Study 3 has demonstrated how this pressure to measure up is likely to result in the average woman feeling less appreciative of her pregnant body. This may be more pronounced if she focuses on aesthetics over functionality and particularly if she defines her self-worth by her physical appearance.

In the present study, PRA was associated with six predictors: appearance-related media information, positive appearance commentary, physical discomforts, pregnancy hassles, pregnancy weight-gain, and self-esteem. The strongest predictors were self-esteem and pregnancy weight-gain, which meant that women who felt high self-worth, positive regard, and were positive about weight-gain in pregnancy were also more accepting of their pregnancy experience.

Despite pregnancy symptoms intensifying as trimesters progressed (i.e., *very often* by the third trimester) and despite women reporting an increased number of

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physical symptoms (e.g., nausea, urinary frequency) they were more likely to engage in positive self-care and appeared accepting of these discomforting experiences. This is an unsurprising finding given that most pregnant women are likely to accept or at least tolerate weight-gain as part of the pregnancy experience. One might suggest that as the women moved towards their third trimester and their pregnancy became ever more a reality, that they began to feel greater acceptance and more appreciative of their bodies' functionality. It is possible that they also felt a sense of inevitability about what they were experiencing. As found in previous literature, pregnancy can represent an opportune time for women to appreciate the purposeful body-changes taking place (Clark et al., 2009a) or a period in which women are provided with a 'license' not to be concerned about weight-gain because of the natural shape changes expected (Fairburn & Welch, 1990). Hence, why some feel justified in eating more, relaxing calorie restrictions (Abraham et al., 1994; Clark & Ogden, 1999), and exercising less (Clark et al., 2009b). Interestingly, pregnancy-related hassles predicted positive self-talk and acceptance. Again, this may be linked to the findings about symptoms, whereby the women resigned themselves to accepting hassles (e.g., weight-gain) as inevitable and part-and-parcel of the experience, irrespective of the inconvenience.

Interestingly, there was a small relationship between media-related information and increased levels of positive acceptance in Study 3. This would suggest that as much as some women found media information an important source about fashion and 'being attractive', nonetheless they still felt accepting of their pregnancy experience. As has been suggested in the literature, some women can adapt positively to the change in body shape, whilst still upholding their pre-existing bodily ideals (Davies & Wardle, 1994). In Study 2, the women described themselves as trying to be rational when thinking about the way in which pregnant, celebrity women were represented. Despite saying they were unable to resist engaging in upward-comparisons, they knew that the images of women portrayed in the media were unrealistic. Regardless of the pressure they experienced from media images or appearance-related commentary, women felt they simply had to accept their experience for what it was. This was sometimes attributable to no longer feeling the most important person anymore.

The sense of inevitability and acceptance in terms of their current state is possibly due to an understanding that the transition is one that is only temporary. This may also be due to an internalisation of a socially-valued change in role (i.e., that of motherhood) (Baker et al., 1999; Rocco et al., 2005). Sixteen women in Clark et al.'s (2009b) study perceived appearance changes to be 'tolerable, whilst undesirable' but for most, this was attributed to a sense that their bodies were performing an important

function in pregnancy. Considering nearly 50% of the women in Study 3 were in their third trimester, perhaps it is the reality of pregnancy and impending birth that is ever more salient at this point (Baker et al., 1999) and the women may ascribe new meaning to their pregnant bodies; one where functionality becomes all the more prioritised over aesthetic appeal. In Study 2, for the women in their third trimester, this sense of acceptance and appreciation for functionality was even more pronounced. As Study 3 has shown, appreciation and acceptance is strongly linked to high levels of global self-esteem. This highlights the importance of nurturing a pregnant woman's self-esteem as she experiences appearance-related changes, as this is likely to encourage a more positive body image and may act as a protective buffer against the impact of thin-ideal media images.

BODY SHAME AND BODY SURVEILLANCE

Body shame and surveillance will be collectively discussed as together they can be consequences of self-objectification (Fredrickson & Roberts, 1997; McKinley & Hyde, 1996). In the same way that mean scores were slightly higher for body shame than they were for surveillance, the path analysis revealed that body shame was more likely to be predicted than surveillance in the model. In Study 3, body shame in particular was associated with women experiencing an increased sense of media pressure. Given that pregnant women in the media are often represented as 'yummy mummies' (see Study 1; Hine, 2012; Jette, 2006; McRobbie, 2006) with an affluent and glamorous lifestyle, it is unsurprising that the average pregnant mother-to-be might experience an element of body shame and unattractiveness when she perceives her appearance to have failed to measure up with the images she is exposed to; particularly as her body is in a state of uncontrollable change (Hofmeyr et al., 1990).

It has been extensively-documented in this thesis that media communicate stringent sociocultural ideals of appearance for women (Tiggemann, 2002; Wykes & Gunter, 2005), which is particularly problematic if they have a tendency to embrace and internalise those same ideals and values (Thompson et al., 1999). As was shown in both Studies 1 and 2, cultural messages of appearance continue to pervasively reinforce the value of the thin- or fit-ideal body shape into pregnancy and have the power to negatively influence women's perceptions of their own appearance in comparison with what is considered to be socially-valued. This concern is validated further by two additional associations in Study 3, i) because negative feelings about pregnancy weight-gain predicted body shame and also led to surveillance and ii) because those women who received positive commentary related specifically to their

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weight and shape were more likely to experience lower feelings of body shame. These findings clearly highlight that despite women appreciating the importance of body functionality, there still appears to be a marked emphasis on one's weight in pregnancy. Again in Study 3, increased self-esteem led to reduced feelings of body shame. These findings would therefore suggest that positive appearance-related commentary and complimentary feedback received from spouses or partners can function not only to reassure an individual but also have the potential to increase an individual's self-esteem and reduce feelings of body shame. That said, what would potentially be more beneficial for pregnant women would be a situation where their weight, shape, and size are not raised in conversation at all (at least not in terms of any implied importance) thus assigning body functionality as the key contributor in a woman's pregnancy.

In Study 2, women perceived their bodies to be under continued scrutiny through pregnancy and felt a sense of pressure to conform to others' or society's appearance-related expectations into the postpartum. They too were also very self-aware of the societal pressure on them to lose their pregnancy weight soon after the birth and despite this being something they were unable to control, there was a distinct sense that they were on 'borrowed time'. Again, this is unsurprising given the pressure that is placed upon them to regain their pre-pregnancy appearance in the postpartum. For example, a recent news-headline that read "*Doctors: Start to lose baby weight after three months*" (BBC News, March 25th, 2014) typifies this type of media pressure. The article focused on research findings⁴⁸ that stated that women who had not started to lose postpartum weight within a year would be placing their health at severe risk. This type of headline is problematic for two reasons: i) because it focuses purely on biomedical profiling, advocating exercise as a means of weight-loss, with very little acknowledgement of the psychosocial factors involved in a woman's pregnancy and postpartum routine and ii) because this may have potentially damaging consequences for those women who, not only are unable to lose their baby weight in the timescales expected but who are also vulnerable to media pressure or experience feelings of body shame and surveillance. Hence, the findings from all three studies within the present research add weight to the concerns held by the Royal College of Midwives and Netmums (2010) about the burden of celebrity culture on pregnant women and the appearance-related vulnerabilities that can be exacerbated by receptiveness to thin-ideal media imagery (Sumner et al., 1993) and headlines that focus predominantly on weight-loss expectations.

Physical symptoms and appearance-related comparisons were found to lead to feelings of body shame and self-surveillance in Study 3. Therefore, the women who

⁴⁸ by Kew et al. (2014)

felt compelled to compare their pregnant bodies to that of others also felt increased body shame and watched their body more frequently whilst pregnant. In addition, those women who felt more publically self-conscious of their bodies were increasingly more likely to watch their body more frequently. As has been noted, physical changes may be perceived as either an improvement (e.g., thicker or glossy hair, nail growth) or deterioration (e.g., skin problems, excessive gestational weight-gain) and may be either temporary or become permanent (Heinberg & Guarda, 2002). As Skouteris (2011, 2012) suggested, body shame and surveillance may occur as a result of women comparing their physical symptoms with others. Based on the findings from Study 2 it may also be possible that such attitudes can occur as a result of comparisons *by* others. As Cash (2011a) noted, it is important to consider that the effect of physical characteristics, as a factor within the model, may also be mediated by social feedback or commentary (e.g., a larger bump that prompts physical contact or size-related commentary, which subsequently can compel women to feel ashamed or be more observant of their body size or shape). For those who experience external symptoms that might be considered more aesthetically problematic by society's standards (e.g., varicose veins, stretch marks), it is unsurprising that women may have felt self-conscious of these changes and that comparisons led to women feeling ashamed of their pregnant bodies and monitoring their bodies more closely.

Findings from Study 1 raised concerns about pregnant women engaging in upward social comparisons in light of the media continuing to perpetuate thin-ideal aspiration in pregnancy images. Calogero and Pina (2011) suggested that if women internalise such beauty ideals, they inevitably hold themselves to account using body shame and self-loathing and feel guilt when unable to meet such imposing standards. That said, findings from Study 3 would suggest that the process of thin-ideal internalisation was not necessarily a factor for this sample of pregnant women, as it did not appear to have any relationship with body image attitudes or adjustive strategies. Therefore the occurrence of appearance-related comparison alone would appear to have been sufficient in leading pregnant women to experience body shame and surveillance, without thin-ideal internalisation being part of the process.⁴⁹ For the women in Study 3, it is possible that they were more likely to compare their bodies with that of other pregnant women around them rather than trying to aspire to the media image of a celebrity pregnant body.

In Study 2, women described the impact of social comparison, not only as a result of exposure to media images, but also amongst other women (e.g., friends / colleagues). This resulted in them self-evaluating their appearance against that of

⁴⁹ as suggested earlier by Calogero and Pina (2011) and Thompson and Stice (2001)

others. Research has shown how comparisons can occur in a peer-related (Davison, 2012; Wasilenko et al., 2007) and / or family-related situation (Rieves & Cash, 1996). In both contexts comparisons can impact on levels of body satisfaction in pregnant women (Boscaglia et al., 2003; Nash, 2012) whereby other pregnant women or friends / family are seen to provide a more 'realistic' template.

Researchers have suggested that when women monitor their physical appearance against unrealistic standards, they place themselves at risk of negative mental and physical health outcomes if they perceive themselves to have failed to match cultural ideals set for them (Calogero et al., 2005; McKinley & Hyde, 1996; Slater & Tiggemann, 2002; Tiggemann & Kuring, 2004). As previously stated, pregnancy presents a phase of considerable physical and psychological change, during which a woman's body, shape and weight can alter dramatically over a short period (Kamysheva et al., 2008) and this is also the time when a woman's body shape inevitably deviates from society's thin-ideal standard (Dworkin & Wachs, 2004; Rumsey & Harcourt, 2005). Whilst all very valid points, Study 3 would suggest that shame and surveillance can occur via comparisons irrespective of cultural ideals of appearance, again highlighting that appearance-comparisons may have deleterious consequences that are not exclusively linked to thin-ideal internalisation.

As previously documented, there is great variability in the extent to which individuals engage in social comparison (Halliwell, 2012). The image of the 'yummy mummy' in the media must continue to be recognised as problematic but it is also important to note that favourable experiences had by peers (appearance-related or otherwise) may still put pressure on a pregnant woman to measure up, even if she is not vulnerable to internalisation tendencies. As Rubin and Steinberg (2011) demonstrated in their study, body surveillance can persist into pregnancy. Therefore women are at risk of developing negative mental and physical health outcomes simply by placing a greater emphasis on the pregnant body in aesthetic terms, as opposed to valuing it for its capabilities.

In addition to self-esteem, media pressure, physical symptoms, public self-consciousness, and comparisons, body shame was also found to be associated with fitness / health motivation⁵⁰ in Study 3. This may indicate that those specific motivations led to the women feeling body shame perhaps when their body did not conform in terms of cultural expectations. This is unsurprising given that women (and girls) have previously expressed self-presentational concerns in exercise settings (see Haste, 2004; Leary, 1992; Leary et al., 1994) and particularly if they regard themselves as possessing a body that does not 'fit in' (Grogan, 2008). As has been shown in the research on media analyses and the findings of Study 1, even celebrity

⁵⁰ albeit small in terms of effect size

pregnant women are not immune to scrutiny when it comes to their exercise and dietary regimes (Hine, 2012; Roth et al., 2012; Sha & Kirkman, 2009). Therefore, there is a clear need to ensure that health professionals (who have direct contact with pregnant women) are not only wise to appearance-related expectations of appearance, but are fully trained and knowledgeable to discuss exercise programmes and nutrition advice (Brown & Avery, 2012; Heslehurst et al. 2013; Johnson et al., 2013) so that exercise is promoted in terms of its health-related benefits (Symons Downs et al., 2012) in a more realistic and honest manner, as opposed to its ability to achieve weight loss.

HEALTH EVALUATION AND ORIENTATION

Health evaluation (i.e., feelings of physical health and / or freedom from physical illness) and health orientation (i.e., extent of investment in a physically healthy lifestyle) will be discussed together in this section. This is because not only were they both predicted by global self-esteem, but they were also jointly associated with internal locus of control and public self-consciousness. In addition to these three predictors, health and fitness exercise motivations and physical discomforts were also linked with health evaluation. As has already been stated in the earlier findings from Study 3, self-esteem once again has shown to not only have a positive impact in terms of how women feel about their appearance but also that it can have a similar effect on feelings of physical health. This further supports the premise that self-esteem be treated as a core component of psychological well-being (Rosenberg, 1965) particularly during pregnancy. Due to the strong links between self-esteem and physical activity in the literature, this will be discussed in greater detail on the following section on physical fitness.

In Study 3, internal locus of control predicted investment in health and feelings of being physical healthy. That is, those with higher levels of internality tended to believe that their own behaviours influenced their health status and consequently, were personally more invested in incorporating health behaviours into their lifestyle. As has previously been found in the locus of control literature, there appears to be a direct association between control beliefs and health-related behaviours (Wallston & Wallston, 1978; Wallston et al., 1978), despite locus of control only playing a modest role when assessed solely (Wallston, 2005). Hence, Study 3 supports the principle that those who value their health and believe that their behaviour determines their health status would be more likely to score highly on internality and more likely to engage in healthy behaviours (Wallston, 1991; 2005). Appearance-related research employing locus of control measures have however also found that those scoring

highly as internals can hold negative attitudes towards those who are deemed to be overweight, since they view body weight as a controllable condition (Tiggemann & Rothblum 1997). The findings from Study 3 can neither support nor refute this assertion. That said, Cash (2002, 2011a) has stressed the importance of not merely thinking about appearance psychology in terms of pathology, weakness, and disturbance. Hence, positive personality traits (e.g., positivity, confidence, internal self-belief) have the capacity to contribute to and support physical and psychological health. It is therefore important to identify and include these within research as a means of capturing positive body attitudes, such as acceptance of and respect for the body (Avalos et al., 2005) as was also achieved in Study 3.

As would be expected, Study 3 found that exercising for health / fitness motivations was moderately associated with investment in a healthy lifestyle. This appears to be a relatively self-explanatory finding but encouraging nonetheless given that exercising for health reasons has been well-documented to correlate strongly with self-esteem (McDonald & Thompson, 1992; Tiggemann & Williamson, 2000) and more specifically, has been directly associated with a positive body image and increased self-esteem in pregnancy (Choi & Mutrie, 1996; Mutrie & Choi, 2000). From a medical perspective, all women are now actively encouraged to engage in aerobic and strength-conditioning exercises during pregnancy as part of a healthy lifestyle (ACOG, 2002; RCOG, 2006; NICE 2010). These recommendations ought now to be more widely accessible and promoted more pro-actively within mainstream media, particularly directed towards those experiencing pregnancy for the first-time and for those who tend to source their information via the internet.

Research has shown that various motivations arise for exercising during pregnancy (Duncombe et al., 2008; 2009). For example, some women in Study 2 described exercise as a means of holding on to a familiar routine that was important to them prior to becoming pregnant. Overall, this is clearly a promising step forward in terms of the women in Study 3 prioritising exercise for health and fitness purposes rather than for appearance and weight control. This is especially encouraging given that the women in Study 2 appeared to be more motivated to exercise for appearance / weight management and in light of the body of literature that highlights a very similar emphasis on weight loss or control in the general population (Bish et al., 2009; Furnham & Greaves, 1994; Grogan et al., 2006; Maguire & Mansfield, 1998; Silberstein et al., 1988; Tiggemann & Williamson, 2000). Some have argued that the problem lies with the way in which physical health and fitness is now synonymous with thinness and beauty (particularly in the media) (Dean & Choi, 1996; Mutrie & Choi, 2000). This is clearly problematic given that there is now an ever-expanding exercise and diet industry that is yearning to capitalise on women's perceived

imperfections (Choi & Mutrie, 1996; Orbach, 2009) and so-called flawed postpartum bodies. The slimming magazines in Study 1 contextualised this point entirely by portraying women's bodies after birth as 'hateful' and negatively highlighting the consequences of poor behavioural choice in pregnancy. By focusing on the health outcomes of exercise during maternity care provision, there is great potential to facilitate continued exercise in pregnancy (Da Costa et al., 2003) into the postpartum, in addition to promoting the likely improvement in a woman's body image whilst pregnant; not to mention demonstrating how pregnancy symptoms can be attenuated by participation in exercise. This would be particularly beneficial for those who, by their third trimester, can experience a significant reduction in symptoms, despite entering the most challenging period (Wallace et al., 1986).

That said, Study 3 also demonstrated that an increased number of physical discomforts meant that the women were more likely to feel unhealthy or experience illness in pregnancy. This again appears to be relatively self-explanatory in its own right. Interestingly it may also be linked to the fact that public self-consciousness was also associated⁵¹ with health orientation and health evaluation. That is, despite women wanting to feel invested in their health and aim for a healthy lifestyle, some women were also found to be more socially self-aware. This finding may tie in with research discussed in the literature review that has been conducted on Social Physique Anxiety (SPA) and the use of self-presentational strategies (e.g., physical attractiveness) which have shown to be highly relevant when assessing exercise behaviour patterns in a social context (Crawford & Eklund, 1994). This has implications for those considering exercising in public settings or for those who engage in social encounters where their appearance or body will be observed, particularly given the social pressures women live through, in a culture where thinness is valued (Davison, 2012) and where a competitive sports setting isolates those who do not conform to the stereotypical 'sporty type' (Choi, 2000). As has been suggested, when women view their bodies through an 'objectified lens' as an external observer, they may still dissociate themselves psychologically from and develop negative emotions towards their bodies (Calogero et al., 2005). Therefore, Study 3 would suggest that feeling healthy overall and health-conscious does not necessarily imply that an individual feels any less publically self-conscious in their surroundings.

