NONVERBAL COMMUNICATION IN RELATION TO WOMEN'S EXPERIENCES OF
SELF AND BODY: A MIXED METHODS EXAMINATION

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Abstract

Understanding how nonverbal behaviour imparts information about women's attractiveness and body image is important, given that peers are a source of information about appearance (e.g., Tiggemann, 2011). Research has demonstrated that negative messages from peers are associated with body dissatisfaction and disordered eating among females (e.g., Vincent & McCabe, 2000) but less is known about nonverbal communication. The current research examined women's nonverbal behaviour, physical appearance, and body image within interactions. An explanatory sequential mixed method design was used. The initial quantitative study examined the relationship between immediacy and women's body attractiveness, facial attractiveness, and body image in peer-dyad interactions ($n = 80$ dyads). Participants were videotaped interacting in a laboratory setting for 15 minutes and then completed self-report measures of their interaction partner for immediacy and attractiveness. They also completed self-report measures of their body image, internalization of the thin ideal, and appearance comparison. The researcher measured body mass index. Results indicated that as perceptions of body and facial attractiveness and body image of an interaction partner decrease, so does the immediacy shown towards the partner.

Following the quantitative component, a follow-up qualitative study explored women's experiences of their bodies and themselves in relation to nonverbal communication in interactions with peers. It was conducted according to Interpretative Phenomenological Analysis (Smith, Flowers, & Larkin, 2009). A subset of participants ($n = 4$) was invited to review their videotaped conversation and participate in a semi-structured interview with the researcher. Results indicated that women experience complex processes within interactions, including comparing and judging as well as body consciousness and that both the egocentric and sociocentric parts of the self are involved. Results also illuminated women's experience of resisting the influence of adhering to society's ideals of appearance.

Together, the findings indicate that weight-based bias is present within everyday interactions among women. It is hoped that this research will bring attention to biases that are routinely communicated in subtle ways to decrease it and positively impact women's experiences of themselves and their bodies.

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Table of Abbreviations

Abbreviation	Explanation
APIM	actor-partner interdependence model
BD	Body Dissatisfaction subscale
BIAQ	Body Image Avoidance Questionnaire
BMI	body mass index
EDI-3	Eating Disorders Inventory-3
EMG	electromyography
IAT	Implicit Association Test
IPA	Interpretative Phenomenological Analysis
IRAP	Implicit Relational Assessment Procedure
NIS-O	Nonverbal Immediacy Scale-Observer Report
PACS-R	Physical Appearance Comparison Scale-Revised
PFRS	Photographic Figure Rating Scale
SATAQ-III	Sociocultural Attitudes Towards Appearance Questionnaire-III
U of S	University of Saskatchewan
WHR	waist-to-hip ratio

Note: All abbreviations listed also have explanations included in text as they appear. List includes alphabetized abbreviations that occur more than once in the text.

Chapter 1: Introduction

Body image disturbance has been widely researched in recent decades. Rodin, Silberstein, and Striegel-Moore, in 1984, coined the phrase "normative discontent" to describe the majority of females in Western societies who express discontent with their bodies. Since that time, the negative consequences of body image disturbance have been documented. Negative body image is associated with lower levels of self-esteem and self-concept (Cook-Cottone & Phelps, 2003), higher rates of depression (Bearman & Stice, 2008), and the development of eating disorders and other unhealthy behaviours related to weight (Littleton & Ollendick, 2003; Rodgers & Chabrol, 2009). The sociocultural model of body image and objectification theory, explained in more detail in the pages to come, provide a framework for understanding the occurrence of body image disturbance.

According to the sociocultural model of body image, in Western societies, slenderness represents the ideal body (Tiggemann, 2011), which has come to be associated with happiness, success, youthfulness, and social acceptability (Grogan, 2017). At the same time, overweight is associated with laziness, lack of willpower, and being out of control (Grogan, 2017). As a result of failing to achieve the ideal body of slenderness, women have developed body image disturbance (Tiggemann, 2011). According to the Tripartite Influence Model, peers, parents, and the media directly affect body image and are three sources by which information on appearance is communicated (Thompson, Coovert, & Stormer, 1999; Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999; van den Berg, Thompson, Obremski-Brandon, & Coovert, 2002).

Objectification theory provides another perspective on body image (Fredrickson & Roberts, 1997). According to objectification theory, women encounter sexually objectifying experiences in their everyday life (e.g., through the gazes and comments of others and in the media) that depicts interpersonal encounters and highlights bodies with a sexualizing gaze (Fredrickson & Roberts, 1997). Such experiences are thought to lead women to internalize the view of themselves as objects and engage in self-surveillance, resulting in body shame, appearance anxiety, and an increased incidence of eating disorders (Fredrickson & Roberts, 1997).

Both the sociocultural model of body image and objectification theory implicate communication in understanding women's body image. Within the literature, communication through verbal messages has received the most attention. Extensive research has demonstrated that negative messages from parents and peers are associated with body dissatisfaction and disordered eating among females (e.g., Abraczinskas, Fisak, & Barnes, 2012; Fulkerson et al., 2002; Hanna & Bond, 2006; Keery, Boutelle, van den Berg, & Thompson, 2005; Lieberman, Gauvin, Bukowski, & White, 2001; Vincent & McCabe, 2000). In contrast, less is known about nonverbal communication and its relation to body image. The research to date has largely focused on identifying weight-based and attentional biases towards individuals (e.g., Roddy, Stewart, & Barnes-Holmes, 2010, 2011; Rodgers & DuBois, 2016) and the impact of nonverbal behaviour on women's body image (e.g., Martijn, Vanderlinden, Roefs, Huijding, & Jansen, 2010) through laboratory experiments. How body-related constructs, such as body image and appearance, may relate to nonverbal behaviour within real-world interactions has yet to be researched.

1.1 Statement of the Problem

As introduced thus far, the current understanding of communication relevant to body image is based largely on verbal interactions. However, researchers have demonstrated that nonverbal communication accounts for a greater percentage in meaning than does verbal communication (Philpott, 1983) and that individuals generally rely on nonverbal cues more than verbal cues (Burgoon, 1994). Therefore, past research has failed to uncover potentially significant information regarding the relationship of nonverbal behaviour and women's body image. Such a gap may considerably limit understandings of body image disturbance.

1.2 Purpose of the Current Study

Given the importance of nonverbal communication in any interaction, the first purpose of the current study was to understand the relationship between nonverbal behaviour directed towards others and the others' body and body image within peer-dyad interactions. The research questions focus on whether nonverbal behaviours differ based on others' body size, facial attractiveness, and body image, and on how nonverbal communication is experienced by women in daily life in relation to their bodies. The second purpose of the current study was to use a mixed method in order to gain rich data on a gap area in the literature. A two-phase sequential explanatory mixed methods design (Creswell & Plano-Clark, 2011) was used. An initial

quantitative study addressed the relationship between nonverbal behaviour and body attractiveness, facial attractiveness, and body image. A follow-up qualitative study, using Interpretative Phenomenological Analysis (IPA; Smith, Flowers, & Larkin, 2009) sought to explore women's experiences of their bodies in relation to nonverbal communication. Finally, an integration of the quantitative and qualitative findings compared and contrasted results and aimed to further understand all of the findings.

1.3 Philosophical Foundations

The current mixed method study utilizes a pragmatic worldview. The pragmatic approach to research rejects the dualisms encouraged by traditional research paradigms based on the philosophy of knowledge. Rather than taking a stand on, or pledging allegiance to, the distinctions between induction versus deduction, subjectivity versus objectivity, and context versus generality, the pragmatic approach advocates a balanced view of each (Morgan, 2007). For instance, researchers working from a pragmatic point of view argue that it is impossible to work in a completely inductive or deductive and completely subjective or objective manner. Similarly, they posit that it is unlikely that any research result would be completely specific to one context or generalizable to all. Instead, pragmatists rely on abductive reasoning, which moves back and forth between induction and deduction; intersubjectivity, which emphasizes mutual understanding and shared meaning through the coordination of each of our subjective worlds; and transferability, which is the extent to which what is learned with one type of method in a specific setting can be used appropriately in other circumstances (Morgan, 2007).

In addition, pragmatism as a worldview is based on actions, situations, and consequences and thus is driven by the research question or problem at hand (Creswell, 2014; Johnson & Onwuegbuzie, 2004). Because the research question is given priority, and pragmatists take a balanced approach to traditional dualisms (Morgan, 2007), researchers working from a pragmatic point of view are free to use all available approaches to understand the problem. They are not committed to a single system of philosophy of knowledge (Creswell, 2014). They therefore allow for whichever methods, worldviews, or assumptions best serve the problem at hand. Johnson and Onwuegbuzie (2004) explained that a needs-based approach to research method selection means that sometimes qualitative methods will best answer the question, sometimes quantitative methods will best answer the question, and sometimes a combination of both will be superior to either used alone.

While debates about paradigms to be used in mixed method research are still ongoing (Teddlie & Tashakkori, 2010), pragmatism is often noted to be a good fit and is popular amongst current researchers. Teddlie and Tashakkori (2003) noted that pragmatism is the paradigm most often mentioned in the mixed methods literature and that it is proposed to be the best paradigm for mixed methods research. Pragmatism as a research paradigm is therefore a natural fit for the current study.

1.4 Theoretical Perspective

On a societal level, there are two theories that both provide a framework for understanding body image: the sociocultural model of body image (Tiggemann, 2011) and objectification theory (Fredrickson & Roberts, 1997). Each is discussed in turn.

The sociocultural model of body image holds that there are societal standards of beauty within a given culture and that these standards are transmitted via a variety of channels. The current cultural ideal consists mainly of thin bodies but women who are also young, tall, long-legged, large-eyed, moderately large-breasted, tanned, clear-skinned, and who have White features, are highly valued as well (Tiggemann, 2011). The channels that are purported to communicate these ideals are parents, peers, and the media; these three channels constitute what is referred to as the Tripartite Influence Model (Thompson, Coovert, et al., 1999; Thompson, Heinberg, et al., 1999; van den Berg et al., 2002). As a result of communication of societal standards of beauty, individuals internalize the ideal, which becomes the basis by which they judge themselves and others. But, because the ideals are impossible to achieve, women develop body image disturbance, which may lead to dieting and other behaviours indicative of eating disorders (Tiggemann, 2011).

In the Tripartite Influence Model, peers, parents, and the media directly affect body dissatisfaction. Additionally, internalization of societal standards of appearance and excessive appearance comparison mediate the influence of peers, parents, and the media on body dissatisfaction (Thompson, Coovert, et al., 1999; Thompson, Heinberg, et al., 1999; van den Berg et al., 2002). In a recent longitudinal investigation of the model with an Australian sample of adolescent girls, internalization and body dissatisfaction were also found to be mutually reinforcing such that the presence of each predicts the other (Rodgers, McLean, & Paxton, 2015). The Tripartite Influence Model has been replicated with adolescent females in the United States (Keery, van den Berg, & Thompson, 2004; Shroff & Thompson, 2006) and in Hungary (Papp,

Urbán, Czeglédi, Babusa, & Túry, 2013). The model has also been supported with university females in Japan (Yamamiya, Shroff, & Thompson, 2008), and France and Australia (Rodgers, Chabrol, & Paxton, 2011). The sociocultural model of body image, and the more precise Tripartite Influence Model, provides one way of understanding communication about women's bodies. A different perspective is found within objectification theory, discussed below.

Objectification theory provides another view of women's experiences, especially with regard to their bodies and body images within society (Calogero, Tantleff-Dunn, & Thompson, 2011a; Fredrickson & Roberts, 1997). It is posited that women encounter sexually objectifying experiences in their everyday life, such as through the gazes and comments of others and in media that depicts interpersonal encounters and highlights bodies and body parts with a sexualizing gaze (Fredrickson & Roberts, 1997). Such experiences are thought to lead women to internalize the view of themselves as objects. When women engage in self-objectification – that is, seeing themselves as an object to be used, manipulated, and controlled – they see themselves from the view of an external observer causing them to engage in self-surveillance by which they habitually monitor themselves and their bodies. Further, as a result of self-surveillance women are thought to suffer psychological consequences, including body shame and appearance anxiety, and mental health risks, such as an increased incidence of eating disorders (Fredrickson & Roberts, 1997). More damaging still is that the female bodies considered to be most attractive within our society are those that are basically unattainable for most (i.e., young and thin but also somewhat muscular; Tiggemann, 2011).

Self-objectification is broadly understood as the experience of taking the perspective of one's self from an anonymous external other (Calogero, Tantleff-Dunn, & Thompson, 2011b). However, there is some debate as to who the 'other' can be. Calogero, Tantleff-Dunn, and Thompson (2011b) note that some women report feeling objectified by other women but that some theorists argue that women only look at other women from the point of view of a male's gaze. They noted that future research might clarify this area. More recently however, Riley, Evans, and Mackiewicz (2016) qualitatively studied looking among women and framed such gazing between women as constituting the postfeminist gaze. They described the postfeminist gaze as foregrounding women as the viewers of other women (while still acknowledging that the male gaze was present; Riley, Evans, & Mackiewicz, 2016). Further, when women gaze at other women they are found to alternate between an object and a subject, such that each is scrutinized

by the other but then also scrutinizes the self. Other features of the postfeminist gaze included viewing femininity as a bodily practice in which women work on and transform themselves to prepare for evaluation by other women and having appearance as the source of female recognition and validation. Thus, although there have been debates in the literature about how women view other women, recent research has found support for the idea that women objectify each other.

Fredrickson and Roberts (1997) frame self-objectification as an individual difference variable. That is, women differ with regard to their engagement in self-objectification. Most women are thought to experience it at least momentarily when attention is called to their bodies but for others, a view of themselves as objects may be present most of the time. Furthermore, self-objectification among women is understood as a "normative yet nontrivial" (Calogero et al., 2011a, p. 11) view of self for many women for two reasons. The first reason is that physical attractiveness is associated with tangible social and economic rewards (e.g., Brownell, Puhl, Schwartz, & Rudd, 2005). The second reason is that women are understood to need some way of coping with societal pressure to meet beauty ideals and that self-objectification is one way distress can be at least temporarily relieved. Thus, when women engage in self-objectification, even unconsciously, they are able to anticipate to some extent how others will view and treat them and should be viewed as having some agency in this context (Calogero et al., 2011a; Fredrickson & Roberts, 1997).

There are both similarities and differences in how women's body image is understood within the sociocultural model and objectification theory. Both provide a perspective for examining women's body image within our society. More specifically, both involve communication with other people and the media. The sociocultural model and objectification theory differ in how they purport that beauty ideals are transmitted. The Tripartite Influence Model involves direct communication between peers, parents, and the media as well as indirect influences through internalization of the thin ideal and appearance comparison. This model has undergone many empirical tests amongst different populations and in this way is understood to be a truth that has been discovered. On the other hand, objectification theory focuses on how women are viewed by others and themselves as objects as a result of sexual objectification from others and the media within the framework of feminist theory, usually from a social constructionist perspective. Despite these differences, both theories are useful in understanding

the interpersonal processes involved in communication of appearance ideals, especially as applied to the current study. While the sociocultural model and objectification theory take a broader, societal approach to women's body image, theories of the conception of self provides a bridge to understanding what may occur on an individual level.

Although there are many approaches to understanding the development and aspects of the self (de Munck, 2000), many theories are in agreement that the self has both private and public features (Cooley, 1902/1968; Mead, 1925/1968; Singer, 1984). One way to understand the self is that there are two primary components: the egocentric self and the sociocentric self (Singer, 1984). The egocentric part refers to the inner elements of the self, such as that occurring in their consciousness (e.g., private thoughts and emotions). The sociocentric part pertains to aspects of the self that are socially oriented (e.g., interpersonal relationships).

Singer (1984) discussed the dialogical nature of the self in which there is an inner dialogue of the self with its self as well as dialogue between the feelings, thoughts, and actions of other individuals, reflecting the social and public origin of self. Comparably, Cooley (1902/1968) and Mead (1925/1968) posited an inner dialogue of the self that occurred between an immediately experienced "I" and a remembered social "me" and an outer dialogue between an "I" and a "you," focusing on the interdependence between these concepts. Mead (1925/1968) proposed that when individuals interact with others, they imagine the perspectives such others have of them and over time incorporate others' views into the view they hold of their self. Similarly, Cooley (1902/1968) explained that understandings of self are often derived from our imagined judgments that others hold of us, which he labeled "the looking-glass self." Interestingly, Fredrickson and Roberts (1997) explicitly related objectification theory to Cooley's conception of self and indicated that it may be helpful to apply more literally the concept of the looking-glass self to understandings of women (because mirrors reflect physical attributes that hold intensified importance for this group).

Understanding the conception of the self as both private and social is relevant to the current study, which aims to examine communication in relation to women's appearance and body image. An important component of interpersonal communication is nonverbal, the focus of this study. Nonverbal communication is relevant to both objectification of women (e.g., the gaze of others) and the sociocultural model (e.g., communication between peers) as well as more individual approaches to understanding body image, such as private and public facets of the self

and the looking-glass self. Recent empirical examinations of the looking-glass self (or reflected appraisal) are examined below.

The theory of reflected appraisal (also referred to as reflected self-appraisal or the looking-glass self), offers a framework for understanding why individuals care about others' nonverbal communication as well as how nonverbal communication can affect others. Reflected appraisal is the process by which people's self-views are influenced by their perceptions of how others view them (Wallace & Tice, 2012). In this way, reflected appraisal actually refers to a cycle of judgments that continuously influence future judgments: self-views affect judgments of others' views, and judgments of others' views affect self-views (Wallace & Tice, 2012). This cycle is commonly divided into two parts. The first part is meta-perception, the stage in which people form subjective impressions of others' views of them. The second part is the process by which meta-perception affects self-perception (Wallace & Tice, 2012).

Forming meta-perceptions requires individuals to make inferences on other people's behaviour, which includes their nonverbal communication. Often, others' behaviour is ambiguous; thus, meta-perceptions are based on perceptions of others' views, not necessarily their true opinions (Wallace & Tice, 2012). In fact, research has demonstrated that even if people attend to others' unambiguous cues, they may still reject the information if it conflicts with their expectations (Jones, 1986) or preferences (Sanitioso & Wlodarski, 2004). Interestingly, Wallace and Tice (2012) concluded that although self-views affect meta-perceptions, they are sometimes the only source of meta-perceptions. Thus, individuals sometimes base their meta-perceptions on their self-views more so than others' actual behaviour (e.g., Krueger, 2007).

Not all research has demonstrated that self-views influence meta-perceptions more than the behaviour of others. Kenny and DePaulo (1993), in a review, concluded that individuals are able to judge how people generally view them with some accuracy, but that they overestimate the extent to which others' views are similar; they cannot correctly determine the meta-perceptions of particular other people. At the same time, other findings indicate that people are sometimes able to accurately judge the meta-perceptions of specific others (Carlson & Furr, 2009; Oltmanns, Gleason, Klonsky, & Turkheimer, 2005). This apparent contradiction reflects Kenny's (1994) conclusion that people occasionally look to others for feedback, and gain real insight into how others actually view them, but, for the most part, individuals' meta-perceptions are influenced by their self-perceptions.

There are several reasons why self-views are important to meta-perceptions. First, self-views that are always available have been shown to automatically and unconsciously influence social judgments (Baldwin, 1992). Second, self-views are the first part of taking the perspectives of others; individuals automatically use their self-views unless cued to process information more fully (Epley, Keysar, Van Boven, & Gilovich, 2004). Third, the false consensus effect, the tendency to overestimate the similarity between self-views and others' views, leads people to assume that others share their views (Marks & Miller, 1987). Lastly, the illusion of transparency, proneness to overestimate the extent to which one's feelings are obvious to others, increases the likelihood that individuals believe others hold the same views as them (Gilovich, Savitsky, & Medvec, 1998).

As explained above, the second part of the reflected appraisal cycle is the process by which meta-perceptions affect self-views. Sociometer theory provides an explanation for why self-views are influenced by meta-perceptions. It postulates that people care about others' views because the way they feel about themselves directly depends on how they think others feel about them (Leary & Baumeister, 2000). The process by which others' views influence one's self-views occurs mostly automatically (Chen, Boucher, & Tapias, 2006) and can range from a major to a minor change in self-concept (Wallace & Tice, 2012). Research on the moderators of reflected appraisal indicate that meta-perceptions have more influence on the self-views of people who have low self-esteem (Murray, Holmes, & Griffin, 1996) or stigmatized personal features (Cioffi, 2000), which are both relevant to body image. Thus, the theory of reflected appraisal is applicable to nonverbal communication and body image because women look to others for information on their body and appearance. The cycle of reflected appraisal can be especially damaging to those who suffer from a negative body image.

Together, the sociocultural model of body image, objectification theory, and the egocentric and sociocentric conception of self, including the looking-glass self, provide the theoretical background to the current study. The theoretical framework as a whole combines approaches that take both societal and individual perspectives for understanding negative body image. At the individual level, women are engaging in reflected appraisal processes and are experiencing dialogues between parts of self ('I' and 'me' and 'I' and 'you'). These processes are influenced by communication, both nonverbal and verbal, with other people. Such communication can result in body image disturbance in two ways, either through appearance

comparison and internalization of the thin ideal whereby parents, peers, and the media impart these standards for appearance, and/or through the sexualizing gaze of peers and the media so that women objectify themselves. When body image disturbance results, these thoughts, feelings, perceptions, and behaviours influence dialogues within the self and with others, in a cyclical process. The integration of these perspectives will serve to further examine nonverbal communication processes and how these individual and societal approaches to understanding body image disturbance work together. A diagram of this theoretical framework is presented in Figure 1.1.

Woman

Dialogue between I
and me

Dialogue between
I and you

Reflected appraisal

Reflected appraisal

Communication
(Nonverbal & Verbal)

Societal standards of
beauty transmitted by
parents, peers, and
media

Sexualizing gaze of
peers and media

Objectification

Appearance comparison
and internalization of
thin ideal

Self-objectification

Body image disturbance

Figure 1.1. Diagram of theoretical framework. Based on Cooley, 1902/1968; Fredrickson & Roberts (1997); Mead, 1925/1968; Singer, 1984; Thompson, Coovert, et al., 1999; Thompson, Heinberg, et al., 1999; Tiggemann (2011); van den Berg et al., 2002; Wallace & Tice, 2012.

Chapter 2: Review of the Literature

To provide the necessary background to the current study, literature on body image and interpersonal communication is reviewed. First, the history and views of body image as a multidimensional, plural, socially constructed, and state versus trait concept are discussed, followed by a consideration of both positive body image and body image disturbance. To complete the body image section, the related variables of body mass index (BMI), internalization of the thin ideal, and appearance comparison are examined. Interpersonal communication, including verbal and nonverbal communication, are discussed and related to body image research next. Lastly, criticisms of research to date as it relates to body image and communication research are summarized.

2.1 Body Image

Body image has been defined and measured in many ways since the construct was first described in the research literature. Interest in body-related constructs began in the early 1900s when neurologists tried to understand unusual forms of body perception and experience, such as phantom limbs (Cash & Smolak, 2011). In the 1920s, following the neurologists, Head (1926) proposed the idea of body schema: neural mechanisms that coordinate body posture and movement. Head is considered the first "body image" researcher (Cash & Smolak, 2011). Following Head, Schilder moved the area of research to the biopsychosocial aspects of the body. He defined body image as "the picture of our own body which we form in our mind" (Schilder, 1950, p. 11). Schilder was thus interested in body image as a perceptual construct. He also studied the attitudes and interactions involved with body image, including the effects of body image on interactions with others (Schilder, 1950).

Since Schilder's early work, body image research has proliferated and the construct has been defined and measured in many ways, ranging from very specific to very broad. In their book, Thompson, Heinberg, Altabe and Tantleff-Dunn (1999) described body image as "a sponge phrase, absorbing many different connotations and meanings" (p. 7). They listed 14 different definitions, or ways of measuring, body image, based on previous research: weight satisfaction, size perception accuracy, body satisfaction, appearance satisfaction, appearance

evaluation, appearance orientation, body esteem, body concern, body dysphoria, body dysmorphia, body schema, body percept, body distortion, and body image disturbance/disorder. The above definitions have specific focuses on various aspects of body image; some have positive connotations while others have negative connotations. However, not all researchers have defined body image so specifically. After a review of the literature and history of body image, Grogan (2017) defined body image as "a person's perceptions, thoughts, and feelings about his or her body" (p. 3). Grogan's (2017) broader concept of body image is more representative of the large field of body image research today. It is also in accord with the idea of a body image continuum, ranging from positive body image to body image disturbance (Thompson, Heinberg, et al., 1999).

       2.1.1 Body image as multidimensional. Body image has been described as multidimensional in nature, consisting of four dimensions, including affect, cognition, behaviour, and perception (Banfield & McCabe, 2002; Pruzinsky & Cash, 2002; Thompson, Heinberg, et al., 1999). The affective dimension consists of the feelings people have about their appearance. The cognitive component includes the thoughts people have about their bodies, which may be realistic or unrealistic. The behavioural dimension describes the observable behaviour of individuals, which may be positive, such as enjoying swimming at the beach, or negative, which could be the avoidance of such activity. Lastly, the perceptual component is people's perception of their bodies and has traditionally been measured by how accurately people estimate their actual body size (Pruzinsky & Cash, 2002; Thompson, Heinberg, et al., 1999). While there is agreement on body image as a multidimensional construct, simplifying body image into reliably measurable factors has posed a problem. For instance, body image has been described using the four factors described above but in a factor analysis of the dimensions, Banfield and McCabe (2002) found support for a three-factor model: affective/cognitive, behavioural, and perceptual.

       2.1.2 Body image as plural. In addition to the multidimensionality of body image, others have proposed that individuals have many body images, not just one (Fisher, 1990; Pruzinksy & Cash, 2002). For example, an adult's 'young' body image may be present when playing with children but later the 'old' body image may be elicited when the individual experiences tiredness as a result of the previous physical activity. Although body image researchers have described multiple body images within individuals, there is little psychology research specifically in the area of body image that approaches it as plural in nature. However, researchers working on other

topics have discussed the multiplicity of bodies and selves. For example, Lock and Scheper-Hughes (2010) described the three bodies of humans and Gelech and Desjardins (2011) described how individuals with acquired brain injuries experience two aspects of their selves.

According to Lock and Scheper-Hughes (2010), there are three bodies: the individual body, the social body, and the body politic. The individual body is a person's sense of existence apart from others' bodies. The social body refers to the idea that the body is a way to think about the world. For example, Lock and Scheper-Hughes (2010) explained that an ill body can represent conflict and disharmony. Lastly, the body politic refers to the control of individuals and groups of bodies in a society. For instance, individuals violating societal norms are sometimes ostracized. Because Lock and Scheper-Hughes' (2010) notion of the individual body is most applicable to body image, it is briefly reviewed below.

The idea of the individual body is unique to Western cultures (Anderson-Fye, 2011). In the West, where individualism predominates, the body is viewed as belonging to one person and to that person only. However, in other cultures, particularly sociocentric societies, an individual's body may not be viewed as belonging to any one person. Instead, the body may be thought of as shared by two or more people (Anderson-Fye, 2011). For example, individuals in Japan are viewed as acting within the context of social relationships, not as autonomous beings. The Gahuku-Gama people of New Guinea do not have a concept for individual persons because people are not viewed in isolation from their social roles (Lock & Scheper-Hughes, 2010). The Bororo people of Brazil understand the self only in relation to others, meaning that identity changes within interactions (Lock & Scheper-Hughes, 2010). For those who view multiple other people (e.g., close family and friends) as influencing another's actions, the individual is viewed more so as part of a group than as a separate being (Anderson-Fye, 2011). In contrast to having no concept of the individual, there are also those who view individuals as constituted by multiple selves. The Cuna Indians of Panama describe people as consisting of eight selves, each associated with a different part of the body (Lock & Scheper-Hughes, 2010). Thus, understanding individuals and bodies is highly dependent on culture. Multiple selves may exist because one's identity changes with social context or, based on the group-oriented nature of the society, the concept of individuals may not even exist.

In Western society, people are viewed as being relatively autonomous over their one body. However, it is possible to describe multiple aspects of one's being, or multiple selves,

within a single body. Gelech and Desjardins (2011) described how all selves have two primary facets: the egocentric and the sociocentric. The egocentric part of the self refers to the unique traits of the person as well as private inner facets such as thoughts and emotions (Gelech & Desjardin, 2011). The sociocentric part of the self is that which is socially oriented, including relationships with other people, public roles, and statuses within and among groups (Gelech & Desjardins, 2011). Qualitative interviews with individuals experiencing acquired brain injuries revealed both the sociocentric and egocentric parts of the self. The sociocentric aspect of the self was associated with change and loss as a result of the injuries. The egocentric part was revealed in narratives of uniqueness and continuity despite significant change in the public world (e.g., within the sociocentric part of the self). Therefore, even in Western society, individuals can be regarded by others and by themselves as consisting of multiple identities or selves.

  2.1.3 Body image as socially constructed. The concept of socially constructed body images began with Fisher (1990), who described how people not only have multiple body images but also that the set of body images a person has mediates the relationship of that person to different stimuli. Similarly, Grogan (2017) explained that body image is determined through social experience and that people's body image can change based on information they receive in their environment.

  Empirical research investigating body image from a social constructivist viewpoint has increased in recent years. Gallagher and Pecot-Hebert (2007) examined the social construction of ideal images in society through makeover television shows. Busanich, McGannon, and Schinke (2012) described distance runners' socially and culturally formed eating and exercise practices through qualitative interviews. Martin (2015) found that parents and children in Malta co-constructed perceptions of fatness as the children grew; 5-year-old children who were fat were valued and protected by parents whereas 10-year-old children came to view larger bodies as undesirable as parents imparted the biomedical discourse about the dangers of fat to them. Coleman's (2009) research on the becoming of teenaged females' bodies through specific images and relations with particular aspects of the world contributed to both the socially constructed and plural nature of body image. Coleman (2009) found that photographic, mirror, and popular media images elicited different body images among her sample of teenaged girls. Specifically, she found that photographs were seen as fixed images of bodies in the past; mirror images captured changeable bodies in the present; and popular media images were understood as a comparison to

the girls' own bodies and caused the girls to experience their bodies as limited or fixed in certain ways. Thus, different images elicited distinct views of girls' bodies.

In addition to the research above, there is another, more critical, approach to the social construction of women's body image. Blood (2005) utilized discourse analysis to examine women's experiences of reading beauty magazines and in understanding their bodies. She refers to 'discourse' as a group of statements that correspond to a particular topic and that not only provide a way of talking about that topic but also form the way in which individuals understand it. In this case, body image disturbance is understood to be one of the main discourses available to women to make sense of their experiences of their bodies. By becoming a dominant discourse, it influences many women's understandings of their body size/shape and the meanings they give to their bodies. This necessarily means that other discourses that are not as dominant are suppressed and not available to most as a way to understand themselves and their bodies. In explaining her position, Blood (2005) outlines her criticisms of the mainstream body image research community. She explains that most research has neglected the socio-historical context in which participants live; that the female body is not just a biological object but one that is invested with meaning, which can be multiple and contradictory; and that the body can be viewed as a channel for power and control. She also critiques the way in which most research positions women as irrational, weak, and suffering from perceptual problems in addition to most researchers' views that women should be able to resist body image problems. Her work has filled a void left by others.

2.1.4 State versus trait. Body image is theorized to have both state and trait properties (Cash, 2011b). Trait body image refers to an individual's body image, in general, over longer periods of time. State body image refers to an individual's body image at specific points in time, such as after a particular event or situation (Cash, 2011b). While general patterns of body image (e.g., trait body image) are found for individuals, research has also demonstrated that body image varies as a function of contexts and can fluctuate over short periods of time (Cash, Fleming, Alindogan, Steadman, & Whitehead, 2002; Melnyk, Cash, & Janda, 2004). For example, factors shown to induce positive changes in state body image include downward social comparison (van den Berg & Thompson, 2007) and short-term fasting when individuals have high dietary disinhibition (Schaumberg & Anderson, 2014). Additionally, the premenstrual phase of the menstrual cycle is associated with increased likelihood of body dissatisfaction (Kaczmarek &

Trambacz-Oleszak, 2016). However, research has also demonstrated that state-level body image changes are related to trait-level body dissatisfaction, frequency of appearance-related self-monitoring, and thin-ideal internalization (Colautti et al., 2011; Rudiger, Cash, Roehrig, & Thompson, 2007) and that social comparison is a predictor of both state- and trait-body dissatisfaction (Fitzsimmons-Craft et al., 2015).

Recognizing the theoretical distinction between state and trait body image, researchers have thus begun to distinguish between them in studies. As a result, there have been numerous scales developed that were designed to measure state body image. Despite the increase in measures, Tiggemann (2005), in a commentary on body image research, called for the development of more state measures of body image that would accurately capture fluctuating body image. Similarly, Cash (2011b) cautioned researchers to "never" (p. 131) use trait body image measures to assess state body image due to decreased sensitivity. Although research has been directed towards rectifying the state versus trait distinction, most previous research in the area of body image has simply used "body image" to refer to trait body image. Thus, if trait versus state is not specified, it is likely that the authors are measuring trait body image. In the current study, body image is quantitatively measured as a trait.

2.1.5 Positive body image. Most research in the area of body image has focused on the negative aspect, that is, body image disturbance. However, more recently researchers have begun to examine positive body images. Tylka (2011) explained that a positive body image is not simply the absence of body image disturbance. Positive body image is considered to be multifaceted, encompassing body appreciation, body acceptance and love, broadly conceptualizing beauty, adaptive appearance investment, inner positivity, and filtering information in a body protective manner (Tylka, 2011; Tylka & Wood-Barcalow, 2015). For example, research indicates that these individuals emphasize positive aspects of their bodies and minimize imperfections (Avalos & Tylka, 2006; Frisén & Holmqvist, 2010; Wood-Barcalow, Tylka, & Augustus-Horvath, 2010). Positive body image is also thought to be holistic (such that the multiple facets and internal experience and external behaviour are interdependent), stable and malleable (i.e., trait and state components), protective (of physical and psychological well-being), linked to self-perceived body acceptance by others, and shaped by social identities (i.e., gender, age, ability; Tylka & Wood-Barcalow, 2015). Positive body image is proposed to exist on a dimension separate from negative body image (Halliwell, 2015; Tylka, 2011; Tylka &

Wood-Barcalow, 2015) and empirical research has confirmed the simultaneous existence of both (Bailey, Cline, & Gammage, 2016).

2.1.6 Body image disturbance. Just as body image has been defined in multiple ways and is viewed as having four dimensions, body image disturbance is defined in a similarly complex manner (Thompson, Heinberg, et al., 1999). A specific disturbance can take many forms, and can include one or multiple dimensions (cognitive/affective, behavioural, and perceptual; Thompson, Heinberg, et al., 1999). Most research has described body image disturbance as body dissatisfaction, which has been defined as a negative, subjective evaluation of one's overall weight and shape (Garner, 2004; Grogan, 2017). Further, body dissatisfaction can include different aspects: negative evaluations of body size, shape, muscularity/muscle tone, and weight and usually involves a perceived discrepancy between a person's evaluation of his or her body and his or her ideal body (Grogan, 2017). Body dissatisfaction is considered to be the most global measure of disturbance because it captures a person's subjective evaluation (Thompson, Heinberg, et al., 1999). However, Thompson, Heinberg, and colleagues (1999) cautioned against using only the simplified construct of body dissatisfaction to measure body image disturbance because it may be associated with the other domains of negative body image. Each domain of body image can and ought to be assessed using unique measures instead of relying on an overall measure of dissatisfaction (Grogan, 2017; Thompson, Heinberg, et al., 1999). Specific dimensions of body image disturbance are discussed below.

2.1.6.1 Cognitive and affective. The cognitive and affective dimensions of body image are combined into one dimension because individuals' feelings and beliefs about their body are often assessed within the same instrument (Thompson, Heinberg, et al., 1999). Further, Banfield and McCabe (2002) found support for a three-factor model of body image disturbance, with cognitions and affect regarding body as one of the factors. The cognitive and affective dimensions are also both considered to be "subjective" and are measured with the same methods (e.g., usually self-report questionnaires). Additionally, body image disturbance is usually operationalized in a more specific manner, such as by body dissatisfaction or drive for thinness, which fall within the affective and cognitive dimension.

Within this dimension, dissatisfaction with the stomach, hips, and thighs is widely documented in women (Grogan, 2017). Females are also particularly concerned about the appearance of their legs in general (Chisuwa & O'Dea, 2011) and other body parts where fat

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tends to accumulate (Grogan, 2017). College women have also been found to score high on drive for thinness and body dissatisfaction and tend to be preoccupied with weight (Schulken, Pinciaro, Sawyer, Jensen, & Hoban, 1997). Researchers have estimated that 80% of college women experience body dissatisfaction (Silberstein, Striegel-Moore, Timko, & Rodin, 1988; Spitzer, Henderson, & Zivian, 1999). Furthermore, women do not appear to become less satisfied with age and women of all ages are less satisfied with their bodies than are men (Grogan, 2017).

Body dissatisfaction has also been observed in females in childhood, with some suffering body dissatisfaction by age 8 (DeLeel, Hughes, Miller, Hipwell, & Theodore, 2009; Shapiro, Newcomb, & Loeb, 1997; Thomas, Ricciardelli, & Williams, 2000; Wood, Becker, & Thompson, 1996). More than half of adolescent females are considered to be dissatisfied with their bodies (Grigg, Bowman, & Redman, 1996; Neumark-Sztainer, Story, Hannan, Perry, & Irving, 2002; Williams & Currie, 2000). Furthermore, girls describe having a fear of fat and a slender body shape ideal, which is similar to those of female adults (Grogan, 2017; Schulken et al., 1997). Thus, disturbance within the cognitive and affective domain of body image is well documented.

Although body dissatisfaction is considered widespread and has received much research attention in past decades, Ross (2013) stated that very little is known about women's daily experience in relation to body dissatisfaction. She attempted to ameliorate this gap by conducting a multi-method qualitative study with women aged 20 to 39 who self-identified as experiencing body dissatisfaction in the absence of a diagnosed eating disorder. Four core categories emerged from her analysis. First, there was the experience of body dissatisfaction. In this core category, participants discussed their understandings of current ideals, comparisons in which they engage, and the resultant negative feelings they have about their bodies. The second core category was labeled the external reinforcement of body dissatisfaction. Within this area, participants described how people in their lives communicated beauty ideals to them and reinforced their own dissatisfaction and its association to worth of self. Third, Ross (2013) identified a theme about the influence and impact of body dissatisfaction in daily life in which body dissatisfaction influenced participants' thoughts, emotions, and decisions within a number of areas of life, particularly interpersonal relationships. Lastly, there was a core category about the struggle to resist harmful ideals and beliefs. Here participants experienced tension between the influence of the appearance ideal, which resulted in body dissatisfaction, and conscious efforts to resist

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negative body messages. In sum, Ross's (2013) study illuminates how women understand and experience negative feelings about their bodies and provide space for women's individual voices to complement a large body of quantitative research. It is hoped that the current study will provide a similar opportunity for women's individual experiences to be given expression through the qualitative study proposed in the pages to come.

      2.1.6.2 Behavioural. The behavioural dimension of body image disturbance is measured by the presence and/or extent of various behaviours intended to avoid or change one's body (such as body checking, fixing, and avoidance; Grogan, 2017; Walker & Murray, 2012). Behaviours indicative of body image disturbance are usually measured by self-report or through behavioural experiments in which behaviour can be observed and/or tested by oneself or someone else. Investment in appearance and body dissatisfaction are the best predictors of appearance fixing and avoidance (Walker & Murray, 2012). Some have theorized that the behavioural dimension of body image disturbance is a result of the distress within the affective/cognitive dimension (Thompson, Heinberg, et al., 1999). Cash (2011a), using the cognitive-behavioural model of body image, theorized that behaviours intended to avoid or change one's body temporarily reduces distress but ultimately reinforces dissatisfaction. Similarly, Smeets and colleagues (2011) found that by inducing body-checking behaviour in non-clinical participants, attentional bias to body-related cues and body dissatisfaction increased. Thus, the relationship between the behavioural and cognitive/affective dimensions of body image is likely bidirectional. Below is a description of each of three aspects of the behavioural dimension of body image disturbance.

      Walker and Murray (2012) conceptualize body checking behaviours as those intended to gain information about one's size, weight, shape, and/or appearance, and include weighing, comparing one's body to another person's, and asking for reassurance about one's weight or shape (although reassurance seeking may represent a distinct factor of behavioural body image; see Legenbauer et al., 2017). Some body checking behaviour is common among nonclinical samples. In fact, Stefano, Hudson, Whisenhunt, Buchanan, and Latner (2016) found that mean body checking behaviours per day was 27.85 within their non-clinical sample and that body checking predicted both body dissatisfaction and negative affect. In a recent correlational study, Carrigan, Petrie, and Anderson (2015) found that self-weighing of female athletes three or more times per week was associated with higher internalization, dietary restraint, negative affect,

bulimic symptomatology, and lower body satisfaction. For individuals with body-related psychopathology, body checking behaviour occurs more frequently and can include checking for space between the inner thighs, wrist diameter, looseness of rings, and protrusion of bones (Walker & Murray, 2012).

Another aspect of the behavioural dimension of body image disturbance is appearance fixing. Appearance fixing refers to behaviours that are intended to hide parts of one's appearance that are viewed as flawed or as not achieving the cultural ideal (Walker & Murray, 2012). These behaviours include those that conceal the body through the use of makeup and/or hairstyling, and those that change one's appearance such as hair removal, tanning, dieting, exercise, the use of products intended to reduce cellulite, and cosmetic surgery (Walker & Murray, 2012). Appearance fixing is considered a coping method for body dissatisfaction and has been widely studied. College women have been found to score high on concern with dieting (Schulken et al., 1997). In a sample of British women, 86% were found to have dieted at some point in their lives (Wykes & Gunter, 2005). Over 40% of a sample of young female adults reported using unhealthy weight control behaviours within the past year (Eisenberg, Berge, Neumark-Sztainer, 2013). Cosmetic surgery has also increased in popularity, with many women pursuing it (Grogan, 2017). Sarwer and Crerand (2004), in a literature review, concluded that body dissatisfaction leads women to pursue cosmetic surgery. While appearance fixing may provide individuals short-term relief of negative affect, long-term outcomes of excessive appearance fixing include decreased self-esteem, disordered eating, excessive exercise, regular tanning, and excessive cosmetic surgery (Walker & Murray, 2012).

Lastly, body image avoidance refers to behaviours intended to avoid information about one's body. These include never or rarely weighing oneself, wearing loose-fitting clothing, avoiding looking in mirrors, and avoiding situations in which one's body shape would be revealed, such as at the gym or the beach, among others (Walker & Murray, 2012). Body image avoidance has not been documented as widely as other aspects of behavioural disturbance, possibly due to the difficulty in measuring avoidant behaviour through self-report (e.g., individuals may not be consciously aware of their avoidant behaviours). The current study adds to the literature by measuring body image avoidance.

2.1.6.3 Perceptual. The perceptual dimension of body image disturbance is measured by the accuracy of individuals' self-reported or estimated body size, shape, or weight. There are

various approaches to measuring this dimension (Thompson, Heinberg, et al., 1999). One method involves asking the individual for self-reported weight and then comparing it to their objective weight. Another method involves the individual drawing the width of certain body parts and then comparing the drawings to actual measurements. Related to both of these methods is figure rating scales, one of the most widely used methods for measuring body image perception (Thompson, Heinberg, et al., 1999). A series of female figures are displayed on a continuum from smaller to larger body sizes. The participants are asked to indicate which figure most closely represents their current body. The discrepancy between the individual's actual body size or figure and the figure they select from the scale represents a measure of the person's perceptual body image disturbance.