FITNESS EVALUATION AND ORIENTATION

As per the health-related factors, physical fitness will be discussed jointly in terms of investment (i.e., valuing fitness) and evaluation (i.e., feeling physically fit).

⁵¹ albeit as a small predictor in terms of effect size

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Whilst there were a slightly less number of predictors for these two body image attitudes in Study 3, nonetheless there are distinct patterns in terms of what has previously been discussed. First, internal locus of control predicted physical fitness investment. That is, the women who held beliefs that their own behaviour influenced pregnancy weight or exercise-related outcomes were found to be more invested in integrating fitness into their lifestyle. This reflects distinct similarities in terms of findings related to health evaluation and orientation. Once again, increased global self-esteem meant that the women were actively involved in activities to either enhance or maintain their physical fitness or they felt overall, physically fit or 'in shape' (Cash, 2000). This is unsurprising given that self-esteem has generally been accepted as an important mediator of exercise and self-esteem (Fox, 2000; Sonstroem, 1997) in addition to perceived physical attractiveness (Sonstroem, 1997). As has been well-documented in both Chapters 3 and 7 and in the earlier discussions on self-esteem in Study 3, physical activity is said to improve mood and increase self-esteem; all of which are seen to be integral components of one's mental health and wellbeing. Once again, Study 3 supports the body of research that demonstrates the strong link between increased self-esteem and physical fitness (McDonald & Thompson, 2002; Tiggemann & Williamson, 2000; Wallace, et al., 1986) particularly in light of its positive influence on women's body image (Choi & Mutrie, 1996; Mutrie & Choi, 2000).

Whilst Boscaglia et al. (2003) suggested that women who exercise during pregnancy may respond more favourably to changes occurring in their bodies compared to women who remain sedentary, they admitted to not having assessed self-esteem as a variable. Hence, there was a clear need to include self-esteem as a variable in the present research. In addition, Goodwin et al. (2000) highlighted the need to explore whether physical activity acted as a mechanism to improve psychological health in pregnancy or whether it was the levels of psychological wellbeing that determined engagement in physical activity. Although Study 3 did not show that self-esteem directly affects levels of exercise participation, it can conclude that increased levels of self-esteem in pregnant women leads to increased feelings of health and physical fitness, thus directing the focus towards health and fitness and away from appearance management.

That said, it is still important to acknowledge concerns raised from Study 2, where despite some women regarding exercise as being beneficial for labour preparation and / or fitness, on the whole, exercise was generally expected to serve its purpose in terms of aiding weight-control and weight-loss postpartum. This demonstrates that despite still being pregnant, some women are already thinking about the need to exercise post-birth and understood exercise as facilitating the loss of gestational weight-gain. For those who wished to continue exercising into

pregnancy, many stopped either because of pregnancy discomforts or because of the perception of risk to their baby. These changes had a real impact on how women felt about and perceived their bodies, not to mention how unwell some had felt as a result of physical symptoms in the first trimester. Often women can report feeling less fit or strong during pregnancy (Earle, 2003); frustrations that can be intensified by debilitating, physical symptoms (Hofmeyer et al., 1990; Johnson et al., 2004; Kamysheva et al., 2008; Sjöström et al., 2004). The concern around pregnancy discomfort has been well-documented through the literature review (e.g., Alcade, 2011; Duncombe et al., 2009; Evenson et al., 2009; Hofmeyer et al., 1990; Johnson et al., 2004; Kamysheva et al., 2008; Poudevigne & O'Connor, 1996; Symons Downs & Hausenblas, 2004), in addition to concerns raised around the perception of risk (Clarke & Gross, 2004; Lewis et al., 2008; Weir et al., 2010) despite research that has shown exercise to be a way of alleviating pregnancy-related physical symptoms (Da Costa et al., 2003; Symons Downs et al., 2008) and postpartum distress (Abraham et al., 2001). Again, this comes back to the need for clear and consistent advice and guidance, so that women feel confident to make an informed decision as to whether to continue or not, based on their personal circumstances.

APPEARANCE SATISFACTION AND APPEARANCE INVESTMENT

Lastly, in terms of body image attitudes, appearance satisfaction and appearance investment will be discussed together. Prior to the path analysis, appearance evaluation (i.e., feelings of attractiveness) was combined with that of body areas satisfaction. Likewise, appearance investment (i.e., orientation) was combined with motivational salience (i.e., the extent to which the women attended to their appearance). From a theoretical and practical perspective, it makes sense therefore to discuss these findings in conjunction with one another particularly as there appear to be patterns in terms of combined predictors. Self-esteem, public self-consciousness, positive weight and shape commentary, and self-evaluative salience predicted both body image attitudes.

Study 3 again documents a moderately strong association between self-esteem and feelings of attractiveness and appearance investment. Without wishing to enter into too much repetition, it may suffice to say that this is an expected finding and therefore supports previous research that has specifically found self-esteem to be a predictor of perceived self-attractiveness in pregnancy (Kamysheva et al., 2008). Considering the well-established link between self-esteem and positive body image, as discussed across previous sections, it is unsurprising that a woman's satisfaction with her weight is likely to form a core feature of her self-esteem (Jenkin & Tiggemann,

1997). By including self-esteem in Study 3, it seems reasonable as an explanation for the increase in feelings of appearance satisfaction in pregnancy.

In addition, Study 3 found that positive weight and shape commentary was associated with feelings of attractiveness and salience of appearance. Herbozo and Thompson (2006) and Herbozo et al. (2013) have previously suggested that a higher frequency of positive weight and appearance-related comments is associated with lower levels of body dissatisfaction. Study 3 therefore supports previous research and contributes to this body of knowledge by focusing specifically on a pregnant population. Interestingly, negative weight and shape commentary was not predictive of body image attitudes or self-regulatory behaviours, although judging by the current sample, it is not likely that women would experience a high frequency of negative weight-related comments whilst pregnant. Likewise, in Skouteris et al.'s (2005) study, pregnant women rarely received negative commentary in the form of teasing from family, friends and / or partners regarding their weight or appearance. A small number of women in Clark et al.'s (2009b) research referred to a social connection they sensed when approached by people to discuss their pregnancy. That said, this was only reported when in the receipt of positive commentary and therefore it is difficult to establish how their respondents felt upon receipt of negative commentary. Nonetheless, despite negative commentary not being shown to be a predictor in Study 3, concerns remain from the discussions had with the women in Study 2. All forms of commentary were unwelcomed, yet expected, therefore the present research highlights the potentially damaging effect that negative comments can have on a pregnant mother-to-be's self-esteem and self-perceptions.

Public self-consciousness was specifically defined as an overall awareness of the self as a social object that has some effect on others (e.g., '*I'm concerned about what other people think of me*'). Skouteris et al. (2005) found that public self-consciousness, although associated with salience and feeling fat, did not predict body dissatisfaction in pregnancy. In contrast, Study 3 found this public factor to be associated with perceived attractiveness. It is plausible that, as a woman's pregnancy progresses, she may begin to feel confident in her appearance publicly despite being increasingly self-aware. As was found in Study 2 and by Earle (2003), the public display of a pregnant woman's bump can signify a sense of achievement and pride; this is particularly the case when the pregnant belly become a definitive marker for a woman (Nash, 2012). That said, the more they felt publically self-aware, the more likely they were to be invested in managing their appearance. As previously stated, public self-consciousness, by which an individual becomes aware of themselves as a social object (Fenigstein et al., 1975), can facilitate increased processing of appearance-related information. Considering the expectations placed upon pregnant

women to maintain their appearance in pregnancy, it would seem reasonable that women may continue to feel self-conscious as their pregnancy appearance changes and their physical symptoms intensify (as found by Longhurst, 2001).

Specific to perceived attractiveness, negative attitudes towards pregnancy weight-gain in Study 3 meant that some women reported feeling less satisfied with their overall appearance. Likewise, in Study 3 those who tended to define their self-worth by their physical appearance experienced lower levels of appearance satisfaction and increased appearance investment. This demonstrates that in the context of the women's social and emotional experiences, there were some who felt that their appearance had some influence on their self-worth as this led them to invest more time managing and appraising their appearance. Previous research has suggested that despite women's acceptance of weight-gain, feelings of lowered attractiveness can be precipitated by physical appearance comparisons and perceived sociocultural pressure (Skouteris et al., 2005). Study 3's findings would support this in light of media pressures as they too resulted in lower feelings of attractiveness and lower satisfaction with specific body areas. Both comparisons and pressures have previously been addressed in terms of their potential significance on body image attitudes in Study 3.

That said, the findings associating pregnancy weight-gain with body dissatisfaction are equivocal. Some support this association (e.g., Mehta et al., 2011), whilst others have found no relationship between pregnancy weight-gain and body dissatisfaction (e.g., Rauff & Symons Downs, 2011). One might suggest in context of the studies conducted in the present research, that exposure to female celebrities in the media, pictured with toned bodies, showing little evidence of weight-gain other than their "baby bump" has the potential to lower levels of perceived attractiveness in the average pregnant woman who is unable to compete with such images. The theme 'Tell it like it is!' from Study 1 included sub-themes related to the increase in and fear of weight-gain and negative discussion of appearance-related changes. Both the parenting and slimming magazines, in particular, portrayed pregnancy weight-gain in a negative manner, although this is unsurprising given the weight-loss programmes that the slimming companies are trying to promote. Moreover, the concepts of baby fat and pregnancy-related appearance aspects when depicted as problematic by the media (e.g., baby fat described as 'jiggle' and 'baby bulge' and stretch marks labelled as being 'unsightly'), are likely to have an adverse effect on women who subsequently might feel less accepting of their own pregnant bodies (Jette, 2006).

This again highlights the need for women to be provided with information that is 'realistic' and 'honest' during pregnancy, thus giving them the opportunity to relax

about appearance-related expectations and enjoy the experience of pregnancy for what it is. This is particularly important for those women who not only live in a society where a high value is placed upon 'thinness' (Stern & Kruckman, 1983), but who also have a tendency to define their self-worth in terms of their appearance. As has been documented in the literature review, the postpartum period can represent the greatest time of body image vulnerability (Clark et al., 2009b) when social norms dictate women's obligation to 'get their bodies back' (Upton & Han, 2003). If realistic information is more readily available and openly discussed during maternity care provision, then it is reasonable to suggest that this may potentially protect women as they reach the postpartum. It would appear that what most women want is credible, clear guidance and specific advice regarding weight objectives and exercise goals that are unique to them; readily accessible from their health professional. This may then have an indirect effect of reducing societal perceptions that merely focus on outward appearance, giving the women the freedom and confidence to appreciate and accept their pregnant and postpartum body for what it has achieved thus far.

SELF-REGULATORY / COPING STRATEGIES AND BEHAVIOURS

The discussion now moves to consideration of the various coping strategies adopted by the women in Study 3 and the variables that predicted them in the model. In general, these can be categorised as either avoidance or appearance-management strategies. In addition, participation in exercise was found to be an outcome variable and hence this will be discussed first.

EXERCISE PARTICIPATION

Exercise participation was predicted first by fitness investment (i.e., importance placed on exercise). This again is an encouraging finding and one that fits with earlier discussions explicating the associations among health- and fitness-related motivations with an investment in a healthy and physically-fit lifestyle. As discussed earlier, the need to raise the profile of exercise as a health-related priority would seem more pertinent and timely than ever before whilst women go through pregnancy, rather than leaving it for them to discover to the contrary in mass media.

Pregnancy-related hassles were included in the final model as having some association with levels of exercise participation⁵². Interestingly, this indicated a positive relationship between hassles and increased engagement in exercise. Theoretically and practically, this is a surprising finding, given that in previous research, hassles (e.g., pregnancy discomforts, lack of sleep, and reduced mobility)

⁵² This was a direct pathway suggested for inclusion in the Modification Indices.

have been associated with reduced exercise or sedentary behaviours during pregnancy (Fell et al., 2009; Gaston & Cramp, 2011; Poudevigne & O'Connor, 2006) and into the postpartum (Symons Down & Hausenblas, 2004), particularly when it comes to participation in sports (Clarke & Gross, 2004). One might also expect a reduced level of physical activity due to a lesser focus on the benefits by midwives in antenatal appointments (Heslehurst et al., 2013).

It is possible however, that in the sample of women in Study 3, such hassles had the opposite effect and spurred some women to engage in physical activity as a means of ameliorating pregnancy-related experiences. As discussed in Chapter 3, the key issue is that it is never too late for women to commence an exercise programme, as found by Marquez-Sterling et al., (2000), whose sample of women reported considerable improvements to their cardiovascular fitness having only commenced exercise in their second trimester. Not only does physical activity in pregnancy improve cardiovascular fitness, but as has been discussed previously, it can help to attenuate both psychological symptoms (Abraham et al., 2001; Da Costa et al., 2003; Koniak-Griffin, 1994; Poudevigne & O'Connor, 2006; Symons Downs & Hausenblas, 2004; Symons Downs et al., 2008) and reduce a multitude of physical discomforts (see Davies et al., 2003; Goodwin et al., 2000; Horns et al., 1996; Melzer et al., 2010; Miles, 2007; Paisley et al., 2003), even if they are perceived to be a hassle.

BODY IMAGE AVOIDANCE AND APPEARANCE-FIXING

Avoidance and appearance-fixing were predicted by eight and five variables respectively overall in Study 3. The most poignant will be discussed here. Body image avoidance was conceptualised by Cash et al. (2005) as an attempt to evade stressful body image situations or events whilst appearance-fixing focuses on attempts to camouflage or correct one's appearance. First, it is important to note that increased levels of self-esteem greatly reduced women's need to evade negative feelings about body image. Again one might suggest that self-esteem acts as a protective buffer against the use of more negative coping strategies. Study 3 also supports more directly, those findings of Williams et al. (2004) who, when assessing women's body image in a non-pregnant population, found that those with high levels of self-esteem were less likely to use body avoidance tactics as an adjustive coping strategy. For those women experiencing pregnancy, particularly for the first time, it is plausible that other appearance-management behaviours (e.g., use of clothing or change in hairstyle) might actually function as a positive way of smoothing the transition and a means to help women cope with the rapid changes in their appearance thus

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increasing their self-esteem, despite having less control of their expanding body shape and size.

A concern however must be raised in terms of objectified body shame and surveillance. For the women in Study 3, these two elements factored heavily in terms of women's tendencies to either engage in body avoidance or appearance-fixing behaviours respectively. As has been discussed in the literature on Objectification theory (Fredrickson & Roberts, 1997), this stage of the model whereby one's attitudes have the potential to predict one's behaviour appears to fit with the progression seen when a woman engages in self-objectification (i.e., when self-objectification leads to shame and surveillance which can subsequently lead to appearance-management behaviours or body avoidance). As found previously, pregnancy can be a time for women to discourage any sense of self-objectification (Clark et al., 2009a). That said, this appears to be a rather remote finding. With regards to the media, women who seek advice on appearance-related issues are often confronted with messages associating the value of femininity with appearance and objectification (Levine, 2000), in addition to messages whereby postpartum transformations are possible through diet and exercise (Jette, 2006). Clearly more research needs to be conducted with regards to women's choices of appearance-management behaviours and their motivations.

It is reasonable to suggest that despite women in Study 2 experiencing feelings related to respect and admiration for their pregnant bodies during the transition to motherhood (as also found by Bailey, 2001), pregnancy becomes a time when bodily functions and processes are more habituated and women are therefore naturally more aware of bodily states. Rubin and Steinberg (2011) suggested that pregnancy demands attention to states such as hunger or fatigue, which is likely to be more intense than among non-pregnant women. As these bodily states heighten or intensify, women may either feel more inclined to watch their body more frequently or in contrast, may engage in body avoidance whereby these states are overlooked or ignored. An inadequate awareness of internal bodily states, for example, hunger (Fredrickson & Roberts, 1997) in pregnancy is clearly a cause for concern for those who have a history of disordered eating or experience negative body image, particularly when this allows women to develop negative emotions towards their bodies (Calogero et al., 2005). Evidently pregnancy is a time when the importance of mental and behavioural health for women and their children during pregnancy and postpartum is paramount. Therefore it is vital that maternity health professionals are equipped to identify potential risk and protective factors to guard against maladaptive behaviours during pregnancy. The present research therefore, is in full support of

Rubin and Steinberg's (2011) appeal for pregnancy health behaviours to become a priority in women's health research.

Furthermore, external locus of control (i.e., the expectancy that a pregnant woman's weight- and exercise-related circumstances were down to fate and / or chance (Wallston et al., 1994) specifically predicted body avoidance in Study 3. Thus, a higher degree of externality among the women meant that women were more likely to evade negative body image feelings. As this is the first study to consider locus of control beliefs specific to pregnancy weight-gain and exercise, there is a lack of research, quantitative or qualitative, to compare findings with. That said, in Study 2, the women approaching their final trimester remarked on losing a sense of control in numerous ways, regardless of whether they exercised or not. Some believed they had resigned control to their body, in terms of bodily functions (e.g., urinary frequency), physiological symptoms (e.g., fatigue), and weight-gain, whilst others remarked on resigning control to their developing fetus (hence a loss of sleep or uterine pressure). In terms of physical activity, some believed that the reason they chose to stop exercising was due to a perceived lack of information from health professionals or perception of risk. Whilst the inclusion of the Powerful Others subscale was not included in the model tested in Study 3, the pertinence of externality was clearly apparent for the women in Study 2. They felt resigned to thinking that whether it was their pregnancy, their baby, or the symptoms they were experiencing, they themselves were no longer in control; emotionally or physically. Despite this sense of externality however, women felt obliged to accept their experience for what it was; an overwhelming sense of 'what will be, will be'. This was sometimes attributable to no longer feeling the most important person anymore. It is perhaps reflective of the fact that women know they are likely to expect hormonal fluctuations and pregnancy-related physical symptoms which can present both internally and externally (Skouteris, 2011, 2012), in addition to experiencing weight-gain and therefore the act of concealment may seem a futile and challenging exercise due to their current circumstances. Charlotte summed this feeling up when she said:

"I've just accepted that that's probably what's going to happen [weight-gain]. So the exercise can maintain it to a certain level but then after that, that's just part of being pregnant." (C-23.03)

Finally in terms of appearance-fixing in Study 3, women who tended to compare their appearance with that of others made more effort to change aspects of their appearance by either concealing or correcting a physical feature that might have been

perceived to have been flawed (Cash et al., 2005). Sarah (in Study 2) talked at length about wanting to dye her hair or have another tattoo as a means of holding on to the person she knew she was prior to pregnancy. Phoebe (in Study 2) described how seeing celebrity mothers in the magazines made her compare her own appearance and consequently, she felt she needed to adjust her own everyday behaviours accordingly, by either putting a full face of make-up on or dressing in an alternative way. Many of the women in Study 2 were already thinking ahead to decisions they might have to make to change their appearance in the postpartum, for fear of being judged by others, having already compared their bodies to that of celebrity mothers in the media or other mothers they knew of who had given birth earlier than them.

Cultural messages tend to advocate body-modifying behaviours, such as dieting or exercise, to attain societal standards (Cash, 2011a). This was apparent in Study 1 from the numerous articles depicting postpartum weight-loss. That said, appearance-fixing is not necessarily something that should be automatically regarded as negatively-motivated nor should it be necessarily treated as a long-term solution (Cash, 2011a). In addition, certain practices can be dependent upon the context in which they occur and the individual involved (Lazarus & Folkman, 1984). The problem is perhaps in the way in which it is defined. Fixing implies that something about one's appearance is problematic and requires correction or concealment. As Cash (2002, 2011a) stated, individuals' may resort to an array of adjustive strategies and coping mechanisms to manage affect-laden interpretations or reinforce positive self-evaluations about their body or appearance. As previously suggested, appearance-related, upward comparisons can facilitate self-improvement, as a source of motivation (Wood, 1989). Thus, at a time when pregnant women are unable to control the changes happening to them or feel that their body is no longer a sexual one, then perhaps dyeing one's hair or wearing make-up (as mentioned by the women in Study 2) may be something that ultimately has the potential to enhance appearance as opposed to 'fixing' it.

CLOTHING

Rosen et al. (1991) categorised avoidance behaviours differently in terms of grooming and weighing, eating restraint, and clothing for concealment. In Study 3, an increased number of physical discomforts meant that the women were also more likely to engage in grooming or weighing behaviours. This is perhaps unsurprising given that such behaviours may be a way of coping with internal and / or external symptoms. For example, a pregnant woman who regularly experiences morning sickness might be concerned about the weight she is losing in pregnancy and therefore might feel inclined to monitor this. Likewise, a woman who experiences dry hair in pregnancy,

may feel inclined to visit a hairdresser for a treatment. As discussed earlier, it is important not to assume that all appearance-management behaviours are either negatively motivated or automatically have negative consequences.

As noted in Chapter 13, Study 3 would suggest that eating restraint was not particularly problematic for the women. It will therefore not be discussed in detail here. That said, it may still warrant further investigation, given the strength of the women's feelings in Study 2 and in light of recent research which has highlighted concerns about inadequate nutrition, diet, and weight-gain advice from UK health professionals in pregnancy (Brown & Avery, 2012). As has been acknowledged, there is yet to be comprehensible evidence as to the impact that pregnancy intervention programmes on issues such as weight-gain and dietary behaviours will have (Campbell et al., 2011; Johnson et al., 2013; Skouteris and colleagues, 2010), but as the present research findings have demonstrated, this was clearly an issue for the women in Study 2 and hence, ought to be an avenue for further research.

In regard to coping strategies in Study 3, expectedly, pregnancy-related physical symptoms were found to predict an increased likelihood that women would actively wear clothing to mask their appearance. As was also found by Hine (2012), many coded extracts from Study 1 focused on a woman's choice to conceal or reveal their growing baby or bump during pregnancy. Some celebrities were depicted as concealing their bump whilst others were described as outwardly exposing their pregnant belly. Whilst it is important to acknowledge that the media study was conducted in 2010 and that messages have the potential to shift according to the cultural milieu and societal trends, current tabloid articles in the *Daily Mail* continue to depict celebrities as concealing their pregnancies from others in 2014⁵³.

Messages depicting concealment in Study 1 however, have resonance with studies that have explored the issue of concealment in accounts from women coping with self-perceptions of weight-gain (Clark et al., 2009b; Johnson et al. (2004); Skouteris et al., 2005). Similarly, the theme around resigning control in Study 2 revealed that women overwhelmingly felt that they were no longer in control of their bodies or appearance. Naomi's comments about breast leakage, described in Chapter 9, summed up her feelings about a lack of control and how she perceived her body. Pregnancy was seen to impose upon all aspects of the women's lives and more

⁵³ At the time of writing this chapter, a total of five separate articles including images between March 15th and 16th, 2014 reported on five different celebrity women, all of whom were said to be engaging in active concealment and strategic use of clothing to disguise any indicators of pregnancy (e.g., "Hiding something? Mila Kunis goes for the baggy look AGAIN in loose-fitting sweater as pregnancy speculation continues to grow." (*Daily Mail*, March 15, 2014) and "She's not giving anything away: Jennifer Garner wears loose top and blue hoody following rumours she's pregnant again." (*Daily Mail*, March 16, 2014).

specifically, physical symptoms dictated how they felt physically and emotionally. A further possible motivation for the use of clothing as a method of concealment may also be attributed to the perception that women will be treated differently in the workplace or be subjected to unwanted opinion or judgement by others (Upton & Han, 2003). This unwelcomed commentary was clearly an issue for the women in Study 2. Hence, not only have women been found to conceal their pregnant bodies due to weight-gain (in Studies 1 and 2), but as Study 3 shows, concealment using clothing also relates to anxieties surrounding physical symptoms.

It is reasonable to suggest however, that appearance-management behaviours are influenced by appearance-related commentary, even if the commentary is positive. In Study 3, those women who received positive commentary were also more likely to engage in appearance-management behaviours (albeit predicted with relatively small effect sizes). As Calogero et al. (2009) suggested, experiences of complimentary appearance-commentary can also be associated with higher levels of body surveillance and body dissatisfaction. They argued that whilst complimenting a woman on her weight and shape may appear to be a boost or an encouragement, the compliment is a residual reminder that she is being assessed and valued based on her appearance, and more specifically in terms of how her body shape approximates that of the thin-ideal. This would imply that pregnancy, perhaps more than any other time, should be a period where women are free to value their body for its functionality as opposed to worrying about its visual appeal.

As discussed in Chapter 10, research is limited that addresses the influence of appearance-related commentary (Herbozo & Thompson 2006a; Calogero et al., 2009) and in a pregnant population it has only been approached using teasing-specific measures (e.g., Skouteris et al., 2005). To date, this is the first study that has focused on appearance-related commentary on body image attitudes in a pregnant population. Previous research has shown that positive weight and positive general appearance comments can result in improved body image (Herbozo et al., 2013) and self-esteem (Herbozo & Thompson, 2006b), although the weight status of women is likely to influence the appearance-related commentary they receive (Herbozo et al., 2013). In Study 3, positive commentary influenced appearance-management strategies. Clearly, further research is warranted in this area.

LIMITATIONS OF THE RESEARCH

The findings from Study 3 need to be considered within the context of inherent limitations that will now be acknowledged. The cross-sectional nature of the study implies that causal inferences and the direction of relationships cannot be determined. Cash (2002, 2011a) stressed that the models were intended to facilitate our

understanding of multidimensional factors related to body image, but by no means did they convey a causal explanation for the development of body image or represent definitively the complexity of interactions between internal, external, and behavioural factors. In addition, the use of cross-sectional designs within quantitative research has been critiqued as inconclusive, in that assessing psychological outcomes between physically active and sedentary pregnant women may yield differences but cannot imply a causal relationship (Lokey et al., 1991). It is acknowledged that a more prospective, longitudinal design would have offered the opportunity to follow women through each trimester of pregnancy, examining exercise behaviour, and exploring potential predictors of affective characteristics in the postpartum period, however this was beyond the remit of this project and therefore only retrospective and concurrent physical activity was examined at the time of response.

The findings of the study support only the directions proposed in the hypothesised model (see Figure 13), yet as stated by Cash (2011a) in his revised model, reciprocal effects are possible. For example, it may have been accurate to suggest that personality attributes (e.g., self-esteem) have a direct effect on self-regulatory and / or coping strategies and the qualitative findings would imply that participation in physical activity during pregnancy may potentially increase feelings of positivity, self-esteem and lessen concerns regarding self-awareness and self-consciousness. That said, this may have proved to be an unmanageable task (e.g., in terms of the constraints using AMOS software), but one that would be considered in future research. For this reason a more longitudinal design would be beneficial as a means of tracking women through their pregnancy and into the postpartum to provide further clarity on these factors.

As with numerous other multivariate techniques (e.g., regression), path analytic studies require large sample sizes. As noted in Chapter 11, from a theoretical perspective, a target had been set for a sample size of 200 and yet only 181 women were recruited. Although numerous components of the model have been triangulated using the qualitative data from Studies 1 and 2, it is important to consider the results from Study 3 as exploratory. Further research would be required to test the validity of the model preferably with a larger sample size. It is possible that owing to the fact that the questionnaire package included licensed measures, this meant that a generic survey link could not be produced (which might have reached a wider audience), as this would have placed such measures within the public domain. Whilst consideration was given to use of solely, publically-available measures, this was not deemed appropriate for the purposes of the present study. Additionally, as acknowledged in Chapter 11, concern was raised over respondent fatigue (Brace, 2008) given the

length of the questionnaire and it is possible that participants who failed to complete the questionnaire perceived the overall package to be too lengthy. It is possible that for future research, the present model that was tested has highlighted variables that may not be so relevant to a pregnant population.

The quantitative component of this project employed questionnaires as a means of collecting data online. Although this method has the advantage of being relatively inexpensive and offers a practical means of estimating physical activity levels in large numbers of individuals, all measures employed included self-report scales. This means that all appearance-related responses, comparisons, and exercise estimations could not be verified and were purely based upon the women's perceptions. Whilst a systematic approach was undertaken and documented to assess exercise participation, it is acknowledged that more objective measures (e.g., accelerometers or pedometers to quantify physical activity and movement) or experimentally-induced social comparisons may have helped to validate the research findings and reduce the subjectivity inherent in survey methods (Rauff & Symons Downs, 2011; Sallis & Saelens, 2000). It has also been suggested that when it comes to self-reported health behaviours, social desirability bias may be higher in pregnant women as compared to the general population (Gaston & Cramp, 2011; Ford, Tappin, Schluter & Wild, 1997) due to pregnant women wanting to be seen as responding more favourably in terms of specific health behaviours given the high values that society now places on health and fitness for both mother and child. Despite assessing type, frequency, intensity, and duration of physical activity in pregnancy, as recommended by Chasan-Taber, Evenson, Sternfeld and Kengeri (2007), these variables were not measured during each trimester of pregnancy, simply due to the sheer volume of data that would have been involved and the burden this may have placed upon the respondents to have had to estimate such activity. Therefore it has not been possible to assess these factors in greater detail as a woman's pregnancy progressed. It must also be considered that using self-report measures increase the possibility of vague estimation, errors in recall, and / or deliberate misreporting on behalf of the respondent⁵⁴. That said, observations and/or use of biomechanical measures would have been methodologically unmanageable for the size of the study.

Additionally, it is important to note that my interpretation of the findings may have been enhanced had the research taken into consideration the thoughts and perceptions of partners, close friends, and / or family members (Bailey & Ricciardelli, 2010) to assess social support in greater detail. Furthermore, it is acknowledged that there were issues with a limited number of measures employed. First, it must be acknowledged that coping checklists or inventories can be limited in terms of their

⁵⁴ As found by Sirard and Pate (2001) in their assessment of physical activity in adolescents.

scope. Such checklists (e.g., BICSI; Cash et al., 2005) are said to be unable to represent the full range of coping strategies and behaviours and have “limited use if the individual interpretation and nature of the stressor is not understood” (Rumsey & Harcourt, 2005, p. 50). Future research would therefore benefit from qualitatively discussing coping mechanisms and means by which pregnant women overcome salient and negative body image attitudes prior to conducting a larger-scale analysis.

One of the main stipulations of this study was that women were not obligated to answer any of the questions and that participants were free to click any response on a given scale. It is possible that this may have caused the errors in responses to the VCOPAS_FEEL subscale where women specified an emotional response to an occurrence that they had previously indicated they had never experienced. As has been suggested, commentary and comparisons are said to be contingent upon the affective state of the respondent (Herbozo & Thompson, 2006a) and it is regrettable that this measure was unsuitable for the path analysis. Again, an approach whereby the affective state of the individual is measured both immediately, prior to, and following commentary and comparisons may have helped to clarify this matter, although this does highlight concern around underlying ethical issues.

STRENGTHS OF THE RESEARCH

Notwithstanding the aforementioned limitations, there are noteworthy and considerable strengths to the present research which will now be discussed. The aim of this project was to concurrently investigate the physical, psychological, and social factors within a composite analytic design, as a means of exploring body image and physical health in nulliparous pregnant women. Despite several, comprehensive studies that have examined multiple correlates of body image-related factors in pregnancy (e.g. Clark et al., 2009a; Kamysheva et al., 2008; Skouteris et al., 2005) the majority of the research in this area tends to focus on a restricted number of determinants or processes (e.g., social comparison tendencies, public self-consciousness, gestational weight-gain, or BMI) in addition to a limited number of maternal outcomes (e.g., body dissatisfaction, depressive symptoms, or eating behaviours). Although this is perfectly reasonable, as each specific factor or component of Cash’s (2011a) model signifies a complex area of examination in its own right, it means that less attention has been paid as to how multiple factors (e.g., sociocultural and psychological) predict pregnancy-related body image attitudes and coping strategies in combination. The present study therefore offers new insights into how sociocultural, interpersonal, psychological, personality, cognitive, and motivational variables collectively influence body image attitudes and coping strategies in first-time pregnant women.

The quantitative component of this research project was underpinned by a comprehensive, theoretical framework. As Cash (1996, 2002, 2011a) theorised, the development of body image attitudes can be influenced by an array of multifaceted factors, sociocultural, interpersonal, psychological, and cognitive; all of which have a potential role to play. Despite a comprehensive literature review, this study appears to be the first of its kind to test multiple correlates within a pregnant population, using such a theoretical framework as a means of gaining insight into the complex nature of appearance-related attitudinal determinants and processes. The use of path analysis specifically, has facilitated the simultaneous examination of a multitude of variables, thus reducing the potential for measurement or testing error (Byrne, 2001; Kline, 2011). It is hoped therefore, that this research goes some way to guiding intervention strategies related to body image concerns and exercise strategies that may be beneficial as part of a more holistic, maternity care provision for women.

The main strength of this project however, resides in its methodological approach. One of the fundamental aims of this thesis was to utilise a mixed-methods approach as a means of comprehensive and meaningful interpretation. This process formed part of an overall composite analysis, using a sequential design, as a means of integrating the findings and delivering a greater contextual account of body image, psychological, and physical health in pregnant women; so that what was learned from one study contributed to what was learned from the next (Morgan, 1998). Study 1 was the first of its kind to examine pregnancy-related appearance and health messages within UK media.

Study 2 followed up on the findings from the media text analysis. This study developed a rich and meaningful understanding of women's appearance-related experiences of first-time pregnancy. It was particularly important to explore how women constructed meaning in relation to appearance and health messages in the media to account for the practice of certain health behaviours (Madden & Chamberlain, 2004). The use of a semi-structured interview, in a one-to-one setting, therefore facilitated freedom of expression and the opportunity to bring together subjective understandings of first-time pregnancy. Findings from Study 2 consolidated previous qualitative research that has sought to gain insight into pregnant women's experiences (e.g., Bailey, 2001; Clark et al., 2009b; Earle, 2003; Johnson et al., 2004; Longhurst, 2005; Nash, 2012).

By employing a composite analysis, underpinned by both a new realist and pragmatic perspective, this meant that the choice of methods was dictated purely by the research aims and / or questions; hence the reason why the combination of qualitative and quantitative methods and techniques seemed to be the most flexible and effective approach (Olsen, 2002). The ultimate goal was not necessarily to

identify new, generalisable laws or focus purely on lived experience, but to develop a richer understanding and explanation (McEvoy & Richards, 2006) of pregnant women's lives, using both textual and statistical data and analyses (Teddle & Tashakkori, 2009). By adopting a mixed-methods approach, I acknowledge that although coping strategies (e.g., appearance-management and exercise behaviours) and psychological factors (e.g., self-esteem) can be measured, the phenomenon of pregnancy should always be considered as highly subjective and it is therefore important to embrace multiple meanings and experiences. In addition, variables must also be considered and interpreted within the wider social and cultural context. I can only hope therefore, that whilst I acknowledge the value and meaning of individual women's experiences as being central to this project in Studies 1 and 2, that this may provide a 'useful' and pragmatic means of assisting other women through pregnancy by generalising findings according to what was important to women at the time from Study 3. To this end, suggestions are proposed in terms of theoretical implications and practical applications in the following section.

THEORETICAL IMPLICATIONS

SOCIAL COMPARISON THEORY AND BODY IMAGE ATTITUDES

Pertinent to the findings from all three studies was the issue of social comparison. In Study 1, the message from media sources suggested that pregnant women be encouraged to 'do' pregnancy like a celebrity, as a means of achieving numerous so-called 'positive' outcomes (e.g., women should dress, exercise, and achieve weight loss like a celebrity). In Study 2 however, the women described how detrimental being compared to others and comparing themselves to others was for their psychological and physical well-being. Appearance-related comparisons with media images of toned and slender pregnant women increased pressure on the women to measure up (despite knowing they would likely fail in doing so), to question their pregnancy appearance or experience against that of others, and ultimately this precipitated unrealistic expectations for the postpartum, particularly in relation to weight loss and the practicalities surrounding exercise. In Study 3, appearance comparison moderately and positively predicted objectified body shame and surveillance. Thus, the more the women tended to engage in appearance-related comparisons, the more likely they were to experience feelings of body shame and more likely to watch their body frequently and view their body as an outside observer. In addition, appearance comparison was moderately predictive of and had a direct effect on appearance fixing which meant that women made more effort to change

aspects of their appearance by either concealing or correcting a physical feature that might have been perceived to have been flawed (Cash et al., 2005).

Social Comparison theory, whilst initially proposed by Festinger (1954) to apply to the evaluation of abilities and opinions, has since been applied in recent years to appearance-related research (e.g., Dittmarr & Howard, 2004; Tiggemann & McGill, 2004). Documented earlier, there remains great variability in the way in which individuals engage in social comparison (Halliwell, 2012), although in general, the literature has revealed that engaging in appearance-related comparisons (particularly upward comparisons) can have deleterious consequences, whether it is contextualised amongst peers or family members (Boscaglia et al., 2003; Nash, 2012; Rieves & Cash, 1996; Wasilenko et al., 2007) or via exposure to thin / fit-ideal, media images (Groesz et al., 2002; Halliwell, 2012; Heinberg & Thompson, 1992; Myers & Crowther, 2009; Strahan et al., 2006; Yamamiya et al., 2005). In addition, upward comparisons have been found to be strongly associated with perceived appearance-related commentary, whereby negative commentary has the potential to reinforce societal standards of the ideal body, which results in an increased tendency for an individual to critically evaluate themselves using social comparisons (Bailey & Ricciardelli, 2010).