Research using the perceptual dimension of body image has found that most women are poor at estimating the size of their body as a whole as well as the size of individual body parts. In general, women appear to think that they are larger than they are in reality (Grogan, 2017). McCabe, Ricciardelli, Sitaram, and Mikhail (2006) found that women overestimated the size of their body even when able to manipulate a full frontal image of their body at five regions (chest, waist, hips, thighs, and calves). However, some research has found that women perceive themselves to be smaller than their actual size (MacNeill & Best, 2015). Whether actual size (e.g., BMI) impacts the degree of over- or under-estimation for women is not clear, with some findings indicating that BMI is positively correlated with perceptual distortion (Docteur, Urdapilleta, Defrance, & Raison, 2010; Paul et al., 2015), negatively correlated with perceptual distortion (Lerner, Klapes, Mummert, & Cha, 2016) and not related to perceptual distortion (McCabe, Ricciardelli, Sitaram, & Mikhail, 2006). Because Fuentes, Longo, and Haggard (2013) found that healthy adults exhibited perceptual distortions in relation to their own bodies, maybe the perceptual dimension of body image disturbance is not actually a consequence of body dissatisfaction but is present regardless of body image.

2.1.6.4 Prevalence of body image disturbance. As illustrated above, body image disturbance is a widespread problem. It has been established as a target for health practitioners in the United States (Neumark-Sztainer et al., 2002) and has also become a public health concern in Japan (Chisuwa & O'Dea, 2011). In fact, recent research suggests that body image disturbance is becoming more common across cultures because of the influence of Western media (Grogan, 2017). In locations where extreme thinness once denoted disease and poverty, the Western thin

ideal has been endorsed with many women attempting to attain it. For example, the thin ideal has been observed in South America (Negrão & Cordás, 1996), South Korea (Kim & Kim, 2001), and Japan (Nogami, 1997). Additionally, Luo, Parish, and Laumann (2005) found that urban Chinese women have significant body image concerns and communicate the desire to lose weight even at healthy BMI levels. In the West, a significant majority of female adolescents and college students with healthy BMIs desire to lose weight and have a thinner figure (Duarte, Ferreira, Trindade, & Pinto-Gouveia, 2016) and are dissatisfied with their current weight and shape (Ferreira, Trindade, & Martinho, 2016), even as body dissatisfaction has been observed to be decreasing among women and girls (Karazsia, Murnen, & Tylka, 2017). Importantly, although a majority of women express discontent with regards to their bodies – enough so that the phenomenon has been described as a "normative discontent" (Rodin, Silberstein, & Striegel-Moore, 1984) – it does not mean that body image disturbance is not harmful (Thompson, Heinberg, et al., 1999). These consequences are discussed next.

2.1.6.5 Consequences of body image disturbance. There are many negative consequences of body image disturbance, including lower levels of self-esteem and self-concept (Cook-Cottone & Phelps, 2003), higher rates of depression (Bearman & Stice, 2008; Ohring, Graber, & Brooks-Gunn, 2002), and unhealthy behaviours such as dieting and altered levels of exercise (Littleton & Ollendick, 2003; Neumark-Sztainer, Paxton, Hannan, Haines, & Story, 2006; White & Halliwell, 2010). Research has shown that body image disturbance in women may lead to fixation on parts of their bodies that they do not like (Mills, Roosen, & Vella-Zarb, 2011), further exacerbating and maintaining the disturbance. Most seriously, body dissatisfaction is associated with disordered eating patterns (Cash & Deagle, 1997; Lim & You, 2017; Ohring et al., 2002; Stice & Shaw, 2002) and the development of an eating disorder (Rodgers & Chabrol, 2009). In fact, body dissatisfaction has been found to be one of the most potent predictors of eating disorder onset (Stice, Marti, & Durant, 2011). Being able to better understand women's body image disturbance has the potential to enhance women's well-being. Three commonly measured variables when attempting to understand body image are body mass index (BMI), thin ideal internalization, and appearance comparison, each discussed next.

2.1.7 Body mass index (BMI). BMI is a measure of weight in kilograms divided by squared height in meters. It is used to determine if one's weight is healthy, based on height. The normal range of BMI is 18.5-24.9. Those with a BMI of 25-29.9 are classified as overweight,

and those with BMIs of 30-34.9, 35-39.9, and greater than 40 are classified as obese class I, obese class II, and obese class III, respectively (Health Canada, 2012).

Current BMI is consistently related to body dissatisfaction, such that individuals with a higher BMI are the most dissatisfied with their body (Algars et al., 2009; Docteur et al., 2010; Hanna & Bond, 2006; Keery et al., 2004; Salafia & Benson, 2013; Schwartz & Brownell, 2004; Stockton et al., 2009; Wilson, Latner, & Hayashi, 2013). A higher BMI has also been shown to be related to higher levels of disordered eating and lower body esteem (Wilson, Trip, & Boland, 2005), and to the amount of negative weight-related messages from parents one perceives (Hanna & Bond, 2006; Kichler & Crowther, 2009). Given current body ideals, these findings are not surprising, and, in studies involving body image, BMI is often controlled.

While BMI is advantageous because it controls for a person's height, there are numerous limitations to this index, including its arbitrary scale. It is only valid if it is assumed that adults should not gain weight during adulthood. Moderate weight gain with increasing age is healthy (Andres, Muller, & Sorkin, 1993). BMI does not take into account body composition; thus, highly muscular people may fall into the overweight or obese category because muscle is denser than body fat (Grogan, 2017; Willett, Dietz, & Colditz, 1999). In addition, differences in body frame size, proportions of fat, bone mass, cartilage or fluid retention are not accounted for in BMI measurements (James, Leach, Kalamara, & Shayeghi, 2001). Illustrating the arbitrary scale of BMI, Asian populations advocated for a more limited range of normal BMI because they have smaller frames and greater health risks at a lower weight compared to people of non-Asian backgrounds (James et al., 2001). Furthermore, the use of the BMI scale has been condemned by those who view normative BMI as a 'virtue discourse' (Halse, 2009). Advocates state that normal BMI has come to be viewed by society as a virtue worth pursuing and has taken on moralistic overtones because low BMIs are associated with self-discipline and restraint (Halse, 2009). Halse (2009) theorized that this outcome is largely a result of the assumption that there is an identifiable normal weight to height ratio that is valid for all people and that this normal range is accepted as objective truth and a standard benchmark of health.

In addition to the limitations of the BMI scale presented above, studies employing BMI are often limited because many have used correlational designs and self-report measures (e.g., Algars et al., 2009; Hanna & Bond, 2006; Keery et al., 2004; Salafia & Benson, 2013; Schwartz & Brownell, 2004; Stockton et al., 2009; Wilson et al., 2013). Correlational designs cannot

distinguish the direction of the relationship between body image and BMI and self-reported height and weight may or may not be accurate. There is therefore a need for greater variety of research methods. Despite these limitations, BMI remains a common variable in research on body image.

2.1.8 Internalization of societal standards of appearance. Current societal ideals of attractiveness include thin bodies. Internalization of the thin ideal is the extent to which an individual believes and desires a thin body and makes attempts to remain or become thin (Thompson, Heinberg, et al., 1999). The more an individual subscribes to the belief in the thin ideal, the more likely they are to experience body dissatisfaction (Thompson & Stice, 2001; Stice & Whitenton, 2002). Additionally, thin ideal internalization has been found to mediate the relationship between parental, peer, and media influences on body dissatisfaction (Keery et al., 2004; Rodgers et al., 2011; Shroff & Thompson, 2006) and between appearance comparison tendencies and body dissatisfaction (Halliwell & Harvey, 2006; Vartanian & Dey, 2013). It is therefore important to control for internalization of the thin ideal in future studies.

2.1.9 Appearance comparison. Social comparison is the tendency to examine other people and compare the self to others, often on a specific attribute such as appearance (Festinger, 1954). Upward comparisons are those in which an individual compares oneself with another who appears to have desired attributes and downward comparisons are those in which the comparison is made with someone who has less of the desired characteristic (Festinger, 1954). For example, if a female compares herself to another in terms of appearance, an upward comparison is made to someone she believes to be more attractive than herself and a downward comparison is made to someone she believes to be less attractive than herself. Festinger (1954) also theorized that upward comparisons produce negative affect and decrease self-esteem and that downward comparisons produce positive affect and increase self-esteem.

Research has shown that women frequently make appearance comparisons (Leahey, Crowther, & Mickelson, 2007; Rogers, Fuller-Tyszkiewicz, Lewis, Krug, & Richardson, 2017). Further, women continue to engage in appearance comparisons even when they perceive themselves as not meeting the cultural standards of beauty (Strahan, Wilson, Cressman, & Buote, 2006). Among college-aged women, appearance comparisons are usually upward, such as to media images and other women perceived to be thinner and more attractive (Morrison, Kalin, & Morrison, 2004; Rogers et al., 2017; van den Berg et al., 2002). This finding is in accordance

with Roger et al.'s (2017) recent finding that individuals with high internalization and/or trait and state body dissatisfaction are more likely to engage in upward comparisons as compared to no comparison.

In line with Festinger's (1954) claims, research has demonstrated that upward comparisons tend to produce negative effects (Buunk & Gibbons, 2007; Chohan, 2014; Gibbons, 1986; Hausenblas, Janelle, & Gardner, 2004; Myers & Crowther, 2009; Rancourt, Schaefer, Bosson, & Thompson, 2016; Tiggemann & McGill, 2004; Tiggemann & Polivy, 2010) and downward comparisons tend to have positive effects (Buunk & Gibbons, 2007; Lew, Mann, Myers, Taylor, & Bower, 2007; Testa & Major, 1990; Wills, 1981). However, there may be group differences in the impact of upward versus downward comparisons. For instance, Rancourt, Schaefer, Bosson, and Thompson (2016) found that for Hispanic/Latina women, downward comparisons were positively correlated with increased disordered eating behaviours and attitudes whereas for Asian and White women, downward comparisons were positively correlated with increased body satisfaction. Motivation for engagement in social comparison may also differentially impact women's body satisfaction. Knobloch-Westerwick (2015) found that with prolonged exposure to thin ideal media images, self-improvement social comparison was associated with increased body satisfaction whereas self-evaluation social comparison was associated with weight loss behaviours.

Thus, the tendency to compare one's appearance to others has been identified as an important variable mediating the influence of parents, peers, and the media on body dissatisfaction. This means that appearance comparison serves as a mechanism by which the influence of parents, peers, and the media impact body dissatisfaction, such as has been investigated within the Tripartite Influence Model (Thompson, Coovert, et al., 1999; van den Berg et al., 2002). Researchers are advised to control for appearance comparison in future studies.

2.2 Interpersonal Communication

As explained by the sociocultural model of body image, parents and peers communicate society's ideals and standards of beauty and thinness (Thompson, Coovert, et al., 1999; Thompson, Heinberg, et al., 1999; Tiggemann, 2011; van den Berg et al., 2002). Objectification theory also implicates interpersonal communication in women's body image, such as through the

gaze or comments of others (Calogero et al., 2011a; Fredrickson & Roberts, 1997). Because communication occurs both verbally and nonverbally, each is described below.

      2.2.1 Verbal communication. Language is a form of human communication that uses symbols to convey meaning (Andersen, 2008). These symbols consist of spoken or written words, arbitrary signs, and computer and mathematical symbols (Andersen, 2008). A system of language develops when vocabulary and rules of grammar allow two or more individuals to communicate verbally (West & Turner, 2009).

      Verbal communication between females and their parents and peers is one way in which information relevant to body image is passed on. That is, words spoken by an individual can express approval of another's appearance and body but can also communicate disapproval in the form of criticism and teasing. Even conversations with appearance and body as the focus, even if not directed toward another individual, can impact a person's body image. Individuals can also use verbal communication to engage in *fat talk*, a specific type of communication about one's body. Each is briefly discussed below.

      2.2.1.1 Verbal communication and body image. Conversations about appearance are posited to impact body image because of the attention directed to appearance-related issues. Such conversations can also reinforce the importance of appearance (Jones, Vigfusdottir, & Lee, 2004). Research has provided support for the idea that merely discussing appearance has negative implications. More frequent discussions about weight and appearance among pre-adolescent and adolescent girls are associated with greater body dissatisfaction (Vincent & McCabe, 2000) and weight concern (Thøgersen-Ntoumani et al., 2016). Jones, Vigfusdottir, and Lee (2004) found that students who reported engaging in more frequent conversations about appearance with friends were more likely to internalize the thin ideal, which was in turn directly related to greater body dissatisfaction.

      In addition to conversations about appearance in general, verbal communication can include negative messages about weight and appearance. Negative verbal messages can include criticism, teasing, and communication of the negative consequences of being overweight and/or encouragement to diet. The communication of negative verbal messages has been researched for both parents and peers. Among peers, appearance- and weight-related teasing is a common phenomenon in adolescence and young adulthood (Eder, Evans, & Parker, 1995; Haines, Hannan, van den Berg, Eisenberg, & Neumark-Sztainer, 2013). In a sample of Hispanic and

African American preadolescent girls, Olvera, Dempsey, Gonzalez, and Abrahamson (2013) found that 42% of participants had experienced weight-related teasing by their parents and that 59% of participants had experienced weight-related teasing by peers. Neumark-Sztainer and colleagues (2010) found that approximately half of the 356 girls in their sample reported that their mother had encouraged them to diet. Within the same sample, approximately 60% of the girls reported some level of weight-teasing by family members within the past year (Neumark-Sztainer et al., 2010). The above studies indicate that females commonly experience negative messages about weight and appearance.

Research has demonstrated that negative verbal messages from both parents and peers have negative implications for females' body image. Regarding parents, teasing about body shape, encouragement to diet, and parental concern about weight have been found to predict both body dissatisfaction and disordered eating among female adolescents and university students (Abraczinskas et al., 2012; Baker, Whisman, & Brownell, 2000; Benedikt, Wertheim, & Love, 1998; Chng & Fassnacht, 2016; Fulkerson et al., 2002; Gross & Nelson, 2000; Hanna & Bond, 2006; Hillard, Gondoli, Corning, & Morrissey, 2016; Keel, Heatherton, Harnden, & Hornig, 1997; Keery et al., 2005; Neumark-Sztainer et al., 2010; Olvera, Dempsey, Gonzalez, & Abrahamson, 2013; Schwartz, Phares, Tantleff-Dunn, & Thompson, 1999; Thøgersen-Ntoumani et al., 2016; Vincent & McCabe, 2000; Wertheim, Mee, & Paxton, 1999). Mother encouragement to diet is also associated with drive for thinness (Hillard et al., 2016). Similarly, appearance and weight criticism and teasing by peers has been found to be associated with increased body dissatisfaction (Jones et al., 2004; Levine, Smolak, & Hayden, 1994; Lieberman et al., 2001; Oliver & Thelen, 1996; Thompson, Coovert, & Stormer, 1999); disordered eating (Lieberman et al., 2001; Olvera et al., 2013); fear of negative evaluations, depressive symptoms, and loneliness in adulthood (Faith, Storch, Roberti, & Ledley, 2008); and reduced rates of participation in sports and other physical activities (Slater & Tiggemann, 2011). Overall, negative verbal messages directed to girls and women have been shown to negatively impact body image. These results were confirmed in a meta-analysis of 57 studies that found overall mean Pearson r correlation coefficients between body dissatisfaction and weight- and appearance-teasing to be .39 and .32, respectively, both of which are moderate effect sizes (Menzel et al., 2010). Furthermore, the overall mean Pearson r correlation coefficients between weight-related teasing and dietary restraint and bulimic behaviours were .35 and .36 respectively,

which are also moderate effects sizes (Menzel et al., 2010). Thus, negative verbal messages from parents and peers are significant sources of information about one's body.

The effects of positive messages from parents and peers about body shape and weight have not been as extensively researched. Gross and Nelson (2000) found that female undergraduate students who had higher perceptions of positive messages about their body shape and eating from their parents had higher body satisfaction. Herbozo, Stevens, Moldovan, and Morrell (2017) found that positive weight/shape commentary was associated with perceived negative impact and that Latina American and African American women were more negatively affected compared to European American women. However, both Kichler and Crowther (2009) and DesRoches (2010) found no relationship between positive messages from parents and their daughters' body satisfaction. In another line of research, Frisén and Holmqvist (2010) specifically interviewed 15 girls aged between 10-15 years who were highly positive about their bodies. These adolescents reported that their friends and family liked their looks and made few negative comments. In sum, the impact of positive messages on women's body image remains unclear.

The most specific form of verbal communication regarding body image is "fat talk," a term coined in 1994 by Nichter and Vuckovic. Fat talk refers to girls and women speaking with one another about the size and/or shape of their bodies in a negative way. Since the term was first introduced, additional research has illuminated common themes of fat talk. These include comments about eating and exercise habits; comparisons of eating and exercise habits; fears of being or becoming overweight; the shape and appearance of other people; the individual's own weight, shape, and diet; and strategies to change one's body (e.g., by using supplements, meal replacements, or building muscle; Nichter, 2000; Ousley, Cordero, & White, 2008). Additionally, Salk and Engeln-Maddox (2011) found that undergraduate female's fat talk conversations were characterized by denial (when an individual denies that the friend is fat), empathy (when an individual indicates that she feels or has also felt fat), and probing (when an individual tries to understand why the friend feels fat). Fat talk is a common occurrence, with 93% of one sample reporting common engagement in fat talk with friends (Salk & Engeln-Maddox, 2011). In fact, some researchers have found evidence that fat talk is viewed as normative among female college students. That is, in a series of vignette studies, Britton, Martz, Bazzini, Curtin, and LeaShomb (2006) found that female college students recognized that

making negative comments about oneself was the expected action in situations where others were making negative comments. Furthermore, Shannon and Mills (2015) concluded from their review that fat talk is a socially normative experience for women in Westernized cultures.

The purpose of fat talk has also been examined. Nichter (2000) argued that women might make negative comments about their bodies in order to conform to their social group, especially because body dissatisfaction is viewed as normative (Rodin et al., 1984). Fat talk may also represent a socially acceptable way of expressing distress about one's body (Nichter, 2000). In addition, Nichter (2000) asserted that women might engage in fat talk as a way to elicit affirmation that one is not fat from their peer group and/or to take control of the objectification that they are experiencing. Fat talk was reported by some participants as a way to excuse or apologize for the imminent consumption of high-calorie foods (Nichter, 2000). Engaging in fat talk may also serve to normalize body dissatisfaction; that is, it might make women feel better about feeling bad about their bodies (Salk & Engeln-Maddox, 2011; Shannon & Mills, 2015). Even without a complete understanding of the function of fat talk, the consequences of fat talk have been extensively studied, described below.

Correlational studies have indicated that fat talk is associated with greater shame about one's body (Clarke, Murnen, & Smolak, 2010), greater concern over one's body image (Corning & Gondoli, 2012), worse body esteem (Clarke et al., 2010; Mills & Fuller-Tyszkiewicz, 2016), and higher body dissatisfaction (Arroyo & Harwood, 2012; Lee, 2013; Salk & Engeln-Maddox, 2011; Warren, Holland, Billings, & Parker, 2012). Experimental research has also demonstrated that exposure to fat talk results in increased body dissatisfaction (Salk & Engeln-Maddox, 2012; Stice, Maxfield, & Wells, 2003). Mills and Fuller-Tyszkiewicz (2017) concluded from their meta-analysis of 35 studies that, although there is limited experimental and longitudinal research on the association between fat talk and various body image variables, it is more plausible that fat talk is a risk factor for, rather than a consequence of, negative body image. Research in this area will continue to illuminate the direction of the relationship between fat talk and body image.

The most recent research in this area is beginning to examine the differential effect of fat talk based on the physical characteristics of the women engaged in the conversation. Corning, Bucchianeri, and Pick (2014) found that the negative effects of fat talk on body satisfaction were moderated by the speaker's body type: participants' body dissatisfaction was highest after exposure to thin women engaging in fat talk and lowest when overweight women engaged in

positive body talk. Corning and Bucchianeri (2016) have also found that in general fat talk is more believable than body-affirming statements, and more specifically that overweight women's fat talk is more credible than both thin women's fat talk and overweight and thin women's body-affirming statements.

Verbal communication about one's weight, shape, and appearance has been studied in some depth thus far. However, the research to date has largely ignored the nonverbal components occurring along with verbal communication. Because nonverbal communication has been shown to account for more of the variance in meaning within interactions (e.g., Philpott, 1983), the research to date can be greatly enriched by an examination of the accompanying nonverbal aspects to all communication. Nonverbal communication is therefore reviewed next.

2.2.2 Nonverbal communication. Nonverbal communication has been defined as "the transfer and exchange of messages in any and all modalities that do not involve words" (Matsumoto, Frank, & Hwang, 2013, p. 4). It occurs through nonverbal behaviours, physical characteristics, and the environment or context (Matsumoto et al., 2013). Nonverbal behaviours are the dynamic actions of the face and body that are transmitted through multiple channels, including facial expressions, vocal cues, gestures, body postures, interpersonal distance, touching, and gaze (Matsumoto et al., 2013). Physical characteristics refer to the static physical appearance of a person as well as artifactual clues, such as jewelry, clothes, and glasses. Furthermore, the environment or context can convey messages about appropriate behaviour for the space. For example, some restaurants use dim lighting and comfortable chairs to communicate an intimate environment, ensuring diners feel comfortable eating slower and spending more money per visit (Matsumoto et al., 2013). In summary, nonverbal communication occurs through nonverbal behaviours, physical characteristics, and the environment. Nonverbal behaviours and physical characteristics are the focus of this review.

Before moving on it is important to state that when discussing nonverbal communication, the subjective elements of culture (i.e., attitudes, values, beliefs, and norms) must be noted because they impact nonverbal communication (Matsumoto & Hwang, 2016). Norms operate among cultural groups and define appropriate behaviour for given situations. Norms are applicable to nonverbal communication and may be in place for the overall expressivity (e.g., displayed emotion) that individuals show as well as for specific behaviours (e.g., interpersonal space; Matsumoto & Hwang, 2016). Because the current study takes place in the West, the

research reviewed below was also conducted among Western populations (unless otherwise noted, such as when discussing cross-cultural differences).

  2.2.2.1 Facial expressions. Peoples' facial expressions react involuntarily when an emotion is aroused. In fact, research has shown that basic emotions – namely happiness, sadness, anger, fear, surprise, and disgust – are expressed on people's faces the same way across cultures and that people from an array of cultures all decode particular facial expressions accurately (e.g., Ekman, 1992; Izard, 1977). People can also pose expressions to convey other messages. Additionally, people use their faces for purposes other than signaling emotions, such as to convey a specific message and to regulate a conversation or expression (Matsumoto et al., 2013). Furthermore, facial expressions are the richest source of information regarding emotions (Andersen, 2008).

  2.2.2.2 Voice. The important subchannels of the voice are the style and tone of speech. Style refers to the patterns of pausing and other irregularities of speech that accompany spoken words. Tone consists of the acoustic properties of speech such as loudness and pitch (Matsumoto et al., 2013). Style and tone of speech are important because an individual can send different messages through them than the actual words spoken. Furthermore, Andersen (2008) described six ways that the voice influences nonverbal communication: through repetition (reinforcing the verbal message), complementarity (changing the verbal message), accenting (emphasizing the verbal message), substitution (instead of using spoken words), regulation (controlling the verbal message), and contradiction (opposing the spoken words).

  2.2.2.3 Body gestures. Body gestures include hand movements, gaze, interpersonal space, and touch (Matsumoto et al., 2013).

  2.2.2.3.1 Hand movements. Hand movements are used extensively for communication and, as a result, have been widely studied. In 1969, Ekman and Friesen divided hand gestures into three broad categories: adaptors, emblems, and illustrators. Adaptors refer to touching behaviours that reveal a person's internal state (e.g., anxiety or nervousness). Emblems are gestures that have explicit meanings (e.g., the peace sign) and illustrators are nonverbal gestures that accompany speech (Ekman & Friesen, 1969). The most common gestures are illustrators. These are arm and hand movements that individuals use while speaking, usually to assist another in understanding the message (Goldin-Meadow & Wagner, 2005; Stevanoni & Salmon, 2005).

2.2.2.3.2 Eye contact. Eye contact and mutual gaze are also influential nonverbal channels. Eye contact occurs when both people look into another's eyes; gazing occurs when one person looks at another (Andersen, 2008). Eye contact is important for several reasons. First, it regulates interactions by providing turn-taking signals and eliciting or suppressing communication (Kendon & Cook, 1969); it expresses involvement and attentiveness (Einav & Hood, 2006); it increases interpersonal immediacy; and it increases the intimacy of an interaction (Andersen, 2008).

2.2.2.3.3 Interpersonal space. Another method individuals use to communicate nonverbally is interpersonal space. The distance between two people communicates meaningful information. Hall (1968) described four 'zones of interaction': intimate distance (bodily contact to 18 inches), casual/personal distance (1.5 feet to 4 feet), social-consulting distance (4 feet to 8 feet), and public distance (8 feet and beyond). If an individual moves too close to another, that person will attempt to restore a comfortable interpersonal distance by moving away or changing body orientation (Andersen, 2008).

2.2.2.3.4 Touch. Touch is another means by which individuals can communicate nonverbally (Andersen, 2008). Touch has been separated into five major categories. First is functional-professional touch, which occurs between physicians and patients, coaches and athletes, etc. Second is social-polite touch, referring to touch in business relationships or initial meetings between people. A handshake is an example of social-polite touch. Third is friendship-warmth touch; the type and amount of this touch is usually negotiated between the two individuals. The fourth type of touch is love-intimacy, which is more personal, intimate, and unique than friendship-warmth. Lastly, sexually arousing touch is the most personal and intimate (Andersen, 2008).

2.2.2.4 Immediacy. Immediacy is an area of nonverbal communication that is related to many situations. It is included below because of the breadth of research on immediacy; it is also the focus of the current study.

Immediacy is particularly important within interactions. It involves the exchange of warm behaviours and is characterized by closer interpersonal distances, interpersonal touch, eye contact, smiling, nodding, facial expressiveness, body relaxation, and enthusiastic tone of voice (Andersen & Andersen, 2005). Andersen (2008) proposed that the exchange of nonverbal immediacy was potentially the most central function of nonverbal behaviour. For example,

immediacy allows an individual to make a positive impression on another person (Richmond & McCroskey, 2000). People who exhibit immediacy are perceived as more approachable, responsive, understanding of others, and assertive (Richmond & McCroskey, 2000). Immediacy behaviours contribute to healthy family functioning in both good and bad times (Kam, 2008). Additionally, as immediacy increases, so does liking in interpersonal relationships (Richmond & McCroskey, 2000). Hence, immediacy is especially important for successful interpersonal functioning. The specific nonverbal behaviours that communicate immediacy between individuals have been widely studied. However, the breakdown of specific nonverbal behaviours that indicate immediacy is somewhat artificial because the behaviours that signify warmth are decoded as a gestalt – as a set of behaviours occurring together (Andersen, 1985).

Eye contact is considered one of the most important behaviours communicating immediacy; in fact, Andersen (1985) claimed that the primary function of eye contact was to convey immediacy. Eye contact signals that an individual is available and desires to communicate with another person (Andersen, 2008). Research has supported the importance of eye contact for immediacy. Increased eye contact communicates a more positive attitude and increases affiliative behaviour (Mehrabian, 1970, 1971). Happily married couples have been observed to look at each other more frequently during the exchange of positive messages and less frequently during negative exchanges compared to less-happily married couples (Noller, 1980). Eye contact was found to be associated with likability and attraction (Mason, Tatkow, & Macrae, 2005). Further, people use more eye gaze with friends and people they like compared to strangers and those they dislike (Coutts & Schneider, 1976). However, there is a limit on the amount of eye contact that conveys warmth: prolonged gazing at another can be perceived as threatening (Exline, Ellyson, & Long, 1975). Thus, an intermediate amount of eye contact between individuals relates immediacy.

Physical distance, interaction within the physical plane, body orientation and forward leans are also indicators of immediacy. Closer interpersonal distances result in greater warmth and immediacy (Mehrabian & Ksionsky, 1970; Priest & Sawyer, 1967). Interaction on the same level as another person also increases immediacy. That is, when an individual communicates with another when one is sitting and one is standing, the result is less immediacy than if both persons were sitting and/or standing (Andersen, 2008). Thus, immediacy is increased when height differences are minimized. Direct body orientation and open body posture also

communicates warmth (Andersen, 2008; Coker & Burgoon, 1987; Mehrabian, 1969). Lastly, within direct body orientation, forward leans communicate immediacy. Forward leans are associated with greater rapport and immediacy than are upright postures or leaning backward (Burgoon, Buller, Hale, & deTurck, 1984; Trout & Rosenfeld, 1980).

Normative, appropriate touch is another nonverbal behaviour that communicates immediacy (Andersen, 2008; Pisano, Wall, & Foster, 1986). People perceive others who use touch appropriately as more intimate and higher in immediacy compared to those who do not use touch (Burgoon et al., 1984). Further, individuals who use touch reported higher self-esteem and are generally warmer people who enjoy communication (Andersen, Andersen, & Lustig, 1987).

Movements of the face, head, hands, and body also impact immediacy. Smiling is one movement that conveys warmth. Bayes (1970) described the smile as the best predictor of interpersonal warmth. Smiling is viewed as a crucial part of nonverbal immediacy (Andersen, Andersen, & Jensen, 1979; Andersen 1985; Ray & Floyd, 2006) Head nods are also viewed as a sign of rapport. Listeners signal warmth and agreement by nodding (Andersen, 2008). In studies in which subjects were asked to simulate approval seeking (Rosenfeld, 1966a, 1966b) and conversational involvement (Coker & Burgoon, 1987), subjects exhibited frequent head nods. When you gesture with your hands, others perceive you as more involved and interested in the interaction (Andersen, 2008). Several studies have shown that increases in gestural activity communicate increased affiliativeness (Mehrabian, 1971) and immediacy (Andersen et al., 1979). Body relaxation also communicates immediacy. When individuals are relaxed, they are more likely to be perceived as warm (Andersen, 2008). Furthermore, tension and stress signal nonimmediacy (Mehrabian, 1968). Lastly, interactional synchrony is an indicator of immediacy. Two individuals are said to be in synchrony when they are attuned to one another and adjust their movements to the other person. Body congruence and mimicry produce more positive affect and rapport in interactions of mothers and infants, therapists and patients, and interpersonal friendships (e.g., Lakin & Chartrand, 2005; Trout & Rosenfeld, 1980).

Another set of nonverbal behaviours that convey immediacy is related to the voice (Ray & Floyd, 2006). These include backchanneling and vocal synchrony. Backchanneling refers to behaviours performed by listeners while another person is talking in order to reinforce the listener's response (Andersen, 2008), such as "uh-huh". These backchannel behaviours increase immediacy by signaling that the speaker should continue (Andersen, 2008). Vocal synchrony

occurs when individuals are able to converse, backchannel, take turns talking, and laugh without interrupting each other or getting out of sync. Vocal synchrony is an essential part of conveying immediacy; for example, people who like one another manifest vocal convergence (Street & Giles, 1982).

The last set of nonverbal behaviours that convey immediacy is related to chronemics, or time. Spending time with an individual is one way that immediacy can be communicated. Spending time with someone involves availability and closeness (Andersen et al., 1979). Pause time between utterances in a conversation is another indicator. Pause time allows for interaction from one's partner and signals an other-orientation. Punctuality is another important chronemic immediacy cue. For example, individuals who arrive late can be perceived as low in immediacy, inconsiderate, incompetent, and low in composure, friendliness, and sociability (Andersen, 2008). Lastly, monochromic use of time, which involves focusing on only one person or task during a particular time span, may be considered an immediacy behaviour in Western culture (Andersen, 2008). For instance, individuals in Western societies prefer that others concentrate on the task or conversation at hand rather than multi-tasking.

2.2.2.5 Importance of nonverbal communication. Nonverbal communication plays a large role in conveying meaning. Philpott (1983) concluded from a meta-analysis of 23 studies that approximately 31% of the variance in meaning is attributed to verbal cues; the remainder is accounted for by nonverbal behaviour. Additionally, adults generally rely on nonverbal cues more than verbal cues (Philpott, 1983), especially when the verbal and nonverbal messages conflict (Andersen, 2008; Burgoon, 1994). People are sensitive to the meaning of nonverbal behaviour because of its significant role in communicating information (Goldsmith & Byers, 2016; Weisbuch & Ambady, 2009). Furthermore, the nonverbal behaviour of others can influence the emotions, intentions, attitudes, and personality traits of other people, and when nonverbal behaviour is directed at a target person it can influence that person's behaviour (Goldsmith & Byers, 2016; Harris & Rosenthal, 1985). Given the importance of nonverbal communication, research has been directed towards nonverbal behaviours that affect interpersonal interactions.

2.2.2.6 Processing of nonverbal communication. Unlike verbal messages, which are processed analytically and individually, nonverbal communication is a processed as a gestalt. That is, individuals process nonverbal communication in a way that takes account of the whole

picture, rather than individual parts (Andersen, 2008; Aviezer, Trope, & Todorov, 2012; Guerrero & Farinelli, 2012). This allows individuals to look at the broad pattern of behaviour to detect, for example, happiness or nervousness. Laboratory studies have demonstrated that broad patterns are more important than individual behaviours when it comes to nonverbal behaviour (Ambady & Rosenthal, 1992). For example, Gutsell and Andersen (1980 as cited in Andersen, 2008) asked participants to view a video of a lecturer who smiled either a lot, a little, or not at all. Participants who watched the video of the lecturer smiling a lot reported that the lecturer touched the viewers more, gestured more, and stood closer to the viewers, even though the individuals stood completely still and kept his hands out of view of the camera. Thus, this finding indicates that the participants used the frequent smiling as a cue to deduce that other behaviours consistent with smiling were present. Gutsell and Anderson's (1980) study illustrates how the whole pattern of nonverbal communication is taken into account more so than specific individual behaviours. More recent research provides evidence that not only do individuals interpret different parts of nonverbal behaviour together (e.g., different areas of the face are processed as a whole) but that different areas of the body are processed together as well. For example, Aviezer, Trope, and Todorov (2012) found that individuals process faces and bodies as a single unit.

  2.2.2.7 Measuring nonverbal communication. The measurement of nonverbal communication has been challenging, especially in comparison to research on verbal communication. Nonverbal behaviour cannot simply be converted to a verbal measure, for several reasons. First, nonverbal communication is processed as a gestalt, so it is difficult for individuals to report on specific nonverbal behaviours (Andersen, 2008; Guerrero & Farinelli, 2012). For this reason, much of the past research has focused on one or two channels of nonverbal behaviour, rather than on patterns (Patterson, 2014). More recently, researchers have examined patterns of nonverbal behaviours (as suggested by Patterson, 2014), such as immediacy or Ekman and Friesen's classification of body cues (e.g., Meadors & Murray, 2014). Second, nonverbal communication often occurs outside of individuals' conscious awareness (Henry, Fuhrel-Forbis, Rogers, & Eggly, 2012). That is, they may not even be aware of the nonverbal behaviours they demonstrate towards others. Lastly, measuring nonverbal communication is difficult because direct observation is most likely always required. Conan and Farthing (2013) asked daughters to complete self-report measures of parent nonverbal behaviour

but recognized that perceived nonverbal behaviour was the variable that may well have been measured. While direct observation can increase the accuracy of the results, it is both time and resource intensive. Furthermore, direct observation can be intrusive, depending on the area of research (Henry et al., 2012) and could inadvertently change participants' behaviour.

The difficulty in measuring nonverbal communication has resulted in many researchers using global assessments of nonverbal behaviour or general impressions that individuals perceive of others (e.g., Collins, Schrimmer, Diamond, & Burke, 2011). Such measures often operationalize nonverbal communication as a particular set of recognized behaviours, such as immediacy. However, these kinds of measures are difficult, if not impossible, to validate. How are we to demonstrate that one person's "feelings" or "impression" of another individual's nonverbal behaviour is actually what is objectively shown? In a recent meta-analysis of 26 studies, Henry, Fuhrel-Forbis, Rogers, and Eggly (2012) found that researchers generally measured nonverbal communication using one of two methods: quantifying specific nonverbal behaviours or rating nonverbal communication on global affect scales (e.g., anxiety or warmth). A third method that Henry et al. (2012) observed among studies was the assessment of facial expressions with highly specialized coding systems, although this method was used significantly less often than the other two. However, it is important to note that not all research is based on global impression scales. For example, Meadors and Murray (2014) recently combined global impression scales with an observation of specific nonverbal behaviours, recorded as either an occurrence or as the time each was exhibited.

Another suggestion for researchers in this area is to emphasize the function of nonverbal communication in interactions (Patterson, 2014), rather than viewing nonverbal communication as arbitrary and attempting to isolate specific aspects of it in laboratory studies. For instance, Patterson (2014) suggested that studying nonverbal communication within interactions provides the opportunity to assess how two people feel or think about each other but also what they think the other thinks of them (in other words, their meta-perceptions). This is one of the main foci of the current study.

2.2.2.8 Physical characteristics. Another aspect of nonverbal communication is physical characteristics, including physical appearance. Physical appearance is often discussed in terms of physical attractiveness, discussed below.

2.2.2.8.1 Physical attractiveness. Physical attractiveness has been widely studied. Humans show significant agreement on which characteristics of appearance are considered to be attractive. Buss (1989) found consistency among 37 different cultures on what people found attractive in members of the opposite sex. Langlois and colleagues (2000) conducted a meta-analysis on adults' agreement of attractiveness ratings and found effective reliability coefficients of .90 for within-culture agreement and .94 for cross-cultural agreement. While much cross-cultural similarity regarding attractive bodies are found, some research finds differences, providing evidence that such ideals are malleable. For example, Tovée, Swami, Furnham, and Mangalparsad (2006) found that attractiveness ideals changed with variations in healthy body mass for the environment in which the participants lived: white participants in Britain preferred a slim body size, Zulu participants in South Africa preferred a heavier body size (one considered clinically overweight in Britain), and Zulu participants who had migrated to Britain preferred a body size intermediate between the other two groups. Despite some cross-cultural differences, Patzer (2006) summed up the literature by explaining that ratings of physical attractiveness can be subjective and individualistic, but these differences are "largely irrelevant because there is significant agreement among the beholders" (p. 88). General agreement on attractive traits has allowed for considerable research on such traits, which are often divided into bodily and facial attractiveness.

There are many determinants of bodily physical attractiveness, including static components (e.g., height), dynamic components (e.g., fitness and muscle tone), symmetry, weight (or type), weight distribution (or body proportion), and specific body parts such as the chest, buttocks, legs, and stomach (Patzer, 2006). Body symmetry, type, and proportions are the most commonly studied aspects of body attractiveness (Guerrero & Floyd, 2006). Body symmetry refers to the degree to which two sides of the body match, or mirror, each other (Guerrero & Floyd, 2006). The specific type of symmetry studied in relation to human attractiveness is referred to as fluctuating asymmetry, which is when a characteristic is symmetric across a population but can vary between individuals (Re & Rule, 2016). (It is fluctuating asymmetry that explains the common observance that everyone has one foot larger than the other, for example). Humans are attracted to body symmetry because symmetrical bodies are more likely than asymmetrical bodies to be free of infections and genetic defects and

are associated with physical health (Guerrero & Floyd, 2006; Møller, 1997; Møller & Thornhill, 1997).

Body type concerns a person's relative height and weight. Generally, thin bodies are preferred, especially in the West (Guerrero & Floyd, 2006). A woman's body weight may be the most important criterion of her physical attractiveness, which has been demonstrated by research (Sypeck, Gray, & Ahrens, 2004; Sypeck et al., 2006; Voracek & Fisher, 2002). However, BMI is often confounded with body fat percent and when these two measurements are separated, body fat has been found to be a stronger cue for attractiveness than BMI (Faries & Bartholomew, 2012). Thus, the impact of a person's relative height and weight on perceptions of attractiveness may be more complex than simple comparisons of either body weight or BMI.

Lastly, body proportion is the length or size of one physical feature in relation to another (Guerrero & Floyd, 2006). Research suggests that attractive bodies have a specific proportion among several aspects of their bodies. Two well-researched proportions include the Golden Ratio (also known as the Divine Proportion or ϕ [Phi]) and the waist-to-hip ratio (WHR). The Golden Ratio is 1 to 1.618 and in physically ideal bodies, the distance from the navel to the bottom of the feet is 1.618 times the distance from the navel to the top of the head (Guerrero & Floyd, 2006). The WHR is the ratio of waist width to hip width. The preferred WHR is generally .70 and appears to be a universal marker of attractiveness (Singh, 1993; Singh & Luis, 1995; Singh & Young, 1995). Furthermore, it is a marker of maximum fertility, indicating that it is not simply a culturally constructed phenomenon (Guerrero & Floyd, 2006; Zaadstra et al., 1993).

Similar to body attractiveness, there are many determinants of facial attractiveness and these include symmetry, neoteny, koinophilia (or averageness), skin condition, and facial adiposity. With regard to symmetry, humans are drawn to symmetrical faces because symmetry signals genetic fitness (Guerrero & Floyd, 2006; Møller, 1997; Møller & Thornhill, 1997). Additionally, studies have demonstrated that symmetrical faces are perceived as being more attractive than asymmetrical faces (Grammer & Thornhill, 1994; Scheib, Gangestad, & Thornhill, 1999; Mealey, Bridgstock, & Townsend, 1999). Furthermore, the Golden Ratio is often observed among attractive faces (Guerrero & Floyd, 2006).

Neoteny is the tendency to retain juvenile physical features into adulthood. A neotenous adult face is one that appears younger than it is. There are three facial features that indicate youth: shorter noses, fuller lips, and more widely separated eyes. Research indicates that these

features of facial neoteny are characteristic of attractive female faces (Jones, 1995). However, there are limits of neoteny in relation to facial attractiveness. That is, some researchers have found that the most attractive female faces combine childlike features with mature features. For example, Cunningham (1986) showed that women were rated as the most attractive when they had the neotenous features of large wide eyes and small noses, as well as the mature features of high cheekbones and narrow cheeks.

Koinophilia is the tendency to be attracted to faces that display average traits, as opposed to extraordinary ones (Guerrero & Floyd, 2006). The study of average faces began with Sir Francis Galton (as cited in Guerrero & Floyd, 2006), who blended the faces of several people to create composite photographs. He found that the composite faces were rated as more attractive than any of the individual faces. More recently, Langlois and Roggman (1990) used computer imaging to create composite facial images that represented the mathematical average of 2, 4, 8, 16, and 32 faces. For both male and female faces, the 16- and 32-face composite faces were rated as higher in attractiveness than the single faces and the composites created with fewer faces. Koinophilia has also been demonstrated to be a cross-cultural phenomenon (Pollard, 1995).

Both skin condition and facial adiposity have not received as much empirical attention as other facial features (Re & Rule, 2016) but remain important determinants of facial attractiveness. The homogeneity of skin colour and texture are both found to impact ratings of attractiveness such that more evenly distributed colour across the face signals youth and health (Fink, Grammer, & Matts, 2006) and smoother skin is perceived to be better looking (Fink, Grammar, & Thornhill, 2001). Regarding facial adiposity (or the perception of weight in the face), research has indicated that weight judgments of face images are related to perceived attractiveness such that faces rated as average weight are perceived as more attractive (and healthier) than faces rated as under- or over-weight (Coetzee, Perrett, & Stephen, 2009).

Although there are markers of physical attractiveness that are recognized across cultures (such as averageness and symmetry), individual differences remain, and people are not always able to explain why an individual face is attractive (perhaps because faces are processed holistically rather than by specific features; Tanaka & Farah, 1993). In fact, people are more likely to be able to identify why faces are unattractive (Zebrowitz & Rhodes, 2002). Additionally, there is no gold standard of attractiveness, but rather a variety of interchangeable currencies (Patzer, 2006).

In addition to the markers of attractiveness in bodies and faces discussed above, other determinants of attractiveness include non-physical aspects of a person (personality and body language); body odour; physical aspects separate from the person (clothing); physical attractiveness of colleagues, friends, spouses, and spousal partners; non-physical aspects separate from a person including status, credentials, and reputation; and observer's own characteristics separate from the person judged (observer's own psychology, biology, or reference point; Patzer, 2006). All of these determinants of physical attractiveness can be combined in numerous ways to impact peoples' perceptions of someone as either attractive or unattractive. Furthermore, there are compensatory and non-compensatory relationships among these currencies that influence physical attractiveness (Patzer, 2006). Compensatory relationships occur when determinants exist interdependently – for instance, if a favourable component of an individual can offset an unfavourable component of that same individual (and vice versa). Non-compensatory relationships occur when an acutely favourable or unfavourable feature affects perception of someone's physical attractiveness so much so that no other feature impacts perceptions of attractiveness (Patzer, 2006). For example, such a relationship could occur if a rather long and pointy nose was considered so unattractive and eye-catching that other attractive features of the person were not considered in perceptions of their appearance. Such relationships were alluded to by Zebrowitz and Rhodes (2002) when they found that averageness, symmetry, positive expressions, youthfulness, and familiarity individually or together increase perceptions of facial attractiveness.

For the reasons outlined above, most researchers have relied on global attractiveness rating scales (Patzer, 2006; Zebrowitz & Rhodes, 2002), whereby participants are told to rate the attractiveness of another on a Likert scale or categorize a person's entire body and/or face based on overall attractiveness. For example, global measures were used by Keating (2002); Little, Penton-Voak, Burt, and Perrett (2002); Montepare and Zebrowitz (1998); and Penton-Voak and colleagues (1999). More intensive methods include the use of altered images so that various features can be manipulated, such as averageness and symmetry and ratings can be obtained systematically. However, these types of methods tend to lack ecological validity and ignore the interaction of various determinants of physical attractiveness as they occur within interpersonal interactions. For this reason, Patzer (2006) concluded that determining a hierarchy of importance for determinants of physical attractiveness was difficult and not practical.

2.3 Nonverbal Communication and Body Image

       The study of the relationship between nonverbal communication (including nonverbal behaviour and physical appearance/attractiveness) and women's body image is not yet complete. There are several relationships among these variables to be examined. For example, there is research that examines the relationship between nonverbal behaviour and the body images of others. There is also the study of biases against various body-related stimuli (such as bodies that are overweight and/or thin and attention given to specific parts of bodies when viewing them). Both of these topic areas can be considered to be a relationship between nonverbal behaviour, bodies (and therefore physical attractiveness in our society), and body image. These biases are considered nonverbal behaviour because they are either implicit biases (whereby people express them in ways other than words) or attentional biases (whereby people selectively attend to particular stimuli, such as parts of bodies). Lastly, the relationships among perceptions and meta-perceptions of attractiveness, body image, and nonverbal behaviour have also been studied. Each of these topic areas is reviewed below.

       2.3.1 Nonverbal behaviour and body image. There are both theoretical and empirical reasons for pursuing the study of nonverbal communication in relation to women's body image. Both the sociocultural model of body image (Tiggemann, 2011) and objectification theory (Fredrickson & Roberts, 1997) provide justification for this topic. Because communication includes nonverbal messages, both theories posit some importance to nonverbal communication in conveying cultural ideals of beauty to women. In addition, the gaze of others discussed within objectification theory is nonverbal communication. Indeed, Ross (2013) found in her qualitative examination of women's experiences of body dissatisfaction that themes of nonverbal behaviour were present and these related to experiencing the gaze and judgment of others. For instance, participants felt that others were often noticing and judging the size and shape of their bodies. While verbal comments were discussed, nonverbal behaviour was also experienced as critical. Participants believed that because their bodies did not meet the ideal, that at times they received critical attention and at other times were overlooked. Similarly, in their qualitative content coding analysis, Goldsmith and Byers (2016) found that males and females identified nonverbal messages they received from romantic partners, which were understood to have an impact on body image. Quantitative research has also found women's body image to be associated with and impacted by nonverbal communication, discussed next.

It is possible that positive nonverbal behaviour directed towards others may impact body image. For instance, in a correlational study of perceived parental immediacy and relational communication, undergraduate female students' body satisfaction was uniquely predicted by immediacy, involvement, and affection displayed by mother, and immediacy, global intimacy, affection, receptivity/trust, and depth displayed by father, even when accounting for the influence of BMI (Conan & Farthing, 2013). In an experimental study, Martijn, Vanderlinden, Roefs, Huijding, and Jansen (2010) studied whether body satisfaction increases when women learn to associate their appearance with positive stimuli. They found that for those women with high body concern, a significant increase in body satisfaction occurred after repeatedly having a picture of their own body followed by a smiling face. Martijn et al.'s (2010) findings were replicated and extended by Aspen et al. (2015), who found that not only did positive social feedback lead to an immediate decrease in shape and weight concern and an increase in self-esteem but that the decrease in body dissatisfaction was maintained at 12 weeks post-intervention. Most recently, Alleva, Martijn, and Jansen (2016) examined covariation bias in relation to negative social feedback and women's body evaluation. Covariation bias (often called illusory correlation) occurs when an individual overestimates the contingency between a particular stimulus and an outcome, even when there is no relationship. They found that when experimental contingencies were manipulated so that the women's own bodies were rarely followed by negative social feedback, the covariation bias temporarily diminished. These findings suggest that perceived and actual nonverbal behaviour can have an impact on the body satisfaction of others. The findings that body image can be positively impacted by nonverbal communication is reason for continuing to pursue understanding of this topic.

2.3.2 Nonverbal behaviour, bodies, and body image. As indicated above, there are types of biases studied that are specific to bodies and body image. These are implicit weight biases and attentional biases.

2.3.2.1 Implicit weight bias. Weight bias has been defined as the inclination to judge people based on body weight (Brownell et al., 2005). Puhl and Brownell (2001) claimed that weight bias is one of the remaining acceptable forms of prejudice. The consequences of such bias have been extensively documented. For instance, researchers have found that individuals who are overweight or are perceived to be overweight experience multiple forms of discrimination in areas such as employment (Brownell et al., 2005; Ding & Stillman, 2005; Maranto & Stenoien,

2000; Pingitore, Dugoni, Tindale, & Spring, 1994; Puhl & Brownell, 2001; Rothblum, Brand, Miller, & Oetjen, 1990), education and health care (Puhl & Brownell, 2001; Brownell et al., 2005), and interpersonal relations (Brownell et al., 2005). Some researchers have utilized direct measures of weight bias, such as asking participants what they think about people who are overweight or obese, but this method is limited by social desirability (Brownell et al., 2005). Consequently, others have used implicit measures, which are more subtle ways to assess negative beliefs about weight. Implicit measures often reveal greater bias than respondents report on explicit measures and for this reason are thought to provide more accurate information about biases (Brownell et al., 2005). Many studies have documented the presence of implicit anti-fat attitudes (Ahern & Hetherington, 2006; Brochu & Morrison, 2007; Gapinski, Schwartz, & Brownell, 2006; O'Brien, Hunter, & Banks, 2007; Teachman & Brownell, 2001). Research specifically examining implicit biases in relation to both fat and thin bodies is expanded upon next.

The presence of weight-based stereotyping has been widely documented through the use of implicit measures, including the Implicit Association Test (IAT), the Implicit Relational Assessment Procedure (IRAP), and facial electromyography (EMG). The IAT is a tool for examining response times among various pairs of words and/or images such that faster response times indicate categories that belong together more compared to those pairs that elicit slower response times (Roddy et al., 2010, 2011). In this area of research, slim/overweight images or simply the words 'slim' or 'overweight' are paired with positive and negative adjectives in alternating sessions. If participants consistently respond more quickly when slim and positive adjectives go together, compared to when overweight and negative adjectives go together, then this represents evidence of a pro-slim/anti-fat bias. However, one of the limitations of the IAT is that the results are always relative. Thus, it is not possible to know whether participants are negatively biased towards overweight individuals or positively biased towards slim individuals. One method devised to address this limitation is the IRAP. The IRAP requires participants to respond to four categories compared to only two on the IAT. In this way, four response time scores can be obtained such as for categories Good-Slim, Bad-Slim, Good-Overweight, and Bad-Overweight to allow for comparisons among them and determine whether biases are pro-slim or anti-fat (Roddy et al., 2010, 2011). The last method used in this area is that of facial EMG, purported to measure implicit emotion (Vanman, Paul, Ito, & Miller, 1997). Facial EMG records

muscle activity involved in facial expressions even when an observer cannot detect a change in another's expression (Cacioppo, Petty, Losch, & Kim, 1986). The IAT, IRAP, and facial EMG have been employed to examine individuals' responses to various text and images related to body size even when those same individuals report no explicit biases on the subject.

Roddy, Stewart, and Barnes-Holmes (2010) defined body-size bias in relation to performance on the IAT and the IRAP. Undergraduate students completed an IAT and an IRAP with images of overweight and average weight bodies, adjectives (positive/negative variations), and the same/opposite (for the IRAP only). They also completed measures of explicit anti-fat attitudes. Roddy et al. (2010) found that the IAT showed a pro-slim/anti-fat bias while the IRAP indicated a positive implicit bias towards the average-weight photographs, with the absence of any bias towards the photographs of overweight individuals. In a more recent study, Roddy, Stewart, and Barnes-Holmes (2011) used facial EMG in addition to the IAT and IRAP. They found that the main EMG pattern was that average weight images elicited EMG responses consistent with more positive affect. The results of the IRAP and facial electromyography suggested the presence of pro-slim but not anti-fat attitudes (Roddy et al., 2011). The IAT detected significant pro-slim/anti-fat bias, which was not observed on the explicit measure.

In addition to the research above that investigates weight bias based on the premise that individuals are negatively biased towards overweight people and/or positively biased towards slim people, Malloy, Lewis, Kinney and Murphy (2012) have taken a different approach. They explain that bias is the result of negative affect stemming from others who are perceived to differ from "average" individuals. Following this line of reasoning, biases should be directed towards people who are overweight and to those who are especially thin. In Malloy et al.'s (2012) study participants were asked to view pictures of virtual people of varying BMI and rate each on personality traits (extroversion, agreeableness, conscientiousness, emotional stability, and intelligence). Participants also responded to an attitude measure focused on overweight individuals in order to obtain an indication of participants' liking of overweight individuals in general. Malloy et al. (2012) found that ratings of personality were curvilinear as a function of weight, which demonstrated a bias against light and heavy targets, but not average weight targets. Affect but not cognitions about overweight people were related to behavioural intentions, which suggests some implicit bias may be operating among this sample.

The implicit biases discussed so far relate to others. However, some researchers have examined implicit biases people hold towards themselves. Parling, Cernvall, Stewart, Barnes-Holmes, and Ghaderi (2012) found evidence for an implicit pro-thin-self-relational bias but no anti-fat-self-relational bias for either the eating disordered or healthy control groups. The implicit finding did not correlate with explicit measures of pro-thin and anti-fat attitudes. Additionally, Ritzert et al. (2016) found a general pro-thin relational bias toward the self. They also found a self-fat-attractive relational bias, which they interpreted to mean that participants might have histories of relating to the possibility of themselves being fat as something that is attractive. It is important to note that the pro-thin relational bias was stronger than the self-fat-attractive relational bias and that the implicit measures were not correlated to explicit measures of the same variables. In sum, the findings in this area of research are somewhat inconsistent, because some have found implicit anti-fat biases while others have uncovered positive biases for average and thin bodies in the absence of negative views of overweight individuals.

While the above studies employ implicit measures they are limited by the artificiality of the lab. Thus, participants' biases are measured against images of unknown others and/or by words on a computer screen. In an important addition to this area, Weisbuch and Ambady (2009) examined nonverbal biases among television characters, which, although still somewhat limited in ecological validity, expanded the scope of the area. They hypothesized that increasingly heavy body size would be associated with decreases in being nonverbally liked. Clips from popular television shows were judged for character's nonverbal liking, body size, personality characteristics, and verbal liking. It is important to note that judges who rated nonverbal liking and body size were not familiar with the television shows and that those who rated verbal liking and personality characteristics were familiar with the television shows. These methods were used to ensure that the nonverbal behaviour was rated separately from the verbal behaviour and vice versa and to ensure that nonverbal ratings were not confounded with knowledge judges had about the characters. Weisbuch and Ambady (2009) found that slim female characters elicited more favourable nonverbal responses than did heavier female characters. Controlling for kindness, intelligence, sociability, and verbal liking of the characters did not change the correlation. Thus, this study showed that the nonverbal behaviour of television characters toward women is associated with the body size of those women. Weisbuch and Ambady (2009) concluded that there is a nonverbal pro-slim bias on television.

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2.3.2.2 Attentional body biases. In addition to the implicit biases reviewed above, another area of research that is related to this topic is that of attentional bias. Attentional biases are those in which individuals selectively attend to or process information in the environment; the specific focus here is on body image information (Rodgers & DuBois, 2016). The study of attentional biases differs somewhat from implicit biases because the focus of attentional biases is not explicitly to determine what individuals view as "good" or "bad." Rather, research has focused on where people direct their attention or how they process information, which they may or may not attribute to views that the target is either "good" or "bad." There are a few methods used to measure attentional biases, including eye tracking and the dot probe paradigm.

Eye tracking as a research method consists of having participants view appearance-related stimuli and measuring specific attributes of their gaze, such as gaze duration, frequency, and orientation to particular stimuli (Rodgers & DuBois, 2016). The eye tracking method has been used to examine whether individuals direct their gaze to desired (e.g., slim) or feared (e.g., overweight) stimuli, to particular body regions, and to specific body parts. The dot probe paradigm is similar to the eye tracking method in that it also assesses whether participants look first or for longer durations at particular stimuli. In the dot probe paradigm, participants are typically presented simultaneously with two images (such as a thin and an overweight body). Then one of the images is replaced with an arrow probe and participants are to indicate which direction the arrow probe pointed. It is thought that faster responding to probes that replace one type of stimulus over the other is evidence of an attentional bias for that stimulus; that is, participants are thought to look more quickly to and/or sustain looking at the stimulus to which they are able to indicate the direction of the arrow probe fastest (Joseph et al., 2016).

Rodgers and DuBois (2016) conducted a review of biases individuals hold to appearance-related stimuli in relation to body dissatisfaction. They located 11 studies that examined biases in gaze based on eye tracking. Findings indicated that individuals with high levels of body dissatisfaction oriented toward desired and appearance-related stimuli relative to individuals with low levels of body dissatisfaction, with medium to large effect sizes. In addition, individuals with high levels of body dissatisfaction allocated more attention toward their own self-identified unattractive body parts and, when looking at others, toward the body parts identified as most attractive, compared to individuals with low levels of body dissatisfaction (Rodgers & DuBois, 2016). With regard to studies employing the dot probe paradigm, Rodgers and DuBois (2016)

identified seven studies for their review. They concluded that individuals with higher levels of body dissatisfaction displayed a greater attentional bias toward negative and positive appearance-related stimuli (when tested with neutral stimuli), when compared to individuals with low levels of body dissatisfaction. These studies had small to moderate effect sizes.

Additional research has also been conducted with the dot probe paradigm and body related information. Moussally, Brosch, and Van der Linden (2016) found an attentional bias for thin bodies for those women with high body dissatisfaction. Similarly, Joseph and colleagues (2016) tested 69 male and 89 female university students with a dot probe task and found that women with high body dissatisfaction showed a strong attentional bias toward thin female bodies, while controlling for BMI.

While the above studies examined attentional biases in women with high versus low body dissatisfaction and Joseph et al. (2016) controlled for BMI, there may be other important variables that need to be included. For instance, Cho, Kwak, and Lee (2013) examined attentional bias for overweight or thin bodies while taking account of individuals' use of avoidant coping strategies. They found that the high avoidance group paid more attention to slim bodies than the low avoidance group, which may assist in avoiding overweight bodies (which were found to produce negative affect). Whether avoidance is related to attentional biases is an important question to answer because Smith and Rieger (2006) found that induction of attention to general weight and shape words increased body dissatisfaction among a sample of undergraduate women. While researchers have uncovered attentional biases, how these may be communicated within interactions is still unknown.

2.3.3 Perceptions and meta-perceptions of attractiveness, body image, and nonverbal behaviour. The last area reviewed here is the most complex because it incorporates interpersonal interactions, which are dynamic, as well as perceptions and meta-perceptions of attractiveness, body image, and nonverbal behaviour. There are several relationships included within this section: between women's body image and their perceptions of interactions with others and perceived social feedback, between women's body image and nonverbal behaviour in a virtual reality, between women's perceptions of their own bodies and the bodies of those around them, and between women's self-perceptions and meta-perceptions of attractiveness.

Several studies have examined the relationship between women's body image and their perceptions of interactions with others. Santuzzi, Metzger, and Ruscher (2006) had

undergraduate women participate in a get-to-know-you exercise with a female confederate where they either anticipated future interaction with the confederate or did not anticipate future interaction with the confederate. They found that when participants expected future interaction, more negative body image predicted less positive relationship expectations with the confederate. However, when participants did not expect future interaction, negative body image predicted positive relationship expectations, demonstrating that body image has an impact on expectations of interpersonal interactions. Furthermore, Mountford, Tchanturia, and Valmaggia (2016) tested women using avatars on a 4-minute virtual reality bus ride during which they were asked to form some impression of the other people on the bus and what the other people thought about them. They found that the women who were dieting reported significantly higher levels of social evaluative concerns and comparison for their avatars compared with women who were not dieting. Building on Santuzzi et al.'s (2006) findings, Mountford et al. (2016) showed that women also experience more evaluation and comparison in interactions if dieting (associated with more body image concerns).

Similarly, other research has examined women's understandings of associations between their bodies and social feedback. Covariation bias (often called illusory correlation) occurs when an individual overestimates the contingency between a particular stimulus and an outcome, even when there is no relationship. In two studies, researchers had women complete a computer task in which a picture of their own body, of another woman's body, and a neutral object were followed by nonverbal social feedback (negative, positive, and neutral faces; Alleva, Lange, Jansen, & Martijn, 2014; Alleva Martijn, & Jansen, 2016). Then they asked women to estimate the percentage of negative, positive, and neutral social feedback that followed their own body, the control woman's body, and the neutral object. Alleva, Lange, Jansen, and Martijn (2014) found that women's trait body evaluation predicted their estimates of negative social feedback for their own body, even though there was no contingency between their own body and negative social feedback. No covariation bias was found for the control woman's body or the neutral object. Alleva et al. (2016) found that trait body evaluation significantly predicted women's online and a posteriori covariation estimates for their own body and that state body evaluation significantly predicted women's a priori, online, and a posteriori covariation estimates for their own body. Again, no significant predictors were reported for the control woman's body or the neutral object. Alleva et al. (2014, 2016) concluded that women appear to expect that their own

bodies will receive negative social feedback and that even in the absence of receiving negative feedback, women's expectations do not change. Further they concluded that when addressing women's body image that it may be just as important to also address women's thoughts about what others think about their bodies.

In another laboratory study, Tremblay and colleagues (2016) used virtual reality to examine touch in relation to implicit anti-fat attitudes. They found that for females, greater satisfaction with weight was associated with stronger touch intensity to a virtual stranger. They also found that belief of positive perception from others was associated with a longer duration of touch of the virtual stranger. Additionally, greater fear of fat among participants was associated with lower satisfaction with bodyweight and appearance, and greater dislike of fat people was associated with lower satisfaction with weight and beliefs of not being positively perceived by others.

Women's perceptions of their own bodies have been found to be related to the bodies of people with whom they spend time. For instance, Ali, Amialchuk, and Renna (2011) found that overweight adolescents (based on self-report) were more likely to misclassify themselves as normal weight if they had friends with a higher BMI. Similarly, Ramirez and Milan (2016) found that overweight females (based on measured BMI) were less likely to accurately judge themselves as overweight if they had a close friend they perceived as heavy. Furthermore, they found that females who viewed themselves as having a larger figure reported more internalized weight bias when they had friends they viewed as relatively thin. In addition, Robinson and Kersbergen (2017) found that if individuals perceive their body weight to be similar to an average person, they are less likely to identify their weight status as being overweight and when individuals were led to believe that their body weight was in fact heavier than the average person, they were more likely to rate themselves as being overweight. These studies indicate the complex social processes that occur in relation to women's body image in interactions with others. Furthermore, it has also been found that interactions people have with those who are overweight are linked to how women view themselves. Alperin, Hornsey, Hayward, Diedrichs, and Barlow (2014) found that for individuals with low BMIs, negative contact with overweight people was strongly predictive of anti-fat attitudes and that positive contact with overweight people had a much smaller beneficial effect than it did for overweight people.

Lastly, Dijkstra and Barelds (2011) examined meta-perceptions of attractiveness among

women. They hypothesized that because people usually rely on self-perceptions to form meta-perceptions, that individuals' body image, BMI, and general self-esteem would strongly affect women's meta-perceptions. In their sample of 1287 female participants aged 19 to 80 years from the Netherlands, Dijkstra and Barelds (2011) found that women's meta-perceptions were best predicted by self-ratings of attractiveness. Body image also significantly predicted partners' meta-perceptions and BMI significantly predicted meta-perceptions for partners, family and friends, and strangers. Similar to the meta-perception research presented in Chapter 1, which was not specific to body image and attractiveness, it appears that women's body image, BMI, and perceptions of attractiveness influence their perceptions of others' views of them. Dijkstra and Barelds' (2011) study is directly relevant to an examination of nonverbal communication and body image because women's perceptions of others' nonverbal behaviour may be affected by their own feelings about themselves.

2.4 Critique of Existing Research

There are many criticisms of both body image and communication research to date, including the ways in which variables have been defined, operationalized, and measured as well as failing to examine fundamental assumptions about the constructs under study and not incorporating relevant theoretical ideas. Each is discussed below.

There has been a significant lack of clarity regarding the definition of 'body image.' First, as reviewed above, body image has been defined and measured in many different ways. Some of these operationalized definitions have positive connotations (e.g., body satisfaction), while others have negative connotations (e.g., body concern). As a result, the full continuum of body image has been neglected because researchers have operationalized it as either positive or negative and, depending on their operationalized definition, have ignored the other end of the continuum. Second, researchers have commonly measured body image in terms of one dimension instead of looking broadly at the multidimensional nature of body image. Consequently, the generalizability of studies employing measurement of one dimension to those measuring alternative dimensions may be limited. Third, researchers have only begun to examine the plural nature of body image. Few studies have described multiple body images; indeed, those reviewed above were taken from related fields. Lastly, researchers have also failed to measure state versus trait body images. This distinction was described by Tiggemann (2005) as one of the confusions in the literature.

Other important criticisms of body image research are related to the research methods employed. Self-report measures are the most commonly used, especially for measuring the cognitive/affective and behavioural dimensions of body image. As a result, information is often not corroborated, which may pose a problem because research has shown that women may perceive information from others (Alleva et al., 2014, 2016) and the size of one's body (MacNeill & Best, 2015; McCabe et al., 2006) inaccurately. (However, individuals' perceptions may be more important than objective information regarding body image as it allows researchers to understand participants' points of view.) In addition, most research has been correlational; the direction of the association between various body image constructs is often not empirically tested. Furthermore, measures of perception of body size and shape are sometimes limited given that women are forced to evaluate a whole-body silhouette instead of those more specific to their own bodies. In fact, Piryankova et al. (2014) indicated that when perceptual measures use figures that do not depict features specific to the participant (such as skin colour or the shape of their individual body) that the lack of ecological validity decreased the precision of measurement.

Another important criticism of the field of body image is that most researchers have failed to question the underlying assumptions of the concept of body image and disturbance. That is, body image disturbance is largely thought to be the result of distortions (such as in perception) that can be measured from structures in the brain, even though most women (including those without eating disorders) exhibit such distortions (see Blood, 2005). The societal context that such body image disturbance is constructed within is also largely ignored. Failing to examine fundamental assumptions about the construct under study necessarily leads to a gap in the literature. In fact, one of the reasons for this gap may be because the majority of research has been quantitative in nature, meaning that potential further understanding gained through the use of qualitative methods has not been utilized. Qualitative, compared to quantitative, research may be better suited to address some of the criticisms of definitions presented above, such as examining states and the plural nature of body image. Additionally, qualitative research could explore the complex social processes involved in women's body image and could also provide space for individual women's voices to be heard in relation to the experience of body image. Indeed, Ross (2013) noted that despite many decades of body image research, women's actual experiences of their bodies were missing from the literature. Although

her study addressed a gap in the literature, more research is needed on individual women's experiences of their bodies, especially as they relate to social processes.

There are also many criticisms of research related to communication that can be discussed. First, researchers commonly separate verbal and nonverbal communication and, within the area of body image, there is much more research linking verbal communication to body image. This has resulted in the relative neglect of nonverbal communication. Second, although it is important to gain an understanding of each aspect of communication, such a separation is artificial because verbal and nonverbal communication occur simultaneously and are interpreted together during face-to-face interactions. By failing to integrate both areas, researchers may have missed significant material. Third, whether studying verbal or nonverbal behaviour, some researchers have failed to account for the mutual influence of participants during face-to-face interactions, a concern put forth recently by Henry and colleagues (2012). In dyadic studies, one participant's behaviour is partly dependent on the behaviour of the interaction partner and statistical techniques that account for such mutual influence need to be utilized in the future (Kenny, Kashy, & Cook, 2006).

Regarding nonverbal communication in particular, there are several limitations to discuss. Many researchers have used the IAT to measure biases but, because it is a relative measure, it cannot be used to fully understand the nature of the bias. However, the IRAP is able to make such distinctions. Thus, the use of the IAT along with the IRAP appears to increase the needed resources and time without offering additional data. Still, an additional limitation of both the IAT and the IRAP is that it is not possible to know whether participants are endorsing their own biased attitudes through reaction time or are endorsing the biased views of society as a whole. Additionally, there is the problem of defining "average" weight in studies examining bodies. Is average defined as "normal" weight (e.g., body sizes that are occur more on average in the population than other body sizes) or as "healthy" weight? Average weights are not necessarily healthy weights. Moreover, many of the studies specifically examining nonverbal communication in relation to body-related constructs (i.e., body size) are laboratory experiments with limited ecological validity. Although they are important in gaining an initial understanding of the topic, future research can expand on current knowledge by examining nonverbal communication in face-to-face interactions in naturalistic settings. Examining communication as people are communicating is probably a more useful approach. Furthermore, there is the

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potential to incorporate various theoretical areas into the literature on communication and body image. For instance, theories relevant to individuals and communication, such as the looking-glass self and/or the egocentric and sociocentric self, have not been integrated within this body of research. Incorporating these theories could be done either quantitatively or qualitatively. Lastly, similar to the general area of body image, there is a notable lack of qualitative research examining communication processes, particularly nonverbal ones, and various body-related constructs (e.g., attractiveness, body image). Without qualitative research, women's individual voices cannot be heard and the ways in which they experience the phenomenon cannot be understood. Largely missing from the literature is what women actually think about experiences of communication in relation to their bodies. How do they understand nonverbal behaviour from others and how they show nonverbal behaviour to others? How are they impacted by notions of physical attractiveness within our society, especially within the context of interpersonal interactions? How is body image related to interactions women have with one another? A study that simultaneously incorporates the variables outlined above – nonverbal behaviour, physical attractiveness, and body image – within interactions is an important step to address gaps in the literature.

Chapter 3: The Current Study

3.1 Rationale

As reviewed above, the sociocultural model of body image (Tiggemann, 2011) and objectification theory (Fredrickson & Roberts, 1997) provide a framework for understanding body image disturbance on a societal level. Both involve communication between people in understanding women's body image, either through internalization of the thin ideal and appearance comparison (Tiggemann, 2011) or through self-objectification (Fredrickson & Roberts, 1997). Within the literature, communication through verbal messages has received the most attention. In contrast, less is known about nonverbal communication and its relation to body image. The research to date has identified weight-based and attentional biases towards individuals (e.g., Roddy et al., 2010, 2011; Rodgers & DuBois, 2016) and the impact of nonverbal behaviour on women's body image (e.g., Martijn et al., 2010) through laboratory experiments. In addition, other research has also started to examine the myriad connections between women's perceptions and meta-perceptions of variables such as attractiveness, nonverbal behaviour, and body image. What is needed to address important gaps in the literature is an examination of body-related constructs, such as body image and appearance, in relation to nonverbal behaviour within real-world interactions. For instance, if weight-based and attentional biases are found in laboratories, how are they manifested nonverbally within interactions in naturalistic settings? Because the simultaneous study of nonverbal behaviour, physical appearance, and body image within interactions is a new area, it is beneficial to learn as much as possible about the phenomenon. Therefore, a mixed method design was chosen.

There are many reasons for mixing methods in a single research project (Creswell & Plano Clark, 2011). In the current study, the rationale for mixing methods is based on several reasons. First, the use of quantitative and qualitative data provides completeness (Bryman, 2006). By investigating the phenomenon in a quantitative and qualitative way, a more comprehensive account is produced. Second, the use of two approaches allows for the process of the phenomenon to be illuminated. That is, the quantitative research offers an account of relationships and the qualitative research provides a detailed account of the process behind those

relationships (Bryman, 2006). Lastly, the rationale for mixing methods in this study draws on illustration, whereby the qualitative findings serve to elucidate the quantitative ones (Bryman, 2006).

The specific mixed method design for this research study is an explanatory sequential design. Creswell and Plano Clark (2011) describe the explanatory sequential design as one in which the researcher begins by conducting a quantitative phase and then follows up on results with a second qualitative phase for the purpose of explaining results in more depth. This type of mixed methods design is noted to be useful when the researcher wants to examine relationships with quantitative data but also be able to explain the reasons or process behind the numeric trends (Creswell & Plano Clark, 2011). In explanatory sequential designs, the mixing of quantitative and qualitative methods occurs at two points: when the results of the quantitative phase are used to develop the qualitative phase and when the results of both phases are interpreted together (Plano Clark & Ivankova, 2016).

3.2 Quantitative Component

To address criticisms and contribute to the literature, the initial quantitative study examined whether there was a relationship between nonverbal behaviour (conceptualized as immediacy) and women's body attractiveness, facial attractiveness, and body image in peer-dyad interactions. Immediacy is defined as the exchange of warm behaviours and is characterized by closer interpersonal distances, interpersonal touch, eye contact, smiling, nodding, facial expressiveness, body relaxation, and enthusiastic tone of voice (Andersen & Andersen, 2005). The simultaneous examination of body attractiveness, facial attractiveness, and body image in relation to nonverbal behaviour contributed to a neglected area of research, especially because it incorporates social processes. Lastly, various methodological limitations of prior research are addressed: body image was measured multidimensionally, trait (versus state) body image was explicitly measured, researcher measurements of participants' height and weight were obtained to avoid inaccurate reporting, and the mutual influence of nonverbal behaviour within interactions was accounted for in the statistical analyses.

Within the quantitative study, there were two objectives. The first objective was to answer the research question: what, if any, is the relationship between the nonverbal communication directed towards another and the body attractiveness, facial attractiveness, and

body image of the other within peer-dyad interactions? Based on research reviewed above, the following hypotheses were offered:

> H1: It was expected that nonverbal immediacy would decrease as body attractiveness decreased.

> H2: It was expected that nonverbal immediacy would decrease as facial attractiveness decreased.

> H3: It was expected that nonverbal immediacy would decrease as body image decreased (because body image is related to physical appearance but also because interaction partners' nonverbal immediacy may be affected by the others' negative views of self).

The second objective was to measure body image in a comprehensive manner among a sample of college women and to examine the relationships among the dimensions of body image and related variables, including BMI, thin ideal internalization, and appearance comparison. This objective was exploratory and secondary to the first objective. No specific hypotheses were offered because it was expected that results would confirm prior research. The opportunity to examine these variables was taken because the statistical analyses were required in order to answer the research question above. Specifically aiming to discuss body image variables as part of this study allowed the chance to examine the level of body image in a non-eating-disordered sample of college women and explore relationships between dimensions of body image and related variables.

3.3 Qualitative Component

Once the quantitative results were analyzed, the qualitative study was conducted using Interpretative Phenomenological Analysis (IPA; Smith et al., 2009) with the aim of investigating women's experience with the phenomenon. To address criticisms of prior research, a key aim was to allow women's individual voices and understandings as they relate to communication, appearance, and body image to be heard as this is an area largely neglected to date. Similar to the quantitative study, the qualitative phase provided opportunity to examine social processes within interactions while giving context to results obtained in the initial study. Furthermore, the theory of the egocentric and sociocentric self was incorporated. Lastly, specific conceptualizations of body image and physical attractiveness were not indicated prior to the study; rather, these were left open so that participants' own understandings could be illuminated.

The specific research question for the qualitative component was: How do women experience their self and their body in relation to nonverbal communication in interactions with peers? No hypothesis was offered because within IPA, the aim is to understand another person's experience and, as such, questioning starts broadly and is narrowed down based on the participant's initial responses (Smith et al., 2009).

3.4 Mixed Method Component

The final phase of the current study was an integration of the quantitative and qualitative data. The research question was: How do the qualitative interviews with women help to explain the quantitative results regarding a relationship between nonverbal communication and females' physical appearance and body image? No hypothesis was offered because the mixed methods analysis was dependent on the qualitatively generated data. A diagram of the entire mixed methods study is found in Figure 3.1.

Phase	Procedure	Product
Quantitative Data Collection	• Dyad interactions (N = 80 dyads) • Individual questionnaires	• Video-taped conversations • Numeric data
Quantitative Data Analysis	• Data screening • Dyadic data analysis	• Outliers, missing data • Descriptive statistics • Correlations • Predictors of immediacy
Case Selection; Interview Protocol Development	• Homogeneous group of participants from quantitative phase invited for interview • Developed interview questions	• Cases (N = 4) • Interview protocol
Qualitative Data Collection	• Individual self-reflections on peer dyad video and interviews with 4 participants • Transcription • Member checking	• Participant transcripts • Participant transcript release forms
Qualitative Data Analysis	• Iterative and inductive analysis following IPA (Smith et al., 2009)	• Codes and themes • Table of themes
Integration of the Quantitative and Qualitative Results	• Interpretation and explanation of the quantitative and qualitative results	• Discussion • Implications • Future research • Limitations

Figure 3.1. Diagram of sequential explanatory design used based on Ivankova and Stick (2007) and Creswell and Plano Clark (2011) with permission of SAGE Publications.

Chapter 4: Method

The current mixed methods study began with the quantitative component, consisting of dyads taking part in a videotaped conversation on various aspects of communication and body image. Participants' nonverbal behaviour was operationalized as immediacy. Participants completed questionnaires on their interaction partner's immediacy and attractiveness as well as on their own body image. Once the quantitative study was concluded, a subset of participants was recruited for the qualitative aspect. Qualitative interviews began with the researcher and an individual participant reviewing and discussing their videotape, pausing it every minute, leading to a semi-structured interview. Once the qualitative data were analyzed, the results of each aspect were integrated to compare and contrast findings and to further understand results obtained by each method. Below is a detailed description of the quantitative, qualitative, and mixed methods components.

4.1 Quantitative Component

4.1.1 Participants. Participants were recruited for the quantitative aspect of the current study through the University of Saskatchewan's (U of S) participant pool for psychology students. Each received a 2% bonus toward their final mark. There were several criteria that were used to select participants. First, they were women between the ages of 18 and 25 who were currently attending university. Gender was restricted to females because body image issues vary among men and women. Gender was also restricted because interactions involving one versus both genders are thought to differ in terms of information about body image, attractiveness, and communication disclosed and reported as well as how participants might behave nonverbally. Age of university students was specified so that participants constituted a peer group. Second, participants must not have had an active eating disorder diagnosis in order to prevent potentially negative impacts on women who were struggling with eating issues. Excluding individuals with such diagnoses also ensured that the study remained focused on women who have experiences with body image that are not extreme and that are representative of the majority of women. Third, because the topic of this research was nonverbal communication and body image amongst peers and not friends, participants who were unknown to each other formed dyads. Lastly,

participants had to be willing to engage in a conversation with another participant regarding whether and/or how nonverbal communication is related to body image.

Approximately 80 dyads was the target sample size, based on the following rationale. In dyadic research, power calculations to determine required sample sizes are very complex so Kenny, Kashy, and Cook (2006) recommend using sample sizes that have been successful in the past. The best estimate from previous research is a sample size of 80, which Kenny et al. (2006) determined to be the average number of dyads included in dyadic studies.

Accordingly, participants consisted of 160 female university students (80 dyads). The mean age was 19.5 (SD = 1.67) and the majority of participants were either 18 (31.9%) or 19 years old (25.0%). In terms of year in university, 56.9% were in first year and 22.5% were in second year with the remainder enrolled in their third, fourth, or fifth years. The majority of participants were enrolled in the College of Arts & Science (78.8%). Regarding ethnicity, the majority of participants were of European origin/Caucasian (63.7%). The details of participant demographics are presented in Table 4.1.

4.1.2 Measures.

4.1.2.1 Presence of Eating Disorder. Although participants were explicitly told that they could not have an active eating disorder diagnosis, this criterion was confirmed by administering the SCOFF questionnaire (Morgan, Reid, & Lacey, 1999). It is a 5-item screening tool for eating disorders, specifically for the detection of anorexia nervosa and bulimia nervosa. Because one of the questions includes the use of a British description of weight (one stone), it was converted into pounds before administered to participants in the current study. One point is given for each question answered affirmatively. If a score of 2 or more results, then a case of anorexia or bulimia is likely present. In the initial development of the SCOFF, Morgan, Reid, and Lacey (1999) found that setting the threshold at two or more positive answers provided 100% sensitivity for anorexia and bulimia, separately and combined, with specificity of 87.5% for controls. In follow-up research it was demonstrated that the tool had high sensitivity and specificity and was reliable in both written and face-to-face versions (Hill, Reid, Morgan, & Lacey, 2010). The SCOFF questionnaire is found in Appendix A.

Because results of the SCOFF questionnaire were checked individually before each person presenting to the lab was permitted to participate, none of the participants included in this study scored at 2+ on the Scoff questionnaire. Scoring less than 2 indicates that the participant is

Table 4.1

Demographic Variables

	Percent
Age	
17	2.5
18	31.9
19	25.0
20	18.1
21	9.4
22	7.5
23	2.5
24	1.3
25	1.9
Year in University	
1	56.9
2	22.5
3	11.3
4	8.1
5	1.3
College	
Agriculture	4.4
Arts & Science	78.8
Business	10.0
Education	0.6
Kinesiology	5.0
Nursing	0.6
Social Work	0.6
Ethnicity	
Aboriginal Canadian/American Indian/Alaska Native	6.9
African Origin/Black/African American	6.9
Asian	21.3
European Origin/Caucasian	63.7
Latino-a/Hispanic	1.3

likely not suffering from an eating disorder. In total, 79 participants answered positively to one of the Scoff questions. Question 2 (do you worry you have lost control over how much you eat?) and question 4 (do you believe yourself to be fat when others say you are too thin?) were most commonly responded to in an affirmative manner. Frequencies for Scoff responses are presented in Table 4.2.

4.1.2.2 Immediacy. The Nonverbal Immediacy Scale-Observer Report (NIS-O) was used to measure participants' perceptions of their interaction partner's immediacy (Richmond, McCroskey, & Johnson, 2003). It is a 26-item scale of nonverbal immediacy that can be used in interpersonal contexts. Participants responded on a 5-point Likert scale (1 = never, 5 = very often). Scores were calculated by beginning with adding the positive items and then subtracting the negative items as outlined in Richmond, McCroskey, and Johnson (2003), with higher scores indicating greater perceived immediacy (Richmond et al., 2003). The NIS-O is found in Appendix B.

For the NIS-O, the alpha value (.83) was somewhat lower than that found in prior research, but still acceptable. Previous testing of the psychometric properties of the NIS-O indicated that it is a reliable and valid measure. Richmond et al. (2003) found high internal consistency (Cronbach's α = .92). Content validity is asserted to be high because the scale includes 13 different nonverbal components, with two items for each component, each of which is theorized to represent immediacy (Richmond et al., 2003).

4.1.2.3 Body attractiveness. In the current study, body attractiveness was measured in two ways. First, body mass index (BMI) was used as a rough proxy for body attractiveness. Participants had their weight and height measured by the researcher so that BMI [weight (kg)/height (m) ^{2}] could be calculated. Measurements were not self-reported because, as discussed in chapter 2, women frequently report their weight inaccurately. Second, each participants was asked to rate the overall attractiveness of her interaction partner ('Overall, how attractive is your interaction partner?'). Ratings were made on a 7-point Likert scale (1 = very unattractive, 7 = very attractive). Higher scores indicate greater attractiveness.

4.1.2.4 Facial attractiveness. In the current study, facial attractiveness was measured in two ways, similar to body attractiveness. First, each participant was asked to rate the facial attractiveness of her interaction partner ('How attractive is your interaction partner's face?'). Second, they were asked to rate the attractiveness of their own face ('How attractive is your own

Table 4.2

Frequencies of Scoff Questionnaire Responses

		Yes (%)	No (%)
Question	1	2.5	97.5
	2	16.9	83.1
	3	5.0	95.0
	4	18.1	81.9
	5	6.9	93.1

face?'). Both ratings were completed on a 7-point Likert scale (1 = very unattractive, 7 = very attractive); higher scores indicate greater attractiveness.

4.1.2.5 Body image. Body image was measured through an examination of each dimension.

4.1.2.5.1 Cognitive/affective. The cognitive/affective dimension of body image was assessed with two instruments. The first was the body dissatisfaction (BD) subscale of the Eating Disorders Inventory-3 (EDI-3; Garner, 2004). The EDI-3 is a diagnostic tool for clinical eating disorders. The 10-item BD subscale measures discontent with overall body shape and size, as well as with specific areas of the body. As such, it measures both affect and cognition related to one's body and is commonly used among nonclinical samples. Participants responded to both scales on a 5-point Likert scale (0 = never to 4 = always). Scores were totaled, with higher values indicating higher body dissatisfaction. This scale is not provided in an appendix due to copyright protection.

The alpha level for the BD scale for this study was .86 and was similar to previous research. For example, Garner (2004) reported Cronbach's alpha as ranging from .88 to .96 for clinical samples. In addition, the EDI-3 has shown predictive validity, concurrent validity with external instruments of eating disorder behaviours, and reasonable discriminant validity (Anderson, De Young, & Walker, 2009; Garner, 2004; van den Berg et al., 2002). It is a widely used instrument in the field.

The second instrument used to measure body dissatisfaction was the Photographic Figure Rating Scale (PFRS; Swami, Salem, Furnham, & Tovée, 2008). It consists of 10 photographic images of real women in front-view wearing tight grey leotards and leggings. Their faces are obscured from view and the images are presented in grey scale so that facial cues do not affect the ratings and to minimize the impact of ethnicity or skin tone, respectively. There are two images from each of five BMI categories: emaciated, underweight, normal, overweight, and obese. (The authors also provide the BMI of each figure.) The images were presented from emaciated to obese to the participants on a piece of paper. Participants were asked to select the image they perceive as most accurately depicting their current body size and the image they consider to be their ideal. A measure of body dissatisfaction is obtained by calculating the absolute difference between ideal and current body size. The PFRS is found in Appendix C.

The PFRS has shown evidence of reliability and construct validity. Test-retest reliabilities

are found to be very strong ($r = .85$, $p < .001$; Swami et al., 2008; Swami et al., 2012). Regarding construct validity, among a sample of 208 female participants, current self-ratings of body weight based on the PFRS were strongly correlated with participants' BMI. Also, the PFRS was negatively correlated with positive body image (Swami et al., 2008).

Convergent validity was demonstrated by further study by Swami, Taylor, and Carvalho (2011). Body dissatisfaction measured by the PFRS was predicted by internalization of the thin ideal and BMI. Swami et al. (2012) found convergent validity for the PFRS in relation to BMI and a range of other body image variables, such as body image avoidance and drive for thinness.

4.1.2.5.2 Perceptual. The perceptual dimension of body image was also assessed using the Photographic Figure Rating Scale (PFRS; Swami et al., 2008). An indication of perceptual body image was determined by comparing participants' image selection of their current body size to their actual BMI. This represents an adaption of Swami, Salem, Furnham, and Tovée's (2008) use of their own measure, whereby a perceptual measure of body image is indicated by whether participants are able to accurately order the images from thinnest to heaviest and identify those that are obese and emaciated. Using a range of figures to measure perceptual body image by examining the discrepancy between the chosen image and the participant's actual body size is one of the most widely used methods for measuring perceptual body image.

As explained above, the PFRS has shown evidence of reliability and construct validity. In addition, the PFRS is believed to be useful for assessing perception of body size because of the correlation found between female participants' current self-ratings of body weight with BMI.