The use of qualitative methods in this research has therefore enhanced our understanding of the processes involved when a pregnant individual engages in social comparisons, in addition to quantitatively documenting the potential outcomes of such a process in relation to self-regulatory and / or coping strategies. This is particularly noteworthy given that much of the research on social comparisons has been conducted using student samples and produced using primarily quantitative methods (Rumsey & Harcourt, 2005; Tiggemann & Polivy, 2010).

OBJECTIFICATION THEORY AND BODY IMAGE ATTITUDES

To date, much of our understanding of Objectification theory (Fredrickson & Roberts, 1997; McKinley & Hyde, 1996) has focused on the negative outcomes that arise from a woman's tendency to engage in body shame, surveillance, and self-loathing via a process of ideal-internalisation (Bordo, 2003; Calogero et al., 2005; Costanzo, 1992) particularly if they experience greater weight and body shape discrepancies (Bessenoff & Snow, 2006). Again, this theory has predominantly been with tested with adolescent samples (e.g., Slater & Tiggemann, 2002), although to my knowledge, Rubin and Steinberg (2011) were the first to investigate body surveillance in a pregnant population.

This research project therefore adds value to the limited body of knowledge that has focused on self-objectification and pregnancy-related attitudes. Media

messages from Study 1 demonstrated how unless an individual was genetically blessed with a celebrity's body shape, they should not expect their body to be viewed in a sexual way. In fact to the contrary, the average pregnant woman's body shape was sometimes likened to that of an inanimate object (e.g., a house or roadmap) or animal (e.g., a hippo or monkey). In Study 2, women sometimes commented on their changing perception of their pregnant bodies. Whilst partners may have still seen them as sexually desirable, they themselves no longer felt that their pregnant body was a sexual one. This was particularly salient when pregnancy symptoms were perceived as pushing them even further from the notion of a desired bodily-ideal. That said, positive commentary from the women's partners did help to allay their fears about their ever-changing body shape and increase feelings of self-confidence.

In Study 3, the relationships among body shame and body surveillance were complex. Body shame was specifically predicted by perceived media pressure (although not via the process of thin-ideal internalisation as the theory would suggest). Body surveillance was exclusively predicted by feelings of public self-consciousness and self-evaluative salience, whilst pregnancy weight-gain and appearance comparisons were strongly associated with both body image attitudes. That said, self-esteem and positive weight commentary was shown to lessen the likelihood that a pregnant woman would experience body shame, thus demonstrating that such factors could be considered as protective buffers against such a negative outcome. In terms of self-regulatory strategies, body shame predicted body-image avoidance, which tends to support the overarching theory, whilst surveillance predicted appearance-fixing strategies (although that did not include grooming and weighing behaviours). Hence, Study 3 adds support to the body of knowledge through the inclusion of appearance-related comparisons that appears to predict both body shame and surveillance, albeit in a pregnant population. It would appear that not only can an appreciation of body functionality safeguard a pregnant woman from body surveillance tendencies (Rubin & Steinberg, 2011), but it would appear from the present research (both qualitative and quantitative) that self-esteem and positive commentary can also be protective factors too.

PRACTICAL APPLICATIONS

As per the findings of Study 1, there is a need for UK health professionals to be ever mindful of the strategies applied by the media to continually portray the thin-ideal into pregnancy. In this way, they may be better able to respond to pregnant women's anxieties should they manifest, and to challenge such expectations. As

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shown, messages were not necessarily limited to pregnancy as the media depicted celebrities' 'transformed' bodies postpartum. It is imperative that women be made to feel at ease regarding appearance-related matters during pregnancy, on the understanding that pregnancy messages in the media can be both inconsistent and highly unrealistic. It is crucial that this be a matter that is prioritised and raised within maternity healthcare provision, so that women can be directed towards consistent, accurate information (whilst acknowledging their freedom of choice) and thus be given the confidence to accept and care for their bodies during pregnancy and in the postpartum period.

Findings from both qualitative studies would suggest that appearance-related concerns are not exclusive to pregnancy and that in fact, fears may elevate towards the latter stages of pregnancy and into the postpartum. For many women in Study 2, they felt like they were on borrowed time in terms of being able to relax about their size and shape whilst pregnant. It would be reasonable to suggest therefore, that as women seem to be experiencing recurring anxieties about their bodies during the pregnancy process (as also found by Earle, 2006) and into the postpartum, that appearance-related discussions ought to be raised early on during their antenatal care. This is particularly important as contact between the new mother and her NHS health professional generally becomes much less frequent post-delivery and she is generally discharged from the midwife's care at the end of a 28-day period.

A fundamental concern raised by the women in Study 2 was specific to health professionals' knowledge around issues relating to body image and exercise participation. This was particularly frustrating for the women as they tended to feel overlooked during antenatal appointments as the focus was primarily on the development of her growing fetus. Some women commented that their midwife was not likely to have the knowledge even if they did pose an appearance-related question. It is important to acknowledge that such feelings arose from perceptions of the women and at no point was a health professional contacted to explore their views. What appears apparent from the research however, is that whilst most women wait until the puerperium to commence dieting (Lacey & Smith, 1987; Rocco et al., 2005; and findings from Study 3 related to eating restraint), some have reported to restrict their eating whilst pregnant (Armstrong et al., 2002; Conway et al., 1999; Fairburn & Welch, 1990; Warriner, 2000). Given that there is increasing evidence to suggest a complex association between depressive symptoms, lower self-esteem, anxiety, and body dissatisfaction (e.g., Hill et al., 2013) it seems sensible to suggest that pregnancy is an optimum time for women to be able to relay their concerns and anxieties with someone equipped and qualified to be able to advise them. That said, studies thus far would suggest that further research needs to be conducted into intervention

programmes on pregnancy weight-gain and exercise (Campbell et al., 2011; Skouteris et al., 2010). Particularly in the UK, (Heslehurst et al., 2013; Johnson et al., 2013) whereby the training needs of maternity health professionals can be comprehensively assessed and evaluated to ensure that sensitive and emotive topics such as weight-gain in pregnancy can be approached in a positive, holistic, and non-stigmatising manner. As reported earlier, concerns have been raised about the recent issue of 'weight stigma' in Australia, whereby there is an apparent disparity in the way in which normal-weight, overweight, and obese women are treated in clinical practice (Mulherin et al., 2013). This further supports the need for research into maternity training in the UK. If nothing else, the present research has demonstrated that appearance-related concerns are a real problem for first-time pregnant women and therefore every effort needs to be made to ensure that the experience of maternity care is as positive as feasibly possible.

FUTURE RESEARCH

The present research has offered a valuable contribution to the body of knowledge surrounding body image, psychological, and physical health in nulliparous pregnant women. That said, prospective research would benefit from exploring the experiences of both nulliparous and multiparous women, given that all the women in this study were first-time, pregnant mothers-to-be. This would generate important findings that could be compared to gain a deeper insight into body image issues as parity increases. In addition, as was reported in Study 2, pregnant women found internet forums useful when trying to ascertain information on specific aspects such as appearance-related issues, exercise, and diet. The main reason cited for this was because they wanted to learn from and communicate directly with women who had previously experienced similar occurrences (e.g., experience of stretch marks or eating certain foods). Hence, it is plausible to suggest that, as women long for realistic information, then a study employing focus groups with women of varying parities might serve as a positive and enlightening experience for those experiencing pregnancy for the first time, as knowledge and expertise can be shared in a supportive environment.

As per the findings of Rubin and Steinberg (2011), the present research focused solely on the experiences of pregnant women and therefore it was beyond the remit of this thesis to compare the findings related to body appreciation and positive acceptance (as examples) against a non-pregnant sample. Likewise, the demographic of participants in both Studies 2 and 3 were somewhat homogenous in terms of ethnicity, educational, and socioeconomic status. Future research therefore

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would benefit from an examination of relationships among the resulting variables using a more longitudinal approach (i.e., assessing relationships prior to, during, and post-pregnancy) and among ethnically and socioeconomically diverse women.

As the reader will have gathered, Study 3 employed a new measure which was specifically designed to assess locus of control beliefs and expectations, explicit to pregnancy weight-gain and exercise. The findings from this study would suggest that both a high degree of internality and externality have the capacity to influence both body image attitudes and / or self-regulatory strategies in a pregnant population. That said, there were concerns raised as to the reliability of the two remaining items within the Powerful Others subscale. As the role of health professionals was clearly a pertinent issue for the women in Study 2, this measure would benefit from a comprehensive factor analysis, potentially as a means of developing further items that may be more relevant and establishing further reliability and validity statistics.

With regards to maternity care provision, it must be acknowledged that the findings of the present research relate solely to individuals' perceptions and experiences, and therefore may not be a representative reflection of antenatal care provided across the UK. As has been alluded to earlier, it would be beneficial to conduct future research incorporating body image issues within an antenatal class as a potential intervention programme, as this tends to be an area that is most overlooked during a woman's antenatal appointments, as reported by the women in Study 2. More specifically, as 'mental health' is viewed as so much more than simply the absence of mental illness and the concept of subjective well-being (measured by levels of optimism, acceptance and other positive emotions) is said to provide the link between positive psychology and positive physical health outcomes (Seligman, 2008), it would be valuable to centre intervention programmes around a positive psychological approach. A recent meta-analysis of 39 randomised controlled studies has found that the use of positive psychology interventions (e.g. training, exercise or therapy that encourages positive cognitions or behaviours) can demonstrate a small, but yet significant effect on subjective and psychological well-being and can help to reduce symptoms of depression (Bolier et al., 2013). Based on the findings from Studies 2 and 3, whereby body appreciation was seen to be an important protective factor, this would be worthy of further investigation in a pregnant population.

It would appear that there is now a notable shift from conducting pathology-driven research to directing the emphasis towards a more positive paradigm. Body image researchers are starting to focus their attention on the experience of positive body image, given that body appreciation has now been operationalised and empirically tested (see Avalos et al., 2005). The construct of body appreciation has recently been empirically tested and has been found to protect women known to be

vulnerable to thin-ideal internalisation and body disturbance following exposure to media images (Halliwell, 2013). As has previously been noted, both men and women are now beginning to reject the narrow uniformity of current body sizes and women are voicing their discontent with the over-representation of thin models and objectification of women within media images, calling for the use of more average-sized models in media images to promote positive body image (Diedrichs et al., 2011). Further qualitative work has emphasised the characterisation of body functionality and acceptance in adolescents, despite exposure to negative-appearance commentary (Frisén & Holmqvist, 2010). Those, pre-identified with a positive body image have also shown to be critical of 'unrealistic and unnatural' media ideals, preferring to perceive beauty in terms of its uniqueness, diversity, and subjectivity (Holmqvist & Frisén, 2012). Similarly, Grounded theory has been employed to demonstrate how appreciation of the body's functionality and rejection of negative appearance-related commentary and ideal media imagery meant that college women viewed and accepted their bodies in a more positive light and led them to surround themselves amongst like-minded others (Wood-Barcalow, Tylka & Augustus-Horvath, 2010).

From a qualitative perspective however, the corpus of positive body image literature remains limited. That said, the present research findings have sought to explicate the complexities of body appreciation and positive acceptance, previously highlighted by Tylka (2011), within a pregnant population. Both qualitative and quantitative research would benefit from the inclusion of positive factors when designing future research into pregnancy-related issues. As a means of increasing our knowledge on pregnancy-related, positive body image, future research would be warranted to explore how women have overcome body-image related issues during their pregnancy or barriers to exercise. It would also be important to assess levels of confidence when women have overcome salient barriers.

CONCLUDING COMMENTS

The overall aim of the present thesis was to build an understanding of the determinants and processes that have an influence on body image attitudes, psychological, and physical health outcomes in nulliparous, pregnant women. This was achieved using a mixed-methodological approach and composite analysis as a means of examining the complex relationships among the numerous variables involved. Three studies in total were conducted as part of this research project, comprising of both qualitative and quantitative components. First, a qualitative, media text analysis (Study 1) was conducted to explore messages about appearance-related aspects of pregnancy, the pregnant body and the role of exercise. A qualitative,

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thematic examination of articles revealed a stark “invisibility” of the pregnant body in fashion magazines and a disparity in exercise and bodily messages among news and magazine publications. Overwhelmingly, beauty equated with the thin-ideal, not the pregnant body in news sites and fashion magazines.

Study 1’s findings and existing pregnancy research guided Study 2; an exploration of women’s thoughts about their pregnant bodies, the role of exercise, and media-related, bodily descriptions. Semi-structured interviews were conducted with nine pregnant women. Thematic analysis revealed that although women accepted their pregnant bodies, they experienced unwelcomed appearance-related comments, comparisons, and physical contact by others. Their pregnant bodies were perceived as being persistently scrutinised. The early stages of pregnancy were particularly challenging in terms of coping with debilitating physical symptoms, negotiating their feelings around physical changes, whilst at the same time feeling self-consciousness in the presence of others. The arrival of women’s baby bumps however, became a time when they could relax about previous appearance- or weight-related concerns. As such, the women began to appreciate the functionality of their body.

Finally, a quantitative exploration of appearance-related experiences was conducted, using an online questionnaire administered to 181 pregnant women. Guided by Cash’s (2011a) theoretical model of body image determinants and processes, an array of complex factors was examined using path analysis. The path model revealed that historical (e.g., self-esteem, public self-consciousness) and proximal factors (e.g., social comparison) were associated with body appreciation and acceptance, body shame and surveillance, fitness and health, and appearance evaluation and investment. Body shame and surveillance, health evaluation, and health / fitness investment led to specific coping strategies (e.g., clothing for concealment, exercise participation, and body image avoidance behaviours). By far, one of the strongest predictors among the variables was self-esteem. Including the findings from Studies 1 and 2, the research indicates that women experience complex appearance- and fitness-related issues in pregnancy.

Finally, this study is thought to be the first of its kind to test a multitude of correlates within a pregnant population, using such a theoretical framework as a means of gaining insight into the complex nature of appearance-related, attitudinal determinants. The use of path analysis specifically, facilitated the simultaneous examination of a multitude of variables and thus provided a more comprehensive examination of the relationships among body image attitudes and self-regulatory / coping strategies employed by pregnant women. It is hoped that the findings go some way to broadening our knowledge on body image attitudes in pregnant women and that this research is worthy of attention to policy makers and health professionals who

are interested in increasing levels of positive body image in pregnant women as a means of enhancing their psychological and physical health.

REFLEXIVITY: CONCLUDING THE PROCESS

Personal and *functional* reflexivity (Wilkinson, 1988) were discussed in Chapter 8. The final element to the research process involves a brief discussion in terms of *disciplinary* reflexivity. This involves the researcher reflecting on the theoretical approach that has informed the research. With reference to my epistemological and theoretical standpoint, I remain steadfast in my new realist / pragmatic perspective which has included the use of a composite analysis in the present research. I have attempted wherever possible, to validate my findings through the use of both qualitative and quantitative methods and analyses. As has been demonstrated throughout this discussion, similar issues were raised across the three studies in relation to body image attitudes, physical, and psychological health. It is hoped therefore that this composite analysis and rationale for between-methods triangulation (Creswell, 2014) have strengthened the validation process (Tobin & Begley, 2004). Convergence of the findings has provided a clearer picture in terms of the complex social, psychological, and physical factors that are involved when a woman enters the transition to motherhood. As has previously been noted in both the discussion chapters of the qualitative studies, it has been important to reflect upon the way in which the methods used have potentially influenced the ways in which the findings have been interpreted. My personal experiences and subjectivities prior to entering this research process will now be discussed in the afterword.

AFTERWORD

“I have always chosen as research topics issues which have personal significance and which I need to explore in my own life...This involvement provides the energy for research, heightens my potential as a sense maker and means that research has relevance to my life as a whole, not just my conceptual knowing”

(Marshall, 1986, p. 194).

The interest I have in the area of pregnancy, body image and physical activity stems from over a decade ago following the birth of my eldest daughter. Like most women, I encountered body image concerns throughout various stages of my life and yet in 2001, I married the love of my life, having worked hard, as all women do, to ensure that I looked my absolute best on my wedding day. For at least a year, I had spent endless hours in the gym with my sister, who, at the time I felt was *genetically blessed* with a much smaller frame than me. I focused on eating healthily with the greatest of determination to squeeze into a smaller-than-my-average-size wedding dress. Looking back, I can honestly say that I lived by the mantra that exercising and healthy eating would bring weight loss, a new body shape, and along with it, increased happiness.

Not long after, I fell pregnant. In the beginning, I was filled with all the joy and elation one might expect from a new pregnant mum-to-be. I soon realised that I had not been given the time to enjoy my new body shape and this suddenly filled me with dread, thinking about the time that it had taken for me to get to where I was. It did not take me long to get back in the gym, requesting pregnancy-specific exercises from my instructor to stop the weight piling on. Interestingly it was at this point, that I found that my motivations for exercise shifted from that of weight control to finding that I actually did enjoy it, if for nothing else, the increased energy that it brought.

If you were to ask me about my true motivations however, I can in good conscience say that it has taken for me to embark upon my PhD journey and talking with pregnant women to realise that I, along with many other first-time pregnant mothers-to-be, was scared. Scared of the increased weight, scared not being able to look in the mirror without wondering where the person I had become had disappeared to, scared worrying about what my husband would think of my disappearing waistline. It has taken years for me to fully understand the depths of my despair at a time when I should have been focusing on my new role as mother to my beautiful daughter, now ‘daughters’. That said, I do not remember anybody ever telling me to embrace my changing body shape, be it friends or work colleagues, and never once did my midwife

ever ask me how I was feeling or coping with the transformations taking place. That was never going to happen in the fifteen minute appointment we shared once every month. I do remember, however, feeling trapped in my body, whilst at home with my new-born and craved to have that sense of control back, that at the time, I felt the endless hours at the gym bestowed upon me.

By the time my second pregnancy came around, I felt a sense of equanimity for the journey ahead. I knew what to expect, when it would hit and how to deal with it. Reading for my PhD and speaking to mothers-to-be first-hand has made me realise just how limited the time has become for women to spend in antenatal appointments as compared with the time that was available 11 years ago, so I, in some respects, feel grateful for the time that I was given. This is particularly poignant when some pregnant women never see the same midwife twice.