4.1.2.5.3 Behavioural. The Body Image Avoidance Questionnaire (BIAQ) measured the behavioural dimension of body image (Rosen, Srebnik, Saltzberg, & Wendt, 1991). The 19-item self-report scale contains questions that inquire about body image avoidance in the domains of clothing, social activities, eating restraint, grooming, and weighing. Participants responded to items on a 6-point scale (0 = never, 5 = always). Scores were totaled, with higher values indicating greater body image avoidance (Rosen et al., 1991). The BIAQ is found in Appendix D.

The Cronbach alpha obtained in the current research was satisfactory (.78). This value is somewhat lower than that obtained in prior research. For instance, in a non-clinical sample of 353 female university students, the measure demonstrated good reliability (Cronbach's $\alpha = .89$ and test-retest coefficient = .87). Additionally, the scale has also demonstrated convergent

validity with existing eating disorder and body image questionnaires (Rosen et al., 1991). Studies employing this measure since its development and initial testing of psychometric properties have confirmed the measure's good reliability and validity (Lydecker, Cotter, & Mazzeo, 2014; van den Berg et al., 2002).

4.1.2.5.4 Overall body image. In order to determine both if participant's objectively measured body image was similar to her interaction partner's perception of it, and to be able to examine the impact of body image variables on nonverbal communication in two ways, participants were also asked to rate her interaction partner's body image ('What do you think your interaction partner thinks about her own body image?'). Ratings were completed on 7-point Likert scales (1 = very negative, 7 = very positive) and higher scores indicated a more positive body image.

4.1.2.6 Thin-ideal internalization. Thin-ideal internalization was measured with the Internalization – General subscale of the Sociocultural Attitudes Towards Appearance Questionnaire III (SATAQ-III; Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2004). The Internalization (General) subscale consists of nine items, which are responded to on a 5-point Likert scale (1 = definitely disagree, 5 = definitely agree). Scores were totaled, with higher scores reflecting higher internalization of the thin ideal. The SATAQ-III subscale can be found in Appendix E.

Cronbach's alpha in the current study was high at .93. The Internalization (General) subscale has demonstrated reliability and validity in various studies. The original version of the scale had high internal consistency (Cronbach's α = .88) and converged with other scales of body image and eating disturbance (Heinberg, Thompson, & Stormer, 1995). The third edition of the subscale also has high internal consistency (Cronbach's α = .96) and convergent validity with measures of body image and eating disturbance. Additionally, eating-disturbed and eating-disordered samples had higher scores on the measure than did a control sample (Thompson et al., 2004).

4.1.2.7 Appearance comparison. The Physical Appearance Comparison Scale-Revised (PACS-R) was used to measure appearance comparison (Schaefer & Thompson, 2014). It is an 11-item scale designed to measure one's tendency to compare his or her physical appearance to the physical appearance of others. Participants were asked to indicate how often they make each kind of comparison using a 5-point Likert scale (0 = never, 4 = always). Scores were totaled,

with higher scores indicating greater appearance comparison tendencies. The PACS-R can be found in Appendix F.

The alpha level for the current study was high (.95). The PACS-R has demonstrated both reliability and validity. In the validation of the revised scale, 562 female undergraduate students participated. The scale demonstrated high internal consistency (Cronbach's $\alpha = .97$) and convergent validity with other measures of body satisfaction, eating pathology, sociocultural influences on appearance, and self-esteem (Schaefer & Thompson, 2014).

4.1.2.8 Manipulation of procedure. At the end of the study, participants were asked about the purpose of the videotaped conversation. If any participant indicated that they were aware of the hypothesis (e.g., that their nonverbal warmth would systematically vary based on the interaction partner's body attractiveness, facial attractiveness, and body image), then they were to be excluded from the analysis. However, no participants guessed at the complete purpose and hypothesis of the conversation and therefore none were excluded from analyses.

4.1.2.9 Willingness to participate in future interview. At the end of the quantitative component, participants were asked if they would be willing to participate in a future interview with the researcher. The majority (90%) consented to being contacted in order to inquire about interest in participating in an interview.

4.1.3 Procedure. Before the research began, the Behavioural Research Ethics Board at the U of S approved the study. The certificate of approval is found in Appendix G. At the beginning of data collection, informed consent was obtained from participants by describing the purpose of the study, the details of participation, limits of confidentiality, risks and benefits of participation, and the participant's right to withdraw (Hays & Singh, 2012). The consent form used at the start of the study is found in Appendix H and provides additional information on managing ethical issues applicable to the present study.

Once ethical approval was obtained but before data collection began, the instructions and focused conversation between participants was piloted with a small group of volunteers. Piloting ensured that the conversation guide was clear to the participants and that there was an appropriate amount of prompts so that discussions lasted approximately 15 minutes. Piloting also provided an opportunity to use the videotaping equipment and to be sure that all practical and logistic issues related to data collection were resolved. For example, piloting prompted the researcher to think about how to manage more than one dyad concurrently as they were located

in different rooms and to think about how to discreetly and confidentially handle positive screens for eating disorders.

The research procedure used was an adaptation of the action project method developed by Young, Valach, and Domene (2005). Participants were invited to a lab to have a videotaped conversation. Dyads were formed so that the two members were not friends. This was done by randomization. The researcher also checked with the participants before the procedure started as to whether they were friends. Next, the researcher provided a list of questions to cover in the conversation. It began by having participants introduce themselves. After that, they were given 5 minutes to get to know one another; they could discuss any topic they wished but were reminded that this part of the conversation would also be recorded. After 5 minutes, participants were told to spend 10 minutes having a conversation about whether and/or how they think there is a relationship between nonverbal communication and body image or body size. A conversation guide with prompting questions was provided to the participants. It is found in Appendix I.

Since the two participants were strangers, the first part of the discussion constituted an introductory phase so that they could feel more comfortable speaking to one another. The researcher was not present for the conversations because an additional person creates another source of mutual influence on nonverbal communication. By having only two people present, there was only one individual to which one could direct nonverbal communication. When the participants finished their discussion, they were asked to complete questionnaires. The NIS-O and facial attractiveness ratings were completed first because they were based on the interaction that just occurred. After that, the participants' perceptions of their interaction partner's overall attractiveness and body image were asked for followed by the participants' perceptions of their own facial attractiveness. Next, the body dissatisfaction scale of the EDI-3, BIAQ, and the PFRS were completed because these three measures together assess one of the independent variables. The order of the three body image measures was randomized. The internalization subscale of the SATAQ-III and the PACS-R were completed after the body image measures because they were measuring control variables. The order was also randomized. Lastly, the demographics questionnaire was completed, the researcher measured the participants' height and weight, and participants were debriefed. The quantitative study debriefing form can be found in Appendix J. All quantitative data was collected in Saskatoon, Saskatchewan between September 2014 and October 2015.

4.2 Qualitative Component

Within the larger field of qualitative research, this study was conducted using Interpretative Phenomenological Analysis (IPA) developed by Smith, Flowers, and Larkin (2009). IPA is a qualitative approach that aims to examine how people give meaning to major life experiences. It is based on three major theoretical axes: phenomenology, hermeneutics, and idiography (Smith et al., 2009). IPA's basis in each is briefly discussed below. It is important to note from the outset that although it draws from phenomenology, hermeneutics, and idiography, IPA is "an attempt to operationalize one way of working with those ideas" (Smith et al., 2009, p. 4). Therefore, there are aspects of these theoretical bases not discussed below which other qualitative approaches would address.

Phenomenology studies experience using a philosophical approach and IPA's basis in phenomenology is from the major phenomenological philosophers including Husserl, Heidegger, Merleau-Ponty, and Sartre (Smith et al., 2009). Although they established different schools of thought within phenomenology, they were all interested in experience and the things that constitute lived worlds (Smith et al., 2009). Consequently, the purpose of phenomenology is "to discover and describe the meaning or essence of participants' lived experiences" (Hays & Singh, 2012, p. 50). According to the phenomenologists, pure experience is not accessible – we only witness it after an event occurs. Therefore, when studying experience, we must attempt to get as experience-close as possible (Smith et al., 2009). IPA in particular is concerned with everyday experiences that are significant for the person and IPA researchers propose that experience can be understood by considering the meanings that people give to them (Smith et al., 2009).

Husserl discussed two important concepts that are relevant to IPA studies: bracketing and intentionality. Although IPA does not focus on identification of the core features of human experience as Husserl did, his idea of bracketing is still important to studies based on phenomenology. Husserl said that in order to ascertain core structures of experience that we must bracket, or put aside, our everyday taken-for-granted way of living in the world. He suggested that treating the familiar as separate would allow us to concentrate on our perception of the world not influenced by our normal way of living in it (Smith et al., 2009). Husserl's use of bracketing is still used in much qualitative research today, including in IPA, by which researchers attempt to put aside their preconceived notions of what they might find or what participants' experiences might be.

Intentionality is another term discussed by Husserl with importance to studies employing IPA. For Husserl, phenomenological inquiry focuses on that which is experienced in the consciousness of the individual. Because he explained that consciousness is "always consciousness *of* something" (Smith et al., 2009, p. 13), he used the term intentionality to describe the relationship between the process occurring in consciousness and the object of attention (Smith et al., 2009). In this way, intentionality refers to the object to which your memory, perception, imagination, consciousness, etc. is directed towards. Another way to think about intentionality is that it describes the ways in which we are attached to the world; when we think or feel, we are always oriented to something in the world (van Manen, 2014).

Although Heidegger was considered to be a phenomenologist, he said that people's interpretations of experience were central to phenomenology. Heidegger understood human experience as being in relation to something, including a world of objects, relationships, and language. Therefore, he said that the interpretation of people's efforts to make meaning of experience was central to phenomenology (Smith et al., 2009). Consequently, IPA is also influenced by hermeneutics, discussed next.

Hermeneutics is the second theoretical base of IPA. According to Patton (2002), hermeneutics "provides a theoretical framework for interpretive understanding, or meaning, with special attention to context and original purpose" (p. 114). IPA incorporates hermeneutics because once there is access to experience, one must make sense of that experience; in this manner, analysis always involves interpretation (Smith et al., 2009). Furthermore, IPA involves a "double hermeneutic" (Smith et al., 2009, p. 35) in a few ways. First, the researcher is making sense of the participant, who is making sense of the experience under study. Second, IPA involves both a hermeneutics of empathy, where the researcher wants to see what it is like from the participant's view, and a hermeneutics of questioning, where the researcher attempts to look at the participant's experience from a different angle and ask questions about what they are saying. According to Smith and colleagues (2009), successful IPA research combines both the empathic and the questioning stance.

Just as Husserl made significant contributions to phenomenology which are important to IPA today, Heidegger had noteworthy influence on hermeneutics. His concepts of fore-structure and the hermeneutic circle are still centrally relevant to this type of qualitative research. Heidegger said that whenever we interpret something, we bring our fore-structure (our prior

experiences, assumptions, or preconceptions) to the encounter. We thus see and experience things in light of our own prior experience (Smith et al., 2009). The hermeneutic circle refers to the dynamic relationship between the part and the whole at a range of levels: to understand a part, you look to the whole and to understand the whole, you look to the part (Smith et al., 2009). For instance, when you encounter something new in your life, such as watching a new movie, your expectations about what the movie will be about will influence how you watch the movie and what you anticipate seeing. In other words, your fore-structure influences your interpretation of the movie. However, as you continue watching, there may be parts of the movie that do not fit with your expectations. With this new information, you may then change your expectations of the movie and in turn, modify your fore-structure. Thus, you carry on with the cycle throughout the movie.

In terms of research, it is helpful to think of the hermeneutic circle in relation to the entire process of a research project in which the researcher continually moves between the whole and the parts of the study. In terms of a qualitative study, this can refer to parts of a transcript and the whole transcript, one participant's narrative and the narratives of all of the participants, a participant and the context within which the participant lives, and the researcher's preconceptions and the participant's experience (Smith et al., 2009). Additionally, there are several key ways in which the hermeneutic circle helpfully influences the process of research. First, the hermeneutic circle describes the process of interpretation quite effectively – as one that proceeds in a dynamic, non-linear manner. It also fits with a key principle of IPA, namely that analysis is iterative (Smith et al., 2009). We move back and forth through a number of ways of thinking about the data, rather than completing each step of the analysis in a tidy list. Second, keeping the hermeneutic circle in mind is a helpful way to think of one's relationship to the data collected and how that relationship changes as data collection and analysis proceeds. Third, bracketing should be viewed as a cycle and as something that can only be partially achieved, rather than a single occurrence of setting aside preconceptions (Smith et al., 2009). Lastly, priority should be given to the object or experience, rather than to our fore-structure. This is because our fore-structure is always there and may present an obstacle to interpretation (Smith et al., 2009).

The third theoretical axis of IPA is idiography, or the particular. Smith and colleagues (2009) propose that the most important value of IPA studies is that they provide "detailed,

nuanced analyses of *particular* instances of lived experiences" (p. 37). Knowing the particular helps to understand nomothetic psychological research and theories. A commitment to the particular requires analysis that is thorough and systematic so that there is depth of analysis. Consequently, IPA uses small, purposively-selected samples, including samples larger than one, from specific contexts (Smith et al., 2009). The analysis begins with a detailed examination of each case and then cautiously moves to investigate similarities and differences across cases so that a detailed, nuanced account of patterns of meaning are presented for each participant (Smith et al., 2009).

An IPA approach is compatible for exploring the experience and meaning of women's bodies in interactions and addressing the present research question: "How do women experience their self and their body in relation to nonverbal communication in interactions with peers?" Illuminating women's lived experience surrounding their bodies, body images, notions of attractiveness, and nonverbal communication and interaction was the aim of this study. An IPA approach is also suitable for understanding major life and everyday experiences, both of which are thought to represent women's experiences of their bodies, given their salience in our society. Lastly, IPA is suitable for studying people's experience or understandings of a phenomenon. Further, I would like to learn about the process of interaction understood by participants as they engage with the world. It is thought that the experience of bodies in relation to interactions will be one of significance to the women recruited.

4.2.1 Participants. In IPA, research is conducted on small sample sizes with participants who can offer insight into the particular experience the researcher wishes to study. IPA researchers try to find a homogeneous sample for whom the research question will be meaningful (Smith et al., 2009). Therefore, samples are purposively selected so that they offer insight into the experience under study and because of the focus on understanding particular phenomena in specific situations (Smith et al., 2009). In this way, participants in an IPA study represent a perspective instead of a population (Smith et al., 2009). Regarding sample size, researchers are cautioned: "The issue is quality, not quantity, and given the complexity of most human phenomena, IPA studies usually benefit from a concentrated focus on a small number of cases" (Smith et al., 2009, p. 51). Smith and colleagues (2009) note that between three and six participants provides enough data so that both similar and different themes emerge among participants.

Smith and colleagues (2009) indicate that in IPA potential participants are most frequently contacted via referral, opportunities, or snowballing. In the present study, the opportunity to recruit participants from the quantitative phase into the qualitative phase was used. Having participants take part in both aspects of the study helped to achieve one of the mixed method objectives: to investigate whether the qualitative results provided an explanation for the quantitative results. It also provided the opportunity to begin the qualitative study with a review of the participant's videotaped conversation, which was thought to bring the experience of nonverbal communication in interaction with female peers more experience-near. Additionally, because the research question focused on how women aged 18 to 25 experienced their self and body in relation to nonverbal communication, the entire quantitative sample could potentially offer insight into this phenomenon and provided a good starting place for recruitment. Purposively sampling from the quantitative study also provided a homogenous sample because of the inclusion criteria for that study (e.g., women aged 18 to 25 who were attending university). Lastly, there were no theoretical reasons to purposively select participants for the qualitative study based on their scores from the quantitative aspect. This was also avoided for pragmatic reasons – to increase the pool of potential qualitative participants before students left for the spring and summer terms.

Based on the above reasoning, following the quantitative phase of data collection, each participant was asked to indicate whether they wished to take part in the qualitative segment. Then, participants who were willing and whose data were included in the quantitative component (i.e., those with data that was not excluded for being outliers) were asked through email if they would like to participate in the qualitative study. To compensate participants for their time, each received a $25 gift card to the U of S bookstore. With this recruitment method, nine women responded. I then scheduled nine interviews, purposefully interviewing more than the recommended range for IPA studies to account for unexpected outcomes (e.g., participants not coming to their interview, participants not signing their transcript release form). This strategy was helpful because, for numerous reasons, only four interview transcripts were useable. More specifically, one person did not attend her interview, one person did not communicate in a way that could be understood (both in English and when a translator was present), one person did not understand the purpose of the interview or invitation and no longer wanted to participate, one person did not reply to multiple emails to review and release her transcript, and one person did

not meet the criteria of not struggling with disordered eating. In this case, I abandoned my interview questions and focused on gathering more information about her experience with disordered eating. This allowed me to sensitively discuss with her community resources she could access to address her struggle, should she wish to do so.

After the interviews and transcripts were reviewed and released, the analysis, described in more detail below, began on a case-by-case basis. By the end of the analysis of the fourth participant, it was found that there were both meaningful points of similarity and difference between the participants, which Smith and colleagues (2009) suggest should emerge from sufficient cases. Four participants is also within the recommended range for IPA studies and for dissertations (Smith et al., 2009). It is thought that a sample size in this range allows for detailed accounts of individual experience, which for IPA is preferable to quantity of data with less depth (Smith et al., 2009). Each participant is briefly described below.

4.2.1.1 Elizabeth. Elizabeth was aged 21 at the time of her interview. She identified her ethnicity as European origin/Caucasian. Elizabeth had recently completed her Arts & Science degree.

4.2.1.2 Jane. Jane was aged 20 at the time of her interview. She identified her ethnicity as being of African origin and indicated in our discussion that she spent the majority of her childhood in the United Kingdom. She was working towards a degree in Pharmacy.

4.2.1.3 Isra. Isra was aged 19 when she was interviewed. She identified her ethnicity as being of Asian origin, and through our discussion explained in more detail that her family was from Pakistan. Isra reported growing up in Canada. She was currently an Arts & Science student.

4.2.1.4 Ashley. Ashley was aged 20 at the time of her interview. She identified her ethnicity as being European origin/Caucasian. She was also an Arts & Science student. Ashley also revealed during our interview that she was an identical twin.

4.2.2 Data generation. Within IPA, interviews are one of the best methods for accessing detailed descriptions of experiences, including detailed stories, thoughts and feelings (Smith et al., 2009). In order to avoid directly asking participants the stated research question, questions were prepared in advance so that the researcher can "come at the research questions 'sideways'" (Smith et al., 2009, p. 58). Smith and colleagues (2009) advise that researchers should identify the broad areas they hope participants will talk about and then come up with questions which,

when answered by participants, provide the researcher with an opportunity to answer the research questions.

In the present study, data was generated through self-reflections on videotaped conversations as well as by semi-structured interviews following the self-reflections. The conversation data amongst participants was also a source of data for those participants who were involved in the qualitative study. The self-reflections were a method adapted from Young et al. (2005) in which the researcher and participant jointly watched the participant's videotaped conversation, and, approximately every minute or when the conversation came to a natural pause, the videotape was paused and the participant was asked to comment on any aspect of the conversation, interaction, or topic. The self-reflections were used to provide a starting point for discussing the phenomena; it was thought that detailed accounts could be elicited more easily if participants had a videotape of one of their experiences in an interaction to reflect on. The self-reflection also provided a period at the beginning of the interview for the participant to begin to feel comfortable with the researcher and the topic, and for the researcher to develop rapport. From this self-reflection of their conversation, a semi-structured interview began.

In preparation for data collection, a semi-structured interview schedule was prepared according to suggestions by Smith et al. (2009) and a research committee member. First, the range of topics that I wished to cover in the interview were brainstormed and then organized according to concepts and subconcepts in a pyramid-like manner. For example, a diagram was drawn in which nonverbal communication was at the top and below it were both nonverbal behaviour and physical characteristics, both of which I wanted to ask participants about in the interview. From these subconcepts, more specific subconcepts were identified (e.g., immediacy as a more specific type of nonverbal behaviour) and then specific, open-ended questions were derived. Second, the topics were placed in a sequence considered to be most appropriate (e.g., more specific or personal questions placed after more general or impersonal ones). Third, the questions were discussed with a research committee member and a fellow graduate student and were re-drafted until lastly, a complete and easily understandable list of questions was ready for participants. The self-reflection and interview schedule can be found in Appendix K.

Based on participants' initial responses to open-ended questions and their reported experiences with body image and nonverbal communication, the questions were adapted as required. The researcher aimed to listen to the participants at length and to probe when necessary

for further information. It was important to remain focused on listening to the participant's detailed descriptions so that my own values and ideas did not provide the basis for probing. In this way, I attempted to be a "naïve but curious listener" (Smith et al., 2009, p. 64) and conducted the interview in a semi-structured manner which makes "better use of the knowledge-producing potentials of dialogues by allowing much more leeway for following up on whatever angles are deemed important by the interviewee" (Brinkman, 2013, p. 21).

 4.2.3 Procedure. To begin the qualitative study, I again obtained informed consent as described above but paid particular attention to continuing the consent process throughout because "in qualitative research it has been argued that informed consent is almost impossible to achieve due to the changing nature of the data collection inherent in this type of inquiry" (Usher & Arthur, 1998, p. 695). The consent form used for the qualitative component is found in Appendix L. After consent was given, each participant completed the self-reflection and semi-structured interview and was then debriefed. The qualitative study debriefing form is found in Appendix M. The qualitative data was collected in Saskatoon, Saskatchewan from May 2016 to August 2016.

 The self-reflections and interviews were then audio-recorded and transcribed verbatim. They ranged in length from 77 to 105 minutes. Although IPA only requires a record of the words spoken by each person present (Smith et al., 2009), when I transcribed them I noted significant pauses or nonverbal behaviours within each transcript due to the nature of the phenomenon under study. Each participant was given an opportunity to choose a pseudonym and to member check the transcript. Member checking is the process by which participants are able to review their transcript in order to change, add, or delete information that they feel is inaccurate (Goldblatt, Karnieli-Miller, & Neumann, 2011). The transcript release form is found in Appendix N. After member checking was complete, the formal analysis began.

Chapter 5: Quantitative Component Results

5.1 Data Analysis

Data was collected from 160 participants. Initially, individual items of subscales were examined for accuracy of data entry and missing values. It was discovered that one participant missed one page of the questionnaires while completing the study; as a result, all items of the body dissatisfaction scale of the EDI-3 were missing for her. On other scales, there was very little missing data. The NIS-O scale had the highest number of missing data points (32 of 4160 items). However, these missing data points comprised only 0.77% missing data on this scale. Across each of the participants, where there were a few missing data points scattered throughout items on a multi-item scale that contributed to a total score (and not an average score), the missing value was replaced with the mean of the items the participant answered (see Howell, 2007). This procedure was used because missing items would impact totals more so than if the overall score was an average of items. The majority of the missing data points came from participants that had only one missing data point with the exception of one person with four missing values on the immediacy scale and one person with three missing values on the same scale.

Before hypotheses were analyzed, descriptive statistics were computed to determine if outliers were present and to examine the distributions of data. Correlations between the predictor and control variables were also examined. Dyadic data analyses were used to test the main hypotheses because the data obtained for the current study were nonindependent. Nonindependent data means that the scores for the members of one dyad are more similar to (or different from) one another than are two scores from another dyad. A test of nonindependence of the data was conducted by calculating the intra-class correlation. Because nonindependence was confirmed, and traditional statistical analyses include the assumption that observations are independent, alternative data analyses were used (Kenny et al., 2006).

Before describing the analyses to be conducted, the terminology of Kenny et al. (2006) that is applicable to the current study is described. First, the dyads in the current study are linked experimentally; they are unknown others who are interacting only for the purpose of the study.

They have no previous relationship to each other. Second, the dyad members affect one another in two ways. There is a partner effect whereby a characteristic or behaviour of one person affects his or her partner's outcomes. Both persons' outcomes directly affect one another in a mutually influencing way. Third, the dyads are indistinguishable. There is no way to describe the two interaction partners in a meaningful way because they are randomly assigned to dyads and are both females. Fourth, the variables to be examined are mixed: variation exists both within and between the dyads. For example, participants within a dyad can have different scores on immediacy and one dyad can have immediacy scores that are different from another dyad. Fifth, the dyad is the unit of analysis. In this way, research is conducted across the dyads with the purpose to find a general pattern of behaviour that may apply to other dyads. Lastly, the standard dyadic design is used in which each person is a member of one and only one dyad.

The most appropriate dyadic analysis method to test the main hypotheses of the current study is the actor-partner interdependence model (APIM; Kenny et al., 2006). In this model there are two dyad members and, for example, two variables for each member (X and Y). In the APIM, a person's X affects his or her partner's Y, which is the partner-oriented view (Kenny et al., 2006). The partner-oriented view is appropriate because the literature on nonverbal communication and body image has not established that one's body size, facial attractiveness, and body image contribute to one's nonverbal communication directed towards another. To illustrate, it appears that a person's immediacy is affected by his or her partner's score on X (BMI, facial attractiveness, or body image) but the person's own immediacy is not affected by these X variables. Kenny et al. (2006) recommend controlling for these effects regardless of what is indicated by research. If they are not present, then a true partner-oriented model is observed. Figure 5.1 illustrates the APIM for one of the predictor variables, body attractiveness.

 To estimate the model, multilevel modeling in IBM SPSS version 23 was used. According to Kenny et al. (2006), it is the best approach for indistinguishable mixed variables. The first step was to center the X variables on zero and arrange the data as a pairwise data set. In this arrangement, each individual is an observation and each individual's outcome score is associated with both his or her own predictor scores and his or her partner's predictor scores.

5.2 Results

Upon examining the descriptive statistics, it was discovered that outliers were present in the data. Specifically, there were 10 outliers on the body image avoidance scale, 10 outliers on
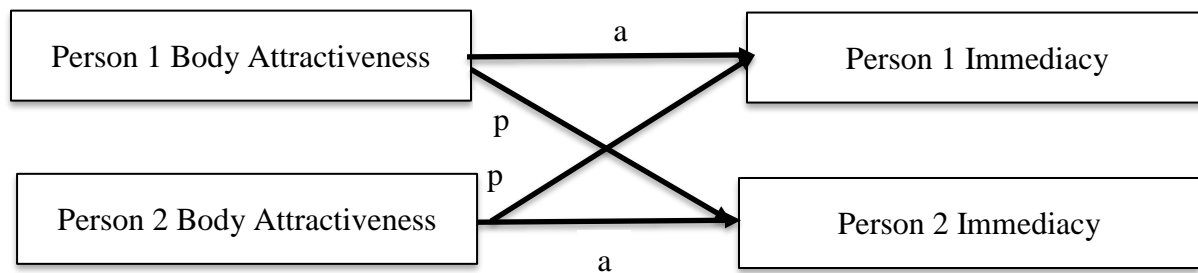
Figure 5.1. APIM showing body attractiveness as the predictor and immediacy as the outcome variable. Actor effects are denoted by 'a' and partner effects denoted by 'p.'

BMI, nine outliers on body dissatisfaction as measured by the PFRS, and two outliers on perceptual body image. The distributions of these scales were also skewed and kurtotic. Transformations of the data did not resolve issues with skewness or kurtosis. Additionally, the presence of outliers and non-normally distributed data violated two assumptions for the computation of Pearson's correlations, to be performed as an initial step for data analysis. As a result, the outlier data points were removed. This also resulted in eliminating skewness for the body image avoidance scale and eliminating kurtosis for the body image avoidance scale, body dissatisfaction as measured by the PFRS, and perceptual body image. The skewness of BMI, PFRS dissatisfaction, and perceptual body image was reduced, as was the kurtosis for BMI. Correlations were calculated with and without the outlier data points; because some significant correlations disappeared with the exclusion of the outliers, it was assumed that they were due to the presence of the outliers and thus, the outlier data points were excluded from analyses (by variable). Descriptive statistics for the outcome, predictors, and control variables are presented in Table 5.1.

Correlations were examined among different sets of predictor variables. Specifically of interest were the correlations among the various dimensions of body image, between one's perception of partner's body image and partner's dimensions of body image, between attractiveness of one's own face and partner's perception of it, and lastly, between one's BMI and partner's perception of body attractiveness. Because data was also collected on individuals' internalization of the thin ideal and appearance comparison tendency, correlations were also examined between these variables, BMI, and the dimensions of body image. There were no significant correlations found between attractiveness of one's own face and partner's perception of it or between one's BMI and partner's perception of body attractiveness. Significant results are presented below.

There were several significant findings in relation to the correlations among dimensions of body image. Body dissatisfaction as measured by the BD scale was found to be positively correlated to dissatisfaction as measured by the PFRS and to body image avoidance. Additionally, body dissatisfaction as measured by the PFRS was positively correlated to body image avoidance. In terms of the correlations between dimensions of body image of a participant and their partner's perception of her body image, there were three significant findings. Body

Table 5.1

Descriptive Statistics

Measure	n	Mean (possible range)	Standard Deviation	Skewness (Standard Error)	Kurtosis (Standard Error)
Immediacy	160	94.24 (26-110)	10.16	0.03 (.19)	-0.22 (.38)
BMI	147	22.39	2.92	0.65 (.20)	0.29 (.40)
General body attractiveness	160	5.96 (1-7)	0.99	-1.79 (.19)	5.09 (.38)
Other facial attractiveness	160	5.82 (1-7)	1.233	-1.99 (.19)	5.02 (.38)
Attractiveness of own face	160	5.41 (1-7)	0.92	-0.90 (.19)	0.97 (.38)
Body dissatisfaction (BD scale)	159	12.43 (0-40)	8.11	0.43 (.19)	-0.42 (.38)
Body dissatisfaction (PFRS)	152	1.26 (0-9)	0.95	0.26 (.20)	-0.86 (.39)
Body image avoidance	150	23.74 (0-95)	6.92	0.73 (.20)	-0.12 (.39)
Perceptual body image	154	3.62	2.09	0.47 (.20)	-0.44 (.39)
Overall body image	160	5.51 (1-7)	1.45	-1.01 (.19)	0.14 (.38)
Thin ideal internalization	160	25.38 (9-45)	9.30	0.18 (.19)	-0.59 (.38)
Appearance comparison	160	20.28 (0-44)	10.82	0.37 (.19)	-0.59 (.38)

dissatisfaction measured by the BD scale, body dissatisfaction measured by the PFRS, and body image avoidance were all negatively correlated to the interaction partner's perception of body image. This means that as the participant's scores on the body image scales increased (became more negative), the partner's perception of that person's body image decreased (also became more negative). These correlations are presented in Table 5.2.

Upon examining correlations among the dimensions of body image in relation to thin ideal internalization, appearance comparison, and BMI, there were several significant findings. First, thin ideal internalization was positively correlated with appearance comparison, dissatisfaction (measured both by the BD scale and the PFRS), and body image avoidance. Second, appearance comparison was positively correlated with body dissatisfaction (measured both the BD scale and the PFRS) and body image avoidance. Lastly, BMI was positively correlated with all measured dimensions of body image. This was the only significant finding in relation to perceptual body image in this study. These correlations are presented in Table 5.3.

Preliminary analyses of the relationship between immediacy and predictor variables were conducted using Pearson correlations and are presented in Table 5.4. There were four significant results. First, the attractiveness of the partner's body (as assessed by the actor) was positively correlated to the actor's display of immediacy. Second, the attractiveness of the partner's face (as judged by the actor) was also positively correlated to her own display of immediacy. Third, the attractiveness of the actor's face (as judged by the actor) was positively correlated to her own display of immediacy. Lastly, the positivity of the partner's body image (as judged by the actor) was positively correlated to her own display of immediacy.

Next, to confirm the presence of nonindependence between outcome variables and move forward with dyadic analyses, a test of nonindependence was conducted. The intraclass correlation was calculated using the ANOVA method as outlined by Kenny et al. (2006). Results indicated a positive association between interaction partners' display of nonverbal immediacy ($r = .19$, $p = .082$). This result is considered significant because Kenny et al. (2006) recommend that the criterion for significance be quite liberal for this test ($p = .20$, two-tailed). That is, 19%

Table 5.2

Pearson correlations among dimensions of body image

Measure	Dissatisfaction (BD scale)	Dissatisfaction (PFRS)	Avoidance	Perceptual	Overall body image
Dissatisfaction (BD scale)	1	.557**	.637**	-.109	-.335**
Dissatisfaction (PFRS)		1	.434**	-.105	-.197*
Avoidance			1	-.153	-.290*
Perceptual				1	-.011
Overall body image					1

*p < .05, **p < .01, ***p < .001

Table 5.3

Pearson correlations among thin ideal internalization, social comparison, BMI, and dimensions of body image

Measure	Thin ideal internalization	Appearance comparison	BMI	Dissatisfaction (BD scale)	Dissatisfaction (PFRS)	Avoidance	Perceptual
Thin ideal internalization	1	.573**	-.034	.502**	.304**	.442**	-.067
Appearance comparison		1	.101	.655**	.384**	.514**	-.073
BMI			1	.328**	.319**	.190*	.173*
Dissatisfaction (BD scale)				1	.557**	.637**	-.109
Dissatisfaction (PFRS)					1	.434**	-.105
Avoidance						1	-.153
Perceptual							1

*p < .05, **p < .01, ***p < .001

Table 5.4

Pearson correlations among the outcome and predictor variables

Measure	Immediacy
BMI_Actor	-.140
BMI_Partner	.047
GeneralBodyAttractiveness_Actor	.048
GeneralBodyAttractiveness_Partner	.211**
OtherFaceAttractiveness_Actor	-.042
OtherFaceAttractiveness_Partner	.226**
OwnFace_Actor	.210**
OwnFace_Partner	.069
Dissatisfaction_BD_Actor	-.037
Dissatisfaction_BD_Partner	-.155
Dissatisfaction_PFRS_Actor	-.075
Dissatisfaction_PFRS_Partner	-.041
Avoidance_Actor	-.063
Avoidance_Partner	-.041
Perceptual_Actor	-.042
Perceptual_Partner	.041
OverallBodyImage_Actor	.048
OverallBodyImage_Partner	.320**

$*p < .05, **p < .01, ***p < .001$

of the variation in scores is accounted for by the particular dyad to which individuals belong[1].
For this reason, dyadic analyses are most appropriate for the tests of hypotheses to come next.

The relationships between immediacy and the predictor variables (body attractiveness, facial attractiveness, and body image) were then examined using the APIM (Kenny et al., 2006). Separate models were estimated for each predictor variable for two reasons: it allowed for testing of the hypotheses and it did not increase the familywise error rate unacceptably by running every potential model. In addition, the alpha level was set at $p = .01$ rather than at the typical $p = .05$ to further decrease the risk of a type I error (see Field, 2013).

When a combined model for the body attractiveness variables (BMI and general body attractiveness) was estimated, there was one significant effect. General body attractiveness of the partner (assessed by the actor) significantly predicted immediacy of the actor when the other body attractiveness variables were controlled, $b = 2.699$, $t(125) = 2.87$, $p < .01$. This means that hypothesis 1 was partially supported. The estimates pertaining to the actor and partner effects of the body attractiveness variables, as one model, are presented in Table 5.5.

The combined model for the facial attractiveness variables yielded two significant results, one actor effect and one partner effect. The facial attractiveness of the actor (assessed by the actor) significantly predicted immediacy when controlling for the other facial attractiveness variables, $b = 2.281$, $t(144) = 2.68$, $p < .01$. The facial attractiveness of the partner (assessed by the actor) also significantly predicted immediacy when controlling for the other facial attractiveness variables, $b = 1.765$, $t(150) = 2.81$, $p < .01$. These results indicate that hypothesis 2 was supported. The estimates pertaining to the actor and partner effects of the facial attractiveness variables, together in one model, are presented in Table 5.6.

The model that combined all of the body image variables resulted in one significant result, a partner effect for overall body image. This means that the overall body image of the partner (judged by the actor) significantly predicted immediacy when controlling for all other body image variables, $b = 2.336$, $t(115) = 3.34$, $p < .01$. This result means that hypothesis 3 was

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[1] The intraclass correlation is interpreted as shared variance because it is the correlation between two variances of the same variable (immediacy), and not from one variable to another (in which case the square root of the correlation would indicate the amount of variance explained). This interpretation was confirmed by D. A. Kenny (personal communication, May 4, 2017).

Table 5.5

Actor and partner effects of measures of body attractiveness on immediacy (one model)

Measure	Actor Effects (b)	Partner Effects (b)
BMI	-0.353	0.193
GeneralBodyAttractiveness	0.454	2.699**

$*p < .05, **p < .01, ***p < .001$

Table 5.6

Actor and partner effects of measures of facial attractiveness on immediacy (one model)

Measure	Actor Effects (b)	Partner Effects (b)
OtherFaceAttractiveness	-0.497	1.765**
OwnFace	2.281**	0.835

$*p < .05, **p < .01, ***p < .001$

partially supported. The estimates pertaining to the actor and partner effects of the body image variables, as one model, are presented in Table 5.7.

5.3 Summary

The research question for the current study was: What, if any, is the relationship between the nonverbal communication directed towards another and the body attractiveness, facial attractiveness, and body image of the other within peer-dyad interactions? Previous research as presented above has identified weight-based and attentional biases towards individuals (e.g.,Roddy et al., 2010, 2011; Rodgers & DuBois, 2016) and the impact of nonverbal behaviour on women's body image (e.g., Martijn et al., 2010) through laboratory experiments. These results have not been replicated in face-to-face interactions. Based on previous research, it was predicted that nonverbal immediacy would decrease as the interaction partner's body attractiveness decreased, facial attractiveness decreased, and body image decreased. Each of the predictor variables was measured in two ways. Regarding body attractiveness, BMI was unrelated to immediacy (contrary to the hypothesis) but general body attractiveness as judged by the interaction partner did significantly predict immediacy, in partial support of hypothesis 1. For facial attractiveness, partner's facial attractiveness as assessed by the interaction partner significantly predicted immediacy, supporting hypothesis 2. Contrary to expectations, the actor's facial attractiveness as judged by herself also significantly predicted immediacy. Lastly, it was expected that a variety of body image measures, each assessing a different dimension, would be systematically related to immediacy. Contrary to this prediction, there were no significant findings. However, partner's overall body image (as perceived by the actor) significantly predicted immediacy, partially supporting hypothesis 3.

Table 5.7

Actor and partner effects of measures of body image on immediacy (one model)

Measure	Actor Effects (*b*)	Partner Effects (*b*)
Dissatisfaction_BD	0.029	-0.259
Dissatisfaction_PFRS	-0.932	1.301
Avoidance	0.037	0.169
Perceptual	-0.227	0.298
OverallBodyImage	0.105	2.336**

*p < .05, **p < .01, ***p < .001

Chapter 6: Quantitative Component Discussion

The current study aimed to simultaneously examine body attractiveness, facial attractiveness, and body image in relation to nonverbal behaviour in order to address a gap in the literature. Because participants interacted with one another in order to provide ratings of nonverbal behaviour, social processes were also examined. In order to test all hypotheses, body image was measured comprehensively, which allowed for a detailed examination of body image and related variables within this sample of women. The findings of this study are examined below.

6.1 Objective 1: Relationships between Nonverbal Communication and Body Variables

The first objective of the quantitative study was to answer the research question: what, if any, is the relationship between the nonverbal communication directed towards another and the body attractiveness, facial attractiveness, and body image of the other within peer-dyad interactions? Based on prior research, there were three hypotheses offered: that nonverbal immediacy would decrease as body attractiveness decreased (H1), as facial attractiveness decreased (H2), and as body image decreased (H3). Hypothesis 2 was fully supported while hypotheses 1 and 3 were each partially supported, discussed below.

6.1.1 Hypothesis 1. Regarding hypothesis 1, when a combined model for the body attractiveness variables (BMI and general body attractiveness) was estimated, there was one significant effect. General body attractiveness of the partner (assessed by the actor) significantly predicted immediacy of the actor. This means that as one's perception of another's body attractiveness decreased, immediacy shown towards that person also decreased. The finding here confirms and expands on prior research demonstrating broad biases towards individuals considered to be unattractive. For instance, Weisbuch and Ambady (2009) found a nonverbal pro-slim bias on TV such that slim female characters elicited more favourable nonverbal responses than did heavier female characters. Additionally, prior research has demonstrated a range of implicit weight biases, including both pro-slim and anti-fat biases (Roddy et al., 2010, 2011). Thus, the current study expands on prior research by demonstrating that within interactions occurring in naturalistic settings (i.e., among two participants having a

conversation), immediacy varies systematically such that it decreases as perceptions of body attractiveness decrease.

The results of the current study are based on individuals' general perceptions of body attractiveness. Exactly how participants made their ratings of body attractiveness is unknown. Based on the findings of previous research though it is likely that a number of variables were involved, including body symmetry, body type, and body proportion (see Guerrero & Floyd, 2006). These ratings could have varied between participants, such that each took into account different combinations of traits. Alternatively, other components could have influenced perceptions of attractiveness, including personality, status, and the participants' own characteristics (e.g., Patzer, 2006). In addition, prior research has shown that ideas we have about body attractiveness may depend on the bodies of those with whom we spend time. For example, if you are friends with people who have high BMIs or perceive your friends to be heavy, then you are more likely to misclassify yourself as normal weight (Ali, Amialchuk, & Renna, 2011; Ramirez & Milan, 2016). Furthermore, if you perceive your body weight to be similar to an average person, then you are less likely to identify your weight status as being overweight (Robinson & Kersbergen, 2017). These prior findings may explain why individual perceptions of body attractiveness predicted immediacy while BMI, a more objective measure, did not.

It is also possible that the set-up for the conversation impacted ratings of attractiveness. For instance, participants were set-up in the study room sitting in chairs. For this reason, maybe their individual ratings of body attractiveness were not actually based on the interaction partner's entire body, as BMI measurements would have been, and instead were based on the parts of partner's bodies that were most visible when they were sitting. This is important, given Bleske-Rechek, Kolb, Stern, Quigley, and Nelson's (2014) finding that ratings of bodies were just as predictive of attractiveness as faces as long as they were visible. In addition, it is possible that the nature of the conversation impacted participants' individual ratings of attractiveness. For example, if participants came to like their interaction partner during the conversation, or learned certain things about them (e.g., status, mutual friends), they may have come to see them as more attractive (Patzer, 2006). The conversation could not have impacted measurements of BMI, which may account for why BMI was not a predictor of immediacy while general body attractiveness was.

Indeed, that BMI did not significantly predict immediacy is a surprising finding given

ideals of beauty within our society and the results of previous research demonstrating weight bias and weight-based stereotyping (e.g., Brownell et al., 2005). However, it is possible that BMI is not a good measure of body attractiveness. Perhaps BMI is too broad and does not take into account important aspects of what people consider attractive. For instance, BMI does not take into account body composition (muscle versus fat) and so those who were somewhat muscular (and possibly considered attractive) would have received a higher BMI than someone who had more fat (and likely considered less attractive). Importantly, Faries and Bartholomew (2012) noted that BMI is confounded with body fat percent and when these two measurements are separated, body fat is a stronger cue for attractiveness compared to BMI. Using BMI as a measure of body attractiveness also does not account for body symmetry (the degree to which two sides of the body match each other) or body proportion (length or size of one physical feature in relation to another (Guerrero & Floyd, 2006), another reason that BMI may not have been a significant predictor of immediacy.

6.1.2 Hypothesis 2. Regarding hypothesis 2, when a combined model for the facial attractiveness variables was estimated, there were two significant results, one actor effect and one partner effect. The facial attractiveness of the actor (assessed by the actor) significantly predicted immediacy when controlling for the other facial attractiveness variables. The facial attractiveness of the partner (assessed by the actor) also significantly predicted immediacy when controlling for the other facial attractiveness variables. These findings provide full support for hypothesis 2 because as perceptions of facial attractiveness increased, so did the immediacy shown towards those others. This finding is congruent with the body of research demonstrating that attractiveness is associated with broad societal benefits (e.g., Brownell et al., 2005), congruent with the first finding that body attractiveness also predicted immediacy.

Similar to the findings above about body attractiveness, we do not know the basis for participants' ratings of facial attractiveness. It is likely that the markers identified by prior research impacted current ratings, such as symmetry, neoteny, koinophilia, skin condition and facial adiposity (Fink, Grammer, & Matts, 2006; Fink, Grammar, & Thornhill, 2001; Guerrero & Floyd, 2006; Jones, 1995). Alternatively, other components could have influenced perceptions of attractiveness, including personality, status, and the participants' own characteristics (Patzer, 2006). Regardless of the basis for ratings of facial attractiveness, it was found to significantly predict immediacy of one's partner.

The finding that facial attractiveness of the actor (assessed by the actor) was a significant predictor of immediacy is a surprising finding and one that was not hypothesized. It means that as your perception of your own facial attractiveness increases, you show increasing immediacy to those with whom you interact. Perhaps this finding is related to being more confident with increasing perceptions of your own facial attractiveness, which results in showing more immediacy to those around you. There is little research on this topic but one relevant finding is that greater satisfaction with your own weight is related to stronger touch intensity to a virtual stranger (Tremblay et al., 2016). Perhaps being happy with yourself and/or your appearance results in being nicer to others. Future research is needed to further understand this result.

6.1.3 Hypothesis 3. Regarding hypothesis 3, when a combined model with all of the body image variables was estimated, there was one significant result, a partner effect for overall body image. This means that the overall body image of the partner (judged by the actor) significantly predicted immediacy when controlling for all other body image variables. This result means that immediacy shown to others is based not only on how we think others look, but also on how we think they feel about their bodies. The exact process by which this occurs will require future research to reveal. There are many possibilities, the simplest of which is that the change in immediacy was a result of bias towards those perceived as feeling more negatively about their bodies. Other explanations, stemming from prior research, are discussed below.

It is possible that a complex combination of variables occurring within interactions result in the finding that perceptions of body image predicted immediacy. For instance, prior research has demonstrated that relationship expectations are related to body image, such that more negative body image predicted less positive relationship expectations (Santuzzi, Metzger, & Ruscher, 2006). It is therefore conceivable that body image predicted immediacy because of the expectations that people held (which may have caused them to behave more negatively within interactions). Similarly, prior research has shown that women who are dieting have higher levels of social evaluative concerns compared to those who are not dieting (Mountford, Tchanturia, & Valmaggia, 2016) and that women appear to expect that their own bodies will receive negative social feedback even when none is present (Alleva et al., 2014, 2016). Because dieting is related to more negative body image (Littleton & Ollendick, 2003; Neumark-Sztainer et al., 2006) and only women were included in the current study, it is possible that those with more negative body image behaved in a way that caused their interaction partners to show less immediacy towards

them. It is also possible that interaction partners pick up on these concerns and perceive their partners to be less attractive, which impacts their immediacy (Patzer, 2006). Furthermore, there is the potential that immediacy could have been impacted as a result of changes in partners' behaviour because of meta-perceptions. Dijkstra and Barelds (2011) found that women's meta-perceptions were best predicted by self-ratings of attractiveness, body image significantly predicted partners' meta-perceptions, and BMI significantly predicted meta-perceptions for partners, family and friends, and strangers. Similarly, Tremblay et al. (2016) found that belief of positive perception from others was associated with a longer duration of touch of the virtual stranger. Thus, perhaps women's meta-perceptions, potentially based on their own body image or other perceptions of their own attractiveness, caused a change in their own behaviour which impacted the immediacy shown by their partners.

It is interesting that only the partner's perception of one's body image predicted immediacy while self-reported body image using a variety of psychometrically sound instruments did not. Only small to moderate correlations were found between perceptions of body image and others' self-reported body image (discussed in more depth below). While it makes sense that our perceptions of someone else's body image are most important in determining how we treat them, it shows that our perceptions of others' body image are only somewhat aligned with how they report on their own body image. This is especially interesting since participants had approximately 15 minutes to have a conversation that centered on body image. This means that we are only somewhat good at assessing others' body image in casual conversations. It is also possible that participants did not discuss in the conversations their true body image for a variety of reasons, including not wanting to disclose it, feeling it could be socially unacceptable given what their partner had revealed, and/or they were not fully conscious of their body image. Furthermore, it could be that after having the conversation, they thought differently about their body image and reported that on the self-report measures, which differed from the content of the conversation.

6.1.4 Overall findings. Regardless of the exact process by which the current findings were obtained, this research also confirms findings of others, in addition to the weight bias research referenced above. Ross (2013) found in her qualitative study of women's experiences of body dissatisfaction that themes of nonverbal behaviour were present and these related to experiencing the gaze and judgment of others. For instance, participants felt that others were

often noticing and judging the size and shape of their bodies. Participants believed that because their bodies did not meet the ideal, that at times they received critical attention and at other times were overlooked. These findings are somewhat confirmed because it was shown here that nonverbal behaviour (immediacy) does change depending on perceptions of body and face attractiveness and body image. Thus, at least some of the time, women are accurate in perceiving that nonverbal behaviour can be somewhat negative in relation to their appearance and their body image.

Also related to the findings above is the area of research on attentional body biases. These occur when individuals selectively attend to or process information related to bodies or body image. As reviewed above, research has demonstrated that women with high body dissatisfaction show an attentional bias for thin bodies (Joseph et al., 2016; Moussally, Brosch, & Van der Linden, 2016). In addition, Rodgers and DuBois (2016) in their review found that individuals with high levels of body dissatisfaction oriented toward desired and appearance-related stimuli and when looking at others, toward the body parts identified as most attractive. They also found that individuals with higher levels of body dissatisfaction displayed a greater attentional bias toward negative and positive appearance-related stimuli (compared with neutral stimuli). Whether and/or how these attentional biases are communicated within interactions remains unknown, however, it is possible that such attentional biases may either positively or negatively contribute to immediacy. For example, if an individual is focused on the positive appearance-related stimuli in another person, then maybe they demonstrate greater immediacy to the person. On the other hand, if they have an attentional bias for thin bodies and are interacting with an individual who they do not consider to be thin, then maybe they demonstrate less immediacy to the person. Future research is needed to understand the relationship between attentional biases and perceptions of immediacy in relation to bodies and body image.

6.2 Objective 2: Examination of Body Image and Related Variables

The second objective of the quantitative study was to measure body image in a comprehensive manner among a sample of college women and to examine the relationships among the dimensions of body image and related variables, including BMI, thin ideal internalization, and appearance comparison. This objective was exploratory and secondary to the first objective and consequently no specific hypotheses were offered. The opportunity to examine these variables was taken because the statistical analyses were required in order to

answer the research question in the first objective. Specifically aiming to discuss body image variables as part of this study allowed the chance to examine the level of body image in a non-eating-disordered sample of college women and explore relationships between dimensions of body image and related variables.

6.2.1 Body image variables. In the current study, body dissatisfaction was measured in two ways: the BD scale of the EDI-3 and the PFRS. On the BD scale, the sample in the current study had a mean of 12.43 (SD = 8.11). The BD scale mean is both below the midpoint of 20 (expected given the non-clinical sample) and within the range reported by prior research. For instance, means ranging from 10.64 to 19.95 were reported on the BD scale among non-clinical samples of women in Australia (Rodgers, Paxton, & Chabrol, 2009), Taiwan (Tseng, Yao, Hu, Chen, & Fang, 2014), Denmark (Clausen, Rosenvinge, Friborg, & Rokkedal, 2011), Sweden (Nyman-Carlsson, Engström, Norring, & Nevonen, 2015), the USA (Garner, 2004), and an international sample (Garner, 2004). On the PFRS, the sample in the current study had a mean of 1.26 (SD = 0.95), which is below the midpoint of 4.5 but within the range of those reported by other studies testing non-clinical samples of women. Prior research has found PFRS body dissatisfaction means ranging from 0.92 to 1.50 (Swami et al., 2008, 2011, 2012), suggesting that this is the expected range of body dissatisfaction among women not suffering from eating disorders. Examination of the means for the current and ideal body ratings on the PFRS indicated that the sample, in general, wished to be smaller than they currently were.

The behavioural dimension of body image was measured using the BIAQ. The current sample had a mean BIAQ score of 23.74 (SD = 6.92). The mean is below the midpoint of 47.5 and lower than that found by prior research. Among American non-clinical samples, means ranging from 26.18 to 31.5 have been reported (Lydecker et al., 2014; Rosen et al., 1991). In addition, one study also included a group of women who had been diagnosed with bulimia nervosa and found a mean score on the BIAQ of 40.17 (Rosen et al., 1991), which is much higher than that reported in the current study but still below the midpoint of the scale. Compared to prior research using non-clinical samples of women, the amount of body image avoidance among the current sample may be considered to be at an expected level.

The perceptual dimension of body image was measured using the PFRS by comparing the BMI of the image chosen to represent a participant's current body to those of their measured BMI. The mean difference for the current sample was 3.62 (SD = 2.09), which is comparable to

numbers obtained in previous research using similar methods. For instance, using the PFRS MacNeill and Best (2015) found mean perceptual body image scores of 2.79 for normal weight participants and 4.28 for overweight participants. Using a different but related measure of perceptual body image, Lerner, Klapes, Mummert, and Cha (2016) found mean perceptual body image scores of 3.41 for obese class 1 participants and 6.01 for overweight participants. Therefore, the mean for the current sample is comparable to prior research.

The SATAQ-3 was used to measure thin ideal internalization. The mean for the current sample was 25.38 ($SD = 9.30$), which is only slightly below the midpoint of 27 and is within the range of those reported by other studies utilizing non-clinical samples of women. For instance, in comparison to the current study, prior research has reported lower means of 19.09 and 24.74 in French and Australian samples (Rodgers et al., 2011), 23.76 in an American sample, (Thompson et al., 2004), and 24.70 in an Australian sample (Rodgers et al., 2009), as well as higher means of 30.75 and 31.55 in Irish samples (Morrison & Sheahan, 2009).

Lastly, appearance comparison was measured using the PACS-R. The current sample had a mean PACS-R score of 20.28 ($SD = 10.82$), which is only slightly below the midpoint of 22. Because the PACS-R is relatively new, there are not a lot of prior studies with which to compare the present findings. However, the development of the PACS-R found a mean of 24.6 among a sample of 598 American women (Schaefer & Thompson, 2014), which is slightly higher than the mean found presently.

Overall, the participants of the current study reported lower levels of body image avoidance, and expected levels of body dissatisfaction (on the BD and PFRS scales), perceptual body image, internalization, and appearance comparison compared to prior research utilizing similar samples. Perhaps body image avoidance was lower in the current study because it was rated after participants had had a conversation about body image and therefore individuals were not particularly avoiding it at that time. Alternatively, the content of the conversation could have influenced participants to not engage in or report body image avoidance. In terms of the overall levels of body image and related constructs measured in the current study, they were similar to prior research with non-clinical samples of women and do not appear to be particularly high.

In analyzing these findings, it is important to place them into the larger context of our society. Often, when body image disturbance is found in samples of women, they are pathologized for having negative thoughts and feelings about their bodies. Consequently, body

image disturbance among non-clinical populations is viewed as a problem to be fixed and the onus is often placed on individual women to do something about it. Perhaps we need to change our understanding of body image disturbance as being a widespread "problem" to accepting that the levels presented in the current study (and in prior research) are normative for this population in this context. That is, they were obtained from a sample of women not suffering from eating disorders. Furthermore, they were attending university, which indicates a certain level of success in life so far. Therefore, it can be stated that among this population the level of body image "disturbance" may be what we would expect in society today among those who are relatively successful and are not suffering from clinical eating disorders. In fact, maybe such a level of body image "disturbance" is understandable in our society, discussed below.

Placing the level of body image variables found here in the context of both the sociocultural model of body image and objectification theory provides understanding of women's body image. Within the sociocultural model of body image, parents, peers and the media communicate society's ideals and standards of beauty and thinness to others (Tiggemann, 2011). In objectification theory, women are objectified through the gaze and comments of others and through the media (Calogero et al., 2011a; Fredrickson & Roberts, 1997). Within this context, we can understand that such communication about bodies has been successful and most women are not perfectly happy with the way they look. Furthermore, because it is perpetuated that almost everyone feels dissatisfied with their body, it may also be somewhat expected by women to report body image dissatisfaction. For instance, feeling and reporting excessive satisfaction with one's body could potentially be viewed negatively by others. Taking a broader approach to understanding body image, maybe it would be more responsible and more fruitful to change the context in which women live rather than trying to change the way they currently feel about their bodies.

6.2.2 Relations among body image variables. Correlations among the different dimensions of body image were also examined. Found to be positively correlated was the BD scale with the PFRS dissatisfaction scale ($r = .557$), the BD scale with the avoidance scale ($r = .637$), and the PFRS dissatisfaction scale with the avoidance scale ($r = .434$). These results were expected. First, the BD scale and the PFRS scale both measured body dissatisfaction and thus should be positively correlated. Although the correlation between them is considered to be large, perhaps they were not more highly correlated because the PFRS takes a broad approach while

the BD scale asks participants about specific areas of their bodies. Additionally, the BD scale has participants rate statements on a scale whereas the PFRS measure has them select their current and ideal bodies. These differences may account for the modest correlation between these two measures of body dissatisfaction. Second, dissatisfaction and avoidance are believed to represent two different dimensions of body image (the cognitive/affective dimension and the behavioural dimension, respectively) and these dimensions are thought to be related. Moreover, the correlations found between the two measures of dissatisfaction and the avoidance scale are within the range found in prior research (Rosen et al., 1991), suggesting that measures of dissatisfaction and avoidance are separate but related parts of body image.

Absent from the discussion of the correlations of body image dimensions so far is the perceptual dimension. Interestingly, there were no significant correlations between the perceptual dimension in the current study and any other dimensions of body image. This is in contrast to prior research, such as Rosen et al. (1991) who found the BIAQ to be positively correlated with a perceptual component ($r = .22$). However, this correlation was considered small. Further, Lewer, Nasrawi, Schroeder, and Vocks (2016) found that the cognitive/affective and behavioural dimensions, while correlated with each other, were not related to the perceptual component among their sample of obese individuals. Additionally, there is emerging research examining perceptual distortions among healthy adults that relate to the current findings. Fuentes et al. (2013) found an overestimation of body width relative to height among people without eating disorders, which were not associated with idiosyncrasies of individuals' own bodies. Further, Longo (2017) summarizes research that demonstrates healthy adults have distorted body representations by saying "we do not know the back of our hand like the back of our hand" (p. 386). These findings together suggest that the perceptual dimension of body image may be quite different from the other dimensions. Maybe the majority of people who do not have eating disorders show "perceptual body image disturbance" in the absence of other negative dimensions. Perhaps the perceptual dimension of body image is only relevant to those with clinical disorders, when the distortions become large. Alternatively, the lack of correlations between the perceptual dimension and other dimensions could have resulted from the particular measure used, the PFRS. For example, participants chose their current figures from 10 images, which were then used to compare to their objectively measured BMI. However, if participants' body shapes did not match closely to the images used in the PFRS then maybe their selection

was impacted. Figure rating scales have also been criticized because of inherent demand characteristics involved in their use (Grogan, 2017).

Based on the above results, it is clear that there is something different about the perceptual dimension of body image compared to the other components. This is an important finding because there could be negative implications when assessing body image using only one dimension, as has been done in the past. For instance, if programs are being run for non-clinical samples to learn how to be more critical of media messages or if eating disordered groups are in therapy to positively impact their body image, and body image is measured only through the perceptual dimension then important information about the success or failure of the intervention could be missed. Similarly, if examining levels of body dissatisfaction in particular populations or testing new models or theories for understanding body image, using only a measure of perceptual body image could impact the results obtained.

Also examined in the current study were correlations between how women think others feel about their body and the others' self-reported body image. In the current study, it was found that participants' perceptions were negatively correlated with the other person's body dissatisfaction (as measured by both the BD scale and PFRS) and body image avoidance (ranging from $r = -.335$, $-.197$, and -2.90, respectively), such that as perceptions became more negative so did participants' own ratings of their body dissatisfaction and avoidance. These were only small to moderate correlations indicating that people were only somewhat accurate in their perceptions. It could be that participants did not discuss their true body image within their conversations, which influenced partners' ratings.

As expected from prior research, examination of correlations between various body image dimensions and related variables of internalization, appearance comparison, and BMI yielded significant findings. Internalization of the thin ideal was positively correlated to appearance comparison ($r = .573$), dissatisfaction (as measured by the BD scale, $r = .502$; and by the PFRS, $r = .304$), and body image avoidance ($r = .442$). This confirms previous findings. Rodgers, Chabrol, and Paxton (2011) found internalization and appearance comparison to be positively correlated and internalization and body dissatisfaction (as measured by the BD scale) to be positively correlated, as did Thompson and Stice (2001) and Stice and Whitenton (2002). Internalization was not correlated with the perceptual dimension of body image when all other dimensions were, suggesting again that perceptual body image is in some way different from the

other components. In addition, internalization was not correlated with BMI, also found by Thompson et al. (2004), which means that internalization does not vary by the ratio of one's weight to height.

In the current sample, appearance comparison was positively correlated with body dissatisfaction (as measured by the BD scale, $r = .655$; and by the PFRS, $r = .384$) and with body image avoidance ($r = .514$). In the development of the PACS-R, Schaefer and Thompson (2014) also found appearance comparison to be correlated with dissatisfaction, as did Rodgers et al. (2011). The positive association between appearance comparison and body image avoidance is an interesting one and a part of the behavioural dimension of body image not as widely documented as others. If avoidance is understood to be an attempt to stay away from body-related information, then you might also expect a decrease in appearance comparison. However, there are other explanations. For instance, maybe individuals switch between avoiding their body and engaging in comparisons. Another explanation might be that body image avoidance is strictly about behaviours intended to camouflage one's body, either from oneself or others, such as wearing loose-fitting clothing. In this case, an individual could engage in comparisons as they wear clothing thought to camouflage their bodies. Other correlations indicated that appearance comparison was not correlated with the perceptual measure of body image or with BMI. This again shows that appearance comparison is not dependent on BMI; tendency to compare your appearance to others does not change based on your ratio of body height to weight.

Regarding BMI, it was positively correlated to body dissatisfaction (as measured by the BD scale, $r = .328$; and by the PFRS, $r = .319$), the body image avoidance scale ($r = .190$), and perceptual body image ($r = .173$). Positive correlations with BMI and other body image variables confirm what is largely found in the literature, such that as BMI increases so does negative body image (Algars et al., 2009; Docteur et al., 2010; Hanna & Bond, 2006; Keery et al., 2004; Salafia & Benson, 2013; Schwartz & Brownell, 2004; Stockton et al., 2009; Wilson et al., 2013) and this is perhaps a result of living within a society that values thin bodies. With regard to the perceptual dimension, this was the only significant correlation in this study. However, it was small ($r = .173$). This finding joins the larger body of literature in which the relation of these variables is still unclear because sometimes BMI and perceptual distortion are positively correlated (Docteur et al., 2010; Paul et al., 2015), negatively correlated (Lerner et al., 2016), and not related (McCabe et al., 2006). Overall, correlations found among various body image variables, thin

ideal internalization, and appearance comparison were expected based on prior research.

6.3 Limitations

There are several limitations to discuss in relation to this study, as with any study. First, there is a question about how the measures were impacted by other measures. For example, while the objective was to examine the impact of attractiveness on immediacy, it is possible that immediacy impacted ratings of attractiveness. It is also possible that body image influenced ratings of attractiveness. Similarly, whether participants simply liked or disliked one another may have influenced ratings of both immediacy and attractiveness. There is also the issue of whether some of the body image measures, purported to be trait measures, were impacted by the conversation, which may have resulted in measuring state body image. Research has shown that body image can fluctuate over short periods of time (Cash et al., 2002; Melnyk et al. 2004). Second, there is limited generalizability of the findings. While utilizing a student sample is helpful for beginning research in a new area, it leaves open the question of whether a different sample of non-university students would show similar or different biases in relation to the way people look and feel about themselves. Generalizability may also be limited because participants were seated in a testing room for the duration of the study, rather than having measured perceptions of immediacy in relation to attractiveness and body image in a more naturalistic setting (such as where individuals chose to interact). However, for the purposes of this study, the variables were measured among peers and not friends and it is believed that the set-up of the study achieved the purpose.

In relation to the second objective, examining the body image variables, there are a few limitations to note. This research was carried out with self-report measures (with the exception of BMI), which may not fully reflect participants' body image. The self-report nature of the measures is especially important for the behavioural avoidance dimension of body image, which may be the most negatively impacted. That is, because the nature of avoidance is to remain far from certain aspects of body image, asking participants about their avoidance may fail to uncover much of this dimension. In addition, the perceptual and dissatisfaction measures taken from the PFRS are limited in that whole-body silhouettes of the same body shape are used even though there are many individual differences in body shape. Lastly, the one-item measure of perception of someone's body image may have limited reliability because it is based only on one item. Furthermore, whether this item measured positive or negative body image (or both) is not

clear, which is important because it is believed that positive and negative body images exist on separate dimensions (Halliwell, 2015; Tylka, 2011; Tylka & Wood-Barcalow, 2015).

6.4 Conclusion

The current findings deliver valuable information in expanding upon research in the area of body-related constructs, such as body image and appearance, in relation to nonverbal behaviour within naturalistic interactions. The results of this study expand on prior research that demonstrated weight-based biases in laboratory studies (e.g., Roddy et al., 2010, 2011; Rodgers & DuBois, 2016) and among television characters (Weisbuch & Ambady, 2009) by showing that such biases are present in nonverbal behaviour among peers when they interact. It was also shown that not only do perceptions of appearance impact nonverbal behaviour but so do perceptions of how others think about their bodies. The current findings are also important because nonverbal behaviour, physical appearance, and body image were studied simultaneously in social interactions.

Immediacy was shown to vary systematically by one's perception of attractiveness of another's body and face as well as body image. The variables that were measured somewhat more objectively (i.e., BMI, body image dimensions) were not found to predict immediacy. Together, these findings can be considered in a positive light such that in order to decrease bias towards women based on appearance and body image, only perceptions need to change, rather than the actual appearance or body image of others.

Chapter 7: Qualitative Component Results

7.1 Data Analysis

In IPA analysis is iterative and inductive. The process consists of six stages, with strategies that should be used flexibly (Smith et al., 2009). The first stage is reading and re-reading. It involved listening to the audio recording at least one time while first reading the transcript in order to become focused on the participant. The purpose of this stage was to engage with the data and to get an idea of the overall interview structure. At this stage I also recorded my own recollections of the interview and attempted to bracket them off (Smith et al., 2009). Bracketing refers to the "means by which researchers endeavor not to allow their assumptions to shape the data collection process and the persistent effort not to impose their own understanding and constructions on the data" (Ahern, 1999, p. 407).

The second stage of analysis is called initial noting. It included an examination of the participant's use and meaning of language within the interview. By identifying descriptive, linguistic, and conceptual comments within the transcript, I produced a detailed set of notes on the data (Smith et al., 2009). Based on the notes produced, the third stage, developing emergent themes, began. During this stage of analysis, I examined comments and notes within parts of the transcript and attempted to produce succinct themes, which spoke "to the psychological essence of the piece and contains enough particularity to be grounded and enough abstraction to be conceptual" (Smith et al., 2009, p. 92). Themes represent the participant's voice and the researcher's interpretation. The end product of this stage was a chronological order of themes as they emerged (Smith et al., 2009).

From the sequential themes developed in the previous stage, I then searched for connections across the emergent themes (Smith et al., 2009). Smith and colleagues (2009) provide specific ways to look for connections across themes, including abstraction (grouping similar themes and developing a new name for the cluster), subsumption (moving a theme to a superordinate status because it brings together a series of related themes), polarization (focusing on the differences instead of similarities among themes), contextualization (looking for temporal, cultural, and narrative themes between elements in the transcript), numeration (examining the

frequency with which emergent themes appear in the transcript), and function (examining how the participant uses the theme). I made notes on how this stage of analysis was carried out and saved drafts of successive versions of connections developed across themes (Smith et al., 2009). At the end of this stage, I had a list of the themes that represented the most important aspects of participants' accounts.

The next step was to repeat the process with the next participant's transcript. At this point it was important for me to bracket my ideas from the previous case so as not to import their most important themes to the next one (Smith et al., 2009). Once the process was repeated for each participant, I then looked for patterns across cases. For this step I looked at the lists of themes produced for each participant and identified connections between the themes. At this stage the analysis moved to a more theoretical level because themes and superordinate themes were developed across cases. For some themes, similar ideas emerged between participants that had only slightly different names and could easily be combined. For other themes, participants appeared to differ or contrast with one another. In recognition that analysis is iterative, the stages outlined here were revisited several times for each participant as themes were combined, re-named, or abandoned (if deemed as not answering the research question). At the end, a table was produced that shows how themes were nested within higher-order themes (Smith et al., 2009).

Lastly, I wrote the results while continuing to analyze the data. It was at this stage that the analysis proceeded to its deepest and most refined level. In line with an IPA approach, most of the results are transcript extracts (so that each theme described is presented with substantial evidence) and my detailed interpretation of those transcripts (Smith et al., 2009). Therefore, the end product of the data analysis process is a description of themes of participants' lived experiences, presented with participants' voices and my interpretations. The transcript extracts are presented exactly as spoken by the participants (e.g., grammar is presented as used by them).

7.2 Trustworthiness

Qualitative research should employ different criteria for measuring research quality than those inherited from the traditional social sciences (Lincoln & Guba, 1986). While there are no quality criteria specifically developed for IPA studies, Smith et al. (2009) offer Yardley's (2000) general guidelines for assessing trustworthiness and explain how IPA studies can meet her criteria. To maximize trustworthiness of the current study, Yardley's (2000) principles were adopted.

Yardley's (2000) first principle is *sensitivity to context*, which can refer to sensitivity to the participants' socio-cultural context, to existing literature on the topic, and to material obtained from participants. In the current study, sensitivity to context was demonstrated in a number of ways. First, I attempted to remain aware of the interactional nature of interviews and tried to continually put participants at ease and ask personal questions sensitively and appropriately. Second, within the analysis, I took an idiographic approach as outlined by IPA and immersed myself in each participant's transcript. Third, I used many verbatim extracts from the interviews in order to support the analysis as presented here. Lastly, interpretations made from the interviews are offered cautiously.

The second principle is *commitment and rigour* (Yardley, 2000). Commitment refers to prolonged engagement with the topic, the development of competence in the methods used, and immersion in the data. I have demonstrated commitment by the attention and care given to the data collection and analysis of this qualitative study. I also sought guidance and consultation from my supervisor when I was unsure of how to proceed and to receive another perspective about my developing analysis. Rigour refers to the completeness and thoroughness of data collection and analysis. Rigour has been exhibited by carefully selecting a sample appropriate to my research question, conducting interviews with care and sensitivity, thoroughly analysing the interviews with a sufficient individual approach, and taking the analysis of interviews to an interpretative level.

Yardley's (2000) third principle is *transparency and coherence*. Transparency refers to how clearly the stages of the research process are described in the write-up of the study. I attempted to achieve transparency by describing in detail how participants were selected, how the interview schedule was constructed, and the steps taken during the analysis. I also remained reflexive throughout the entire study and reflected upon how I shaped the research. (An example of reflexivity can be found in the next section where I situate myself in the study.) Another way transparency was addressed was by preparing for an independent audit, suggested by Smith et al. (2009) as good practice for qualitative researchers. As part of this preparation, I gathered together all materials needed to follow the conduct of this study from beginning to end, including my transfer document, proposal, development of interview schedule, interview recordings, annotated transcripts, drafts and re-drafts of emerging themes, and drafts and re-drafts of the final write-up. With regard to coherence within this principle, it can refer to several aspects of a

study such as the logic of the argument and unity of the themes and can usually only be assessed by the reader of the finished write-up. In this study, as I revised each draft I attempted to place myself in the position of a reader not familiar with my study and think about how they might respond to the writing and analysis presented. I also attempted to present a coherent account from an IPA perspective by focusing both on experiences of the participants and the interpretation of those experiences.

Lastly, Yardley's (2000) fourth principle is *impact and importance*, which refers to whether the study is interesting, important, or useful. Because of the dearth of qualitative studies in the area of women's body image and particularly those looking at women's lived experience of themselves and their bodies in relation to communication, I believe this study offers new insights to this area of research.

7.2.1 Situating myself in the research. In keeping with the values of qualitative inquiry, in this section I situate myself in relation to the topic and my role in shaping this project. Throughout this task, I was in my twenties. I am married and do not have children. I grew up in rural Saskatchewan with one younger sister. Both of my parents worked outside our home. I have lived in Saskatoon since I was 18 years old when I moved to attend university.

I became interested in studying women's body image during my third year of undergraduate training. In completing a laboratory course in psychology, my class partner was particularly interested in examining body image because of her own struggle with disordered eating. I agreed to the topic and we studied women's body image in relation to positive advertisements, such as the Dove Campaign for Real Beauty. I continued with interest in this topic for my honours thesis when I looked at perceived nonverbal communication from parents and daughters' body image. As a graduate student I knew that I wanted to pursue a similar topic but also investigate it from a different methodology, such as qualitative research or mixed methods. After much review of the literature, I settled on a sequential explanatory mixed methods study where I would use Interpretative Phenomenological Analysis in order to look at participants' experiences in interactions with female peers. This is an area in which I am not only interested academically, but have experienced and participate in everyday. For instance, as a woman I have felt objectified by others and have taken notice of the way people respond to me and to my body. I am sure that I have unfortunately done the same to others. I hoped that my qualitative study could provide more information about these everyday experiences.

As I conducted the interviews, I reflected on how my own position in the world might influence my interactions and understandings of my participants and vice versa. A prominent aspect of my reflections was about my physical appearance. My ethnicity is European origin/Caucasian. I have light brown/blonde hair, green eyes, and pale skin. I consider my body to be a normal size; it is within the healthy range regarding BMI. I wondered how my physical characteristics might impact my participants and their responses. For example, I wondered if participants would feel comfortable telling me that they liked tanned skin given my pale complexion. In discussing clothing, I questioned whether participants' responses about clothing they like or do not like would be impacted by the particular clothing I was wearing that day. In addition, I wondered if discussion of other difficult subjects would be impacted by my appearance. For instance, one participant discussed the difference she experiences in people's reception of her when she does and does not wear a headscarf. This made me reflect upon whether my appearance as a White Canadian could decrease the information she felt comfortable disclosing to me as a Muslim Canadian who had darker skin than mine.

In addition to reflections of my own appearance, I was keenly aware throughout the interviews of participant's own bodies, especially when they discussed aspects of themselves they liked or disliked. At times I was also aware of participants looking at my body. I wanted to avoid objectifying my participants, and consequently, I was conscious of not looking at features of their appearance as they talked about them. For instance, one participant talked about her nose repeatedly and how it was misshapen. Throughout, I avoided looking directly at her nose and instead continued to make eye contact with her or looked at my clipboard. I hope that my location in the world and efforts during the interviews did not negatively impact my participants.

7.3 Results

There were six main themes (one with two lower-order themes) that emerged from the participant interviews. Each theme is described in turn below and then the qualitative results are summarized. All themes involve nonverbal communication but not all themes are specifically focused on nonverbal communication. Separating communication into nonverbal and verbal parts is difficult and somewhat artificial. Please note that names of people and places within participant excerpts have been changed.

7.3.1 Comparing. Throughout the interviews, a theme of body comparison emerged. The participants commonly made reference to body comparisons they engaged in as they interacted

with and looked at others. Through comparing themselves to others, the participants appeared to both affirm that they looked "good" and feel negatively about how "bad" they looked, depending on with whom they compared their bodies. They also discussed comparing themselves to others in order to see how they would like to look in the future. In comparing their bodies to others', the participants also made comparisons to other areas of people's lives, such as their happiness and confidence.

One prominent dimension for body comparisons was body size. Often, when participants described a prior experience to me, even when not specifically asked about comparison, they made note of the differences in bodies between themselves and others. This seems to indicate that body size was prominent in their minds. For example, Elizabeth noted:

> "Yeah I guess there was a girl in grade 8 too who was kind of like that and she was like a lot bigger than the rest of us and yeah I think it was really hard for her because you know you all have to change into your gym clothes together."

In this example, Elizabeth was telling me about a girl who came to her school during the junior high school years and did not seem to fit in because of her interests. However, Elizabeth noted her body size in this anecdote and how it related to her own and others' bodies, suggesting that weight is salient to her. Similarly, Jane talked about the differences in body size among a group of her friends when they went to a gym to try a new fitness class. Here Jane told me about what happened when they entered the fitness studio. One of her friends went to the back of the room even though they had already discussed standing in the front:

> Michelle: Um, why do you think she just sat kinda at the back and didn't do anything?
>
> Jane: I think she was trying to camouflage herself, trying to hide, um, because a lot of us are kind've all my size or are thinner and so because I guess once you get to a certain weight, your flexibility is not the same as it would be if you were uh a lower weight… and so she was kinda probably walked into the room, looked around, saw that there wasn't really anyone like her, and so went to the back and then anytime we had to do like get into a bridge or something, she would just not try I guess cause she didn't want people to see what she'd look like if she did do that.

Here, Jane appears to use differences in body size to explain what happened at the gym. She also assumes that the girl she was with has made a similar comparison between her own body and the

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others' and uses it to explain her behaviour (i.e., sitting at the back of the room). Again this appears to indicate that body size is salient to Jane.

Participants sometimes mentioned comparisons of body size when they perceived themselves to weigh less than the person to which they were making the comparison, as both Jane and Elizabeth did above. Similarly, Ashley noted:

"I've had friends say to me like don't let me get as fat as them and stuff."

In this case, she described discussing other people's weight with friends, comparing both her own and her friends' weights to others, and affirming that they would not allow their bodies to become "fat." Additionally, Isra described how conversations about weight and body size lead to comparisons:

"Growing up I was always like pretty skinny and so but then for me I perceived myself like 'no like I'm getting like a little bit of stomach fat' or anything and be like 'wow I'm getting fat' especially now like I kinda have like issues with body image and people are like 'no you're so skinny, like what are you talking about?' but the way you perceive yourself is completely different and if you ever like complain to somebody who's bigger they're like 'no you're skinny like look at me' and they, it's more it's kinda like an offensive way and as well as like in media especially now like big girls are more like, that's what the desired look is so then if you're skinny now, you're like body shame which is like opposite of what occurred like growing up so either way like if you're skinny or if you're a bit bigger there's always been a bit of a conflict about how you look."

In this example, Isra described changes she felt in her body and resulting unhappiness with them. In discussing these concerns with others, she described how someone responded to her by asking her to compare her body to their own, which they perceived as larger (with the assumption that Isra would feel better after the comparison). In these accounts of comparisons, participants appear to be looking to others' bodies in order to find something out about their own body. That is, by looking to others they gain information for making sense of what their own body is like.

In addition to comparisons of body size, participants also compared themselves to others on overall body shape and attractiveness and on more specific features, such as their stomachs, muscularity, and skin colour. These more specific comparisons illustrate the extensive nature of participants' comparisons in interactions with other people in that they are not confined only to

body size and that comparisons of bodies were often extended to those of lives and lifestyles in general.

For example, Jane discussed how she understood a friend of hers to be more attractive than her in general. Jane appears to differentiate the overall attractiveness of herself in relation to her friend as a result of differences in the number of compliments each receives from other people:

> "The thing is maybe it's confidence too like she obviously knows she's stunning, she gets compliments all the time by anyone and everyone, and I don't necessarily get the same treatment."

Here Jane describes comparing compliments of her own to her friend's and understanding the difference as due to the overall attractiveness of each of them. In this example, Jane appears to learn about her own body and attractiveness by looking to her friend's body and the interactions each has with other people.

Isra often discussed how she wanted to have more muscles or have certain parts of her body look like those of other people, such as her stomach or her legs. Here she described comparing specific body parts to those of people she follows on Instagram:

> "Say like if I look at Instagram, like I follow quite a bit of fitness accounts, and you look at these girls and you compare like I constantly compare my body to them and I'll go 'I want my stomach to look like that' or 'I want like um nice legs like that or calves like that' … and you see how confident and happy they are and what a good lifestyle that they have and it's everything that you could want."

This example also shows how Isra compared her body to those of others' and used that to extend the comparison to other aspects of peoples' lives. For instance, seeing someone who had nicer features than Isra was understood as meaning they were also happier and lived a "better," or at least different, lifestyle than hers.

For Elizabeth, especially prominent were comparisons of her breasts, stomach, and razor burn on her knees. She noted that these were areas of her body that she was most aware of and dissatisfied and as a result, these areas were salient for her to compare to others. In discussing her experience of interactions bringing attention to these parts of her body, Elizabeth explained how perceptions of not being as good as others (i.e., not having as flat of a stomach as another person), also meant that there was something wrong with her:

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Michelle: Did those experiences impact kind of how you felt about yourself as a whole?

Elizabeth: Oh yeah definitely because, yeah, you know absolutely because it's so hard I think to separate your body from yourself as a whole and it's you know if there's something wrong with my body that means there's something wrong with me ... You know, like if I and I think people do that all the time, well like if you have a fat stomach then you [are] just not disciplined enough, you're not hard working enough, cause you know like if you were really disciplined and hard working you would be you know crunching sit ups and eating nothing but carrots all day until you got that, so I think it's really easy to conflate a physical like defect or something you know not perfect physically with well there's something wrong with me like you know and even like like I remember thinking like what's wrong with me? like why why did or why did everything else grow boobs and I didn't? Why did you know why does she have like abs in grade 10 and I've got like a little pooch you know or like how come you know like I always get razor burn on my knees when I shave my legs and like look she doesn't have any razor burn? like it was like it wasn't just like oh like you know I just have sensitive skin or oh you know I don't play hockey 5 nights a week, I'm not you know I don't have an athletic build it was like there's something wrong with me.

In this example, Elizabeth mentions the areas of her body she is dissatisfied with, compares them to others' bodies, and links these concerns with questions about what is wrong with her. She also understands her experience as having an alternative explanation – that her body is different compared to others because she has sensitive skin and does not have an athletic body. However, this excerpt illustrates how participants often extended body comparisons to comparisons of other parts of life too.

Ashley described instances where she felt her body was compared to other people on her cheerleading team and that this was aided by revealing uniforms and by wearing the same uniform as the rest of her team. She also explained that she compared herself to people on her teams too:

"There are definitely people on the team that are in way better shape or have you know six-pack abs and uh definitely I'm like 'wow she looks great in her uniform' kinda thing, um, I don't ever think that I specifically look bad I wouldn't say, but I definitely know

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that you know other people are looking at us like 'that girl's the best looking of the team.'"

In Ashley's case she appears to make these comparisons without having a feeling that her own body does not measure up to her teammates' bodies. Her experience appears to contrast with those of other participants, especially Isra's and Elizabeth's experiences of feeling negatively about their bodies or wanting to change their bodies in comparison to others.

Noted above are experiences of participants feeling thankful that they do not look as "bad" as other people as well as feeling negatively about their bodies and themselves when they perceive that they do not have as nice of bodies as others. In addition to these experiences, Isra also explained how she looked to more beautiful people in an aspirational way – which allowed her to continue to work towards the body that they had and that she wanted:

> Michelle: When you're interacting with a group of females here on campus or in this kind of you know university setting, um, do you feel particular things about your body?
>
> Isra: Umm, I think definitely when you, yeah like if you're interacting with girls who are more athletic and muscular you notice that yourself, I think girls look at girls more than guys even look at girls just because you see like not even in a competition way but something that you aspire to look too, so when you interact with girls um I think definitely you notice their physical features, whether it be positive or negative and you almost always compare to yourself in a sense, not like, I wouldn't say almost always, I'd say you'd compare to yourself to um, to an extent, being like 'oh she has really nice legs' or 'no she doesn't' like my legs, like I'm glad my legs don't look like that.

Here Isra explained that rather than feeling negatively about her body when she notices that other women look 'better' than her or how she would like to look, that instead she looks to these women and gains inspiration. Isra also noted:

> "So when I'm interacting with someone like say if they're athletic like I'll notice that and I'll like be like well mental no like that's like she looks great and that's what I'd want to look like but it's not like I don't feel immediately like insecure about it … Like I'll notice it like I'll be like oh like it'd be nice to look that way but I'm not gonna like be upset that I don't have that sense, if that makes sense."

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Here too Isra describes comparing herself to others and looking at their bodies in the sense that she would like to look like them. With this understanding, it appears that Isra looks to the bodies of others to gain information about what her future body could look like.

Another emergent finding within the comparison theme was that when interacting with other women, comparisons of clothing are made. While it was noted that direct comparisons of clothing were made between oneself and others (i.e., who dresses "better"? who has "nicer" clothes?), more specific comparisons and decisions were also based on comparisons of clothing. For example, comparisons between oneself and other women on campus were noted to impact future clothing decisions, whether to sit beside someone, and whether participants felt confident. In the example below, Isra explains how comparisons of her clothes to those of others on campus changed her perception of what is appropriate attire for the campus setting:

"Umm, in campus I've pretty much worn anything from like sweats to a dress … Cause I think in the beginning, I'd say first year, I cared more about the way I looked, I didn't want to be seen like, like I liked to dress up to school, I'd wear like like I'd plan out my outfit, try to look good, but then towards the end and like put on makeup like, straighten my hair, etc. but then with more experience, like being on campus and even like seeing other girls and the way they look, I like stopped caring as much, and I'd be like I want to wear sweats and no makeup today and like that's fine, like I can do that, so I think it's like changed yeah so it just depends on your confidence level and what you're comfortable wearing and for me personally I'm ok with either and yeah."

Although she used comparisons to make clothing decisions, Isra also noted experiencing feelings of insecurity about her clothing and the way she looks and feels only after comparing her clothing to others:

Michelle: Ok, um, does the clothing that you wear to campus impact um, how you communicate with female peers?

Isra: Umm, yeah I think when I'm not dressed up, even if I leave the house feeling confident, sometimes I'm like I'd feel insecure talking to them, I wouldn't want to look like head on, I wouldn't want to be in pictures, and yeah I think initially when I was first was like no like I can wear sweats even if I had confidence leaving my house, when I come to campus sometimes it just disappears when you're like surrounded by friends who like to dress up, who all look good, and you're the one um just like dressed down, so yeah

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I think you feel more drawn in than you like say when you're dressed up and you feel like more confident and you exude that, whereas when you're dressed down you feel more like um, drawn in.

In this example, although Isra has based her clothing decisions on how other people dress in comparison, she also feels negatively when she compares herself to them and feels as though she is not dressed nicely enough. This appears to indicate that perceptions of looking and feeling on a given day are influenced by not only Isra's personal decisions and feelings, but also by her interactions with other people. Similarly, Ashley noted deciding whether she looked like a "slob" on any particular day, *after* she compared her clothing to what others around her were wearing. Such decisions were not made independently of others:

Michelle: Umm, does what you wear to campus impact how you communicate with your female peers?

Ashley: Yes, probably, I'm, uhh, yeah definitely, um, I had a friend well a girl in my class this year that I met I guess would be a good example um, she was always you know wearing jeans and uh nice shirt, whether she had really tried that hard or not she always looked like she was put together so if I would go to school wearing you know like a bunny hug and leggings I'd be like 'oh I kind've look like a slob compared to her' um so yeah I would definitely, I wouldn't necessarily you know act differently, like I probably do more so than I notice, um, yeah.

Michelle: Umm, would you feel different if you if you felt she was dressed better than you?

Ashley: Definitely, I definitely I'm like 'wow I look good' and I'd look at her and be like 'wow I like you know look like a slob.'

In this example too, Ashley's perception of how she looks is influenced by how the people around her look. She appears to learn something about her appearance by looking at others.

Lastly, a unique and unexpected phenomenon emerging out of this theme was that of comparison of twins. Ashley explained to me that she is an identical twin and that she has experienced direct and specific comparisons with her sister for as long as she can remember. For instance, she explained that one way she tells people how to distinguish her from her sister is by the difference in their freckles, thus illustrating how specifically they are compared to one another. Ashley also explained how she felt compared to her sister on body shape and size, the fit

of clothes, strength, height, hair, and makeup. Additionally, Ashley explained how she sometimes experienced these comparisons as annoying and unfair:

> "Like um when we were younger I honestly very often … every day I always was like 'oh Jessica's so much prettier than me,' she's like you know, I and it sucks because again I'm sort of different from everybody else in that I have somebody to directly compare myself to um, so I'd always be like 'yeah she's so much prettier than me' and whatever else."

Interestingly, Ashley is making a direct comparison of prettiness to her identical twin sister and finding differences in how they each look, even though other people need to be instructed on how to tell them apart. This example illustrates the precise and detailed nature of comparisons made by participants. Additionally, Ashley appears to be looking at her sister to learn more about her own 'prettiness' even though other people and Ashley herself describe them as identical.