In addition to this, I have realised that I was not alone in my thoughts about my changing body shape in pregnancy and that for some women the situation can be quite complex. As has been well-documented throughout the thesis, body image is a multi-faceted, psychological phenomenon and there has been a rapid expansion of research that once focused on dissatisfaction and the negative facets of body image and which now seeks to promote body image acceptance and appreciation. This paradigm shift, where protective factors are investigated, is imperative for pregnant women to be made aware of and yet the research remains limited. With obvious ease of access to adolescent samples, it is only in the last 10 years, that the topic of pregnancy has become a focus in body image research. Important developments nonetheless, have highlighted the implications of social comparison and the media's compulsion to communicate stringent sociocultural standards of appearance towards women. On reflection, as a pregnant woman, I too felt that same sense of pressure from the media or friends every time I saw a pregnant woman with a smaller bump than me.

As a result of this process, I have come to realise that exercise is not a control mechanism for anything other than for health and fitness, although that's not to say nowadays that if I have over-indulged one day, I won't promise myself an extra mile on the treadmill the next! More than anything, this research has provided me with an opportunity for a little bit of soul searching, which if nothing else, has been rather liberating to say the least and has given me the tools to teach my own children to develop positive body- and self-esteem and celebrate the beauty in diversity of all body shapes. As mums, we are only human; we cannot help but engage in social comparison at times (particularly if a friend has managed to squeeze back into her old jeans before you did) but all that we can ask for is the support and information to allow

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us to make our own informed choices through pregnancy. Women need the courage and confidence to be able to open a news or magazine article and realise that a celebrity's postpartum transformation is only achievable if you're lucky enough to have the same time, money, and support as these women. Women ought to be able to ask their midwife for support if they feel they are struggling with the psychological aspects of pregnancy, without being made to feel guilty that they are asking the wrong questions or should be focusing on their baby's health and development.

These issues and my subjective understandings have come about from the reading and research involved in this PhD. From the beginning, I have tried to approach this topic with as open and broad a mind as possible; receptive to new and different ideas or opinions of others. After all, it was over 11 years ago that I first experienced pregnancy. Nevertheless, whilst reflecting on my understanding on the topic and the research process itself, I have come to value the importance of being aware of my personal experiences and how these have been the motivations that might have shaped the research. This was particularly important with the women I have met on my journey along the way. Such motivations and interests may be typically construed as bias or interference within 'scientific' research, but I prefer to adopt the view that recognition of these personal dimensions only seek to enrich and inform research (Gough, 2003). I can only hope that this continual period of reflection has influenced my growth as a researcher. More than anything, it has made me more determined that this is a topic worth pursuing.

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APPENDICES

Appendix A: Ethics submissions and approvals for all studies

Research Students				Please enter Y=Yes, N=No or P=Pending (eg, for students who are temporary withdrawn etc.) or DATE										
LEVEL:	STUDENT ID	STUDENT SURNAME	STUDENT FIRST NAME	COURSE	PROJECT TITLE	SUPERVISOR	SUPERVISOR AUTHORISATION required (excluded matters)	Date SUPERVISOR AUTHORISATION obtained	Local level/REC APPROVAL required?	Date local level/REC APPROVAL obtained	FREC APPROVAL required?	Date FREC APPROVAL obtained	Referred to Treasury Services for insurance/ indemnity cover	Comments: eg, NRES; Methodology, student withdrawn, human subjects (secondary data)
N/A		Deighton-Smith	Nova	PHD	Exploration of media messages surrounding women's body image perceptions and pregnancy	Dr Helen Fawcner	Yes	29.10.2009	N	N	N	N	N	N
N/A		Deighton-Smith	Nova	PHD	Thoughts, feelings, and experiences during pregnancy for first-time mothers	Dr Helen Fawcner	N	N	Y	09.01.12	N	N	N	N
N/A		Deighton-Smith	Nova	PHD	Pregnant women's (first time mothers) perceptions of body image, exercise and social influence during pregnancy	Dr Helen Fawcner	N	N/A	Y	02.11.10	N	N	N/A	N

Appendix B

Appendix B: Study 2 – Topic guide and interview schedule

Research areas and questions

Body Image in pregnancy

- What are women's thoughts and feelings about their bodies during pregnancy?
The significance of external social influence on perceptions and behaviour
- To what extent do support and/or pressure from family/partner/media have an influence on women's body image and exercise behaviour during pregnancy?

The role of exercise in pregnancy

- What perceptions do women have about exercise in pregnancy (i.e.: what motivates them to exercise or what barriers present when women do not/are unable to exercise?)

Media representation of the pregnant body

- What are women's perceptions of the way in which the pregnant body is represented in the media?

Introductions

- Welcome – researcher introduction
- Simple introductions: Start by asking participant to introduce herself, how far she is into her pregnancy, general occupation.
- (NB: participants will again be advised that names will be changed upon transcription and recording erased).

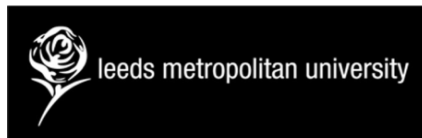
1. What are your thoughts in terms of how your body shape or size is changing during pregnancy?
 - If you feel positive about these changes, can you explain why?
 - If you do not feel so positive, can you tell me why?
1. Could you describe your feelings when your bump first began to "show"?
 - From this point on, has this made you feel differently about any of the changes you have been experiencing?
2. What other appearance-related aspects of pregnancy so far have you particularly become aware of? This may be for example a change in skin tone or hair, changes to libido, change in breast size..?
 - Are there any in particular that you have enjoyed/disliked?
3. What about comments from other people (for example a partner, family member or a stranger), can you tell me what sorts of things people have said to you, in terms of your appearance during pregnancy?
 - How have other people's comments affected how you think about your body during pregnancy?
 - In terms of how *you* think about your body, does this influence how you interact with other people (for instance your partner or spouse)?
4. Moving on, to the subject of exercise, how important do you see exercise during pregnancy?
 - Is it something you find enjoyable or not?
5. Can you tell me a little about the type of exercise you did before you became pregnant (if you exercised at all)?
 - Has your exercise routine changed since becoming pregnant and if so, why?

-
6. If you do exercise, can you tell me a little about what motivates you to exercise during pregnancy?
 7. If you do not or are unable to exercise during pregnancy, can you tell me a little about the reasons behind this?
 8. What do you know about exercising during pregnancy (for example, this may have been something you have been told by your midwife or have read in a magazine?)
 - How has what you have read/been told, influenced your decision to either:
 - Continue exercising?
 - Cease exercising?
 - Take up exercise?
 9. Are there any particular sources of information that you feel have the most influence over the amount of exercise you do, if you do at all? (for example: a newspaper article, magazine advice column, internet website or NHS leaflets)
 10. How have comments from other people, as we were talking about earlier, affected your decision to:
 - commence a new exercise routine during pregnancy?
 - continue exercising during pregnancy?
 - cease exercising during pregnancy?

Moving onto to our final topic, I would like to ask some questions about how you feel the pregnant body is represented in the media.

11. Can I ask you (each participant) what, if any magazines and/or newspapers you tend to read?
 - Is this material you read before pregnancy and are still reading or have you switched to reading other material since you became pregnant?
12. How do you feel pregnancy in represented in magazines and/or newspapers that you read?
13. What are your thoughts when you see the media depiction of a “pregnant, celebrity mum”?
 - How does this makes you feel in terms of your own experiences of pregnancy?
14. We talked earlier about comments from family/friends etc...Can you tell me how what you read in the magazines or newspapers might influence how you think and feel about your own body during pregnancy?
 - If it does have an influence, how so?
 - If it does not influence you, can you explain why this is so?

Are there any other points you wish to raise or questions you wish to add more to?



BRIEF PREGNANCY QUESTIONNAIRE

Study Title: First-time mothers’ perceptions of body image, exercise and social influence during pregnancy.

Names of Investigators: Nova Deighton-Smith (PhD researcher), Dr. H. Fawkner (Director of Studies), Dr. G. Marks (supervisor) and Dr. F. Fylan (supervisor)

Contact details of research team:

Nova Deighton-Smith (n.l.deighton-smith@leedsmet.ac.uk) 0113 812 9378

Dr. Helen Fawkner (h.fawkner@leedsmet.ac.uk) 0113 812 3285

Please complete this sheet by answering the questions below. Some questions require a written answer, others a tick in the box. This sheet is to be returned with the Informed Consent Form.

Your name (print):

.....

Age:

Estimated due date:

Do you engage in any form of regular exercise during pregnancy? Yes No

- If yes, what type of exercise?
.....

- When did this exercise commence:

- before pregnancy?

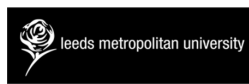
- Since pregnancy?

Approximately how far do you live from Leeds Metropolitan University? miles

(The University is situated in Leeds city centre, LS1 3HE. This information simply allows us to determine how convenient arranging an interview session at the campus would be for participants).

Preferred email address for contact:

.....

Appendix D: Study 2 – Participant Information Sheet

Study Title: First-time mothers' perceptions of body image, exercise and social influence during pregnancy.

Names of Investigators: Nova Deighton-Smith (PhD researcher), Dr. H. Fawkner (Director of Studies), Dr. G. Marks (supervisor) and Dr. F. Fylan (supervisor)

Contact details of research team:

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Dr. Helen Fawkner (h.fawkner@leedsmet.ac.uk) 0113 812 3285

Independent Contact:

Dr. Tamara Turner-Moore (t.turner-moore@leedsmet.ac.uk) 0113 812 5581

Invitation to Participate

I am a PhD research student at Leeds Metropolitan University and would like to invite you to consider taking part in my research project, exploring first-time mothers' experiences of body image, exercise and social influence during pregnancy. Before you decide however, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. If anything is not clear to you or you would like more information please speak to the researcher either at the time of completion or using the above email address.

Purpose of the Study

At present, women have the opportunity to discuss any pregnancy-related issues with their midwife, GP and/or ante-natal class provider; however it is sometimes the case that women receive mixed messages in terms of advice relating to nutrition and exercise, and sometimes body image during pregnancy is an area that is overlooked. I am looking for participants who would be willing to discuss their thoughts about exercise and appearance-related experiences during pregnancy.

What will I be asked to do in the study?

You are invited to come along to either a one-to-one interview. The interview should last up to 90 minutes and will take place at a location that is convenient for you. I'll be asking you about how you think pregnancy is presented in the media, how you feel about your body now that you are pregnant, and about exercising while pregnant. You are also very welcome to talk about any other topics that you find interesting to do with pregnancy and appearance. You also do not have to respond to a particular question if you do not wish to.

The interview or focus group will be audio recorded. This is simply to make the discussion easier to transcribe, and to ensure that quotations are accurately transcribed. The audio recording will be erased, once the interview has been transcribed.

What are the advantages and disadvantages of taking part?

By participating in this study, you will contribute valuable information towards a relatively under-researched area into how women feel about their bodies while pregnant, how they see exercise during pregnancy and their thoughts about how pregnancy is depicted in the media. It is hoped that these findings have the potential to inform service delivery during pregnancy and post-birth. Should you wish to receive a report of some of the main findings of the study, you are welcome to leave your contact details with me, following the interview.

Women who have taken part in similar research have often found the interview sessions very enjoyable; in particular, being able to talk about their experiences of pregnancy. For practical purposes, I would advise all participants to bring along contact details of a friend/partner/midwife, in case of any unexpected emergency. Whilst it is not anticipated that taking part will cause any discomfort or emotional distress, it is possible that negative feelings

Appendix D

may arise following the discussion. If this is the case, there are free counselling services and support groups available, such as:

The National Childbirth Trust - <http://www.nct.org.uk/home> - 0300 330 0772

The "Meet-A-Mum Association" - <http://www.mama.co.uk/> - 0845 120 3746

Tommy's - <http://www.tommys.org> - 0870 777 3060

Other information websites include: <http://www.wellbeingofwomen.org.uk/>

How will my information be used?

The information collected during the study will be used to produce part of my PhD thesis. This research has been approved by the University's Research Ethics Committee and complies with University and Data Protection guidelines. Additionally, the data may be presented as a research paper to be published in academic journals or at conferences, and for teaching purposes. Once the audio recordings are wiped however, you will not be identifiable in any way.

Will my information be confidential?

Participation is completely voluntary; however as a token of our appreciation, we offer a £10 High Street Gift voucher on the day you come along. If you would like to take part, anything you say will be treated in the strictest confidence and will be used solely for the research purposes of the team at Leeds Metropolitan University. The consent form and questionnaire you complete will be stored securely at the University, which only the research team will have access to during the study and all electronic data will be password protected. When transcribing the interview, your name will be changed to protect your anonymity.

What happens if I want to withdraw?

Following the session, if you decide to stop your involvement in the study, you are free to withdraw your data and without giving a reason by contacting the researcher or supervisor. The cut-off date for this will be 14 days following the date of your interview or focus group session. After such time, I will have commenced writing up my study. You will not be asked to return the voucher given at the session.

Because this study is of a psychological nature, I am responsible for ensuring participant well-being. In the unlikely event that a participant discloses information in the interview that might compromise participant welfare, the research team may need to forward such information on to an appropriate professional. In such an instance, this may result in a breach of our confidentiality commitment. Disclosure of confidential information will only be made however, in an exceptional circumstance where it can be justified in the public interest (e.g.: to protect you or others) or where the team is required by law.

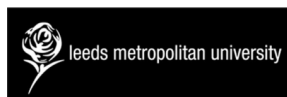
What happens next?

Please think carefully about whether you wish to take part in the study. If you do wish to take part in the study, please contact me on the above email, and I will then coordinate the completion and return of the attached informed consent form. Please ensure that you detach the top information sheet and retain this for future reference in case you decide to contact any member of the research team at any time.

Thank you for considering participating in this study.

Nova Deighton-Smith (PhD Researcher, Leeds Metropolitan University)

Appendix E: Study 2 – Informed Consent Sheet



Study Title: First-time mothers' perceptions of body image, exercise and social influence during pregnancy.

Names of Investigators: Nova Deighton-Smith (PhD researcher), Dr. H. Fawkner (Director of Studies), Dr. G. Marks (supervisor) and Dr. F. Fylan (supervisor)

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Independent Contact:

Dr. Tamara Turner-Moore (t.turner-moore@leedsmet.ac.uk) 0113 812 5581

Please tick all boxes and sign, where indicated below:

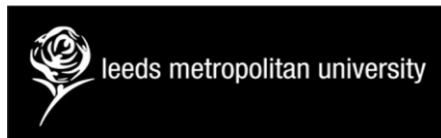
1. I confirm that I have read and understood the information sheet for the above study and understand what is expected of me. I have had the opportunity to consider the information, ask questions and if so, have had these answered satisfactorily.
2. I understand that my participation is voluntary.
3. I also understand that I am free to withdraw my data from the study, without giving any reason and without any consequences for me (up until 14 days following my interview), contacting the researcher on the email above).
4. I have been informed that the interview will be audio recorded and I give my consent for this recording to be made. I understand that audio recordings will be wiped upon transcription.
5. I agree that any written record of my contribution will be anonymised, using a false name. I understand that all information I provide will be stored securely on University premises and the University will comply with its obligations under the Data Protection Act.
6. I agree to the use of anonymised direct quotes from my interview in publications and presentations arising from this study. I have been made aware of the limits to confidentiality in the information sheet.
7. I agree to take part in the above study.

Your name (print):

Your signature: **Date:**.....

Appendix F

Appendix F: Study 2 – Example of letter sent to manager of a SureStart Centre



Psychology – Department of Health & Social Sciences
Leeds Metropolitan University, Civic Quarter,
Leeds. LS1 3HE

15th February, 2011.

Dear Mary

I hope this letter finds you well and thank you so much for taking the time to talk with me on the phone today. Thank you for agreeing to display some posters for my study. Enclosed you will find some smaller flyers and a few posters that I would be most grateful if you were able to display for me.

Of course, if any of your first-time mums are interested, then please ask them to email me direct with their contact details or if they happy to, give you their email addresses to pass on to me, and I will send out a personalised Information Sheet and Consent Form. Should you need any more flyers then please do not hesitate to email me on: n.i.deighton-smith@leedsmet.ac.uk or ring me on 0113 812 9378.

Thank you kindly for helping me to advertise my study. I really look forward to hearing a good response.

Best wishes


Nova

Nova Deighton-Smith
PhD Researcher

Swarcliffe SureStart Children's Centre
Leeds
WestYorkshire

Appendix G: Study 2 – Poster / Flyer advertisement



 **Are you about to become a first-time mother?**
Would you be interested in sharing your experiences of pregnancy, either during an interview or as part of a focus group?
If so, we need your help!

The Psychology department at Leeds Metropolitan University would like to invite you to take part in a PhD research project, exploring first-time mothers' experiences of pregnancy and exercise. We are looking for pregnant mums to talk to us either in an interview or as part of a focus group about their experiences, their thoughts about appearance in pregnancy and the messages they receive in pregnancy about nutrition and exercise.

You are invited to come along to your choice of either one interview or one discussion group. The session (90 minutes maximum) would take place at a location that is convenient, local and comfortable. Participation is completely voluntary; however as a token of our appreciation, we offer a £10 High Street Gift voucher on the day you come along. If you would like to take part, anything you say will be treated in the strictest confidence and will be used solely for the research purposes of the team at Leeds Metropolitan University. I am based in the Wetherby area but would be happy to drive to Leeds, York, Tadcaster or surrounding areas to conduct an interview.

If you would be interested in taking part, please contact
Nova Deighton-Smith on n.l.deighton-smith@leedsmet.ac.uk
 or on **0113 8129378**

Appendix H

Appendix H: Study 2 – Annotated extract (N-16.03, p. 2-3, line 17-57)

17 I: Is there anything that you're feeling quite positive about in terms of how things might be
18 changing?

19 P: Hair's good at the moment...
Hair - positive

20 I: Describe your hair, what's happening?

21 P: It's funny because you read all these things on websites and it all sounds like a bit of cliché like Oh
22 you're gonna be blooming, once you've got over tired, sick, all that kind of thing you know. Middle of
23 it before you're too big, but you know right in the very middle you'll feel full of energy and your hair
will be shiny and that...and I thought really? when I read it. And then I thought oh actually I don't
24 look too bad. Won't last for long, I'll be hideously fat soon but...yeah so far fine. - *expecting to get fat*
25
26 I: So you're feeling quite positive about everything that's happening at the moment?
read about changes think of it as cliché but has been pleasantly surprised when it occurred

27 P: Yeah, yeah.
positive all moment

28 I: That's good. Can you describe your feelings when your bump first started to show? So a couple
29 of weeks back, can you describe those feelings?

30 P: Yeah it took a while I suppose for anybody else to notice it and for the first sort of two months in
31 I'm thinking oh when am I supposed to get a bump, bearing in mind I couldn't ask anybody cos you
32 know nobody knew at that point. And I actually remember, I remember the actual day. It was like
33 one of those moments you write down cos you're gonna look back on this in years and I remember I
34 was like laid flat one Saturday morning on my back thinking why haven't...where is it? I don't feel
35 pregnant, I don't look it, I don't feel it and I'm laid flat back and I sort of breathed in and there was a
took while for others to notice
questioning herself on to bump appearing
remember the day
couldn't ask as no one knew
asking why it hadn't appeared

didn't feel pregnant because I didn't look it. Emphasis on appearance.