In summary, within the theme of Comparing, participants compared themselves to others' bodies (e.g., size, shape, specific features such as stomachs, and overall attractiveness) and to others' clothing. Looking at others' bodies and clothing were often extended to what peoples' lives and lifestyles were like and what participants' lives were like in comparison (e.g., happiness). Participants appeared to use these comparisons to gain information about what their own bodies were like or could be like. Lastly, a unique occurrence of comparisons was described in relation to Ashley, an identical twin, who has experienced direct comparisons with her sister for her entire life.

7.3.2 Judging. Throughout the interviews, a theme of judging emerged within which participants described experiences when they felt judged by others and when they judged others. These judgments were described in the context of interactions with female peers.

When participants experienced judgment, they discussed how they felt that others looked at them and made judgments of their appearance. In addition, participants also felt that others noticed their appearance and made judgments of other aspects of themselves, including their intelligence, confidence, religiosity, and behaviour. Participants explained that they experience judgment from others when other people look at them in general, when other people look at specific parts of their body or appearance or seem to notice their behaviour, and when others tell them to take some action in order to change their appearance.

Prominent among participants' responses was that judgments were made of their bodies, and this was often understood as being looked at or as someone noticing their appearance. For instance, on being judged Ashley noted:

"At home I guess to an extent, um, occasionally my mom'll be like 'wow you've gotten big' I'm like 'oh, thanks' and she's like 'no like muscular' I'm like 'yeah, but thanks' so (laughs) I mean I know that obviously my family's um noticing, the way that I look."

Ashley seems to experience others' looking at her body and noticing changes in it to a judgment of it. Similarly, Jane experienced being judged when others look at her. She also makes reference to people making comments about her after these looks, even though she does not know exactly what is said. For example, in this excerpt Jane references people staring at certain parts of her appearance (e.g., her hair, makeup) or behaviour (e.g., confidence) and then making a facial expression that suggests a certain question to her:

Michelle: So you know when you are kind of interacting in either with one or a group of females here on the campus, um, how do you feel about your body?

Jane: Mmm, I feel as though on campus everyone is kind of judgy in a way, um, just because if I had certain hair people would look at me like I feel like I get more stares if I had certain hair and some people will want to touch it (laughs)

Michelle: Mmm, a particular like style of hair?

Jane: Yeah like this hair especially (points to video of her with hair extensions), if I had that, people would kinda stare um, kinda look more if I had my makeup done they would kinda look at me kinda weird and it would be kinda the um 'why's your makeup done you're just going to school' type question that's on their face, and they don't necessarily say that but you can kinda see that's what they meant, or if I do this thing when I'm really I don't know when I'm confident or I'm just feeling myself, as I like to say, I just strut a little (laughs), I don't mean to but I've been told that I strut and I just get weird looks like 'why does she think she's on a cat walk?'

Here, Jane experiences people looking at her and their facial expressions as judgments of her, while also acknowledging that these are unspoken. She also appears to affirm what she is feeling (in this case confident or "feeling" herself) by looking to others' judgments of her. These interpretations are also evident in the following excerpt:

Michelle: When you're really feeling good and strutting around um, would you say people's reactions are positive or negative towards that?

Jane: Mmmm I would say probably more negative, um, if they were my close friends they would say 'oh yes well done, like you look great' but if they weren't my close friends I almost feel as though I hear them whispering like 'oh my gosh what is she doing' … and sometimes cause this lab you have to dress up for it too so if I'm dressed up like if I feel like I really want to dress up, I go up the stairs people would just look at me like 'what's going on? why are you so dressed up? are you going to this? are you going to that?'

Here again Jane experiences judgment when people look at her appearance and then feels as though they are asking certain specific questions about her (i.e., why she is dressed up). Furthermore, Isra explained that she experienced judgment from both herself and others while at the gym because her body does not reflect those who attend regularly and because she is unsure about using the machines:

"If you are a bigger person I know like if you go interact with other people often times people um especially say the gym scenario, you feel discomfort just because everybody else is so athletic, I find that lots of people who go to the gym have been going for a while so you instantly feel like you, ashamed of yourself, like how did I even get to this stage? or like I look like this? you feel out of place and the way people interact towards you, like I think well I'd like to think most people have like a welcoming environment like yeah, maybe you are trying to lose weight etc. so they welcome you to the gym whereas other people, obviously like if you don't have experience with machines and stuff and because like you're a bigger person they are like 'what is she doing here?' and you instantly like feel out of place, and it's just like the way people greet you and like if they look, I find that if you are say a bigger person working at the gym you might get more looks than somebody who is naturally like goes regularly just because you do seem kinda out of place but it's just like as a perception thing."

Here Isra experienced looks from others as judgments about her not belonging at the gym. Similar to Jane above, Isra appears to use what she experiences as others' judgments of her to affirm what she is feeling at the time (i.e., discomfort from not belonging). She also makes

reference to feeling ashamed of the way her body looked and passing judgment on herself about how she looked and came to look that way.

Additionally, participants experienced judgments about their bodies when others told them whether their bodies needed to be changed and/or how they could go about changing their bodies. For instance, in response to being smaller than other girls her age in high school, Elizabeth explained:

"Yeah well like that was like the other girls they'd be like 'oh you need to eat something like you're gross' and it was like but you don't know what I eat and what I… you don't have any idea what my life is like."

In this situation, Elizabeth felt as though others were telling her what she should be doing in order to make her body more acceptable to them, although these others did not know much about her current eating habits.

In addition to participants explaining how they felt judged based on their looks, they also participated in judging other people in similar ways. These judgments pertained to aspects of people's overall lives and lifestyles, their abilities, how nice they are, whether something is wrong with them, and what they should or should not do (i.e., eat, wear revealing clothes). Participants also decided with whom they would like to be friends based on how others looked and in this sense passed judgment about what others are like from their outward appearance.

One way in which participants judged others was in thinking that there is something wrong with people who are overweight. Elizabeth recalled an experience from one of her university classes:

"Just um like um this was in September and like I still remember which is crazy but she was um like um wearing like a pair of shorts and a tank top like everybody and she walked in and it was like oh my goodness like's it's just like you know it was like wow like she's like very very large and it just it almost like caught me off guard it's the same like yeah, it's like yeah when you know those ads come on tv [public service announcements illustrating how those with eating disorders see themselves in the mirror] and it's like oh my goodness you know what's wrong with them?"

In this excerpt, Elizabeth expresses her judgment that there is something wrong with the individual who was "very very large."

Similar to how participants extended comparisons of their bodies with other peoples' lifestyles, judgments of bodies were also extended to lives in general. These included ideas of whether, based on peoples' appearances, they were happy, lived a "good" lifestyle (which results in being thin and/or muscular), and were nice people. For example, Isra explained how she assumes that physically attractive people live "better":

> Michelle: Ok, ok, um, do you think that when somebody is physically attractive we that you um you know assume other things about them?
>
> Isra: Umm, yeah I think you'd say they like have a happier lifestyle maybe, that they get more attention from like the same sex, the opposite sex, um, yeah I think it's you just think that they have a good lifestyle.

Relatedly, Elizabeth explained how she often makes quick judgments about how people who are attractive are also kind:

> Michelle: How is physical attractiveness related to how you view and interact with other women?
>
> Elizabeth: Um, I think it's that um initial kind of attitude that's set you know when somebody comes in and you can try I try not to you know like gee be like you geez I don't want to, you know, be friends with her like she's really really unattractive … But like you know usually like if it's like, I walk into a room and it's like ok you have to choose a new friend, like I'm gonna choose somebody who I think is attractive because wrongly I think oh they must be nice, they look nice and that's like totally wrong … You know there's a lot of very unattractive people who are nice and lots of attractive [people] who are very not nice.

Here Elizabeth explained how she connects people's attractiveness to their personality while also acknowledging that such judgment is not necessarily accurate. In addition to these judgments, emerging from Jane's interview was judgment that people who weigh more than others need more motivation or confidence to be happy with themselves in comparison to those who weigh less:

> "I've been seeing some like people nowadays who and some celebrities nowadays who actually sticking out with being themselves and being their size and embracing it, and I think that's giving bigger people the motivation or the courage and confidence they need to still like love their skin."

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Jane also explained how she somewhat unknowingly treats her friends differently, based on their weight:

> "Let's say if I was going for a bike ride I wouldn't necessarily bring like my really big friend and tell her to come bring her bike and ride with me because they might not even know how to ride a bike, they might not want to ride a bike, it might just not be something that they're willing to do but the fact that I wouldn't ask her, I don't know, so like my nonverbal would be just like me not even asking her and maybe just taking some other people and going with them and she and I should've probably just asked or you know, run the idea by her."

In this excerpt, Jane quite explicitly outlined the judgments she makes towards people who are larger than herself, such as not being able to perform certain tasks while also noting that her ideas are not warranted or accurate.

Similar to the experience of being judged, participants made judgments on what others should or should not be doing, at times to "fix" their bodies or to look different or "better." For example, in one of the above excerpts from Elizabeth (in which she discusses a "very very large" individual in one of her classes), she seems to imply that the individual who is much larger than everyone else should not wear such revealing clothing as shorts and a tank top, even though everyone else is wearing those same clothing items. Likewise, Ashley expressed the following:

> "Yeah well I'm on two teams, but like uh, let's about 40 girls, so like I'm on the one cheer team and like everybody looks great, like I look around and I'm like abs, abs, abs, abs, and then I'm on another team which is like all girls team and it's like lots of these girls have guts and like regardless you guys are all wearing the same outfit so like it's pretty easy to be like 'oh she looks better in that outfit than she does' which is like so unfair and like but I totally do it, I know I look and I'm like oh wow that team should be doing some crunches or like that girl (unclear) stop drinking."

Here Ashley explains how particular cheer teams could be engaging in more exercise or should stop drinking in order to get rid of their "guts" while also recognizing that she is being unfair.

Lastly, participants explained how judgments of how other people look impacted their decisions about with whom to approach or become friends. For instance, Ashley explained:

> "Definitely at school though, uh, the way you dress says a lot about you as a person so even looking for you know somebody to sit beside, you kinda look around and oh she

looks you know somebody that I would hang out with, and, that's definitely nonverbal
like to even choosing where to sit on the very first day of class, and deciding whether
you're going to go talk to the girl sitting next to you or, um, ignore her or, you know,
picking a group project group."

Elizabeth also expressed similar thoughts about an experience in high school when a new girl
entered her class:

"Like I you know I have to admit when she first moved here I was like, oh like she
doesn't look like, you know, the type of girl I'd really be friends with."

Therefore, in these two examples, Ashley and Elizabeth look at a person's appearance and make
a judgment about whether they would like to talk to the person, be friends with them, or work
with them on a school project.

In summary, within the theme of Judging, participants described experiences in which
they felt judged based on their appearance. They also described experiences in which they
judged others based on appearances too. The judgments experienced and made were extensive
and included aspects such as whether one was confident (or too confident), deciding if someone
was intelligent, thinking there was something wrong with a person, and deciding what their
personalities were like. Participants also experienced judgment when others told them what they
should do in order to change their body in some way.

7.3.3 Separating. Another theme emerging from the interviews was one of separation
from people who look "different" than the participants themselves and the sociocultural ideal,
namely those who are overweight. Participants discussed separation ranging from putting
physical distance between themselves and other people they found unattractive or considered to
be overweight to creating distance when speaking about such people. For example, in the
following excerpt, Elizabeth explains how a girl who was larger than the other girls in her gym
class was segregated from the others in the change room:

"Yeah I guess there was a girl in grade 8 too who was kind of like that and she was like a
lot bigger than the rest of us and yeah I think it was really hard for her because you know
you all have to change into your gym clothes together and … Like there's everybody else
and then there was her and you know like people didn't want to like stand around her
when she was changing like we would all kind of go to the other side."

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Furthermore, Elizabeth expressed a separation from overweight individuals more subtly in the following quote, when talking about judging individuals she perceives to be overweight:

> "You know I always feel bad when it happens [judges an overweight person] but cause it's like like you have no idea I mean like lots of people in my family struggle with weight, and you know it's in my distant family, and it's like you know like thyroid problems, there's you know like like you have no idea why somebody you know is becomes overweight or anorexic or anything."

Thus, in this example, as soon as she identifies that she has overweight family members, she creates distance from them by saying they are in her distant family. This appears to separate herself from those with overweight bodies and may serve to affirm that Elizabeth's body is not overweight.

Instances of separation were sometimes referenced as being a result of fear the participants had at becoming like these other people – overweight. Jane explained that she believed you became like those with whom you spent time and as a result tried to limit her time with people she did not aspire to be like. Jane also noted that public separation was desired from those who look different, but not necessarily private separation (i.e., it was ok to be with people who looked a certain way, as long as no one saw you with them):

> "My mom always has this quote 'show me your friends and I'll tell you who you are' so if I'm going around carrying homeless looking people around with me, then it doesn't really rub off well on me either, like it makes it look as though, I don't know, it just, seems like that's a part of me too and then also I'm like, once I get friends I usually always subconsciously somehow doing the same things that they're doing and then that means that I would probably end up starting to look the way that they're looking and I might not even think of doing that initially but … But I would still try to treat them all the same and I say that because like in my in the girls school that I went to, I spoke with people that people wouldn't necessarily speak with and I hung out with them but not in public (laughs), you see so that's like I remember hanging out with like one of my friends but I would go to her house or she would come to my house, but I would never really like be in school and really hang out with her in public unless we were like maybe in the music room hanging out type thing, yeah, so I would kinda give them all the same but different levels."

In this example, Jane references several ideas related to separation. First, she explains that other people are influential to her and so she avoids spending time with people whom she does not want to be like. In this example, she makes note of "homeless looking people," who probably do not adhere (or, more accurately, cannot adhere) to the sociocultural ideal of the body. Second, she creates separation from herself by noting that she is "carrying" these other people around with her, instead of them equally being together. This seems to imply that she is different or separate from those who do not look the same. Third, Jane explains how she thinks about spending time with people in public versus private settings and that she does not want to be seen in public with people who look certain ways. Lastly, by explaining that she gives people who look different the same but different level of treatment, she appears to be creating separation simply because something about her interactions are different.

In addition to above, an interesting dimension to the idea of separation from people who look different emerged with Jane. As noted previously, Jane is a Black British woman of Nigerian descent. She noted experiences where she felt separated from others (notably White people) because of a difference in skin colour. This again shows the theme of separation from people who look different, although here in a very obvious way (skin colour). However, Jane also explained how she believed that if people look similar then they belong together but that this is not always reflected in her life. For instance, Jane explained that while in high school she attended a private boarding school with many international students and was friends with people of all races. However, there was one group in particular, which she implied was the 'popular' crowd, to which she wanted to belong. These girls all happened to be Black. Jane explained that she believed, at the time, that because she looked like them, that she would be one of them too. When she was not accepted into the group, she was forced to reflect on her ideas about appearance and belonging. As another example, Jane explained how she does not feel together with or the same as other Black friends because of differences in her behaviour in comparison to theirs at nightclubs and because she does not perceive herself to have the stereotypical body of other Black girls. Thus, her experiences serve to illustrate how ideas of feeling separated from others based on appearances are much more nuanced than simple comparisons of how people look. Additionally, Jane not only separated from others because of their appearance but also felt unwanted separation from people because of her own appearance.

A theme of separation also emerged from my interview with Isra. She shared several experiences in which she attempted to distance herself from her own body, which she found undesirable. For example, Isra explained that when she started to experience her body more negatively, that she often did not want to be in photographs and when it was unavoidable, she tried to position herself behind other people so that she and no one else would be able to look at her body at that time. This served to create distance between herself and others and the body with which she was dissatisfied. In addition, Isra often noted that because she experienced her body as small and not muscular, that there was a separation from herself and others while she was at the gym. She noted that she understood this to be a result of looking like she did not belong there (i.e., because gym people are more muscular than her). Furthermore, she explained that in Pakistani culture, a term of endearment, "moti" which she translates as "fattie," was used in relation to her body. As a result, Isra explained that she started to count calories and go to the gym, thereby attempting to create separation between the term "moti" and associated perceptions others had of her body, and her own body:

> "Cause I guess even the culture I grew up in, um, lots of people make comments about bodies like naturally, like fattie like it's a word there's an Urdu word for it and people throw that around as a nickname …So and especially like in my even best friend group there's one of our best friends, she gets always like targeted with that, by like oh like um like it's called 'moti', so they're like, and they just say it as a term of endearment but I think it also, like gets used like self-esteem issues, like I can say for her, for example, she like we've said that to her like numerous times and then she ended up like buying a waist trainer so I guess that can be an impact of that which and for me when like I got that comment I started going to the gym more and limiting my calorie intact."

In this example, Isra appears to try to change her body in a way that will create distance between it and peoples' perceptions of it (those perceptions that resulted in having the term "moti" applied to her body). These actions appear to help Isra feel better in terms of not feeling as though the label "fattie" applies to her body. Also supporting the theme of separation were Isra's expressions of togetherness when people she knew lost weight. She noted how she was happy for someone and approached her more energetically upon learning how this woman's body had recently changed (i.e., had become thinner):

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"Uh a friend I went to high school with, she lost quite a bit of weight, and I know just seeing her I was really happy and excited for her and then I acted like I think even when I saw her I like it like it gives you happiness to know that they made such a lifestyle change and they feel really good about themselves and I think like when I was talking to her I just felt more bubbly and excited because I know she was so happy about the way she looks now … So and like the way even like I'd approach her was just like hey like more energetic in a sense just because of that change that she made and seeing the confidence that she exhibited made you feel more excited and confident for her."

Here, Isra appears to show closeness to a person who recently lost weight by the excitement and happiness she feels for her and by the way she approaches the person in an excited manner. In this way Isra is choosing to associate with this person, which is in contrast to other instances where participants sought distance with those they did not want to look like.

In this theme, participants, namely Elizabeth, Jane, and Isra, created distance between themselves and others that they perceived as not meeting the sociocultural ideal of thinness in our society. Isra also demonstrated separation from her own body when she was dissatisfied with it. Jane espoused more nuanced ways in which she felt separate from those who look both similar and different than her, such as feeling like she should fit in with other people who are Black but also not having a body that looks exactly like theirs and not wanting or having the same personality. Isra also experienced feelings of separation from people who she felt she did not look like – those at the gym who were more muscular than her. Additionally, Isra showed separation from people who are not thin by also sharing experiences in which she decreased distance and/or created closeness by treating thin people more warmly or energetically than if they were not thin. Overall, this theme assists in giving voice to individuals' experiences when they are interacting with female peers. These experiences, particularly of separation, appear to help individuals affirm what their bodies are not like (i.e., overweight, unattractive).

7.3.4 Revealing. A theme emerging throughout the participant interviews was one specifically about nonverbal communication. While indicating how they understood various traits or characteristics that were revealed through nonverbal communication, participants also explained how such things were revealed to them. This theme is discussed in two parts, reflecting two types of nonverbal communication: nonverbal behaviour and clothing.

Participants indicated a variety of aspects of people that were revealed to them by nonverbal behaviour, including body image, confidence, self-consciousness, personality, emotions, and what were described as peoples' 'true' thoughts and feelings. There were many cues taken from others' nonverbal behaviour that participants used to understand the person (i.e., figure out what was revealed). Participants used various cues to understand those with whom they interacted, including overall body language, other peoples' lack of words, whether they felt they were being ignored, time given to them by others, the use of eyes (eye contact, eye rolls, gaze), facial expressions, arms, legs, voices, and the openness peoples' bodies showed.

In the following excerpt, Jane describes how the nonverbal behaviour of another woman indicated to her that she was not liked. She described making note of overall cold body language, stance, and eye contact:

Michelle: Ok, ok, so when you see her now or back then, how did you know that she didn't like you?

Jane: Because she would just kind've give me she would uh, it's like if I was hanging out out with the guys I have, I had a lot of guy friends, if I was hanging out with the guys, she would say hi to them and actually I know, uh, I don't know how to describe it it was just kinda like she had a very cold uh, I don't know if it's body language, but it was just cold and I don't know if it's like you know when I was saying that if you are very confident that you kind've stand like a warrior type thing and it's kinda like if you're trying to fight off a bear you have to be bigger than the bear, and I think she was always trying to fight me off cause in a way she was always trying to look bigger than me, um, kinda stare me down even if I wasn't even trying to stare at her, um, arms crossed was quite frequent, that wasn't like a um, she would stand with like her legs apart kind've again with the strong kinda look.

In this example, Jane has drawn an understanding of how she is disliked by another person by taking note of this person's body language, the size she is trying to portray, and the placement of her arms and legs. Similarly, Elizabeth explained how she used broad and specific dimensions of nonverbal behaviour to learn about how another person was feeling:

Michelle: How do you tell what another woman thinks about her body if she you know if she doesn't outwardly tell you?

Elizabeth: Um just the way she carries herself usually like and I mean it changes day to day I think with every woman but um you know looking people in the eye I always think oh you know they must be having something going on if people don't look me in the eyes when I'm talking to them, um, if they, yeah, usually just kind've like confidence, if somebody doesn't carry themselves confidently I usually think oh you know they must be not feeling great about you know themselves, or possibly something else.

In this example, Elizabeth references another's eye contact and general body language. Likewise, in the following excerpt, Ashley describes how she understands others' nonverbal behaviour as a way to learn about that person's emotions and body image.

Michelle: How do you tell what another woman's body image is, so like how she thinks and feels about her body?

Ashley: Umm, what they're wearing I would say is a big thing, um, and body language so how their hand placement … stand with your arms down, don't stand with your arms crossed, your arms crossed either makes you look mean or scared, so you see people you know with their arms crossed and it's like 'oh they must be scared or self-conscious' or uh you know if they're like pulling on you know constantly you know adjusting or um, constantly you know if they're not at all, if they're just like standing there hanging out like, no big deal, you can definitely get a vibe for I think how people feel about not necessarily themselves always but how they feel that night even, yeah.

Ashley makes note of the person's placement of their arms and whether they appear to be comfortable or uncomfortable, noted to be whether people are fidgeting and moving around a lot. Isra also noted how she uses cues from peoples' nonverbal behaviour to understand their body image. Below she describes looking to their eye gaze and posture:

Michelle: Yeah, ok, how do you tell what another woman thinks about her body without her actually talking about it?

Isra: Umm, it's the way she interacts with you, the way she is in the environment, like lots of women I think who have self-esteem or confidence issues about their body or themselves, um, they like to be more isolated, they maybe look down, like keep their head down, like shoulders hunched over, they like whereas somebody who's confident, they like walk straighter like you know you can tell if somebody's confident or not or

likes the way their body looks or doesn't by the way or basically like how they walk, so like somebody would walk with their like nose held up high and shoulders back.

In this example, Isra explains how she makes meaning out of another person's nonverbal behaviour in order to understand or learn something about them. Thus, through nonverbal behaviour, participants glean a large amount of information about people, both about their body and about other aspects of their lives. Regardless of what these other people would think about their own nonverbal behaviour, this theme describes how participants make sense of their experiences of other people and nonverbal behaviour in interactions.

Also emerging from participant interviews was how they understood clothing to reveal various aspects about people, including their body image, personality, wealth, and intelligence, as well as what their bodies are like. For example, Jane explained how she believed people to be wealthy if they continually wore expensive designer clothes, especially when not required or appropriate for the situation. Elizabeth explained how stereotypical business casual clothing indicated to her that an individual was intelligent but also resisted this idea because of her own non-stereotypical clothing style and her perception of herself as intelligent. For instance, she explained how she believed other people often thought she was not very smart because she liked to dress in clothing that "5-year-olds" might wear, which she described as leggings with polka dots on them.

Below Isra describes how she uses information from peoples' clothing to form an opinion about their body image:

Michelle: Yeah, ok, how do you tell what another woman thinks about her body without her actually talking about it?

Isra: The way they're dressed even like somebody who's not confident about their body would probably be wearing like over-size clothing to hide that and like hide themselves in their clothing whereas somebody who's not would be the opposite of that.

In this example, Isra links loose clothing with a negative body image. However, in the following example, Jane indicates that the same type of clothing can have opposite meanings:

Michelle: Do other people's clothing impact your perception of their bodies?

Jane: Um, mmm, I think if people like, dress as if they're going to the gym all the time, then it tells me that they care about their body, probably aren't really in love with their current body at the time, um and so, are trying to change that um, if people are wearing

joggers all the time and just kinda wearing lazy outfits then I kinda think that they have the same perception about their body, um, so I just kinda think they're lazy about it or they don't care or maybe they do care and they're trying to camouflage it.

Thus, here Jane notes that if people are wearing relaxed or gym-type clothing that it could mean that either they care about their body and are trying to change it (by going to the gym), that they care about their body so are trying to camouflage it, or that they do not care about it and are just "lazy." Compared to the example from Isra above, who noted that loose clothing is associated with a negative body image, Jane noted that such gym-type clothing could have multiple meanings.

Similarly, Elizabeth described an experience she had with a girl in one of her classes who wore pajamas to school each day. She understood this girl's self-presentation as meaning that she did not feel positively about herself, based on her own feelings about what might be happening for her if she were to do the same:

Michelle: Um, is there any other nonverbal communication that kind of provides you with information on somebody else's body image?

Elizabeth: Um, like back to that girl who wore pajamas everyday, like I can't help but think like she doesn't really feel that great about herself. And I mean she could just be a person who doesn't have fun with clothing but with me like I love clothes and have so much fun with my clothing that I can't help but feel like she's like like if I was dressing like that, that would mean that there was something like seriously wrong with how you know I was feeling about myself.

Here Elizabeth understands the girl wearing pajamas each day to potentially be feeling negatively about herself, based on her understanding of what such clothing might mean for her. She also notes though that maybe the girl does not think about clothing in the same way as she does, as a way to have fun. Similar to Jane, Elizabeth notes how clothing can have multiple meanings.

Another aspect of the theme about clothing being revealing was that clothing was simply revealing (and concealing) of individual's bodies. For instance, Isra described experiences where she used specific clothing to conceal her body.

Michelle: How does the way you feel about your body impact your clothing choices?

Isra: Umm, I think even talking about this in the video like for me in particular I like for as far as say skinny jeans went I went through like a period where I didn't really like wearing them as much just because they're like close to your legs … when I go to the gym I didn't like wearing Lulus or tights because I didn't like how small my legs were and so I'd wear like joggers or sweat pants that like you couldn't see the shape of my legs so that was a conscious choice I would make, and um, but then I soon like as I got more comfortable in the gym I didn't care as much um, and then as far as like day-to-day I, oh I would always wear long sweaters if I was wearing like say Lulus, I would always wear like a long sweater to cover like my butt cause I didn't like the size of it so and I didn't feel comfortable just like having it out there (laughs).

Thus, in this example, tights were experienced as being particularly revealing of her legs, which she perceived to be too small, especially in a gym context where lots of people were quite muscular. As a result, she chose to wear different pants at the gym in an attempt to hide her skinny legs.

In summary, in the theme of Revealing, participants explained how they took various cues revealed through nonverbal behaviour and clothing and used them to understand or learn something about the person with whom they were interacting. Nonverbal behaviour and clothing were both understood to reveal not only participants' own and others' bodies, but also personality, emotions, wealth, intelligence, and body image.

7.3.5 Body consciousness. Another theme emerging from the participant interviews was one of body consciousness in which participants experienced feelings of self-consciousness about their bodies and/or experienced their bodies as objects being looked at by themselves and others. Within this theme, two subthemes emerged: preoccupying appearance concerns and feeling bad about body created with others.

7.3.5.1 Preoccupying appearance concerns. In this subtheme, participants discussed the prominence or preoccupying nature of their appearance concerns when interacting with other people. Participants described specific concerns they had repeatedly in interactions with others (i.e., size of breasts, colour of skin, muscularity), how others' behaviour was interpreted in relation to their particular appearance concerns, and how their own behaviour was changed because of their specific appearance concerns.

Elizabeth made many mentions of particular concern that her breasts were not large enough, her stomach was too large, and that she commonly had razor burn on her knees. She explained that these concerns were prominent in her mind in relation to others' nonspecific feedback:

> Michelle: What did you think that they were making that face [facial expression in relation to her body in a change room] about when they were looking at you?
>
> Elizabeth: Oh, whatever I was feeling the worst about that day (laughs), usually like it was like oh you know if I was feeling kind've bloated it was like 'oh they're looking at like my fat stomach' or like 'Oh they're looking at my you know I don't have any boobs' or how you know like I have you know like you know a weird rash on my knee or something it was kind of like whatever I was focusing on that day was for sure what they had to be looking at like you know, yeah.

Thus, she acknowledges that her appearance concerns are quite prominent for her and are often at the forefront of her mind, even while acknowledging that how other people are viewing her is unknown. Similarly, Isra explained how she thought about her lack of muscles when she went to the gym and how other people must think she does not belong there because she does not look like them. However, these thoughts are experienced in the context of her thin body, and in today's society, lots of people go to gyms to have a thin rather than a muscular body. In discussing the gym context and her body in general, Isra kept returning to her small size and perceived lack of muscle, and feeling self-conscious about it as in the following:

> "I'm more of on the little side and instantly I feel out of place too because everybody there is so muscular and so built and so I think it's the same thing whether you're little or you're big like when I go to the gym I definitely feel self-conscious at times."

Isra also described feeling insecure in her body in general when she notices other people looking at her – even though she does not know what they are thinking (or if they are even thinking anything about her):

> "I think when you see another girl look at you, and it's somebody you don't know especially, I think you immediately well like for me in my example anyways you notice your insecurities, like things that you don't like about yourself, yeah you're like 'oh what is she looking at?' like it's not a positive situation, it's like more of like a like you feel

insecure, or even if it's like somebody that you do know and they're looking at you, you immediately like hide your face or like the way you look, yeah."

Thus Isra's experience provides support for preoccupying appearance concerns within interactions. Additionally, in the following example, Elizabeth describes being concerned about her appearance in situations where she knows people will be looking at her or giving her attention, such as delivering a class presentation or meeting new people. She describes being concerned about her appearance and interpreting others' looks in relation to those concerns. She also describes regrets about how she chose to dress herself when those nonspecific looks are received:

> Michelle: Ok, um, so when you are if you are in the experience where other people were kind of giving you those you know, initial nonverbal impressions when you walked into a room, um, would that impact your body image seeing their reactions?
>
> Elizabeth: Oh yeah definitely, especially especially when it's, you know, um something that's important to me like you know if I'm going to do a presentation or to you know to a party or something where I'm meeting new people, definitely. If I'm just walking into class then it's like well whatever like I mean I'm usually just whatever like I don't love your outfit either … but when it's, when I've put a lot of effort in to try and you know look my best and I get those looks, and it's like oh geez like you know it's always like you know I should've gone with that other dress you know, I looked I looked thinner in it, I looked you know taller in it or you know oh like you know you know the hair you know is not good I should have you know straightened it or oh you know I know I looked fat today.

In this example, Elizabeth describes preoccupying concern about her appearance before she is about to give a presentation in class. Absent from her experience described here is concern about the actual presentation – she appears to be too preoccupied about how she looks and about others' appraisals of her appearance to be concerned about anything else. Her concerns about how she may not look her best are also solely from herself, including looking thinner and taller.

Similarly, Jane describes an experience when she uses her self-perception to aid her interpretation of others' behaviour in relation to her. In this example, Jane attended her white coat ceremony and a church youth group, respectively. In both situations, it appears that others'

nonspecific reactions towards her are coloured by her own self-perception – such as that she can be somewhat extreme and act as though she believes she is 'better' than others:

Michelle: Is there a time when um, that nonverbal behaviour was in relation to how you looked? or something you were wearing? or

Jane: Umm, umm, I'm thinking of [pauses], my white coat ceremony, I wore a white dress that was really tight [laughs], umm, I looked good though [laughs] and so I was walking in and I don't know, it just kinda saw people kinda look away, and it was like 'ok' and I don't know if they just thought I was over doing it, I think a lot of the times I think other people think I'm over doing it, um, another situation I can think of is I went to a group once and it was a young adults group … it started at 7 and it was meant to end at 9 which was my goal the whole time, 11 o'clock came and they were still there and so I was getting annoyed because I had school to go to, you know, you guys are over doing it now … so, at 9:30 I had already had enough but I had no ride because like as I said, I haven't, I don't know how to drive, so I just went on my phone and I started texting my mom and you could see people just looking at me like 'does she think she's better than us?' and in my head I'm just thinking 'I have this homework, I have that homework, I have school tomorrow at 8:30 and I'm still here, it's 11 o'clock, that's fine,' yeah, so.

Thus, in this example, Jane appears to use the perception she has of herself to interpret the nonverbal behaviour of other people. This occurs when she thinks other people think she is over-doing it (by wearing a "really tight" dress) and when she thinks other people think she is acting as though she is better than them (she explains that she is in university and the rest of the group is not). Although the youth group example does not pertain specifically to her appearance, having people look at her wearing a dress for her white coat ceremony was directly related to her body and this seems to have been extended to wondering what people are thinking about her in general.

Lastly, within this subtheme, participants described changing their own behaviour in reaction to others' nonspecific feedback once it was interpreted as related to their own particular appearance concerns. In the following example, Elizabeth describes how she focuses on her body when she perceives others as looking at it:

Michelle: Um, when you, you know, have those experiences where maybe you you're walking into a presentation and you feel that people are maybe giving you negative

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feedback about the way you're looking that day, what happens then? Do you have particular thoughts, feelings?

Elizabeth: Oh, yeah yeah I usually um don't do as well on the presentation. Or I'm not you know as outgoing or friendly when I'm meeting people cause I I'm worried about like, ok like you better like, you know, push your boobs up you know to a little like so that they don't notice or like you better like, suck in so that they don't notice that you've got a little bit of belly pooch showing, so I'm yeah it's almost like it's preoccupied with that, or like you know, make sure you're standing with one knee in front of the other one so that they don't see that weird kind of rash that you've got going on. Or if it's positive it's like oh they didn't notice, ok now I can just kind of [takes deep breath] and relax. So it's definitely less relaxed and I think I probably come off like not as friendly or not as nice when I am you know cause I don't know who could when it's like you know like sit up straight and like you know get the shoulders back so you're boobs stick out and suck in your stomach and you know like it's harder to just be genuine and friendly.

In this example, Elizabeth describes how her focus in specific instances is switched from the activity to her body and how that probably impacts her behaviour and the interactions she has with other people.

In summary, within the subtheme Preoccupying appearance concerns, participants discussed their experiences of their concerns about their bodies being at the forefront of their minds when they are interacting with other people. Within this theme, participants described specific concerns they repeatedly had about their bodies and how others' behaviour was interpreted in relation to these particular appearance concerns. They also explained how their behaviour was changed because of their appearance concerns.

7.3.5.2 Feeling bad about body created with others. For those participants experiencing body consciousness, they described instances when they were made to feel negatively about themselves when in the presence of other people. Thus, participants may not have already been feeling negatively about their appearance when it was inducted as the result of an interaction with someone else. In contrast to the above subtheme of preoccupying appearance concerns where others may or may not have made the concerns more intense, within this subtheme participants' appearance concerns worsened in the moment because of their interactions with others.

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Elizabeth described how she began to feel negatively about her body when participating in a play at school because other girls made comments about her body. She also became self-conscious about wearing a revealing costume (e.g., undergarments made of tank tops, shorts, or slip skirts) on stage because of their comments, even though she acknowledged that it was less revealing than summer clothing she typically wore. Without the interactions she had with this particular group of girls, Elizabeth may not have felt badly about her body.

In addition, Elizabeth described an instance in which she was initially not actively thinking about her body, but when the interaction did not seem quite right she questioned whether something was wrong with her or her body. For example, Elizabeth noted:

"Yeah, yeah, like it's like if they're feeling bad about themselves then it's like you might think well what's wrong with me? like you're not talking to me how you normally do, like is there something wrong with how I look today, you know like do I have something on my face or is my hair sticking straight up or something like that."

Elizabeth also described an experience when she thought an item of clothing looked good but then changed her mind because of feedback received. She explained:

"Even even like when you are you know like shopping with friends and it's like you know oh how are these jeans? 'Uhhhh' It's like 'OH' and it kinda does make you feel like ok you know I thought they looked good you know. Do I look fat in them? Do they look you know do they make you know this part of my leg look too big or this part too small you know like? Yeah."

Thus, in these examples, Elizabeth was initially feeling neutral or positive about herself and her body but once in interaction with others, receives feedback or is led to question herself and her body. She describes these interactions as resulting in her feeling more negatively about herself.

Jane also described instances when other people's behaviour made her feel more negatively about her body. One of these occurred when she went to a nightclub with a friend and many other Black people were present. She described questioning both her body and her personal values in relation to not being asked to dance and not having the typical Black girl body that she believes is required to dance:

Jane: If you're in a club or something, um, just because umm I would say because, being black you are meant to it's kinda perceived that you have all these features, and that's not necessarily true, and that's also perceived in social media and so on

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Michelle: What features do you mean?

Jane: Like you're meant to have a big butt and huge breasts and stuff and that's not me, I'm pretty petite all around, um, and so I would go out and I will see all these girls who are also the same skin colour as me who are dancing like, twerking [laughs], um, grinding up on guys and so on and it was like just make me feel like A. I don't have the same body as they have like, fair enough I feel as though I'm ok but I'm not I wouldn't say I'm the typical Black girl in the sense that I don't feel as though I have all those features, secondly, also makes me question my values at the same time… Because it makes me think .. that I'm too strict in my values and like the lines I've set for myself and I don't know like I wouldn't necessarily go around grind up on a stranger but at the same time I don't feel as though I have the features to go grind up on a stranger and I would go out with my other friends who might be mixed race, White, Black, whatever, and they would get pulled by other guys all the time and I'll just be standing like 'oh guess there's something wrong with me, I'm just not that pretty or I'm just not I don't know, I guess I'm just not that attractive' would be the main thought coming in so I would just I wouldn't even want to dance anymore.

Jane also described feeling positively about her body at her white coat ceremony but then receiving some feedback that she interpreted negatively and becoming less excited and positive from that point in the evening. In this way it is as though others punished her for feeling good:

"It's kinda like if I feel good about something or if I feel really positive about something and people don't know me, then I guess in a way it feels I'm trying to put myself in their shoes, probably they think they probably think I'm showing off, or that I'm just overly doing everything, and it just comes off really negative to me cause it's like they don't want to celebrate as I'm celebrating, and I'm like 'ok I'll try to you know dim things down now' yeah."

Isra also described experiences in which her interactions with other people made her feel more negatively about herself. For example, she described an experience that was quite pivotal for her in changing her perception of her body and the behaviours she engages in to change it. She explained how although she had already started to notice her body gaining weight, one of her friends commented about how her once strong and defined jaw line was beginning to soften

and how this comment resulted in self-esteem issues. In reaction, she began going to the gym and watching what she ate:

> "Umm, I think, mm, when she was told I was just like 'Ok, do I look fat now?' she's like 'No' but you just like, it [her jaw] was really strong before or something, and I, I don't know, I kinda like looked in the mirror and I was like and I didn't like the way I looked, I was like maybe like my face is getting like fatter and I was like 'k well what can I do to change it? what can I do to make myself look the way I want to and feel the way I want to?' I think, once that comment got brought up that's when it hit me more, like before I was fine but then once somebody like comments on it obviously you start to notice the little things and then you start to have like self-esteem issues etc."

Isra also described instances in which she left her house feeling confident in her appearance, whether she decided not to put effort in to her appearance that day or if she was not as dressed up as others. However, upon seeing people Isra explained that she became insecure and questioned why she had not tried harder to look better. The question is whether she would have felt negatively if she had not encountered anyone else, similar to Elizabeth's example above:

> Michelle: Ok, um, does the clothing that you wear to campus impact um, how you communicate with female peers?
>
> Isra: Umm, yeah I think when I'm not dressed up, even if I leave the house feeling confident, sometimes I'm like I'd feel insecure talking to them, I wouldn't want to look like head on, I wouldn't want to be in pictures, and yeah I think initially when I was first was like no like I can wear sweats even if I had confidence leaving my house, when I come to campus sometimes it just disappears when you're like surrounded by friends who like to dress up, who all look good, and you're the one um just like dressed down, so yeah I think you feel more drawn in.

It appears that Isra's perception of her appearance went from positive or neutral to more negative once she was in the presence of other people. This is similar to Elizabeth's example above with the girls commenting on her body for the play. In this theme, therefore, it is other people's presence and feedback that impacts perceptions of one's body. In this way it appears that others are co-creators in the experience of bodies and body images.

Overall, in the theme Body consciousness, participants describe repeated concerns about their bodies and the way they look. Body consciousness was discussed in relation to participants'

own specific concerns within interactions and within which others did not specifically or directly address one's appearance. Body consciousness was also discussed in relation to how participants feel badly when they interact with others, such as when others provide direct or indirect feedback to participants that is understood as resulting in themselves feeling badly. Thus, body consciousness appeared to be associated with both participants' own and others' gazes.

  7.3.6 Grappling with the influence of society and the sociocultural ideal. The influence of society and the sociocultural ideal of the female body were woven throughout the interviews, such as when participants engaged in judging and separating from others based on weight. However, at other times participants seemed to push back against this influence. For example, after initial impressions and immediate judgments, participants took further time for thought and reflected on how judgments they had made of others were wrong and expressed regret at having made them. They also thought about the unfairness they showed others by looking at and separating from them based on their appearance and how they were also unfair to themselves at times (e.g., by thinking they could look exactly like another person even though their lifestyles, personal circumstances, and genetics differed). In this way it appeared that with time for reflection, participants thought about whether their thoughts and actions were aligned with their personal values and beliefs and expressed regret when they had behaved in ways of which they were not proud. Other participants appeared to be grappling with the influence of society by feeling ambivalent about certain issues, such as whether to look at images in fitness and fashion magazines and how to simultaneously accept and want to change one's body.

  Participants expressed regret at having judged other people based on their appearance. They expressed sentiments related to having such thoughts in general as well as potentially having negatively impacted the people to whom their judgments were directed. Moreover, the participants reflected on how their judgments were possibly not accurate anyway, which appeared to make them worse. Reflecting on judgments she has made of people in the past, Elizabeth noted:

> "I just never would want to intentionally make anyone feel bad. And I think that's why it is such like a conflict with me when I'm at the bar and you know say one of those things [rude comment about another person's weight], it's almost immediately like oh my goodness, if she heard me say that, she would feel really really bad, and you know like I'd

never want to make someone feel bad … I like to think that I can be friendly to people no matter what and there's never a reason to be mean to someone."

Here, Elizabeth describes her regret at having verbalized a judgment of someone she does not know and indicates how badly she would feel if the other person heard what she had said. It appears that her judgment and resultant comments happened before she had time to reflect on or think about its impact. Relatedly, Ashley expressed her thoughts on how the information she uses to make judgments about people may only be partial and not reflective of the entire situation:

"I guess in general, I think I'm trying really hard to not judge or if I do judge somebody it's more positive so um trying to look at people like she [interaction partner from quantitative study] said, you don't know their full story, um, you don't know what's going on and so just because somebody's super skinny doesn't mean that they're anorexic or just because somebody's overweight doesn't mean that that's something that they chose to do like they could have gotten hurt or could have um so I do try to think about that when I um see people more more often than not."

Here Ashley expresses her understanding that outward appearance may not express a true inner experience (i.e., someone who is very thin does not necessarily have an eating disorder). However, although there is regret at having made judgments, she does still embrace the idea that overweight individuals must not be able to do something about their weight (i.e., they might have an injury preventing them from working out).

Elizabeth appeared to resist the influence of society but at the same time struggle to do so in relation to several topics in her life. For instance, Elizabeth noted how she liked to look at magazines, particularly the images of women within them, but then reflected about how she realized that the images are not real and so she was not sure why she thought she could look like them or why she would want to look like them. Additionally, she expressed thoughts both about how she was relatively normal looking and about how she was often surprised by images of her own 'real' body – because she was not used to seeing these images in daily life. Her grappling with the influence of society is illustrated below. At several points throughout her interview, she noted to me that she was a normal or average looking individual, as she does here:

Michelle: Ok, when you have those experiences when you first walk in the room and they give you that first initial impression, what do you think they're noticing then? about your body?

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Elizabeth: Um, usually that I'm just like a pretty normal looking person, I'm like you know, pretty average height, pretty averagely built you know like I it's usually not like, oh wow like she's really really thin or like she's really really fat like it's just kinda like, just you know, like a pretty normal looking person.

Thus, on one level, Elizabeth is aware and chooses to describe herself as an average looking woman. However, she also is subject to and aware of the influence of society and the sociocultural ideal of female bodies on her thoughts and behaviour, as she explains below that real bodies can be surprising to her:

"I'm so used to seeing like you know magazines and stuff like and to even see like real bodies sometimes it's like oh my goodness even sometimes my own body I'm like 'oh' you know like you catch yourself at like a bad angle or something and it's like 'oh my goodness' like."

Her surprise at her own body appears to be tempered somewhat by her stating that such images are most surprising when she sees herself at a bad angle. However, she appears to be grappling with what the normal appearance of bodies should be or is and whether her own is normal or surprising.

Similar to Elizabeth, Isra appeared to be grappling with the experience of being both satisfied and dissatisfied with her body and how she wanted to simultaneously accept her body and herself and work towards changing. In the excerpt below, Isra acknowledges the challenge associated with this task and speaks to the opposing nature of each side:

"Even though I know I'm never gonna look like Emily Skye say for example on Instagram, a fitness model I follow, I know the way I look is gonna be the way I look best like I'm not gonna how do I word this? like it's gonna be the best that I look, so I don't need to look like her in order to feel good about myself, as long as I'm pushing myself to the point that I can like, I think along the way I'll acknowledge the small changes I make and you realize like where you come from like where you came from and where you are now and like the lifestyle change and I think being healthy and having a good lifestyle and like looking back on it, you I think you have to reflect a lot in order to be happy with where you are now, and hopefully it's a positive reflection like seeing the positive changes that you've made and the way you feel now, so I think it's not always about getting to where exactly where you want to be but like changes that you make along the

way, I feel like I'm kinda contradicting myself, cause I was like in the way you want to look it is like achievable but I think that yeah I definitely think that's more about the progress that you make towards it."

In this example, Isra appears to be challenging herself to be satisfied with her body and healthy changes she makes but at the same time she understands those changes to be working towards looking a certain way that conforms to the sociocultural ideal. In the following example, Isra again expresses opposing sentiments, which she tries to reconcile:

"You have to be happy with who you are, and if you don't like something you can change stuff but it's gonna take time but like who you are right now is still a great person, is still like you look good, you like don't be shy from the world or insecure just because there's something you want to change, yeah and just know that like if you want to change it over time like you can progress towards it but like right now there's no point of being like shying off and being really upset about it."

In this instance too Isra is struggling with being happy about herself and her body while still working towards changing it in the way she wants. Thus, she appears to be caught between the influence of society and how she is told is a desirable way to look and an opposing view that she could accept herself the way she is currently.

Jane appeared to be contending with the influence of society by the way she remained confident about herself and her body in a time when body dissatisfaction is common. Jane made many references to the way she believes she exudes confidence, such as the way she carries herself, how she interacts with other people, how she feels about herself and her body, and how she is able to sometimes disregard other people's feedback about herself. In this way it seemed that she is able to distance herself from other people's and society's expectations and norms around interpersonal communication. For instance, Jane's confidence appears to be quite apparent to others, which runs counter to much body dissatisfaction within society. For example, in the following excerpts, Jane discusses her body image:

"Soo I feel that I'm comfortable in my body I think, like I don't think I really do anything to try to change it."

"I think in general just because like I don't really have a major like thought about my own body image right now, I, I feel ok, um, if someone does bring up the subject about body

image I'd always tell them, oh yeah my tummy but I never really … go out of my way to do anything, I'm pretty lazy, I think it isn't that much of a big deal for me right now." These examples show how she is able to resist the influence of society to feel dissatisfied with her body and remain confident. However, Jane is not immune to all influences and this is where her struggle becomes more apparent. When she receives feedback from others that causes her to question her confidence or her body, Jane is able to resist it while at the same time acknowledging that she is somewhat impacted. This is evident in her discussions around having other people look at certain clothing she is wearing, such as shorts, and then be made to feel that they think her shorts are too short. As another example, Jane explained how she entered one of her classrooms and most of the class looked at her and then fell silent. As she was having a conversation with a student next to her and everyone else listened in silence, she was led to question herself and her confidence in response:

> "I was like 'are they quiet because A. I haven't really socialized with them or B. they're like is this girl even in our class' or like I was just everything was flowing I was like 'is something am I wearing something wrong? am I looking bad like what's going on?' and uh it was just so awkward."

Although Jane is quite often able to resist the influence of our society and remain confident, she is also impacted by the feedback that people give to her.

Overall, within the theme Grappling with the influence of society and the sociocultural ideal, participants resisted certain actions and thoughts (their own and others') and struggled to reconcile their thoughts, feelings, and actions on topics in which they felt that their personal values and beliefs indicated something different from what commonly occurs in society.

7.4 Summary of Qualitative Results

The research question for the current study was: How do women experience their self and their body in relation to nonverbal communication in interactions with female peers? IPA was used in order to investigate women's experience with the phenomenon. To address gaps in the literature, key aims were to allow women's individual voices to be heard and to examine social processes within interactions. It was also expected that qualitative results would provide depth of meaning for the quantitative results.

Having analyzed the women's interview transcripts, six themes emerged (one with two lower-order themes). The results illustrate what women's experiences are like as they engage in

interactions with others. Nonverbal communication was involved in much of the themes, as was verbal communication. This reflects the interrelationships between these two forms of communication. Comparing and judging between women appear to be pervasive. Distancing oneself from others who look different was also discussed. Women also discussed gaining information from the nonverbal communication of others, namely their nonverbal behaviour and clothing, in order to learn something about other people. Furthermore, body consciousness was exhibited and within such there were two separate experiences: preoccupying appearance concerns in which worry about appearance occurred in isolation from others and feeling bad created with others in which the presence of others increased women's body concern. Lastly, and in contrast to all of the above themes, was participants' struggle to resist the influence of society and the sociocultural ideal. Here participants reflected on whether and how their thoughts and actions echoed their personal values and beliefs and appeared to question their prior behaviour. It is believed that the qualitative results achieve the aims set out at the beginning.

Chapter 8: Qualitative Component Discussion

The current study aimed to answer the research question: How do women experience their self and their body in relation to nonverbal communication in interactions with female peers? There were no specific expectations of findings because the aim of IPA is to understand experience, however, it was expected that the results of the qualitative study would allow individual women's voices to be heard and social processes within interactions to be examined as they relate to women's appearance, body image, and nonverbal communication. Additionally, results were interpreted in relation to the theory of the egocentric and sociocentric self. It is believed that these aims were achieved. First, many transcript extracts were incorporated into presentation of the qualitative results, giving women's experiences a place to be declared. Second, many of the themes relate specifically to social processes within women's interactions, accomplishing another aim of this study and answering the research question. Within this chapter, results are first discussed in relation to prior research followed by a consideration of the theory of the egocentric and sociocentric self. Finally, limitations and conclusions of the qualitative study are presented.

8.1 Qualitative Findings in Relation to Research on Bodies and Body Image

Both the themes of Judging and Separating provide illustration of prior quantitative findings. For instance, within the theme of Judging participants discussed how they passed judgment on other women based on their appearance, mostly their weight. Participants also made judgments about what lives were like and the intelligence and wealth of others. Within the theme of Separating, participants discussed attempting to distance themselves from those who looked 'different' or did not adhere to the sociocultural ideal of thinness. Both of these themes are congruent with prior research on weight bias. Weight bias is the inclination to judge people based on body weight (Brownell et al., 2005) and it appears that the themes of Judging and Separating provide illustration about how women might go about engaging in such bias. While previous work has demonstrated that individuals who are overweight or are perceived to be overweight experience multiple forms of discrimination in areas such as employment, education, healthcare, and interpersonal relations (e.g., Brownell et al., 2005), the current theme provides

illustration of how judgments are enacted in interpersonal relations on an everyday basis. They may represent the beginning point for more systematic discrimination. That is, the judgments made during everyday interactions may be the basis of discrimination in other important contexts (employment, healthcare) if individuals in positions of power make these same types of judgments. Furthermore, the themes of Judging and Separating are commensurate with the findings that slim female characters on television elicited more favourable nonverbal responses than did heavier female characters (Weisbuch & Ambady, 2009). It is probable that when engaging in Judging and Separating from others, that participants do not exhibit positive or favourable nonverbal behaviour to other people. Therefore, these findings extend those of Weisbuch and Ambady (2009) by exposing what may be happening when people are showing less favourable nonverbal communication to others in relation to the way they look.

The themes of Judging and Separating also expand on the findings of implicit body bias research. While participants in the current study explicitly discussed instances when they judged others, they also demonstrated such judgments in more implicit ways too. For instance, in some of the occurrences of judgment, participants may not have actually been aware that they were judging others, but, given the context or language used, their words were coded as judgment. Similarly, within the theme of Separating, participants may have been demonstrating implicit anti-fat bias because they may not have been consciously aware of the actions they took towards themselves or others, such as when using words to distance themselves from those who look different. Previous research has demonstrated pro-slim/anti-fat bias (Roddy et al., 2010), pro-slim but no anti-fat bias (Roddy et al., 2011), and anti-slim and anti-fat bias (Malloy, Lewis, Kinney, & Murphy, 2012) using implicit measures. The present findings may provide more depth of meaning of this topic when paired with these prior studies. For instance, the qualitative themes illustrate how women exhibit implicit body bias, including by physically moving away from certain individuals or creating distance by the way they understand or discuss certain topics or people. Therefore, this study adds to the literature by illuminating how such biases can occur in daily life. It also addresses prior criticism of implicit research by showing that participants engage in such bias themselves and do not just endorse dominant views on implicit measures. The current findings are limited to biases participants hold against those who look different from them; they were not specifically asked about positive biases towards certain bodies.

Furthermore, the current findings expand on prior research demonstrating implicit body

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biases that women may hold toward themselves. For instance, research has shown that anorexic and healthy control groups hold an implicit pro-thin-self-relational bias but no anti-fat-self-relational bias (Parling, Cernvall, Stewart, Barnes-Holmes, & Ghaderi, 2012) and a pro-thin-self-relational bias and a pro-fat-self-relational bias (Ritzert et al., 2016). The results from the Separating theme provide illustration of how women may exhibit these biases. For instance, Isra discussed instances when she attempted to create distance from her own body when she was not happy with the way that it looked. She attempted to do this by remaining in the back of groups when pictures were being taken, by not looking in mirrors, and by changing her body to put distance between herself and the term "moti." Interestingly, another way of interpreting Isra's attempts to put distance between herself and her undesirable body (from her perspective) is that she was engaging in body image avoidance, which is behaviour intended to avoid information about one's body (Walker & Murray, 2012). Her instances of Separating thus provide illustration for both bias toward self and body image avoidance.

In addition to discussions of how participants judged others, they also examined their own experiences of being judged. Participants recalled experiences when they felt judged on the basis of their appearance as well as on traits such as their intelligence, confidence, religiosity, and behaviour. While none of the women in this study believed they were consistently judged on their weight, they did worry about the appearance of specific parts of their bodies and whether others noticed and judged them on those parts. For example, Isra was largely concerned about the appearance of her jaw and legs and Elizabeth often worried about her stomach. Women also experienced judgments of what they were like based on their appearance, such as whether they were intelligent. These findings are somewhat consistent with Donaghue and Clemitshaw (2012) whose participants indicated that their personal qualities or achievements were overlooked because others were fixated on their weight. Furthermore, during experiences when women feel they are being judged they might be detecting implicit and/or attentional body biases. While it may be difficult for them to describe in words since nonverbal behaviour is processed as a gestalt (Andersen, 2008; Aviezer et al., 2012; Guerrero & Farinelli, 2012), women might be correct in interpreting subtle nonverbal communication as judgment.

Participants' persistent experience of judging and being judged by others can be further understood in terms of the postfeminist gaze. Riley et al. (2016) performed a poststructuralist informed discourse analysis on interviews with 44 white heterosexual British women aged 18 to

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36. They found four discourses used by the participants when talking about looking between women. Among these discourses they found that judgmental looking between women is pervasive and consumption oriented, such that much bodywork is required to successfully pass other women's judgments. This process was competitive by which women wanted to look better than other women. Participants struggled to identify women who did or would not judge them leaving Riley et al. (2016) to conclude that participants constructed looking between women as "judgemental, comparative, and pervasive" (p. 108). Such looking behaviour also explains women's ubiquitous experience with comparisons during interactions with other women. Riley et al. (2016) positioned such looking as being structured by regulation and self-discipline so that looks were one way in which female recognition was confirmed or denied. Because the standards for how one should look slightly change over time and because bodywork must be repeated (that is, you need to "get ready" for your day every day), comparisons amongst women are constantly repeated. The current study findings highlight women's everyday experiences of judgment as they interact with other people and demonstrate how such judgments extend beyond physical appearance to other traits such as intelligence, confidence, religiosity, and behaviour. It appears that bodywork is important among women not just for recognition of appearance but also for other aspects of their lives.

The Comparing theme is also consistent with Ross's (2013) findings, in which the experience of body dissatisfaction included comparisons with other women and the resultant negative feelings they have about their bodies as a result of such comparisons. Ross's (2013) research and the current comparison findings are somewhat at odds with prior quantitative research that has shown that downward social comparisons induce positive changes in state body image (van den Berg & Thompson, 2007). The current findings indicate that for some, when a downward social comparison is not perceived as such – that is, they do not perceive that their body is 'nicer' than the comparison target – then they do not feel more positively about themselves. In fact, even when participants perceived themselves to be participating in a downward social comparison (such as with friends when negative comments are made about the 'unsightly' nature of others' bodies), with further thought it also appeared to result in negative affect because participants felt guilty for having engaged in what they considered rude or mean behaviour. Furthermore, upward comparisons have been found to result in negative affect (Buunk & Gibbons, 2007; Chohan, 2014; Gibbons, 1986; Hausenblas et al., 2004; Myers &

Crowther, 2009; Rancourt et al., 2016; Tiggemann & McGill, 2004; Tiggemann & Polivy, 2010). However, one participant in the current study described upward social comparisons as sources of inspiration about what her body could look like in the future. These experiences appear to be aligned with the findings of Knobloch-Westerwick (2015) who found that women who engaged in social comparison for self-improvement versus self-evaluation purposes had an increase in body satisfaction after upward appearance comparisons. Spurred by the current findings, future theoretical and empirical research is needed to further understand the nature of social comparisons and how they impact women's affect.

The Comparing theme was distinguished from that of Pre-occupying appearance concerns because not every participant who engaged in comparisons appeared to be dissatisfied with her body. Indeed, one of the participants, namely Ashley, discussed comparing herself to others in the absence of significant body dissatisfaction. Ashley was also unique within this theme because she was an identical twin who experienced direct and specific comparisons with her sister for her entire life. Based on the results of the current study, whether there is a relationship between her body image and constant comparison with her twin is not known. Prior research indicates that because of similarities in age and physical appearance, twins often attempt to be different (Klein, 2003). Interestingly, Principe et al. (2013) concluded in their study of attractiveness and comparisons among twins that attractiveness may be one of the more salient differences between twins even though the mean attractiveness differences between identical twins has been shown to range from 0.01 to 1.03 on a 7-point Likert scale (Mealey et al., 1999). This finding shows how precise twin comparisons are and indicates that perhaps Ashley has become accustomed to comparisons so that they no longer impact her. Alternatively, it is possible that Ashley is viewed as the more attractive twin, and has been positively impacted by her history of social comparison (Principe et al., 2013). Finally, Ashley's status as a twin may not be related to her body image. It could be that she has developed a positive body image and interprets information from social comparisons in a body protective manner. Because of the current findings in relation to Ashley's experience of comparisons and her lack of body consciousness, future research is required to more fully understand this relationship, especially because it does not fit with the sociocultural model of body image (i.e., in which appearance comparison mediates the relationship between communication from others and body image disturbance).

In contrast to Ashley's experience, within the theme of Pre-occupying appearance concerns, participants discussed specific concerns they had about their appearance within interactions, how they interpreted others' behaviour in relation to these concerns, and about how they changed their behaviour as a result. This theme illustrates the experience of body image disturbance, particularly the cognitive/affective and behavioural dimensions. As reviewed above, the cognitive/affective dimension of body image involves feelings and beliefs about the body. For women, dissatisfaction with the stomach, hips, and thighs is widely documented (Chisuwa & O'Dea, 2011; Grogan, 2017) as well as other areas where fat is present (Grogan, 2017). Women have also been described as being preoccupied with weight (Schulken et al., 1997). The findings of this theme appear to illustrate how women experience such dissatisfaction on a daily basis. Participants described how their dissatisfaction permeated their thoughts and distracted them from other occurrences in their life. For instance, one participant described how her appearance was at the front of her mind before she was to give a class presentation; she also described herself as caring about school and her marks yet her appearance was most important in this instance. Participants described how such dissatisfaction changed their behaviour – either they were not as friendly or they specifically tried to change their appearance because of the dissatisfaction they felt. These findings are quite consistent with those of Ross's (2013) whose participants indicated that body dissatisfaction influenced thoughts, emotions, and decisions within a number of areas of their lives.

The theme of Preoccupying appearance concerns also illustrates the behavioural dimension of body image disturbance. The behavioural dimension is defined as the presence and/or extent of various behaviours intended to avoid or change one's body (such as body checking, fixing, and avoidance; Grogan, 2017; Walker & Murray, 2012). Participants described engaging in body checking behaviours (e.g., how their stomachs looked, comparing their muscles with others', asking for reassurance about their weight). Stefano et al. (2016) found that mean body checking behaviours was 27.85 per day within a non-clinical sample. The current theme provides depth of meaning in relation to this quantitative finding and its pervasiveness in everyday life. Another aspect of the behavioural dimension of body image disturbance is appearance fixing, or behaviours that are intended to hide parts of one's appearance that are viewed as flawed or as not achieving the cultural ideal (Walker & Murray, 2012). Participants described their appearance fixing efforts as including actions such as trying on many different

outfits in the morning in order to choose the best one for that particular day and going to the gym to increase muscle mass. These findings appear to be consistent with the pervasiveness of dieting, with one study finding that 86% of British women have dieted at some point during their lives (Wykes & Gunter, 2005). Women's persistent concern with their appearance was described as negatively impacting their lives and illustrating a consequence of body image disturbance.

In comparison to Preoccupying appearance concerns, the theme Feeling bad about body created with others highlighted participants' increased body image disturbance because of the presence or feedback of others. This experience possibly represents changes in state body image, or changes in an individual's body image at specific points in time, such as after a particular event or situation (Cash, 2011b). In the current study, state body image appeared to be impacted by the presence of other people, consistent with prior research demonstrating that body image can fluctuate over short periods of time (Cash et al., 2002; Melnyk et al., 2004). This theme is also consistent with Ross's (2013) qualitative findings in which participants described the external reinforcement of body dissatisfaction by people in their lives. Her participants described how others communicated beauty ideals to them and reinforced their own dissatisfaction and its association to worth of self. The participants in this study discussed similar experiences, and in the current study, it is understood that the changes in body image took place *because* of the presence of others.

Also related to interactions with others was the theme Revealing, within which participants confirmed and gave greater depth of meaning to prior research on nonverbal behaviour. The women of this study indicated that they used a combination of a variety of cues from nonverbal behaviour to understand other people, including overall body language, eye contact and gaze, facial expressions, tone of voice, and the use of arms and legs. This largely confirms past research that indicates such cues are part of nonverbal behaviour, can have particular meanings (i.e., immediacy; Andersen & Andersen, 2005), and are decoded as a gestalt (e.g., Andersen, 1985). For instance, Jane interpreted another's body language as cold and understood that it meant the person did not like her. What she appears to be making reference to is immediacy, or in this case, the other person's lack of immediacy when she mentions cold body language, orientation to another on an uneven plane, staring, and trying to look strong by her use of crossed arms and separated legs.

The theme Revealing also expanded on prior research by providing depth of meaning about how women use clothing to reveal or conceal their bodies and to understand other women. For example, Isra described experiences where she used specific clothing to conceal her body, such as not wearing tight pants because she did not like the look of her small legs or wearing long sweaters to cover her buttocks. These findings are congruent with research that has demonstrated women often select clothes for camouflage in order to conceal weight-based imperfections that they perceive in themselves (Tiggemann & Andrew, 2012b; Tiggemann & Lacey, 2009). These findings demonstrate that not only do women use clothing for camouflage but expands on this research by showing that they do so because they have specific concerns about their body, as the theme Preoccupying appearance concerns showed, and because they are led to feel badly about their bodies when in the presence of other people, demonstrated by the theme Feeling bad about body created with others. These findings therefore highlight that there is more than one reason women may camouflage their bodies with clothing; it is not simply because of the imperfections they perceive in isolation as prior research has shown. In addition, the results are congruent with research that has shown that revealing clothing results in greater state self-objectification, body shame, body dissatisfaction, and negative mood than more modest clothing (Tiggemann & Andrew, 2012a) as participants attempted to feel better about themselves by camouflaging certain body parts. Women may also use clothing for camouflage if they are consciously aware of how they look at other women's clothing for clues about what they are like and how they feel about their bodies.

Lastly, the theme of Grappling with the influence of society and the sociocultural ideal is set in opposition to the other themes. This theme was about how women regretted judgments they had made of others, how they were unfair to themselves and to others, and how they exhibited ambivalence on issues where their personal values and society conflicted. Throughout participant interviews it appeared that with further time for reflection and thought, participants expressed regret and remorse for the actions they had taken and acknowledged their uncertainty on particular issues. This theme highlights how influential society can be; it appeared that participants automatically judged others based on the sociocultural ideal of thinness and other cultural ideas about attractiveness. At the same time, results show how participants resisted such influence and acted according to their personal values and beliefs. It appears that the majority of body image research has missed this important aspect of what is occurring for individual women.

That is, a lot of attention has been paid to documenting body image disturbance among women but because resistance to such is not specifically investigated, it has not been as widely documented. An exception is qualitative research in the area, discussed next.

The findings within this theme are similar to those of Ross's (2013) who found that her participants struggled to resist harmful ideals and beliefs. Within Ross's (2013) theme, participants experienced tension between the influence of the appearance ideal, which resulted in body dissatisfaction, and conscious efforts to resist negative body messages, such as they did in the current study. These findings also align with those of Donaghue and Clemitshaw (2012), who found that women identifying with the fat acceptance movement also experienced temptation to continue to pursue the thin ideal. They concluded that fat acceptance was an ongoing process of resistance, rather than an achieved position. Women's online comments were analyzed in relation to fat acceptance blog posts indicating that women were well versed and familiar with the utility of dieting, indicating personal experiences about how diets do not work and that they are usually miserable while dieting. However, women also explained how they remained tempted to engage in dieting because of the belief that you could become thinner with hard work. Women also challenged the idea that thinness does not result in happiness and transformed lives while also acknowledging that there are real social benefits to being thin within our society. This reality was thought to contribute to the difficult nature of giving up the thin ideal. Lastly, women experienced significant dissonance and contradictions when they adopted fat acceptance, including the finding that many commit intellectually but not practically. Donaghue and Clemitshaw (2012) explained such findings in relation to ideas of identity being a social, not a private, achievement. That is, one's ability to hold a view of oneself requires another to confirm that reflection. In this case, a view of fat acceptance would be scarce, making it much more difficult to hold.

It is interesting to note that within the qualitative themes of this study both nonverbal and verbal communication is implicated. Participants discussed both modes of communication when discussing experiences of their body and self in interaction with others. For example, within the theme of Judging, participants described experiences where they felt a look from another was a judgment and when they interpreted a comment from another as a judgment. Furthermore, participants described ways in which verbal and nonverbal components of behaviour together constituted judgment (e.g., when a specific facial expression was interpreted as a particular

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question from the other such as "Why is she so dressed up?"). This is informative because not only do the results highlight each aspect of communication, they also add to knowledge that demonstrates the relationship between them.

8.2 Qualitative Findings in Relation to Egocentric and Sociocentric Self

Theories of the development of self, including the egocentric and sociocentric self and the dialogue between the parts (Cooley, 1902/1968; Mead, 1925/1968; Singer, 1984), is of help in further understanding the qualitative results. In examining the themes of the current study, they can be divided according to whether they reflect the sociocentric or the egocentric self. The majority of the themes reflect the sociocentric self, or parts of the self that are socially oriented, while two reflect the egocentric self, or the private thoughts and feelings of an individual. Both are discussed below and are presented in a chart in Appendix O.

Within themes aligned with the sociocentric self, women appeared to look to others to gain information about their self and body, to affirm what they are or are not like, and to reveal or conceal a part of themselves. In Comparing, women affirmed that they looked "good" and felt negatively about how "bad" they looked, depending on with whom they compared their bodies. They seemed to compare themselves to others to gain information about their body size, the attractiveness of their body and other physical features, and their clothing and what it means about them (i.e., am I a "slob"?). Within the theme of Judging, participants also learned about what their bodies and appearances are like by examining how others judge them. They also gained information about other traits about themselves, such as their intelligence and confidence. Furthermore, when women engaged in judging others, they affirmed what they themselves are not like. For instance, in ruling that there is something wrong with people who are overweight, Elizabeth affirms that she is not overweight and therefore there is nothing wrong with her. When Isra made the judgment that people who are attractive have a 'good' lifestyle, she is affirming that because she does not look the same as them, that her lifestyle is not as good as the other person's. Similar findings occurred with the theme of Separating. Participants distanced themselves from those that do not look like them and affirmed that they are not like such other people. In addition, when Jane feels separated from other Black girls, she appears to learn about herself: that she is not the same as all other people who look similar to her. Thus, these findings illustrate how the development of self and identity, including body image, is influenced by dialogue between 'I' and a 'you.' Women look to others to see how they are viewed and over

time these views are incorporated into their self-views.

The theme Feeling bad about body created with others also illustrates the sociocentric self. In these instances, women were made to feel negatively about themselves when in the presence of other people, either because of an interaction or feedback given to them by others. Other people were understood as providing information about what one's body was like, which impacted body image. For example, Jane appeared to be given negative feedback from other people when she felt particularly positive about herself, which does not seem to fit with current norms of society (i.e., where body image disturbance is widely documented amongst women). Additionally, Isra became self-conscious about the appearance of her jaw after receiving specific negative feedback that it was not as well-defined as it was previously, indicating to her that she had begun to gain weight. Here too the sociocentric aspect of self is highlighted because women gained information from others and incorporated it into their conception of self; they illustrated dialogue between 'I' and a 'you.'

There were two qualitative themes reflective of the egocentric self. The first of these was Preoccupying appearance concerns, similar to Feeling bad created with others because both occurred in the context of body consciousness. This theme reflects the appearance concerns participants had which were experienced in their private thoughts and feelings and demonstrated dialogue between 'I' and 'me.' Participants' worry over their appearance was often at the forefront of their minds, both when they were alone and when they interacted with other people. Their concern appeared to be independent of any actual feedback received; often, women did not know what others were thinking about them or even if they were thinking about them at all. Women used their particular appearance concerns to interpret others' behaviour and often changed their own behaviour in response to worry about appearance. The experiences constitutive of this theme highlight the dialogical nature of the self with its self.

In addition, the theme titled Grappling with the influence of society and the sociocultural ideal reflects the egocentric self. With further time for thought, women reflected on how judgments they had made of others were wrong and expressed regret at having made them. They indicated they had been unfair to others by looking at and separating from them based on their appearance, and were unfair to themselves at times too. With time for reflection, participants indicated that many of their thoughts and actions were not aligned with their personal values and beliefs. In addition, participants admitted ambivalence on issues about their bodies and

appearance when their values or views conflicted with society. For example, with further consideration, one participant indicated that although her actions suggest pursuit of the thin ideal by changing her body with exercise and food, she also somewhat believes that her body is fine the way it is. In summary, this theme reflects the egocentric self because these thoughts and feelings were being expressed according to who participants believed themselves to be and reflected dialogue between 'I' and 'me' rather than with other people.

There was one theme that reflected both the sociocentric and egocentric self: Revealing. In relation to the sociocentric aspect of self, participants showed how they made meaning of others' nonverbal behaviour and used it to learn about what others think of them. They also used nonverbal communication as indicated by clothing to learn about what they are not like. For example, when Elizabeth notices someone who wears pajamas to school each day she believes that there must be something wrong with the person's view of self because she would never engage in such actions and if she did, it would be an indication that something was going wrong in her life. These aspects of the theme Revealing detail dialogue between 'I' and 'you.' With regard to the egocentric aspect of self, within this theme women looked to the clothing of themselves and others and viewed it as a way that bodies could be either revealed or concealed. These experiences reflect both aspects of self. It represents the sociocentric self because clothing was considered to be part of the social self with the potential to reveal identity to others. However, these experiences also reflect the egocentric self because clothing appeared to be used to represent inner aspects of the self, such as participants' intelligence.

Overall, the theory of the sociocentric and egocentric self provide further understanding of the qualitative results. Because this study was focused on women's experiences of their self and body within interactions, it is not surprising that many of the findings were reflective of the sociocentric self. At the same time though, women are experiencing aspects of the private self as they engage with others. In sum, these results illustrate what women are experiencing as they engage in interactions with others. While they may be influenced by society and the sociocultural ideal, they are simultaneously resisting it and acting in accord with other values.

8.3 Limitations

As with any study, there are limitations to acknowledge. First, this qualitative study necessarily used words to generate data but because one of the main foci was nonverbal communication, there may have been a disconnection between the topic and the method. That is,

putting nonverbal experience into words may be difficult for people. As a starting point for examinations of this topic though it is satisfactory. Second, the participants of this study were asked to self-report on their experience with their bodies, selves, and nonverbal communication. How well they were able to reflect on and remember their experience is not known. However, their reports are reflective of how they currently understand their experience. Third, participants self-selected into the study and may not be representative of those who chose not to participate. Fourth, this study may have limited generalizability to other women due to the focus on the particular. IPA research involves small, homogenous sample sizes, which potentially limits the transferability of the results. However, it is amenable to a rich description of everyday phenomena, which was the aim of the method. Lastly, although IPA was a suitable choice for this qualitative study, it represents only one of many potential qualitative approaches. Other approaches to analysis, such as a stricter focus on phenomenology or hermeneutics, may uncover other findings and deeper meanings within the same data.

8.4 Conclusions

The results of this study provide new understanding of women's experiences of themselves and their bodies within interactions with female peers. Using IPA, women were asked about particular experience they have with this phenomenon. The results obtained reflect both women's understandings as well as my own interpretation of their experiences and serve to illuminate women's individual voices. Women appeared to attach significance to everyday interactions with other women, using them as sources of information about what themselves and their bodies are like. These findings largely reflect the sociocentric part of the self (and the dialogue between 'I' and 'you'), including themes of Comparing, Judging, Separating, Revealing, and Feeling bad about body created with others. In addition, at the same time that women are looking to others for information about themselves, they are also engaging the egocentric part of the self (and the dialogue between 'I' and 'me'). Themes reflective of women's private thoughts and feelings included Preoccupying appearance concerns and Grappling with the influence of society and the sociocultural ideal. While the influence of society appeared to be quite strong among this sample, these women also demonstrated agency when they resisted such influence and acted according to other values and beliefs. This resistance is not as widely documented in the body image literature.

Chapter 9: Mixed Method Component and Conclusion

The first purpose of the current study was to understand the relationship between nonverbal behaviour directed towards others and the others' body and body image within peer-dyad interactions. The second purpose of the current study was to use a mixed method in order to gain rich data on a gap area in the literature. A two-phase sequential explanatory mixed methods design (Creswell & Plano Clark, 2011) was used. The initial study was quantitative and addressed the relationship between immediacy and body attractiveness, facial attractiveness, and body image. It showed that body attractiveness, facial attractiveness, and body image of the partner (all assessed by the actor) predicted immediacy of the actor. The follow-up study was qualitative and sought to explore women's experiences of their bodies in relation to nonverbal communication. Results indicated that women experience both sociocentric and egocentric parts of the self in relation to their bodies and body images in interactions with peers. In addition, results showed that in interactions women are engaging in processes of comparing, judging, separating, revealing, grappling with the influence of society and the sociocultural ideal, and experiencing body consciousness. The mixed method component was carried out for three main reasons: to allow for the process of the phenomenon to be illuminated, to illustrate the quantitative findings with the qualitative ones, and to provide a more comprehensive account of the phenomenon (Bryman, 2006). In order to achieve the aims of the mixed method component, the quantitative results were used to develop the qualitative phase and the results of both quantitative and qualitative components were interpreted together, discussed below.

9.1 Mixed Method Discussion

The current research program was carried out to understand the relationships between nonverbal behaviour, physical attractiveness, and body image within peer-dyad interactions. The qualitative results provided depth of meaning to the quantitative ones and also expanded on them by uncovering additional findings not measured in the quantitative study. The discussion of the mixed method component is organized according to the aims of the mixed method component.

The first aim of the mixed method component was for the process of the phenomenon to be illuminated. This aim was achieved by examining the findings from the theoretical

perspective outlined in Chapter 1, namely objectification theory, the sociocultural model of body image, and reflected appraisal, all of which provide a perspective on the process of this phenomenon. According to objectification theory, women experience gazes and comments from others that lead them to internalize a view of themselves as objects (Fredrickson & Roberts, 1997). Recent research has supported the idea that women objectify other women (Riley et al., 2016). Within the current study, the finding that the body and facial attractiveness of interaction partners predict immediacy can be interpreted as demonstrating objectification nonverbally. That is, women look to others to gain information about their appearance and as attractiveness decreases, their immediacy also decreases, demonstrating that they are looking to others as objects. In terms of the qualitative findings, the themes of Judging and Comparing illustrate how women viewed others as objects to be looked at, judged, and compared. Likewise, the theme of Separating shows how women treated others as objects to be distanced from and how looking may occur between women. Furthermore, the theme of Revealing demonstrates how women looked at others to have traits revealed about them. Judging and Comparing also show how they felt others objectified them. Similarly, Feeling bad about body created with others demonstrates ways in which participants experience the gaze and comments of others within interactions. Comparing also illuminates ways in which women engage in self-objectification: when they look to themselves and others as objects to be compared. Preoccupying appearance concerns also illustrates the experience of self-objectification; women internalized the view of themselves as objects and this view was prominent throughout their daily lives.

The sociocultural model of body image and the Tripartite Influence Model also provide an understanding of the results. Peers are one of the channels purported to communicate appearance ideals to others (Tiggemann, 2011; Thompson, Coovert, et al., 1999; Thompson, Heinberg, et al., 1999; van den Berg et al., 2002). Here the ideals communicated appear to be person-specific and not based solely on one's BMI. However, the finding that immediacy decreased as attractiveness decreased shows that peers are a nonverbal source of information about your appearance. The qualitative results illustrate how this may occur. For instance, the themes of Judging, Separating, Revealing, and Feeling bad about body created with others all provide information about how ideals of appearance are communicated. That is, through judging, peers provide an indication to one another about whether their appearance is considered permissible in terms of societal standards. By separating from others who do not adhere to such

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standards, peers similarly deliver information to one another about whether their appearance is satisfactory. Feeling bad about one's body occurring because of others illustrates the adverse impact of receiving negative feedback about appearance. The theme of Revealing demonstrates how ideals of appearance can be communicated nonverbally by clothing (whether you camouflage or reveal your body, for example). Lastly, the themes of Comparing and Preoccupying appearance concerns illustrate the mediators of the influence of peers on body dissatisfaction (Thompson, Coovert, et al., 1999; Thompson, Heinberg, et al., 1999; van den Berg et al., 2002). Comparing shows how women engage in these comparisons in daily life and gain information about ideals of appearance in society. Preoccupying appearance concerns may be similar to internalization of the thin ideal, also found to mediate the influence of peers on body dissatisfaction.

The theory of reflected appraisal can also be used to examine the findings of this study. Reflected appraisal is a cycle of judgments such that self-views affect judgments of others' views and judgments of others' views affect self-views (Wallace & Tice, 2012). In terms of quantitative findings, if immediacy decreases as body and facial attractiveness decreases, then immediacy directed towards others may impact meta-perceptions and meta-perceptions could impact self-views of body and body image. Furthermore, several qualitative themes illustrate both parts of the cycle. The first part is how meta-perceptions are experienced and informed by self-views. Participants' experiences of being judged by others show how they formed meta-perceptions based on particular looks received. These experiences also illustrated how their self-views of appearance (i.e., particular concerns they had) influenced how they perceived looks from others. Likewise, within the theme of Separating participants' meta-perceptions were impacted by how they viewed themselves, including Jane's perception that others separated from her because she was not like them and Isra's view that she was not like others at the gym. Similarly, within the theme of Feeling bad about body created with others, participants' views of others' views of them were focused on concerns they had in relation to their bodies and appearance.

The second part of the reflected appraisal cycle is when meta-perceptions affect self-views. This part of the cycle was illustrated within two themes of the current study. First, when participants experienced judgment from others they used that information in a way that impacted their self-views (i.e., it made them feel more negatively about themselves). Second, within the

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theme of Feeling bad about body created with others participants were focused on others' perceptions of them and because of these meta-perceptions felt badly about their appearance. Placing the results in the context of reflected appraisal thus assists in interpreting the findings.

The process of the phenomenon under study was also illuminated through examination of the qualitative results. Because the research question was about women's experiences within interactions with others, the findings are specifically about what occurs within interactions. While the quantitative results indicated that immediacy decreases as body and facial attractiveness and body image of the interaction partner decrease, the mechanism accounting for such findings is unknown at this time. However, the qualitative findings provide information about what is occurring for women as they engage with others. Results indicate that comparing and judging within interactions based on appearance are pervasive as well as creating distance from those who look different. In addition, women discussed gaining information from the nonverbal behaviour and clothing of others in order to learn something about people. They also experienced body consciousness, both as it occurred with others and based on their own preoccupying appearance concerns.

In addition to the processes examined above, the quantitative study revealed that immediacy decreases as the actor's perception of her own facial attractiveness decreases. The qualitative theme of Preoccupying appearance concerns may provide information about how such a relationship could work. For instance, because women discussed being worried about their own appearance, it is possible that with decreasing perceptions of their own facial attractiveness that they were increasingly focused on their appearance which resulted in decreased immediacy shown to others. Together these findings provide additional information on how women's immediacy might change and how others within interactions experience such changes in nonverbal behaviour. The qualitative themes provide hints about what could be occurring for women as they engage in interactions and produce the quantitative findings.

The second aim of the mixed method component was to illustrate the quantitative findings with the qualitative ones. Illustration was provided as women's individual voices showcased their experience of themselves and their bodies in relation to nonverbal communication with female peers. Similar to gaining information on the process, the qualitative themes demonstrate how the quantitative findings may have resulted and are experienced by women. The experiences elucidated within the interviews demonstrated in words how the

quantitative findings may have arisen. One of the most illustrative examples was the theme of Separating and how it applies to the quantitative findings. Here participants described how they created distance between themselves and others who looked different than them and/or did not adhere to the sociocultural ideal of thinness. These occurrences provide examples of how women treat others they perceive to be unattractive, directly mirroring the quantitative findings. Likewise, the themes of Judging and Comparing also illuminate how women view others in relation to their appearances. In addition, other qualitative themes provide information about what women's experiences of themselves and their bodies are like in relation to interactions and nonverbal communication with others. Particularly illustrative were the themes of Judging and Body consciousness. Just as participants judged others, they also experienced being judged by other women. This theme showcased how judgment was understood (i.e., by a look) and interpreted in relation to women's bodies. The theme of Body consciousness also provided important demonstrations of the impact of such on women's everyday lives and builds on prior research by Ross (2013).

Finally, the third aim of the mixed method component was to provide a more comprehensive account of the phenomenon. While this aim was partially achieved through the first two objectives of the mixed method analysis, it was fully accomplished by capturing resistance to society's influence with the qualitative findings. Set in opposition to the other qualitative themes, which appeared to align with society's ideals of appearance, the theme Grappling with the influence of society and the sociocultural ideal demonstrated how women actively resisted such ideals. With time for reflection, participants regretted some of their thoughts and actions that did not align with their personal values and beliefs. They also exhibited ambivalence on issues related to appearance on which their personal values and beliefs indicated something different from what commonly occurs in society. This qualitative theme is unique in this mixed method study because it does not clearly align with any of the quantitative findings. In fact, within the literature on body image, such resistance is not nearly as widely documented as body image disturbance. Thus, this qualitative theme clearly accomplishes the aim of providing a more complete account of the phenomenon than the quantitative component alone.

In summary, this mixed method study allowed for the process of nonverbal communication and women's bodies and body images to be illuminated, the illustration of the quantitative results using the qualitative findings, and for a more comprehensive account of this

topic. The findings from the quantitative and qualitative components together achieve the aims of this mixed method study; each contributes to a more complete understanding of the topic than either would have in isolation.

9.2 Contributions to the Literature

9.2.1 Empirical contributions. The current study contributes to the empirical literature in several ways. First, the findings from both the quantitative and qualitative components confirm and expand on prior research that demonstrates broad biases against individuals considered to be unattractive, which has been demonstrated amongst television characters (Weisbuch & Ambady, 2009), with women in laboratory studies (Roddy et al., 2010, 2011), and in contexts where discrimination occurs, such as employment, education, and healthcare (Brownell et al., 2005). The present findings show that immediacy varies systematically such that it decreases as perceptions of body and facial attractiveness of others decreases. Furthermore, immediacy also decreases as perceptions of others' body image decrease. Qualitative results provide depth of information about how such changes in immediacy may occur, such as by judging, separating, and comparing to others. While the findings of this study are congruent with prior research on weight bias, they expand on the area by quantitatively demonstrating that nonverbal behaviour changes in relation to the way others look and feel about themselves and by qualitatively illustrating and outlining on the process by which these results may occur. The results are also congruent with the postfeminist gaze (Riley et al., 2016), a newer area of research. The current study confirms that attractiveness is associated with broad societal benefits.

Another way the current study contributes to the empirical literature is through the qualitative results on body image and nonverbal communication. In this area, the qualitative findings illustrate women's experiences of body image disturbance, demonstrating the pervasive nature of this phenomenon. These findings are congruent with Ross (2013), who found that body dissatisfaction influenced thoughts, emotions, and decisions within a number of areas women's lives. Furthermore, the qualitative results show how changes in body image are induced because of the presence and feedback of other people, similar to Cash et al. (2002) and Melnyk et al. (2004) and contrast this experience with appearance concerns occurring in isolation of others' feedback. In addition, the qualitative theme of resistance to society and the sociocultural ideal of thinness demonstrates women's resistance to body image disturbance, similar to Ross (2013) and

Donaghue and Clemitshaw (2012).

Finally, the current study confirms prior research in regard to body image and related variables while also expanding on the field. Body image was measured comprehensively such that each dimension was reflected in the quantitative measures. This examination permitted the level of body image disturbance to be determined within a non-eating-disordered sample of college women. It was determined that the level of body image disturbance was not particularly high given the range of the measures and suggested that this level of dissatisfaction should be somewhat expected given ideals of appearance within society today, rather than viewing women's body image as 'disturbed'.

9.2.2 Methodological contributions. The current study contributes to the field methodologically in two ways: through the use of an explanatory sequential mixed methods design and a self-reflection. The use of a mixed methods design allows for a more complete examination of the topic under study (Creswell & Plano Clark, 2011). This was important for the phenomenon under review because there is limited research on the simultaneous study of nonverbal behaviour, physical appearance, and body image within interactions. In addition, the use of a sequential explanatory design provided the opportunity to build on qualitative research in the area of body image, filling a gap in the literature. The quantitative and qualitative components examined a new area and the integration of their results provided more depth of understanding than either method alone.

The use of a self-reflection procedure adapted from Young and colleagues (2005) also contributes to the literature on the study of nonverbal behaviour. In order to make the phenomenon of nonverbal communication within interactions, especially as it relates to women's bodies and body images as experience-near as possible, participants were given the opportunity to reflect on their videotaped conversation with another participant. These self-reflections allowed women to add information or reflect on the topic. It is hoped that the use of the self-reflection will help to open new avenues to investigating nonverbal communication.