36 ^{surprise at} tiny little bump and I thought "oh, it's there!". That was the first time I noticed it. But yeah so far not ^{feelings positive so far}

37 ^{growing quickly} too bad, it's kind of grown a lot in the last two weeks though. It's not got to the point where everybody's patting me and trying to touch it. I can see that might get annoying. ^{not at stage where people pat it. not be happy about that.}

39 I: Ok so now that your bump has started to show, like you say you hadn't noticed anything, so has that made you feel any different about what you were experiencing?

41 ^{Not felt any different} Erm... a little bit. I mean in a way...I don't think out and about shopping around strangers I don't ^{Not noticeable to strangers.}

42 think you would really notice with a coat on and everything. I suppose I'm a little bit more self- ^{Now starting to feel self-conscious}

43 conscious now, walking into an office at work. There are some really big open-plan offices at that ^{looks from others at work.}

44 end and when you go in there's 20 people and it's a bit...you know everybody looks when the door ^{comments about bump}

45 opens, and people do that anyway. But I'm just now more conscious like...a week ago someone said ^{opinion on your bump}

46 oh turn to your side, can I have a look and I think every time I go into a room is everybody...you ^{more so older ladies.}

47 know how big's her bump this week and everybody sort of has a bit of an opinion...not in a bad way, ^{comparison about bump sizes.}

48 but people tend to have an opinion. More...I'd say more older ladies, you know have an opinion ^{Makes feel uncomfortable}

49 about what you should look like or what you shouldn't and you know somebody says "Jees, I look ^{Set size to adhere to}

50 more pregnant than you, belly-wise and I'm not even pregnant" and I thought you know you make it ^{Read about 3 changes}

51 sound like I've done something bad because I'm not big enough yet so everybody seems to think "oh ^{Read about 3 changes}

52 when I was this many weeks I was this big, why aren't you?". I can't help it, it grows as it grows. Like ^{Read about 3 changes}

53 there's a set size you should be at a certain time or something. ^{Read about 3 changes}

54 I: So what about any other appearance-related aspects. So you've talked about your hair. So how's your hair changed?

^{hair straighter} P: It's true the complete cliché that suddenly it's a bit shinier and a bit easier to manage and a bit ^{Read about 3 changes}

^{hanging straighter} hanging a bit straighter. And it's true! I think I actually did read the science bit behind it about you ^{Read about 3 changes}

^{easy to manage} easy to manage.

Appendix I

Appendix I: Study 2 – (Colour) coding summary (C-23.03, p. 1).

Coding summary
(including colour)

Coding Summary – C-23.03.

ORANGE: B/I & COMMENTARY 29 years, 24 weeks, events management
Previous exerciser, continued into pregnancy

GREEN: EXERCISE

YELLOW: MEDIA

Feel comfortable with body change
Lucky – not had to try hard
Enjoyed getting bump – prefer it now its more visible
*go through 'fat' period
Sick first 12 weeks. Think has contributed to lack of weight gain
Can eat what I want – not piling on the pounds
Comfortable with figure anyway

Always exercised – balances what eating
Would expect weight gain if stopped exercising

First 14 weeks – sickly
Eating now back to normal
Love sweet stuff

Loving bump but that's all

Think have lost weight from not drinking
Starting to 'plump out'
Think its loss of muscle tone

Content with it all – making the best

Bloated at first
Mixed cos cant tell why body changing
*felt able to hide as was slimmer, contrast with bigger friends
Quite late to develop bump

Wanted to hide until first scan

Always had flat tummy
Felt bloated because got a paunch
Thought people would guess as always had flat tummy

Bump – excited, liked it, not bothered about tummy getting bigger
*Exciting to see changes, wanted it to appear
*pregnancy sunk in once bump appeared and got kicks
*Happy wearing tight clothes as didn't feel paunched

Started to wear tops to show how proud I was, plus to make people more aware

Knew could hide it
Mum noticed bloating
Not bothered just a personal thing (what she thought)

enjoyed bump - like now visible go through fat stage.

exercise balance weight gain. Sickly to start.

Love bump, nothing else. plumping out.

able to hide because slimmer. wanted to hide before scan.

Thinking about others guessing

Bump - excited Pregnancy = real wore tight clothes

wore tops to display - pride + making people aware.

Appendix J: Study 2 – Coding summary: Latent and semantic (S-09.03)

29 years, 38 weeks, on maternity, previous exerciser, stopped for health reasons

<p>Body has changed, mixed expectations Expected weight gain Expected stretch marks Didn't expect increase in width Known expectations because of those close to her Body change out of control *No control over changes To be expected *Hope to return to 'normal' after birth</p>	<p>Mixed expectations about appearance Resigning control Anticipating the return to normality</p>
<p>Not enjoyed pregnancy Don't feel pregnant in second trimester Enjoyed feeling of energy returning Enjoyed when baby grew in bump area *Happy with getting bigger there Constantly getting bigger because baby is having growth spurts</p>	<p>Takes time to feel pregnant Bump reaffirms reality of pregnancy Enjoys bump growth</p>
<p>Felt prepared for general aspects Had advice from friend *Told by others body won't be the same Friend says weight loss not easy and body changes Nothing prepares you, not what I expected (contradiction)</p>	<p>Comments from others shape expectations</p>
<p>Not very positive experience Strange as not a naturally thin person *Middle trimester have people wondering whether you're fat or pregnant Others trying to work out whether you are All changed when bump appeared, not bothered by expansion Not concerned about stretch marks Not seeing one's feet – finds amusing Describes change from not showing to showing Baby is cause of expansion when bump appears</p>	<p>Appearance of looking fat or pregnant External judgments during transitional period (is/isn't she?) Bump confirms growth of baby not weight gain Bump allays previous appearance-related concerns/fears</p>

Appendix J

<p>Movements inside made it more real *Had tiredness, weight gain, exhaustion, sickness – hard to comprehend when there's no bump</p> <p>*Bump = reality of pregnancy</p> <p>Breasts changed – expected this Felt more prepared because of her job Expected spots Experienced itchy skin, unaware this was a side effect and sought advice</p>	<p>Movements confirm reality of pregnancy</p> <p>Symptoms difficult to accept without bump</p> <p>Breast increase</p> <p>Experienced skin-related problems</p>
<p>Unable to dye/bleach hair Loves dyeing hair –disappointed but acknowledged risk element</p> <p>Hair is her one love. Makes her feel good about herself *Tattoos also unable to do – felt restricted about not being able to enjoy those personal things Annoyed because shoes don't fit Water retention a problem Unhappy about lack of maternity clothes Difficult to buy clothes to wear</p> <p>Hair/tattoos part of her identity *Don't feel down, just frustrated as feel like identity been taken away Expected to have to wear bigger clothes but personal aspects to identity is hard to accept Acknowledges it's a temporary phase</p> <p>Immediate plans to do all those personal things hasn't been able to</p>	<p>Pregnancy is restrictive & limits freedom of choice</p> <p>Accepting responsibility over risk</p> <p>Physical symptoms frustrating</p> <p>Pregnancy boundaries force a change in identity</p> <p>Some restrictions harder to accept than others</p> <p>Anticipating return of freedom</p>
<p>Comments about being huge, working amongst women Relaxed discussing as amongst other women who have been there Family live away Comments about growth Expect those comments about getting bigger *Has an issue with comments made – would say to a fat person you're huge *Strangers touching bump – not happy about it *Invasion of personal space Heard it happen with babies</p>	<p>Described as huge by colleagues</p> <p>Comfortable in surroundings of former mums</p> <p>Pregnancy makes judgemental comments acceptable</p> <p>Invasion of personal space</p>
<p>Ignore family comments as above, dependent on who it is Partner been fab Comfortable amongst family/friends *Hormone dependent, can brush off sometimes; sometimes it hurts *Hurt because the weight gain IS to be expected and is normal *Feel like you have to acknowledge the fact that your pregnant – upsetting Harder in latter stages *Acknowledges that she is all bump. No one looks at her.</p>	<p>Response to comments dependent on context and mood</p> <p>Comments compel you to justify weight gain</p> <p>Bump engulfs/consumes identity</p>

<p>Cross when people dismiss pregnant woman in latter stages All about baby, woman only there to carry</p> <p>Everyone chats pregnancy, not about how you feel or are Midwife: All about weight, position More so in latter stages when you are just a bump</p> <p>Didn't receive many comments before it was obvious Comments more about symptoms in early stages, about her until bump came People spotting bump *Comment about not being bigger anymore, now you're pregnant *Comments made her question how she looked and dressed so as not to look fat, but pregnant</p>	<p>Woman resembles an incubator</p> <p>Midwife emphasis on physiology</p> <p>Become simply a bump</p> <p>"Not big, but pregnant"</p> <p>Comments force self-evaluation</p>
--	--

Are you pregnant with your first-born baby?

Are you aged 18 years or over?

Would you like to enter a prize draw to win £100 of High Street Vouchers?

If so, then I invite you to participate in an online survey about your thoughts, feelings and experiences during pregnancy
All responses are both confidential and anonymous.

For more information and to receive a direct invitation link to the survey, please email Nova Deighton-Smith (PhD Researcher, Psychology)

on n.l.deighton-smith@leedsmet.ac.uk

Please feel free to remove one of the tear-off slips at the bottom of this page



n.l.deighton-smith@leedsmet.ac.uk	n.l.deighton-smith@leedsmet.ac.uk	n.l.deighton-smith@leedsmet.ac.uk	n.l.deighton-smith@leedsmet.ac.uk	n.l.deighton-smith@leedsmet.ac.uk	n.l.deighton-smith@leedsmet.ac.uk	n.l.deighton-smith@leedsmet.ac.uk	n.l.deighton-smith@leedsmet.ac.uk	n.l.deighton-smith@leedsmet.ac.uk	n.l.deighton-smith@leedsmet.ac.uk	n.l.deighton-smith@leedsmet.ac.uk	n.l.deighton-smith@leedsmet.ac.uk
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Appendix L: Study 3 – Example of permission granted to advertise on social media

From: Ryan Beth Wenstrup-Moore
Sent: 03 February 2012 11:51
To: Deighton Smith, Nova
Subject: Re: FW: PhD university survey request

Hi Nova,
I am happy for you to post this on the Emma's Diary Facebook page.

Ryan
on behalf of Emma's Diary

Ryan Beth Wenstrup-Moore
Freelance Social Media Consultant & Independent Blogger
Social-Chemistry.co.uk TransatlanticBlonde.Blogspot.com
[@Social_Chem](https://www.instagram.com/Social_Chem) [@Melaina25](https://www.instagram.com/Melaina25)

From: "Nova"
Date: 3 February 2012 09:28:50 GMT
To: <elbrice@btinternet.com>
Subject: re: PhD university survey request

Hello

I would very much like to ask your permission to post a survey request somewhere on Emma's Diary. I have included the wording that I would post at the bottom of this email. I have not registered yet and do not want to break any rules by doing so and just posting, so I'd be really grateful to hear from you and possibly your thoughts as to where best to place it.

Please feel free to ask any questions regarding the survey.

Kind regards

Nova Deighton-Smith

Hi everyone. I'd like to reach some first-time pregnant mums out there!

I am a PhD student researcher at Leeds Metropolitan University and mum of two myself, looking for first-time pregnant mums to take part in an online survey which forms a larger part of my thesis. My research interests are appearance and body image in pregnancy which is at present an area that is often overlooked by health professionals during pregnancy. All responses are confidential and anonymous. If you would like to take part, please email me at n.l.deighton-smith@leedsmet.ac.uk and I will send out a survey invitation link. The survey is focused on thoughts, feelings and experiences during your pregnancy. Upon completion you have the chance to re-enter your email address towards a prize draw of £100 worth of High Street Vouchers. The prize draw is just my way of saying thank you for your time and is funded by my research budget.

I look forward to hearing from you. Many thanks, Nova

Appendix M

Appendix M: Study 3 – Yorkshire Post article created by Leeds Metropolitan University

(REMOVED FROM REDACTED VERSION)

Appendix N: Study 3 – Media article on www.babyworld.co.uk

(REMOVED FROM REDACTED VERSION)

Appendix O

Appendix O: Study 3 – Questionnaire package

We would like to start off by asking a little bit about you. Please answer the following questions by either ticking the appropriate response or filling in the blank spaces. Please remember not to type your name on any section of the questionnaire. All your responses should be anonymous.

1. What is your age?
.....

2. Are you due to give birth to your first-born child?

1 = Yes 2 = No

3. How many weeks pregnant are you at present?
.....

4. How would you describe your general health?

1 = Excellent
2 = Very Good
3 = Good
4 = Fair
5 = Poor

5. What is your height in centimetres (cms)?
.....

6. What was your approximate weight prior to pregnancy? Please tick the box that applies to you.

1 = Less than 8 stone
2 = Between 8 and 9 stone
3 = Between 9 and 10 stone
4 = Between 10 and 11 stone
5 = Between 11 and 12 stone
6 = Between 12 and 13 stone
7 = Over 13 stone

7. What is your current or most recent occupation?
.....

A CLASSIFICATION FOR OCCUPATION CATEGORY WAS INCLUDED:

0 = unclassified/unemployed (added by myself)

1 = Managers, Directors, Senior Officials

2 = Professional

3 = Associate Professional

4 = Administrative and Secretarial

5 = Skilled/Trades

6 = Caring, Leisure and other service

7 = Sales and Customer Service

8 = Process, Plant and Machine Operatives

9 = Elementary

10 = student (added by myself)

EMP16 – August 2012 – ONS:

<http://www.ons.gov.uk/ons/search/index.html?newquery=Standard+occupational+classification>

8. How would you best describe your ethnicity?

1 = White, British
2 = White, Irish

- 3 = Other white background
- 4 = Mixed: White and Black Carribean
- 5 = Mixed: White and Black African
- 6 = Mixed: White and Asian
- 7 = Mixed: Other mixed background
- 8 = Indian
- 9 = Pakistani
- 10 = Bangladeshi
- 11 = Chinese
- 12 = Other Asian background
- 13 = Gypsy/Romany/Traveller
- 14 = Other.....

9. Please indicate if you are currently:

- 1 = Working full-time
- 2 = Working part-time
- 3 = Not currently employed
- 4 = Retired
- 5 = Student

10. Are you currently in a relationship?

- 1 = Yes
- 2 = No

11. Which of the following best describes your living arrangements?

- 1 = Living alone
- 2 = Living with parents
- 3 = Living with partner
- 4 = Living in a shared household
- 5 = Other

12. Please indicate your highest level of education that you have completed or are currently completing:

- 1 = Secondary School education up to GCSE or O-level equivalent
- 2 = Secondary School education up to A-level equivalent
- 3 = Other Further Education (eg: college)
- 4 = Completed University degree qualification
- 5 = Completed Doctoral degree qualification
- 6 = Completed Post-Doctoral degree qualification

13. Most women engage in some physical exercise either incidentally (e.g., walking to the shops, taking the stairs at home or at work, gardening etc.) or intentionally (e.g., going for a brisk walk, swim, run, cycle, to the gym etc.). Please think carefully first about the many incidental types of exercise activities that you typically did on a weekly basis, before you became pregnant (e.g: walking up the stairs, cycling to and from work). Please indicate the type of activity, the approximate number of minutes per week that you spent on this activity, and the level of intensity. (Intensity levels: Low = not much puffing/sweating, Medium = a bit of puffing/sweating, High = lots of puffing/sweating)
Remember this table relates to *incidental* activity *before* pregnancy. An example has been provided for you below. Write as many that are applicable to you.

Appendix O

Activity	Number of sessions per week	Number of minutes per session	Level of intensity

14. Now please think carefully about the intentional types of exercise activities that you typically undertook in a week before you became pregnant. The following table relates to 'intentional' activity (e.g: running, jogging, swimming, kickboxing etc.) Please indicate the type of activity, the approximate number of minutes per week that you spent on this activity, and the level of intensity. (Intensity levels: Low = not much puffing/sweating, Medium = a bit of puffing/sweating, High = lots of puffing/sweating)

Remember this table relates to *intentional* activity *before* pregnancy. An example has been provided for you below. Write as many that are applicable to you.

Activity	Number of sessions per week	Number of minutes per session	Level of intensity

15. Now please think carefully about the many types of exercise activities that you typically undertake in a week since becoming pregnant. The following table relates to 'incidental' activity (e.g: cycling to work, walking up the stairs etc.) Please indicate the type of activity, the approximate number of minutes per week that you spend on this activity, and the level of intensity. (Intensity levels: Low = not much puffing/sweating, Medium = a bit of puffing/sweating, High = lots of puffing/sweating)

Remember this table relates to *incidental* activity *since* becoming pregnant. Write as many that are applicable to you.

Activity	Number of sessions per week	Number of minutes per session	Level of intensity

16. Now please think carefully about the many types of exercise activities that you typically undertake in a week since becoming pregnant. The following table relates to 'intentional' activity (e.g: running, jogging, swimming, Pilates etc.) Please indicate the type of activity, the approximate number of minutes per week that you spend on this activity, and the level of intensity. (Intensity levels: Low = not much puffing/sweating, Medium = a bit of puffing/sweating, High = lots of puffing/sweating)

Remember this table relates to *intentional* activity *since* becoming pregnant. Write as many that are applicable to you.

Activity	Number of sessions per week	Number of minutes per session	Level of intensity

17. Have you sought physical activity advice from a health professional (e.g., midwife) since becoming pregnant?

1 = Yes 2 = No

18. If no, have you chosen to seek advice from any other source? Please tick any boxes that may apply. (e.g., books, internet)

Internet

Books

Parenting Magazines

Fitness Instructor

Other.....

19. Did you engage in any competitive sport before becoming pregnant?

1 = Yes 2 = No
(If no, skip to question 24)

20. If yes, what sport(s) did you engage in competitively?

.....
21. Length of competitive involvement?

Sport	Less than 6 months	6-12 months	1-2 years	2-4 years	More than 5 years

22. What level of competition did you reach for each of the sports you engaged in?

.....

23. Are you still participating in competitive sport(s) now that you are pregnant?

Yes / No

24. If you currently engage in an intentional exercise program (e.g: go to the gym, swim, run, Pilates etc.), when you exercise, do you generally train: alone, with partner etc.

- 1 = Alone
2 = With a trainer/coach
3 = With a particular friend/partner
4 = With a group
5 = Changes day-to-day
6 = I do not currently engage in an intentional exercise programme

25. People exercise for a variety of reasons. When people are asked about why they exercise, their answers are sometimes based on the reasons they believe they should have for exercising. We would like to know the reasons people actually have for exercising. Please respond to the following items as honestly as possible.

To what extent is each of the following an important reason that you have for exercising? Please use the scale below ranging from not at all important to extremely important, when giving your answers and choose one for each statement: "I exercise....."

- 1 = Not at all important
2 = Very unimportant
3 = Somewhat unimportant
4 = Neither important nor unimportant
5 = Somewhat important
6 = Very important
7 = Extremely important

- To be slim (AWM)
- To lose weight (AWM)
- To maintain my current weight (AWM)
- To improve my muscle tone (FHM)
- To improve my strength (FHM)
- To improve my endurance and stamina (FHM)
- To improve my flexibility and coordination (FHM)
- To cope with sadness, depression (SMM)
- To cope with stress, anxiety (SMM)
- To increase my energy level (FHM)
- To increase my mood (SMM)
- To improve my cardiovascular fitness (FHM)
- To improve my overall health (FHM)

Appendix O

- To increase my resistance to illness and disease (FHM)
- To maintain my physical well-being (FHM)
- To improve my appearance (AWM)
- To be attractive to members of the opposite sex (AWM)
- To be sexually desirable (AWM)
- To meet new people (SOC)
- To socialise with friends (SOC)
- To have fun (SMM)
- To redistribute my weight (AWM)
- To improve my overall body shape (AWM)
- To alter a specific area of my body (AWM)

26. This section relates to some of the physical discomforts you may have experienced or might still be experiencing during your pregnancy. We are interested to know how often you may have experienced such symptoms during your pregnancy. Please indicate your response alongside each of the following symptoms:
Answer:

1=Never; 2=Rarely; 3=Sometimes; 4=Very Often

Symptom

1. Nausea
2. Heartburn
3. Constipation
4. Flatulence
5. Leg cramps
6. Shortness of breath
7. Urinary frequency
8. Backache
9. Round ligament pain
10. Dizziness
11. Haemorrhoids
12. Headache
13. Varicose veins
14. Oedema (fluid retention)
15. Insomnia
16. Fatigue
17. Vaginal discharge
18. Bleeding gums
19. Nose bleeds
20. Congestion
21. Braxton-Hicks contractions
22. Dyspareunia (painful intercourse)
23. Pelvic pressure
24. Fainting
25. Breast tenderness
26. Tingling of extremities
27. Hot flashes
28. Appetite increase
29. Appetite decrease

27. This section relates to your overall pregnancy experience. You will be provided with 20 occurrences which you may consider either uplifting (a positive experience) or which you may feel is a hassle (a negative experience). Please note that it is perfectly normal if you have not yet experienced all of the following occurrences (for example, you may not have felt your baby moving if you are in the early stages of pregnancy). Please state how much of a hassle *and* uplift the following occurrences have been or are currently during your pregnancy, by ticking a response in each column:

How much of a hassle or negative experience is the following occurrence during your pregnancy?	Occurrence	How much of an uplift or positive experience is the following occurrence during pregnancy?
1 2 3 4	How much the baby is moving	1 2 3 4
1 2 3 4	Discussions with spouse about baby names	1 2 3 4
1 2 3 4	Comments from others about your appearance in pregnancy	1 2 3 4
1 2 3 4	Making or thinking about nursery arrangements	1 2 3 4
1 2 3 4	Feelings about being pregnant at this time	1 2 3 4
1 2 3 4	Visits to midwife	1 2 3 4
1 2 3 4	Spiritual feelings about pregnant	1 2 3 4
1 2 3 4	Courtesy/assistance from others because you are pregnant	1 2 3 4
1 2 3 4	Thinking about the baby's appearance	1 2 3 4
1 2 3 4	Discussions with spouse about pregnancy/childbirth issues	1 2 3 4
1 2 3 4	Getting enough sleep	1 2 3 4
1 2 3 4	Physical intimacy	1 2 3 4
1 2 3 4	Normal discomforts of pregnancy (e.g.: heartburn, incontinence)	1 2 3 4
1 2 3 4	Your weight	1 2 3 4
1 2 3 4	Body changes during pregnancy	1 2 3 4
1 2 3 4	Thoughts about whether the baby is normal	1 2 3 4
1 2 3 4	Thinking about your labour and delivery	1 2 3 4
1 2 3 4	Ability to do physical tasks/chores	1 2 3 4
1 2 3 4	Concerns about physical symptoms (e.g.: pain, spotting etc.)	1 2 3 4
1 2 3 4	Clothes/shoes don't fit	1 2 3 4

1 = not at all
2 = somewhat
3 = quite a bit
4 = a great deal

28. Sometimes people say things that affect how we feel and think about our appearance. The following is a list of comments that may have been made about you during your pregnancy. Please read each item and rate how often you think you have been the recipient of such a comment or similar comment (using the scale provided never to always).

Appendix O

Please make sure you rate these items based on your exposure to the following comments whilst you have been pregnant.

- 1 = Never
- 2 = Rarely
- 3 = Sometimes
- 4 = Quite Often
- 5 = Always

- PGA 1. Your outfit looks great on you.
- NWS 2. You need to start watching what you eat.
- PGA 3. You are pretty.
- PWS 4. I wish I had a body like yours.
- NWS 5. You've gained weight.
- PWS 6. You are in great shape.
- NWS 7. Don't you think you've eaten enough already?
- PWS 8. You're looking kind of skinny.
- PGA 9. Your facial skin looks good.
- NWS 10. You shouldn't eat so late at night.
- PGA 11. You have pretty eyes.
- NWS 12. You need to start exercising to lose weight.
- PWS 13. You have nice abs (abdominals).
- NWS 14. Have you considered going on a diet?
- PGA 15. You have a beautiful smile.
- NWS 16. Your outfit makes you look fat.
- PGA 17. I really like how those jeans fit you.
- NWS 18. Are you sure you want to eat such fattening foods?
- NWS 19. Have you gained weight?
- PGA 20. Your hair looks really good.
- PWS 21. You have a nice body.

29. From the answers you have just provided on the previous page, please now indicate how those comments have made you feel using the scale below from very positive to very negative. If you have "never" experienced such comments, then please click N/A (does not apply). Remember you can click the BACK button to revisit your responses.

Please make sure you rate these items based on your exposure to the comments whilst you have been pregnant. So how have the comments below made you feel:

- 1 = Very positive
- 2 = Positive
- 3 = Neutral
- 4 = Negative
- 5 = Very Negative
- 6 = N/A (coded as 999)

Questions 1-21: How did this comment make you feel?

30. The following section relates to your thoughts about weight-gain and exercise during pregnancy. Please answer as honestly as possible. Please indicate the extent to which you agree or disagree with the following statements:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither agree nor disagree
- 4 = Agree
- 5 = Strongly Agree

- 1. If I eat healthily, I will feel in control of my body during pregnancy (INT)
- 2. I have no control over my body during pregnancy (EXT)
- 3. My current body size and shape is determined by my own behaviour during pregnancy. (INT)
- 4. How much I exercise affects how I feel during pregnancy (INT)

5. Regardless of what I eat, I am unable to control my weight gain in pregnancy (EXT)
6. Health professionals are the only ones I trust to give me advice about my behaviour in pregnancy (PO)
7. I have taken steps to learn about recommended dietary intake in pregnancy (INT)
8. No matter what I do in pregnancy, I cannot control how my body looks in pregnancy (EXT)
9. If I exercise according to recommended levels, I will feel in control of my body during pregnancy (INT)
10. If I'd received advice from my midwife regarding recommended dietary intake throughout my pregnancy, I would feel more in control of my weight. (PO)
11. I am confident that I can control how much weight I gain during this pregnancy (INT)
12. Regardless of how much I exercise, I am unable to control my weight gain in pregnancy (EXT)
13. I have taken steps to learn about recommended exercise in pregnancy (INT)
14. What I eat affects how I feel during pregnancy (INT)
15. As to my size and shape in pregnancy, what will be, will be. (EXT)
16. I am directly responsible for my body's size and shape following the birth of my baby (INT)
17. If I'd received advice from my midwife regarding recommended exercise throughout my pregnancy, I would feel more in control of my weight. (PO)

31. Many women are concerned about weight gain during their pregnancies. This section deals with those feelings and concerns that you might have about your weight gain during the pregnancy. Please indicate the response which you feel best expresses your feelings:

- 1 = Strongly Agree
 2 = Agree
 3 = Neither agree nor disagree
 4 = Disagree
 5 = Strongly Disagree

1. I think a pregnant woman is beautiful. (POS)
2. I would like to gain between 21 and 30 **pounds** during this pregnancy (appr. 1.5-2 st) (POS)
3. I like being able to gain weight for a change. (POS)
4. The weight I gain during my pregnancy makes me feel unattractive. (NEG)
5. I feel that women have to be especially careful about getting fat during pregnancy. (NEG)
6. I would gain 35 **pounds** if it meant my baby would be healthier. (appr. 2.5 stones) (POS)
7. I'm proud of looking pregnant. (POS)
8. I worry that I may get fat during this pregnancy (NEG)
9. I am embarrassed at how big I have gotten during this pregnancy. (NEG)
10. Just before I go to the midwife, I try not to eat. (POS)
11. It bothers me that I can't wear what is in style when I'm pregnant. (NEG)
12. I am trying to keep my weight down so I don't look so pregnant. (NEG)
13. As long as I'm eating a well-balanced diet, I don't care how much I gain during this pregnancy. (POS)
14. I would like to gain between 11 and 20 pounds during this pregnancy. (appr 0.5 to 1.5 st) (POS)
15. I like wearing maternity clothes. (POS)
16. I'm embarrassed if the midwife weighs me. (NEG)
17. I would gain 40 pounds if it meant my baby would be healthier. (appr. 3 st) (POS)
18. If I gain too much weight one month, I will try to keep from gaining the next month. (NEG)

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32. REMOVED FROM REDACTED VERSION (available at www.bodyimages.com)

33. REMOVED FROM REDACTED VERSION (available at www.bodyimages.com)

34. Using the following scale, please personally rate the following statements below:

- 5 = never
- 4 = seldom
- 3 = sometimes
- 2 = often
- 1 = always

1. At parties or other social events, I compare my physical appearance to the physical appearance of others.
2. The best way for people to know if they are overweight or underweight is to compare their figure to the figure of others.
3. At parties or other social events, I compare how I am dressed to how other people are dressed.
4. *Comparing your "looks" to the "looks" of others is a bad way to determine if you are attractive or unattractive.
5. In social situations, I sometimes compare my figure to the figures of other people.

35. Please circle the response that best captures your own experience during pregnancy:

Amendments made (with approval)

Items 1-8 – add "*following the birth*" at the end of each item

Item 9 – add Friends "*have*" teased me....."whilst pregnant"

Item 10 – replace Kids at school with "*Colleagues at work*"

Add item 11: "My partner has teased me about my weight and shape whilst pregnant."

Add item 12: "Strangers have commented on my weight and shape whilst pregnant."

- 1 = Always
- 2 = Often
- 3 = Sometimes
- 4 = Rarely
- 5 = Never

1. I've felt pressure from my friends to lose weight **following the birth**
2. I've noticed a strong message from my friends to have a thin body **following the birth**
3. I've felt pressure from my family to lose weight **following the birth**
4. I've noticed a strong message from my family to have a thin body **following the birth**
5. I've felt pressure from people I've dated to lose weight **following the birth**
6. I've noticed a strong message from people I've dated to have a thin body **following the birth**
7. I've felt pressure from the media (e.g., TV, magazines) to lose weight **following the birth**
8. I've noticed a strong message from the media to have a thin body **following the birth**
9. **Friends have** teased me about my weight or body shape **whilst pregnant**
10. **Colleagues at work have** teased me about my weight or body shape **whilst pregnant**
11. **My partner has teased me about my weight or body shape whilst pregnant**
12. **Strangers have commented on my weight or body shape whilst pregnant.**

36. Please read each of the following statements carefully and indicate your response against the one that best reflects the extent to which you agree or disagree:

- 1 = Definitely agree
- 2 = Mostly agree
- 3 = Neither Agree Nor Disagree
- 4 = Mostly Disagree
- 5 = Definitely Disagree

1. TV programs are an important source of information about fashion and "being attractive." (I)
2. I've felt pressure from TV or magazines to lose weight. (P)
3. I do not care if my body looks like the body of people who are on TV. (IG*)
4. I compare my body to the bodies of people who are on TV. (IG)
5. TV commercials are an important source of information about fashion and "being attractive." (I)
6. I do not feel pressure from TV or magazines to look pretty.(P*)
7. I would like my body to look like the models who appear in magazines.(IG)
8. I compare my appearance to the appearance of TV and movie stars. (IG)
9. Music videos on TV are not an important source of information about fashion and "being attractive." (I*)
10. I've felt pressure from TV and magazines to be thin. (P)
11. I would like my body to look like the people who are in movies. (IG)
12. I do not compare my body to the bodies of people who appear in magazines.(IG)
13. Magazine articles are not an important source of information about fashion and "being attractive." (I*)
14. I've felt pressure from TV or magazines to have a perfect body.(P)

15. I wish I looked like the models in music videos. (IG)
16. I compare my appearance to the appearance of people in magazines. (IG)
17. Magazine advertisements are an important source of information about fashion and "being attractive." (I)
18. I've felt pressure from TV or magazines to diet. (P)
19. I do not wish to look as athletic as the people in magazines. (IA*)
20. I compare my body to that of people in "good shape." (IA)
21. Pictures in magazines are an important source of information about fashion and "being attractive." (I)
22. I've felt pressure from TV or magazines to exercise.(P)
23. I wish I looked as athletic as sports stars.(IA)
24. I compare my body to that of people who are athletic.(IA)
25. Movies are an important source of information about fashion and "being attractive." (I)
26. I've felt pressure from TV or magazines to change my appearance.(P)
27. I do not try to look like the people on TV. (IG*)
28. Movie stars are not an important source of information about fashion and "being attractive." (I*)
29. Famous people are an important source of information about fashion and "being attractive." (I)
30. I try to look like sports athletes.(IA)

37. Please click on the response which best describes how often you engage in these behaviours during your pregnancy?

Word "pregnancy" included on two items – approval granted.

- 1 = Always
- 2 = Usually
- 3 = Sometimes
- 4 = Rarely
- 5 = Never

1. I wear baggy clothes (c)
2. I wear clothes I do not like (c)
3. I wear darker colour clothing (c)
4. I wear a special set of clothing, e.g., my "fat clothes" (c)
5. I restrict the amount of food I eat (e)

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6. I only eat fruits, vegetables and other low calorie foods (e)
7. I fast for a day or longer (e)
8. I do not go out socially if I will be "checked out" (sa)
9. I do not go out socially if the people I am with will discuss my **pregnancy** weight (sa)
10. I do not go out socially if the people I am with are thinner than me (sa)
11. I do not go out socially if it involves eating (sa)
12. I weigh myself (gw)

13. I am inactive (c) (as per Rosen's second sample)

14. I look at myself in the mirror (gw)
15. I avoid physical intimacy (sa)

16. I wear clothes that will divert attention from my **pregnancy** weight (c)
17. I avoid going clothes shopping (c)
18. I don't wear "revealing" clothes (e.g., Bathing suits, tank tops, or shorts) (c)
19. I get dressed up or made up (c)

38. REMOVED FROM REDACTED VERSION (available at www.bodyimages.com)

39. Click the response that corresponds to how much you agree with each of the statements in this section. Click N/A (i.e: does not apply) only if the statement does not apply to you. Do not click NA if you don't agree with a statement. For example, if the statement says "When I am happy, I feel like singing" and you don't feel like singing when you are happy, then you would click one of the disagree choices. You would only click N/A if you were never happy.

- 1 – Strongly agree
- 2 - Agree
- 3-Somewhat agree
- 4– Neither agree nor disagree
- 5–Somewhat disagree
- 6- Disagree
- 7-Strongly disagree
- 8 – N/A

*SU1. I rarely think about how I look.

BS2. When I can't control my weight, I feel like something must be wrong with me.

*SU3. I think it is more important that my clothes are comfortable than whether they look good on me.

*CB4. I think a person is pretty much stuck with the looks they are born with

BS5. I feel ashamed of myself when I haven't made the effort to look my best

*CB6. A large part of being in shape is having that kind of body in the first place

*SU7. I think more about how my body feels than how my body looks.

BS8. I feel like I must be a bad person when I don't look as good as I could.

*SU9. I rarely compare how I look with how other people look.

CB10. I think a person can look pretty much how they want to if they are willing to work at it.

BS11. I would be ashamed for people to know what I really weigh... ..

*CB12. I really don't think I have much control over how my body looks.

*BS13. Even when I can't control my weight, I think I'm an okay person.

SU14. During the day, I think about how I look many times.

*BS15. I never worry that something is wrong with me when I am not exercising as much as I should.

- SU16. I often worry about whether the clothes I am wearing make me look good.
- BS17. When I'm not exercising enough, I question whether I am a good enough person.
- *SU18. I rarely worry about how I look to other people.
- *CB19. I think a person's weight is mostly determined by the genes they are born with.
- *SU20. I am more concerned with what my body can do than how it looks.
- *CB21. It doesn't matter how hard I try to change my weight, it's probably always going to be about the same.
- BS22. When I'm not the size I think I should be, I feel ashamed.
- CB23. I can weigh what I'm supposed to when I try hard enough.
- *CB24. The shape you are in depends mostly on your genes.

40. Listed below are a number of statements about the way you feel. Click on one response which corresponds best with the extent to which you agree or disagree with each statement. Please answer how you actually feel about the statement not how you think you should feel. Also, indicate how you feel about yourself most of the time.

- 1 = strongly disagree
 2 = disagree
 3 = agree
 4 = strongly agree

1. I feel that I'm a person of worth at least on an equal basis (plane) with others
2. I feel that I have a number of good qualities
- *3. All in all I am inclined to feel that I'm a failure
4. I am able to do things as well as other people
- *5. I feel that I do not have much to be proud of
6. I take a positive attitude toward myself
7. On the whole, I am satisfied with myself
- *8. I wish I could have more respect for myself
- *9. I certainly feel useless at times
- *10. At times I think that I am no good at all

41. Please click on one response which corresponds best with the extent to which you feel each statement is characteristic of you personally.

Each item was rated on a scale of:

- 4 = extremely uncharacteristic
 3 = Somewhat uncharacteristic
 2 = Moderately characteristic
 1 = Extremely characteristic

(Numbers in parentheses relate to the number on the original Fenigstein scale.)

1. I'm always trying to figure myself out (1) (priv)
2. I'm concerned about my style of doing things (2) (pub)
- *3. Generally I'm not very aware of myself (3) (reverse score) (priv)
4. I reflect about myself a lot (5) (priv)
5. I'm concerned about the way in which I present myself (6) (pub)
6. I'm often the subject of my own fantasies (7) (priv)
- *7. I never scrutinise myself (9) (reverse score) (priv)
8. I'm self-conscious about the way that I look (11) (pub)
9. I'm generally attentive to my inner feelings (13) (priv)
10. I usually worry about making a good impression (14) (pub)
11. I'm constantly examining my own motives (15) (priv)
12. One of the last things I do before I leave my house is look in the mirror (17) (pub)
13. I sometimes have the feeling that I'm off somewhere watching myself (18) (priv)

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14. I'm concerned about what other people think of me (19) (pub)
15. I alert to changes in my mood (20) (priv)
16. I'm usually aware of my appearance (21) (pub)
17. I'm aware of the way in which my mind works when I work through a problem (22) (priv)

42. Please indicate whether the following statements are true about you –

- 1 = never
2 = seldom
3 = sometimes
4 = often
5 = always

1. I respect my body.
2. I feel good about my body.
3. On the whole, I am satisfied with my body.
4. Despite its flaws, I accept my body for what it is.
5. I feel that my body has at least some good qualities.
6. I take a positive attitude towards my body.
7. I am attentive to my body's needs.
8. My self-worth is independent of my body shape or weight.
9. I do not focus a lot of energy being concerned with my body shape or weight.
10. My feelings toward my body are positive, for the most part.
11. I engage in healthy behaviors to take care of my body.
12. Despite its imperfections, I still like my body.
13. I do not allow unrealistically thin images of women presented in the media to affect my attitudes toward my body.

43. Do you wish to provide email?

44. Email address.....

*Appendix P: Study 3 – Permission to use and / or modify measures***MBSRQ/ASI-R/BICSI: Professor Tom Cash**

Hello Nova,

There is no problem with your using the MBSRQ in an online survey. The only requirement is that it cannot be posted in a manner that allows complete public access (i.e., just posting it to a website so that anyone could view the items).

Just in case you don't have it, I am attaching a document that gives the original conceptual scoring for the 69-item MBSRQ (if that's what you are using). It may have some advantages over the factor-analytically based scoring.

Best wishes to you in your doctoral research.
Tom

Thomas F. Cash, Ph.D.
Fellow, Association for Psychological Science
Professor Emeritus of Psychology
Old Dominion University (Norfolk, VA)
Residing in Naples, Florida
website: www.body-images.com

Dear Nova,

You have my permission to use the MBSRQ, ASI-R, and BICSI in your research conducted in a secure online manner.

I attach the BICSI materials, as I am uncertain if you have them.

Best wishes,
Tom

BAS: Associate Professor Tracy Tylka

Hi Nova,

Sure thing! A word doc is attached.

Thanks for using the BAS in your research. Your study sounds fascinating. You may want to check out the study by Rubin in the October issue of Sex Roles.

I recommend always trying to contact the corresponding author rather than the first author. The first author is often a student who moves on to do other work (like Laura - she works with abused children now), whereas the corresponding author is typically the advisor.

Take great care,
Tracy

PSCP-2: Professor Eric Stice

Nova,

You are very welcome to use the scale and adopt it as indicated. You might consider adding a few more items to make you have enough that really cohere. I have attached a 1996 Behavior Therapy article. Am hoping it is the one you were requesting. Just returned from Italy and am a bit swamped with email and befuddled with jet lag.

Best wishes with your project, -Eric

Appendix P

VCOPAS – Assistant Professor Sylvia Herbozo & Professor J. Kevin Thompson

Sure, no problem, do you have a copy of the scales?

Kevin

For articles and scales, go to my website below:

J. Kevin Thompson, Ph.D.

Department of Psychology

USF

4202 E. Fowler Avenue

Tampa, FL 33620-8200

813 974-0367

813 974-4617 (fax)

<http://shell.cas.usf.edu/~jthomps1/index.htm>

Hi Nova,

I'm glad to hear you are interested in using the VCOPAS. I've attached a copy of the scale.

Please feel free to e-mail me with any additional questions.

Best,

Sylvia Herbozo, Ph.D.

Assistant Professor

Department of Psychology

Loma Linda University

Loma Linda, CA 92350

Phone: (909) 558-8578

Fax: (909) 558-0171

sherbozo@llu.edu

From: Deighton Smith, Nova

Sent: Wed 11/9/2011 6:31 AM

To: Herbozo, Sylvia (LLU)

Subject: RE: VCOPAS & FOPAS for use within a PhD study

Hello Sylvia

Thank you so very much for this. All that I would like to amend on this questionnaire would be the timeframe. So instead of saying:

Rate the items based on your exposure to the following comments "*within the past 2 YEARS*", I would like to change this to:

Rate the items based on your exposure to the following comments "*during the time you have been pregnant*".

I hope this is acceptable.

Best,

Nova

Hi Nova,

Yes, changing that part of the instructions is fine. To my knowledge, you will be the first to change the instructions to address a pregnancy period so it will be important to examine the

psychometric properties of this revised scale which I'm sure you are planning to do anyways. I look forward to hearing about your findings. Please keep me posted.

Best,

Sylvia Herbozo, Ph.D.

OBC – Associate Professor Nita McKinley

Hi Nova,
Sounds like a very interesting study. I've attached a copy of the scales with permission for non-profit use.
I hope that your study goes well.

Nita
Nita Mary McKinley, PhD
Associate Professor, Interdisciplinary Arts & Sciences
University of Washington Tacoma
Campus Box 358436
1900 Commerce Street
Tacoma, WA 98402
Phone: 253-692-4543
FAX: 253-692-5718
Email: nmmckin@u.washington.edu
<http://faculty.washington.edu/nmmckin/>

PWGAS – correspondence with Professor Pietro regarding Dr. Jeannette Palmer

Hi Nova,
Oddly enough I get about an email a month about this scale. I don't have any information about correspondence with Jeannette from back then and don't know where she is but would expect that it would be okay for you to use that scale with proper referencing. But given the amount of interest I've had in that article, it may be time for someone to put together a new scale! Maybe you?
Best, Janet

Janet DiPietro, Ph.D.
Associate Dean for Research
Professor, Department of Population, Family & Reproductive Health
Johns Hopkins Bloomberg School of Public Health
615 N. Wolfe Street; W1033
Baltimore, MD 21205
410.955.8536 (phone)
410.614.7871 (fax)

PES – brief version – Professor Janet DiPietro

Nova –
I have no objections to your use of a modified scoring system. This dual experience/perception is exactly why we developed the long version. However, the 10 items selected for the Brief were based on number of nominations as Hassles OR as Uplifts. So, I'm not sure how double scoring these will turn out, but as long as you explain in the paper what you did and how it's different from the validated/original scoring so it's clear to readers or future users, it's absolutely fine with me. Janet

Janet DiPietro, Ph.D.
Associate Dean for Research

Appendix P

Physical Discomforts Checklist – Dr. Arlene Wallace

You have my permission to use the Physical Discomforts Checklist.

Good luck with your research—sounds interesting.

arlene

awallace@uic.edu

BIAQ – Professor James Rosen

Ms Smith

Yes you may use my BIAQ in your study. In case you're interested, I subsequently developed a more clinically relevant body image measure, the Body Dysmorphic Disorder Examination. There is a self-administration version. I attach the files in case you want to consider this.

Best wishes on your research

James Rosen

Appendix Q: Study 3 – Participant Information webpage



Thoughts, feelings, and experiences of pregnancy for first-time mothers.

Names of Investigators: Nova Deighton-Smith (PhD researcher), Dr. H. Fawkner (Director of Studies), Dr. G. Marks (supervisor) and Dr. F. Fylan (supervisor)

Invitation to Participate

I am a PhD research student within the Psychology team at Leeds Metropolitan University, and I am inviting first-time mothers to take part in a study investigating their thoughts, feelings and experiences during pregnancy. Before you decide if you would like to participate, it is important for you to understand why the research is being done and what it will involve. Please read all the information carefully. Feel free to discuss this project with others before making a decision and do not hesitate to contact us if you have any questions.

Participation is entirely voluntary and if you choose not to continue during completion, you may withdraw from the study at any time, by exiting the webpage. *In order to be eligible to take part you must be 18 years or older and be expecting to give birth to your first-born child.*

Purpose of the Study

This study has been designed to explore first-time pregnant mothers' beliefs and attitudes about their appearance, body and exercise during their pregnancy. So if physical appearance or aspects of your pregnancy are sensitive issues for you, you might choose not to participate.

What will I be asked to do in the study?

This is an online questionnaire study. Within this survey, you will be asked to complete a number of consecutive questionnaires, each of which should take no more than a few minutes to complete. The study will take approximately 50-60 minutes to complete in total (please note that this time may vary depending on your internet connection speed). Having read this information sheet and if you wish to proceed you will be taken through a series of nine consent questions before commencing the study.

If you participate, first you will be asked to answer some background information questions (e.g. age, gender, relationship status, employment status, how many weeks pregnant you are). Following this, you will be asked questions about a range of pregnancy-related experiences. For example, you will be asked about the type and amount of exercise that you previously and currently undertake, and your motivations for exercise. You will be asked about a range of physical experiences; for example, how positive or negative you feel about things such as physical intimacy, visiting the midwife, thinking about the baby's appearance or movements, and other physical pregnancy-related symptoms (e.g., heartburn, constipation, vaginal discharge). Other questions will ask about how you think and feel about your body during pregnancy, for example, whether you feel sexually attractive, how you feel about changes in your weight and shape, if you make comparisons with other women or images in the media, and the degree of control you feel you have over your body. In total, there are 420 questions.

What are the advantages and disadvantages of taking part?

By participating in this study, you will contribute valuable information towards a relatively under-researched area into how women feel about their bodies while pregnant, how they see exercise during pregnancy and their thoughts about other pregnancy-related experiences. It is hoped that these findings have the potential to inform service delivery during pregnancy and post-birth.

Whilst it is not anticipated that taking part will cause any discomfort or emotional distress, it is possible that negative feelings may arise following completion. If this is the case, there are free counselling services and support groups available, such as:

The National Childbirth Trust – <http://www.nct.org.uk/home> – 0300 330 0772

The "Meet-A-Mum Association" - <http://www.mama.co.uk/> - 0845 120 3746

How will my information be used and will it be confidential?

The information collected during the study will be used to produce part of my PhD thesis. This research has been approved by the University's Research Ethics Committee, complies with University and Data Protection guidelines and is subject to ethical guidelines set out by the British Psychological Society, as well as the University's Ethics Regulations. Additionally, the data may be presented as a research paper to be published in academic journals or at conferences, and for teaching purposes.

No names will be recorded and you will not be identifiable from the data you provide (e.g., your IP address cannot be identified). Only the researcher will have access to the raw data.

What happens if I want to withdraw?

If you decide you wish to withdraw whilst completing the survey then you are free to do so by exiting the webpage at any point. Your data will not be recorded, and we will have no record of any of your details. Only if you have reached the end of the survey and clicked 'submit' will we record your data. Once you have completed the questionnaire and submit your responses then it is not possible for you to withdraw your data – this is only because your data will be completely anonymous and therefore we would be unable to identify your data to withdraw it.

Participation incentive

Participation is completely voluntary; however as a token of our appreciation, we offer you the chance to win £100 of High Street Gift vouchers. Following completion of the survey (i.e: once you have clicked 'submit') a separate page will open and you will be invited to provide your email address if you wish to be included in the prize draw. This page will not be matched to your responses so your data will remain completely anonymous. This email address will allow us to contact you if you are the prize winner, and these details will only be stored until the winning prize has been claimed, then all remaining email information will be destroyed. Email addresses will never be passed on to third parties.

What happens next?

Please think carefully about whether you wish to participate. If you do wish to take part in the study, please proceed to the next page to authorise your consent. All nine consent questions require a 'yes' response. If you choose to click 'no' to any of those questions, then the survey will close and I thank you for your time. If you wish to amend any of your responses in the main survey, you can click the 'back' button. You can only amend responses up until the point you click 'submit' at the end. Each page, at the bottom, will also show you how far you have progressed in the survey. Remember, you can exit the survey at any time and withdraw if you have not clicked 'submit' at the end.

If, during the study you get part-way through and wish to break off, the survey will allow you to save your responses and continue at another convenient time, even at another computer. In order to resume the study, simply click on the invitation link you received by email, which will restart the survey at the point you left off.

Thank you for considering participating in this study.

Nova Deighton-Smith

PhD Researcher
Leeds Metropolitan University

Contact details of research team:

Nova Deighton-Smith (n.l.deighton-smith@leedsmet.ac.uk) 0113 812 9378
Dr. Helen Fawkner (h.fawkner@leedsmet.ac.uk) 0113 812 5929

Independent Contact:

Dr. Caroline Horton (c.l.horton@leedsmet.ac.uk) 0113 812 4928

Appendix R: Study 3 – Participant Consent webpage

Study Title: Thoughts, feelings, and experiences during pregnancy for first-time mothers.

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Before you participate in this study, you will be asked to provide consent to participate. Please respond to following nine consent questions and click your answer 'yes' or 'no'. If you have answered yes to all the questions, then you will proceed to take the survey. If you have answered no to any of the questions, then the Web page will close and I thank you for your time. All data will be stored securely and anonymously. No personal data (such as names or contact details) will be asked for or retained. Please be reassured that Cookies (personal data stored by your Web browser) are not involved in this survey. This is because you have been sent the survey link directly to your email address which means your browsing history cannot be traced. Remember, if you do wish to exit the survey and resume at another time, please revisit your invitation email and click on the secure link. This will take you directly to the page where you left off.

Please tick all boxes with either a yes or no response.

YES/NO

1. I understand that in order to be eligible for this study, I must be expecting to give birth to my 'first-born' child. YES/NO
2. I confirm that I have read and understood the information page for the study. YES/NO
3. I understand that my participation is voluntary. YES/NO
4. I understand that I if I do not wish to continue with the survey, I can withdraw my data at any point during the study, by exiting from the webpage, without having to justify my decision. YES/NO
5. I give my consent for my data to be used and for the results to be publicised, as the information I have provided will remain anonymous. YES/NO
6. I understand that personal data I have provided will be treated confidentially and not disclosed to others without my express permission. I understand that all information I provide will be stored securely on University premises and the University will comply with its obligations under the Data Protection Act (1988). YES/NO
7. I understand that if I wish to be included in the prize draw that I will be asked to provide my email address at the end of the survey so that I can be contacted, if successful. YES/NO
8. I agree to take part in this study. YES/NO
9. I confirm that I am 18 years of age or older. YES/NO

You have reached the end of our survey.

Thank you so much for taking the time to respond to our questions.

By participating in this study, you will contribute valuable information towards a relatively under-researched area into how women feel about their bodies while pregnant, how they see exercise during pregnancy and their thoughts about other pregnancy-related experiences. It is hoped that these findings have the potential to inform service delivery during pregnancy and post-birth. Whilst we hope that taking part has not caused any discomfort or emotional distress, we would like to re-iterate the free counselling services and support groups that are available, such as:

The National Childbirth Trust - <http://www.nct.org.uk/home>- 0300 330 0772
The "Meet-A-Mum Association" - <http://www.mama.co.uk/>- 0845 120 3746
Tommy's - <http://www.tommys.org>- 0870 777 3060

We very much welcome your feedback on the study and can be contacted if you have any comments or questions.

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As we stated, participation is completely voluntary; however as a token of our appreciation, we now offer you the chance to win £100 of High Street Gift vouchers. If you would like to be included in this prize draw, then please tick yes in the box below and you will be asked to provide an email address on the following page. This page will not be matched to your responses so your data will remain completely anonymous. This email address will allow us to contact you if you are the prize winner and will never be passed on to any third party.

Do you wish to provide your email address in order to enter the prize draw?

Yes

No

*Appendix T: Study 3 – Edited cases***Ethnicity**

Two participants declared themselves as *Other: Black British* (option 14). This was re-entered as *Other mixed background* (option 7). One participant declared themselves as *Other: White English* (option 14). This was re-entered as *White British* (option 1). Only one participant remained as option 14 (i.e., self-reported as *Middle Eastern*).

Living arrangements

Four participants declared themselves as *Other* (option 5), despite three residing with their partner's parents and one living with her parents temporarily. All four cases were re-entered as *Living with parents* (option 2) as they were all still clearly dependent on parental accommodation.

Height

One participant stated 1.6 as their response (i.e., in metres). This was changed to reflect 160 cms. Two participants stated 72 and 58. This was re-entered as 172 cms and 158 cms respectively.

Physical activity advice

Two participants responded as *No* to the item relating to seeking advice from a health professional and subsequently ticked *Other* by free-typing *GP*. These two responses were re-entered as *Yes* to seeking advice from a health professional and the *Other* option was deleted. One participant stated *Other*, yet left no description. This was therefore deleted. One further participant stated *Other* as their sports coach, therefore this was changed to *Instructor*.

Exerciser/non-exerciser classification

Case ID's 114 and 121 left the response missing when asked '*How do you train?*' Based on their *No* responses to all physical activity questions and participant 121 only indicating one hour of intentional exercise classified as *Other*, both cases were edited to '*I do not currently intentionally exercise*' (option 6).

Appendix U: Study 3 – Missing values

- Following the deletion of three whole cases, no other cases were deleted.
- Participant 101's data relating to weeks' gestation was missing. She had self-reported experiencing a number of physical symptoms with a *sometimes* response, so it was likely that she was not in her first trimester. It is hard to state exactly whether she may have been in her third trimester, but as symptoms were self-reported as *sometimes* and not more frequent, a decision was made to classify her as being in second trimester.
- For the Pregnancy Discomforts scale, there were seven cases where one specific discomfort was missing. It is likely that the participant had therefore not experienced such a discomfort and therefore a value of 1 was inserted to indicate a *never* response.
- The Pregnancy Locus of Control scale had one case with missing data. This participant self-reported as not being an exerciser and therefore one question that related to exercise was left blank. This was re-coded with a value of 3 to indicate a neutral response (neither agree nor disagree).
- In the Pregnancy Weight-Gain scale, one case was only three weeks gestation and data were missing where it was likely that certain items were not yet relevant (e.g., wearing maternity clothes or being weighed by a midwife). Hence, a value of 3 was inserted to indicate a neutral response (neither agree nor disagree).
- In the Physical Appearance Comparison scale, one case was missing one value, however had responded with a value of 4 for all other items that did not require reverse scoring, therefore the same value was inserted. This was the same for the Perceived Sociocultural Pressure scale for two cases, where an identical value was inserted to other responses.