9.2.3 Theoretical contributions. The current study contributes to the literature on this topic because of its incorporation of relevant but largely ignored theories within the area, namely reflected appraisal and the egocentric and sociocentric parts of the self. Understanding the conception of the self as social and reflecting dialogue between 'I' and 'me' and 'I' and 'you' is relevant to examining how women experience themselves and their bodies in relation to

nonverbal communication. Results indicate that within interactions, both egocentric and sociocentric aspects of the self are implicated. That is, women discussed dialogue occurring within themselves and with others in relation to their bodies. Viewing results in this area within the context of these theories provides greater understanding and highlights the process behind the phenomenon. Further research that investigates the topic from these theories (e.g., quantitative examinations of meta-perceptions) and uses them to understand obtained results will likely be beneficial. It is hoped that the current study encourages others to take this approach.

9.3 Overall Limitations and Critical Reflection on Research Program

Just as with any study, there are several limitations and critical reflections in relation to the overall research program that need to be discussed. Conducting a mixed methods study is challenging but provided many learning opportunities. Undertaking both quantitative and qualitative components required learning about different methods of analysis. For instance, learning how to quantitatively analyze dyads was challenging, as was working through a qualitative analysis for the first time. Although seeing how the different components of this mixed method study came together was interesting and rewarding, perhaps in the future it would be beneficial to focus more intensively on either one or the other method to more fully and comprehensively engage with it. Similarly, explicating the theoretical background to the mixed method study was difficult because some theories necessarily fit better with either one or the other component. As explained above and diagramed in Figure 1.1, many theories were used to inform both aspects of this study. The theoretical framework as a whole combined societal (the sociocultural model of body image and objectification theory) and individual (the egocentric and sociocentric conception of self and reflected appraisal) approaches to understanding body image.

All of the theories presented in the beginning contributed to understanding the current findings. The sociocultural model of body image was most useful for interpreting the quantitative results, namely, that the actor's perception of another's general body attractiveness, facial attractiveness, and body image predicted the actor's immediacy. According to this model, this may be one way in which societal standards of appearance are communicated amongst people. That is, you are able to gain information about how you compare to appearance ideals by paying attention to others' immediacy towards you. The theories reflective of the individual level are also helpful in examining the quantitative findings. For instance, women may be learning about

their appearances from others' immediacy, which could be impacting the dialogue between parts of themselves (e.g., 'I' and 'you', 'I' and 'me') and their reflected appraisals.

On the other hand, objectification theory seems most suitable for interpreting the qualitative results because of the participants' experiences of looking and being looked at. For example, participants discussed experiences of comparing, judging, separating, and revealing, all of which involve looking to others. Similarly, the theme Feeling bad about body created with others involved objectification too. Furthermore, the theme of Preoccupying appearance concerns could be an illustration of self-objectification. The qualitative findings are also aligned nicely with the theories of the self used in this study. For instance, participants' experiences can be nicely summarized in relation to reflected appraisals as well as to dialogues between I and me and I and you.

For the qualitative findings in relation to the sociocultural model of body image, Preoccupying appearance concerns could be internalization of the thin ideal and Comparing could be appearance comparison, but this is not quite accurate or complete. For example, the sociocultural model of body image indicates that appearance comparison mediates the relationship between communication and body image disturbance but in the qualitative component, one participant clearly experienced comparisons but did not endorse a negative body image.

Having completed this study, reflection is needed on how the findings add to the theoretical framework or how it could be adapted to better accommodate the results. First, because both the sociocultural model of body image and objectification theory focus more so on a broader societal level of body image disturbance, rather than what occurs within individual women, the current theoretical framework was useful because of its inclusion of theories of the self. Reflected appraisal and the semiotic theory of the self both provide ways of understanding what could be occurring for individual women. These theories may be useful for future qualitative research as deeper levels of meaning are investigated. The qualitative findings of this study illuminate the usefulness of these theories. Therefore, they should continue to be used in the area of body image and communication processes. Second, although not specifically stated in any of the theories presented at the beginning of this study, the theoretical framework that was drafted included the cycle from communication to body image disturbance and then back to women's reflected appraisals and dialogues within themselves. This part of the framework is

necessary because when individuals have a negative body image they may interpret others' communication differently. Thus, it is important to explicitly state the interrelationships between parts of the framework. Lastly, not addressed within the current framework was the qualitative theme of Grappling with the influence of society and the sociocultural ideal. The sociocultural model of body image and objectification theory focus on how body image disturbance results; consequently, those resisting or experiencing other outcomes are not addressed. Because both body image disturbance and resistance to such can occur simultaneously, it may be helpful for theorists to begin to incorporate this other aspect.

As already discussed above, an IPA approach was suitable for this study given the research question, the context of the mixed methods design, my prior qualitative training, and its accessibility to new researchers. However, in moving forward with investigations of this topic, more interpretive approaches will likely offer new insights at deeper layers of meaning. Completing such work, such as using phenomenological and/or hermeneutic approaches to analysis, will require much more learning on my part but will open up many new avenues of research. For example, although IPA makes reference to the concept of the hermeneutic circle, it does not fully utilize all that can be gained from it. In my study, for instance, deeper layers of meaning could be found by examining relationships between the parts (verbal and nonverbal communication separately) and the parts and the whole (verbal and nonverbal communication together). Possible new avenues of research for more interpretive qualitative approaches are discussed below.

In addition, there are several areas for improvement in relation to the method used to study this topic. First, although using verbal means to examine nonverbal communication is somewhat necessary at present (such as through interviews), it presents a challenge because participants were required to put into words that which may not be conducive to verbal communication. Second, although it was noted that significant nonverbal behaviour within the semi-structured interviews would be transcribed, it was only possible to include verbal indicators of such nonverbal behaviour. This is because participant interviews were only audiotaped, rather than videotaped. Having completed this study, future researchers may want to videotape their interviews so that the full range of nonverbal behaviour used by participants can be fully transcribed. Such an approach would also highlight the interrelationship between verbal and nonverbal communication. Lastly, participants were only interviewed one time for the qualitative

study. More than one interview may have been more beneficial because it would allow individuals time to reflect on the topic of nonverbal communication and meaning created within the interview with the researcher. That is, participants would have continued to reflect on and create new understandings about the topic at hand if interviewed more than once within time for reflection between interviews.

Finally, there are several important points to reflect on in relation to my use of the concept of body image within this study. Because the quantitative component was focused on changes in immediacy in relation to body size, my use of the concept of body image was mostly about weight. However, it is important to acknowledge that body image encompasses many other aspects of bodies. For example, body image can include appraisals of any part of one's body and includes bodies that may be labeled as abnormal, such as disabled bodies. It is important to acknowledge that a narrow use of the term body image was used in this program of research.

9.4 Directions for Future Research

Findings from the current program of research can be used to inform a number of future research directions. The incorporation of the theory of reflected appraisal into the quantitative component of this study suggests a number of new routes. It would be interesting to more fully examine how accurate women are in assessing the perceptions others hold of them, especially as they relate to attractiveness and body image. It would also be interesting to determine whether and how self-views are impacted by meta-perceptions of body-related constructs, including whether increasing immediacy could positively impact body image. This suggestion is similar to future research directions offered by Goldsmith and Byers (2016) who recommended researchers determine the extent to which receiving routine feedback about body was associated with objective measures of body image. They suggested developing a quantitative measure to assess both the frequency and valence of verbal and nonverbal messages (in their area of research, nonverbal messages from partners). The same could be done for examinations of peer communication among women. Laboratory research by Alleva et al. (2016), Aspen et al. (2015), and Martijn et al. (2010) suggests that nonverbal behaviour does impact women's body satisfaction and may be utilized to positively change it.

Another important area of expansion of this topic would be to examine how women's perceptions and ideals of beauty and attractiveness could be changed in order to decrease weight bias and stereotyping within society. Based on the quantitative component results, women's

perceptions of others' appearance and body image were the predictors of immediacy, not their BMI or objectively measured body image. A potential first step might be to disseminate the findings of this study so that the population at large can become more aware of potential biases they hold which are directed towards others based on physical appearance. Awareness of such a partiality could lead to conscious efforts to examine and change widely held biases. Moreover, by bringing attention to these biases and how they can be transmitted via nonverbal behaviour, women may better understand the significance of their nonverbal communication. This may be especially important for teachers and other adults who interact with young girls and adolescents, so that warmer behaviour can potentially contribute to the development of positive body images.

Another way in which women's perceptions of beauty may be broadened or changed in a positive way could be to more closely examine findings related to positive body image, one facet of which is broadly conceptualizing beauty (Tylka & Wood-Barcalow, 2015). According to Tylka and Wood-Barcalow (2015) individuals who broadly conceptualize beauty perceive a wide range of physical appearances as beautiful and also define beauty based on inner characteristics such as confidence. Important areas to investigate include examining whether those who broadly conceptualize beauty show similar changes in immediacy as was found in the current study as well as how to foster broader conceptualizations of beauty in society. This research will be aided by the recently developed Broad Conceptualization of Beauty Scale (Tylka & Iannantuono, 2016) and qualitative examinations of women espousing this definition of beauty.

Following from the results of this study, it is important to more fully investigate the relationships between women's experiences of the egocentric self in interactions with other women. For example, the qualitative component of this study indicated that as women are interacting with others, their egocentric parts of self are implicated, especially as demonstrated within the theme Preoccupying appearance concerns. It would be interesting to explore what women's experiences are like as their interaction partners are occupied by their own concerns. For example, what do women think is occurring as they are interacting but others are focused on their own apprehensions? How are they interpreting the other person's behaviour? What is happening in terms of immediacy as women are pre-occupied with their own appearance concerns? This area of research could provide new information on women's experiences of themselves within interactions.

Linking the current study results to measures of implicit and explicit weight bias is

another important area to which to extend these findings. It would be interesting to determine whether changes in immediacy based on others' appearance and body image is related to any other measures of implicit and explicit weight bias. For instance, are the changes in immediacy in relation to others' perceived attractiveness and body image conscious or unconscious? Similarly, whether changes in immediacy are related to attentional body biases as demonstrated in laboratory research (e.g., Rodgers & DuBois, 2016) would be interesting to investigate. For example, future research could examine whether attentional body biases exist in naturalistic interactions and whether they are related to changes in immediacy or any characteristics of the actor or partner.

As explored quite extensively in the quantitative component discussion above, future research should determine the mechanism behind which the quantitative results emerged. For example, why does immediacy change in relation to perceptions of women's attractiveness and body image? Do perceptions of unattractiveness cause interaction partners' behaviour to change, which leads to changes in others' immediacy? Do perceptions of unattractiveness cause women to treat others differently, which then leads to changes in immediacy? The exact nature of these relationships needs to be more fully explored.

Another important area for future investigation involves the postfeminist gaze and judging among women. Within the qualitative component, women indicated that they sometimes interpreted a look from another as judgment. Whether such looks are interpreted accurately could be determined quantitatively. In addition, if women are not accurate in understanding what certain looks might mean, then it would be important to change such perceptions with the goal of ultimately decreasing judgment among women, which Riley et al. (2016) understood to be pervasive. Continuing to qualitatively explore women's understanding of looking between women would likely produce greater understanding about how to decrease judgment and comparison or to change such experiences so that they are healthy and offer empowerment to those who may be suffering.

In addition to the above proposals, qualitative approaches that are more interpretive than IPA are needed to critically examine the current state of knowledge in the areas of nonverbal communication and body image and then to expand upon it. Approaches to qualitative analysis that more strictly adhere to the theory of phenomenology and hermeneutics will likely offer insights at deeper layers of meaning than the current qualitative findings. They would also

provide opportunity to examine notions of context and time. Such approaches also offer opportunities to interpret findings in relation to theories normally outside the research area of body image, including a focus on passion and envy (e.g., Ricoeur, 2013).

Furthermore, the examination of body image and related variables also lead to a number of suggestions for future research. First, because the dimensions of body image in the current study were measured without a corresponding measure of positive body image, it would be interesting to examine how such dimensions would relate to the constructs that make up positive body image. It would also be interesting to examine the correlations between positive body image, BMI, internalization of the thin ideal, and appearance comparison, especially given findings of the qualitative component. For instance, Ashley appeared to engage in appearance comparisons in similar ways to the other qualitative participants yet did not seem negatively impacted by such. It would be informative to follow up by examining comparisons among women like her. Second, an important area for future research is to more fully explore the relationships between perceptual body image and other variables, given that many of the findings in this study indicate that there is something different about perceptual body image. Third, research on the relationship between body image avoidance and appearance comparisons can be expanded. Qualitative research may be particularly informative in this area given that body image avoidance and appearance comparisons were positively correlated in the quantitative component. Fourth, researchers should continue to examine thin ideal internalization, especially as it is experienced and expressed in various social situations. For example, how do women understand expectations about how to feel about bodies in social interactions versus when they are alone? Britton et al. (2006) and Shannon and Mills (2015) found that fat talk is viewed as normative among women. Furthermore, Nichter (2000) argued that women may engage in fat talk as a way to conform to their social group; whether other members of their social group actually want to engage in fat talk should be examined. This is pertinent to this study given that participants engaged in conversations with other participants. Lastly, it would be important to investigate the relationship between appearance comparisons and the behavioural dimension of body image disturbance. Previous work has conceptualized body comparisons as part of the behavioural dimension (Walker & Murray, 2012). However, the findings of the qualitative component, particularly the ones on Comparing and Preoccupying appearance concerns, may call this conceptualization into question. Because not all participants who exhibited comparisons

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also exhibited preoccupying appearance concerns, then potentially body comparisons occur independently of body image disturbance. Thus, it may be logical to re-examine understandings of the behavioural dimension of body image disturbance.

Finally, the findings of this study suggest that body consciousness occurs in relation to women's meta-perceptions, and, similar to the suggestion by Alleva et al. (2014, 2016), it is important when professionals are working with those suffering from body image concerns to address women's thoughts about what others think about their bodies. Future research should investigate whether incorporating examinations of meta-perceptions into body image interventions are associated with improved outcomes.

9.5 Conclusion

Given that extensive research has demonstrated that negative messages from parents and peers are associated with body dissatisfaction and disordered eating among women (e.g., Abraczinskas et al., 2012; Fulkerson et al., 2002; Hanna & Bond, 2006; Keery et al., 2005; Lieberman et al., 2001; Vincent & McCabe, 2000), it was important to examine how such information is communicated nonverbally. This program of research demonstrated that women's nonverbal behaviour, more specifically immediacy, varies systematically with the perceived attractiveness and body image of the women with whom they interact. Furthermore, women have been shown to experience both egocentric and sociocentric parts of themselves which relate to judging, comparing, separating from those who are different, revealing their own and others' bodies, and body consciousness. These results serve to illuminate the complex nature of interactions among women. At the same time, the qualitative component uncovered resistance women experience towards the sociocultural ideal of thinness; with reflection, they struggled to understand some of their actions and thoughts. Together these findings build on past research and contribute to new understandings. It is hoped that becoming more aware of how biases are subtly transmitted in everyday interactions can serve to decrease them.

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Appendix A – SCOFF Questionnaire

Answer the following questions based on *what is true for you the majority of the time*. For example, you may feel that food may have dominated your life for a brief period in the past, but if food does not dominate your life the majority of the time, then answer 'no.'

1. Do you make yourself sick because you feel uncomfortably full?
__Yes
__No

2. Do you worry you have lost control over how much you eat?
__Yes
__No

3. Have you recently lost more than 14 pounds in a 3-month period?
__Yes
__No

4. Do you believe yourself to be fat when others say you are too thin?
__Yes
__No

5. Would you say that food dominates your life?
__Yes
__No

Appendix B – Nonverbal Immediacy Scale – Observer Report (NIS-O)

The following statements describe the ways some people behave while talking with or to others. Please use the following scale to indicate the degree to which you believe the statement applies to your interaction partner.

1	2	3	4	5
Never	Rarely	Occasionally	Often	Very Often

1. She uses her hands and arms to gesture while talking to people.   1 2 3 4 5
2. She touches others on the shoulder or arm while talking to them.   1 2 3 4 5
3. She uses a monotone or dull voice while talking to people.   1 2 3 4 5
4. She looks over or away from others while talking to them.   1 2 3 4 5
5. She moves away from others when they touch her while they are talking.   1 2 3 4 5
6. She has a relaxed body position when she talks to people.   1 2 3 4 5
7. She frowns while talking to people.   1 2 3 4 5
8. She avoids eye contact while talking to people.   1 2 3 4 5
9. She has a tense body position while talking to people.   1 2 3 4 5
10. She sits close or stands close to people while talking with them.   1 2 3 4 5
11. Her voice is monotonous or dull when she talks to people.   1 2 3 4 5
12. She uses a variety of vocal expressions when she talks to people.   1 2 3 4 5
13. She gestures when she talks to people.   1 2 3 4 5
14. She is animated when she talk to people.   1 2 3 4 5
15. She has a bland facial expression when she talks to people.   1 2 3 4 5
16. She moves closer to people when she talks to them.   1 2 3 4 5
17. She looks directly at people while talking to them.   1 2 3 4 5
18. She is stiff when she talks to people.   1 2 3 4 5
19. She has a lot of vocal variety when she talks to people.   1 2 3 4 5
20. She avoids gesturing while she is talking to people.   1 2 3 4 5
21. She leans toward people when she talks to them.   1 2 3 4 5
22. She maintains eye contact with people when she talks to them.   1 2 3 4 5
23. She tries not to sit or stand close to people when she talks with them.   1 2 3 4 5
24. She leans away from people when she talks to them.   1 2 3 4 5
25. She smiles when she talks to people.   1 2 3 4 5
26. She avoids touching people when she talks to them.   1 2 3 4 5

Appendix C – Photographic Figure Rating Scale (PFRS) Images
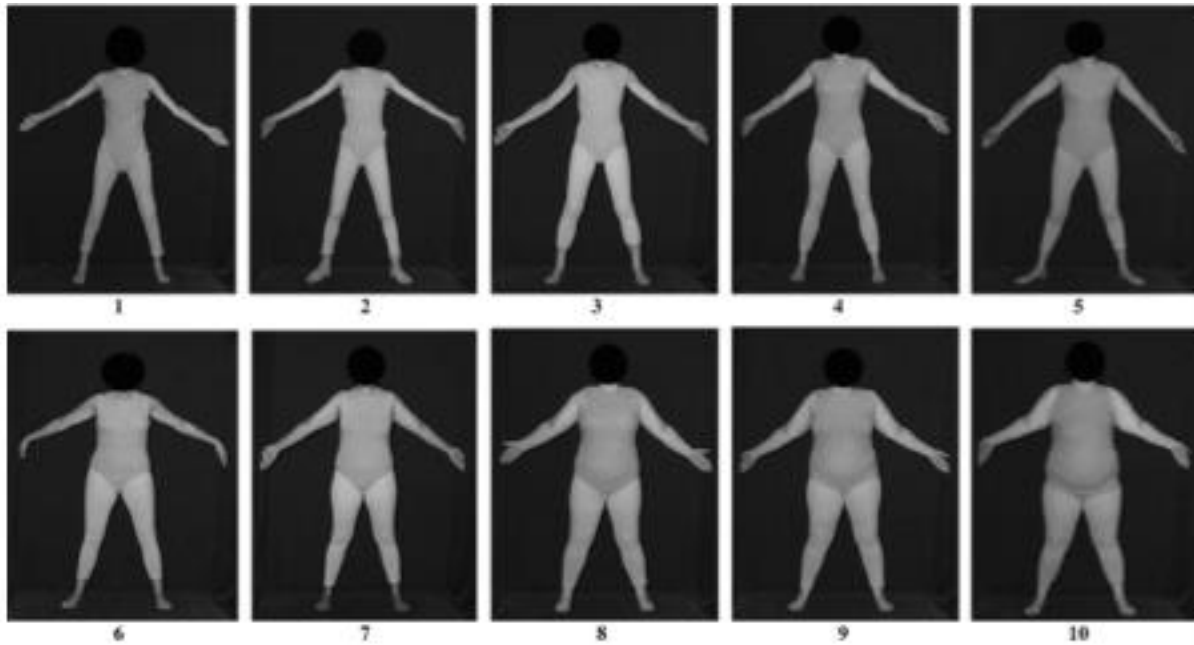
Which of the above images most accurately reflects your current body size? _____

Which of the above images most accurately reflects your ideal body size? _____

Appendix D – Body Image Avoidance Questionnaire

Circle the number that best describes how often you engage in these behaviours at the present time.

0	1	2	3	4	5
Never	Seldom	Sometimes	Often	Usually	Always

1. I wear baggy clothes.	0 1 2 3 4 5
2. I wear clothes I do not like.	0 1 2 3 4 5
3. I wear darker clothing.	0 1 2 3 4 5
4. I wear a special set of clothing (e.g., my "fat clothes").	0 1 2 3 4 5
5. I restrict the amount of food I eat.	0 1 2 3 4 5
6. I only eat fruit, vegetables and other low calorie foods.	0 1 2 3 4 5
7. I fast for a day or longer.	0 1 2 3 4 5
8. I do not go out socially if I will be "checked out."	0 1 2 3 4 5
9. I do not go out socially if the people I am with will discuss weight.	0 1 2 3 4 5
10. I do not go out socially if the people I am with are thinner than me.	0 1 2 3 4 5
11. I do not go out socially if it involves eating.	0 1 2 3 4 5
12. I weigh myself.	0 1 2 3 4 5
13. I am inactive.	0 1 2 3 4 5
14. I look at myself in the mirror.	0 1 2 3 4 5
15. I avoid physical intimacy.	0 1 2 3 4 5
16. I wear clothes that will divert attention from my weight.	0 1 2 3 4 5
17. I avoid going clothes shopping.	0 1 2 3 4 5
18. I don't wear "revealing" clothes (e.g., bathing suits).	0 1 2 3 4 5
19. I get dressed up or made up.	0 1 2 3 4 5

Appendix E – The Sociocultural Attitudes Towards Appearance Scale-3: Internalization –
General Subscale

Please read each of the following items carefully and indicate the number that best reflects your agreement with the statement.

Definitely Disagree = 1 SEP
Mostly Disagree = 2 SEP
Neither Agree Nor Disagree = 3 SEP
Mostly Agree = 4 SEP
Definitely Agree = 5

Internalization – General Subscale
1. I <u>do not</u> care if my body looks like the body of people who are on TV.   1 2 3 4 5
2. I compare my body to the bodies of people who are on TV.   1 2 3 4 5
3. I would like my body to look like the models who appear in magazines.   1 2 3 4 5
4. I compare my appearance to the appearance of TV and movie starts.   1 2 3 4 5
5. I would like my body to look like the people who are in movies.   1 2 3 4 5
6. I <u>do not</u> compare my body to the bodies of people who appear in magazines.   1 2 3 4 5
7. I wish I looked like the models in music videos.   1 2 3 4 5
8. I compare my appearance to the appearance of people in magazines.   1 2 3 4 5
9. I <u>do not</u> try to look like the people on TV.   1 2 3 4 5

Appendix F – Physical Appearance Comparison Scale-Revised

People sometimes compare their physical appearance to the physical appearance of others. This can be a comparison of their weight, body size, body shape, body fat, or overall appearance. Thinking about how you generally compare yourself to others, please use the following scale to rate how often you make these kinds of comparisons.

0	1	2	3	4
Never	Seldom	Sometimes	Often	Always

1. When I'm out in public, I compare my physical
appearance to the appearance of others.   0 1 2 3 4
2. When I meet a new person (same sex), I compare
my body size to her body size.   0 1 2 3 4
3. When I'm at work or school, I compare my body
shape to the body shape of others.   0 1 2 3 4
4. When I'm out in public, I compare my body fat
to the body fat of others.   0 1 2 3 4
5. When I'm shopping for clothes, I compare my weight
to the weight of others.   0 1 2 3 4
6. When I'm at a party, I compare my body shape to the
body shape of others.   0 1 2 3 4
7. When I'm with a group of friends, I compare my
weight to the weight of others.   0 1 2 3 4
8. When I'm out in public, I compare my body size
to the body size of others.   0 1 2 3 4
9. When I'm with a group of friends, I compare my
body size to the body size of others.   0 1 2 3 4
10. When I'm eating in a restaurant, I compare my
body fat to the body fat of others.   0 1 2 3 4
11. When I'm at the gym, I compare my physical
appearance to the appearance of others.   0 1 2 3 4

Appendix G – Ethics Certificate of Approval

UNIVERSITY OF SASKATCHEWAN

Behavioural Research Ethics
Certificate of Approval

PRINCIPAL INVESTIGATOR	DEPARTMENT	BEH#
Gerry Farthing	Psychology	14-272

INSTITUTION(S) WHERE RESEARCH WILL BE CONDUCTED
University of Saskatchewan

STUDENT RESEARCHER(S)
Michelle Conan

FUNDER(S)
INTERNALLY FUNDED

TITLE
An Examination of Nonverbal Communication and Women's Body Image within Dyad Interactions: A Mixed Methods Approach

ORIGINAL REVIEW DATE	APPROVAL ON	APPROVAL OF:	EXPIRY DATE
29-Jul-2014	29-Jul-2014	APPLICATION FOR BEHAVIORAL RESEARCH ETHICS REVIEW QUALITATIVE CONSENT FORM QUANTITATIVE CONSENT FORM RESEARCH TOOLS QUANTITATIVE DEBRIEFING FORM QUALITATIVE DEBRIEFING FORM LETTER OF CONTACT	28-Jul-2015

FullBoardMeeting D   Delegated Review ☒

CERTIFICATION

The University of Saskatchewan Behavioural Research Ethics Board has reviewed the above-named research project. The proposal was found to be acceptable on ethical grounds. The principal investigator has the responsibility for any other administrative or regulatory approvals that may pertain to this research project, and for ensuring that the authorized research is carried out according to the conditions outlined in the original protocol submitted for ethics review. This Certificate of Approval is valid for the above time period provided there is no change in experimental protocol or consent process or documents.

Any significant changes to your proposed method, or your consent and recruitment procedures should be reported to the Chair for Research Ethics Board consideration in advance of its implementation.

ONGOING REVIEW REQUIREMENTS

In order to receive annual renewal, a status report must be submitted to the REB Chair for Board consideration within one month of the current expiry date each year the study remains open, and upon study completion. Please refer to the following website for further instructions: *http://www.usask.ca/research/ethics_review/*

Beth Bilson, Chair
University of Saskatchewan
Behavioural Research Ethics Board

UNIVERSITY OF SASKATCHEWAN

Quantitative Study Consent Form

You are invited to participate in a research study entitled *An Examination of Nonverbal Communication and Women's Body Image within Dyad Interactions: A Mixed Methods Approach*. This study is being conducted as part of a Doctoral thesis in Clinical Psychology. Please read this form carefully, and feel free to ask any questions you might have.

<u>**Researcher:**</u> Michelle Conan, Graduate Student, Department of Psychology, michelle.conan@usask.ca

<u>**Supervisor:**</u> Dr. Gerry Farthing, Department of Psychology, 306-966-8925, gfarthing@stmcollege.ca

<u>**Purpose:**</u> The purpose of this study is to understand the relationship between nonverbal communication and women's body image (including body size and attractiveness) in a typical university undergraduate population.

<u>**Procedure:**</u> Your participation in this study would involve taking part in a videotaped conversation with another participant, filling out questionnaires on nonverbal communication and body image, and having your height and weight measured by the researcher. The videotaped conversation is expected to last 15 minutes and the questionnaires, consent, and debriefing are expected to take an additional 35 minutes.

During the conversation, you will be asked to get to know another participant. You will also be asked to discuss whether and/or how you think nonverbal communication is related to women's body image. The conversation will be videotaped. Following the conversation, you will be asked to complete several questionnaires on nonverbal communication and body image. The researcher will measure your height and weight. The researcher will also ask if you would like to participate in a follow-up study based on your conversation. Please feel free to ask any questions regarding the procedures and goals of the study or your role. The videotaped conversations will be viewed. Trained observers will code your nonverbal behaviour and the content of your conversation.

<u>**Potential Risks:**</u> Some of your experiences with nonverbal communication and body image may be quite personal and sensitive in nature. The questionnaires may also cause you to remember sensitive experiences. It is possible that you will experience some discomfort sharing these experiences or answering particular questions. It is very important for you to know that you are free to decide what you will or will not share. You can answer only those questions that you are comfortable with and may choose to end the conversation at any point.

It is important for you to know that one of the questionnaires to be completed is a 5-item screening tool for eating disorders. As a result, your score on the eating disorder screen could indicate that you might have an eating disorder. If this occurs, the researcher will be available to discuss your thoughts and feelings, and will provide you with a list of counseling or support resources in the community that you may contact.

After the conversation and remaining questionnaires, if you need or want to talk about the thoughts and feelings you are having, I will provide you with a list of counseling or support resources in the community that you may contact.

Potential Benefits: If you choose to participate, you will have the opportunity to share your experience in your own words. Your involvement may help you to gain knowledge about yourself. The findings of this study also have the potential to illuminate the relationship between women's body image and nonverbal communication in the research literature. Please note that these are possible benefits and are not guaranteed.

Confidentiality: The findings from this study will be reported in my Doctoral thesis, and may be used in subsequent academic publications or conference presentations. The findings will be presented as aggregate data. Individual participants will not be identifiable. Measures will be taken to maintain confidentiality of the information you contribute to the study and ensure that it is not shared outside of the research team. Additionally, any personally identifying information will not be included when describing the characteristics of the participants in the final report. While the study is being conducted, all the data will be stored securely.

Storage of Data: Upon completion of the study, Dr. Gerry Farthing will securely store all the data, including the videotaped conversations, questionnaire responses, height and weight measurements, and consent forms at a secure location at the University of Saskatchewan. This data will be kept for a minimum of five years. When the data is no longer required, it will then be appropriately destroyed.

Right to Withdraw: Your participation is voluntary and you can answer only those questions that you are comfortable with. You will also be informed of any new information that may affect your decision to participate. You may withdraw from the research project for any reason, at any time without explanation or penalty of any sort. Should you wish to withdraw, any data that you have contributed will be destroyed at your request. Your right to withdraw data from the study will apply until the coding of data has begun. After this date, it is possible that some form of research dissemination will have already occurred and it may not be possible to withdraw your data.

Follow-up: If you are interested in learning about the study's findings, you may request a copy of the final report from the researcher or supervisor at any time.

Questions: If you have any questions concerning the research project, please feel free to ask at any point. You are also free to contact the researcher or supervisor at the email addresses or numbers provided above if you have questions at a later time.

This research project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board on July 29, 2014. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics Office at ethics.office@usask.ca or (306) 966-2975. Out of town participants may call toll free at (888) 966-2975.

Consent: I have read and understand the description provided. I have had an opportunity to ask questions and my questions have been answered. I consent to participate in the research project. A copy of this Consent Form has been given to me for my records.

Visually Recorded Data: Participant to provide initials:

- Videos may be taken of me for analysis _____

Name of Participant	*Signature*	*Date*

Researcher's Signature	*Date*

A copy of this consent will be left with you, and a copy will be taken by the researcher.

Appendix I – Questions for Conversation

- Thank you for deciding to join my study. It is nice to have people who are willing to share themselves and their time.
- (Have participants introduce themselves to each other. Researcher will set the timer and leave the room.)
- Please begin by taking 5 minutes to get to know each other.
- When the timer goes off, please set it for another 10 minutes.
- Please spend the next 10 minutes discussing body image and nonverbal communication, focusing on any or all of the questions below.
- Do you think there is a relationship between the way you feel about yourself and your body and other people's behaviour, such as the looks they give or their body language?
    - o How do you know what other people think about you besides what they say?
    - o How does nonverbal communication affect the thoughts and feelings you have about your body?
- Please share experiences you might have in which your body image was related in some way to what other people were doing. For example, is there a particular situation you remember when you think about how others' behaviour affects the thoughts and feelings you have about your body?
- Please discuss any other thoughts you may have.
  Once 10 minutes is up, the researcher will have you fill out some questionnaires.

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Quantitative Study Debriefing Form

Thank you for participating in the study entitled *An Examination of Nonverbal Communication and Women's Body Image within Dyad Interactions: A Mixed Methods Approach*. This study is being conducted as part of a Doctoral thesis in Clinical Psychology. The primary purpose was to understand the relationship between nonverbal communication and women's body image (including body size and attractiveness).

The sociocultural model of body image suggests that cultural ideals of beauty, currently thin bodies, are transmitted via parents, peers, and the media (Thompson, Coovert, et al., 1999; Thompson, Heinberg, et al, 1999; van den Berg et al., 2002). Because it is impossible to achieve current ideals of beauty, body image disturbance results (Tiggemann, 2011). Thus, parents, peers, and the media directly affect body image disturbance through interpersonal communication (Thompson, Coovert, et al., 1999; Thompson, Heinberg, et al, 1999; van den Berg et al., 2002). Research over the past few decades has investigated the relationship between verbal messages from parents and peers and females' body image. However, the process by which nonverbal communication conveys information relevant to body image has largely been ignored.

Research to date has demonstrated that implicit weight biases do exist among individuals and on television. That is, individuals commonly show negative biases towards overweight people and positive biases towards slim people even if they do not intend to do so and are not aware of their biases. The study in which you participated examined whether the warmth of nonverbal communication directed at another systematically decreases based on an interaction partner's increasing body size and decreasing facial attractiveness and body image. As a participant, you were required to have a videotaped conversation with another participant about nonverbal communication and body image. You were also required to complete questionnaires related to your interaction partner's nonverbal communication and facial attractiveness and your own body image. Lastly, the researcher measured your weight and height. Examining the relationship between nonverbal communication and body image is expected to lead to a greater understanding of how nonverbal communication negatively impacts body image as well as ways to foster positive body image among women.

If you are interested in learning more about this topic, these sources will be helpful:
Grogan, S. (2008). *Body image: Understanding body dissatisfaction in men, women, and children*. East Sussex:
        Routledge.
Martijn, C., Vanderlinden, M., Roefs, A., Huijding, J., & Jansen, A. (2010). Increasing body satisfaction of body
        concerned women through evaluative conditioning using social stimuli. *Health Psychology, 29*(5), 514-520.
Thompson, J. K., Heinberg, L. J., Altabe, M., & Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment, and*

treatment of body image disturbance. Washington, DC: American Psychological
Association.
Weisbuch, M., & Ambady, N. (2009). Unspoken cultural influence: exposure to and influence of
nonverbal bias.
Journal of Personality and Social Psychology, 96, 1104-1119.

<u>If you would like to receive a summary of the results of this study, please feel free to contact
Michelle Conan at michelle.conan@usask.ca or Dr. Gerald Farthing at gfarthing@stmcollege.ca.</u>

If you have any complaints, concerns, or questions, please contact the supervisor, Dr. Gerald
Farthing at 966-8925 or gfarthing@stmcollege.ca.

Thank you once again for participating!

Appendix K – Questions for Self-Reflection and Interview

Instruction to the interviewer:
- *Depending on the ease with which the participant answers the questions of the interview, questions could be posed again and/or paraphrased.*

Introduction to Self-Reflection and Interview:
- Purpose of the interview: I am trying to understand how women construct meaning of nonverbal communication and body image. I am interested in listening to your unique experiences in order to understand the meanings you give to nonverbal communication and body image.
- Today I would like to focus on experiences that involve other females.
- You are free to decide what you are willing to share today. If you have a hard time trying to think of the right words, please take a moment to think it through. I am happy to wait.
- Do you have any questions before we get started?
- I am not going to take many notes as we talk because our conversation is being recorded. But, if there are ideas that I would like to follow up on with you, I may write them down as we talk if that is ok with you.

Definitions:
- Before we begin, I would like to review some definitions of important concepts we will be discussing, just to be sure we have the same understanding of the words we will be using. These words are nonverbal behaviour and body image. What I mean by nonverbal behaviour is any way that others communicate meaning without actually using words. It could be facial expressions, gestures, or eye gaze to name a few. Body image refers to a person's perceptions, thoughts, and feelings about her body. It can also refer to actions people take in relation to their body (e.g., workout because they are dissatisfied with their body or because they are happy with it).
- If at any time during our interview I use a word that you do not know the meaning of, or if you forget what we mean by nonverbal behaviour and body image, please just let me know.

Reflections about videotape:

Question 1:

- Let us start by watching the videotape of the conversation you had previously with another participant. I will pause the tape approximately every minute and I would like you to tell me what you think and/or feel about the topic now.
    - Please feel free to say anything that comes to mind as we watch the video – comment, ask questions, explain observations, agree, disagree, etc.
    - You can focus on the nonverbal communication between you and your partner, the words that are said, or both. There are no right or wrong responses.

Interview:
- Now I have some more questions.

Question 2:

- I'm wondering if you could take some time to think about a particular story/example/experience that really shows how your feelings about your body are cued by nonverbal communication. Just tell me the story in as much detail as possible.

    - *Possible prompts: What happened then? What were you feeling? What were you thinking? Did you take any actions? How long did these responses last?*

Questions 3 and 4:

    - What meaning does this experience have for you as a person?
        - *Possible prompts: What did you feel about yourself? What did you think about yourself? How long did it last?*
        - *Does this experience change how you think or feel about yourself? In what way?*

    - What meaning does it hold for your body?
        - *Possible prompts: What did you feel about yourself? What did you think about yourself? How long did it last?*
        - *Does this experience change how you think or feel about your body? In what way?*

Questions 5 and 6 (related to peers):

- Now let's talk about interactions with female peers on campus. How do you feel about yourself as a whole when interacting with female peers on campus?

- How do you feel about your body when you are with female peers on campus?

- How are interactions with female peers on campus different from other places?

    - *Possible prompts: What is a location where your thoughts and feelings about your body differ when interacting with female peers, compared to when you are on campus?*
    - *Why do you think it is different?*

Question 7 (related to activities):

- Now's let focus on activities that people do. These refer to anything that interests you. How do you think about your body when you are engaged in different activities?

    - *Possible prompts: Do your feelings about your body differ based on the activity you are doing? If yes, how do they differ?*

    o *Are there activities that allow you to feel better about your body?*

    o *Are there activities that elicit more negative thoughts or feelings about your body?*

    o *Can you describe some examples that illustrate your experience?*

Question 8 (relation between nonverbal communication and body image):

- Now I'd like to talk more about your experiences with nonverbal communication and body image. How are nonverbal communication and body image related for you?

    o *Possible prompts: How do you tell what other people think about you? What cues do you use?*

    o *How do other women's nonverbal behaviours affect your body image?*

- What do you think people notice about you?

- When you notice other women looking at you and/or responding nonverbally, what do you do?
  - *Do you feel a certain way? Think particular thoughts? Take some action?*
  - *How long does this response last?*

- Can you describe a particular example or experience when you received positive reactions from others about your body?

    o *What did you do?*

    o *How did this experience impact your feelings about your self?*

    o *How did this experience impact your feelings about your body?*

- Can you describe a particular example or experience when you received negative reactions from others about your body?

    o *What did you do?*

    o *How did this experience impact your feelings about your self?*

    o *How did this experience impact your feelings about your body?*

- When you are interacting with female peers, does your own perception of yourself influence the interaction?

- - *Possible prompt: Do you behave differently towards others if you feel positively about yourself? Do you behave differently towards others if you feel negatively about yourself?*

- When you are interacting with female peers, does your own perception of your body image influence the interaction?

  - *Possible prompt: Do you behave differently towards others if you feel positively about your body? Do you behave differently towards others if you feel negatively about your body?*

Question 9 (related to physical attractiveness):

- What are some traits that you consider to be physically attractive for women?

  - *Possible prompts: Do you think the general population holds these same ideas of physical attractiveness as you?*

  - *Are bodies important to physical attractiveness for women?*

  - *Are faces important to physical attractiveness for women?*

  - *Between the body and the face, which aspect is the most influential on perception of attractiveness?*

- How is physical attractiveness related to how you view and interact with other women?

  - *Possible prompts: If you consider another woman to be physically attractive, do you respond to them differently, compared to if you do not consider them to be physically attractive?*

  - *How do interactions with physically attractive women differ from those who are not considered to be physically attractive?*

  - *When we consider other women to be physically attractive, do we treat them more warmly than we treat those not considered to be physically attractive?*

    - *Possible prompt: Do you gradually warm up to women that you do not consider to be physically attractive?*

- Do you think that you attribute "good" qualities to others if we see them as more attractive (e.g., "beautiful is good")?

  - Do you think other people might do that too?

  - What do you think about that?

- ▪ Is it possible not to judge people on their physical appearance?

- **(Summarize first.)** Is there a difference in terms of importance of physical attractiveness if the person is a friend, a peer, or a stranger? If so, why?

Question 10 (related to clothing):

- Now let's change gears and talk about clothing. What clothing do you wear to campus? Why?
  - o Does it differ from other locations? Why? Can you give me an example?

- How do you decide what to wear to campus and/or how to present yourself?

- How does another woman's clothing impact her physical attractiveness?

- How does another woman's clothing impact your perception of her?
  - o How does her clothing impact your perception of her body?

- Does the clothing you wear to campus impact how you communicate with female peers?
  - o *Possible prompt: Do you interact with others differently based on what you are wearing?*

- How does your clothing positively impact your perception of yourself?

  - o How does your clothing negatively impact your perception of yourself?

  - o *Possible prompt: Can you describe an example of when this has happened?*

- How does your clothing positively impact your perception of your body?

  - o How does your clothing negatively impact your perception of your body?

  - o *Possible prompt: Can you describe an example of when this has happened?*

- Does the way you feel about your body impact your clothing choices?

  - o *Possible prompts: Are your clothing choices related to your body image?*

  - o *What runs through your mind when you get dressed? What do you feel about your body when you get dressed?*

  - o *Do feelings or thoughts about your body influence what you choose to wear from your closet on a particular day (compared to all of the other clothes you have)?*

  - o *Can you describe an example of when this has happened?*

Question 11 (related to the participants representations of other women):

- What do you pay attention to when you first see another or interact with a peer? What do you notice about other women?

  - *Possible prompts: Body size? Body attractiveness? Facial attractiveness? Body image? Clothing? Etc.*

- When you are interacting with another woman and notice characteristics about them, such as the way they look and what they wear, do you think they know that you are noticing something about them?

  - Do they know what exactly you are looking at or finding out about them (e.g., body size, clothing type)?

- How do you tell what another woman thinks about her body?

  - Are there nonverbal aspects of another person that tell you about a woman's body image?

  - Do you need them to verbally tell you about their body image for you to get an idea of what it might be?

  - **(If there is information communicated nonverbally, then ask):** What do you look for in another's nonverbal communication when assessing their body image?
    - *Possible prompt: What nonverbal communication provides you with information on another woman's body image?*

Question 12:

- Is there anything else you would like to tell me?

Final words:

- Thank you very much for your time today. I have found your experiences extremely valuable. I will be in touch with you once I have our interview transcribed and then we can arrange a time for you to go over the transcript.
- Do you have a pseudonym in mind?
- What is the best way to reach you when the transcript is ready?
- What is your availability over the next few months?
- I mentioned in my email that I would like to offer you a $25 gift card to the U of S bookstore. The bookstore is actually not able to process gift cards for a few weeks. So, I can either get you the gift card later on this month, or I would be happy to write you a cheque for $25. What would you like?

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Qualitative Consent Form

You are invited to participate in a research study entitled *An Examination of Nonverbal Communication and Women's Body Image within Dyad Interactions: A Mixed Methods Approach*. This study is being conducted as part of a Doctoral thesis in Clinical Psychology. Please read this form carefully, and feel free to ask any questions you might have.

Researcher: Michelle Conan, Graduate Student, Department of Psychology, michelle.conan@usask.ca

Supervisor: Dr. Gerry Farthing, Department of Psychology, 306-966-8925, gfarthing@stmcollege.ca

Purpose: The purpose of this study is to understand how women construct meaning of nonverbal communication and body image.

Procedure: Your participation in this study would be continued from your involvement in a videotaped conversation with another participant that occurred previously. For this study, your participation would involve reflecting on the video of the conversation with the researcher, and participating in a one-on-one interview. The self-reflection and interview is expected to last approximately 90 minutes.

Following the conversation that you had with another participant previously, you will be asked to watch the video with the researcher and comment on your thoughts and feelings approximately every minute when the video is paused. After this self-reflection, you will be asked to discuss your particular experiences regarding nonverbal communication and your body image. The self-reflection and interview will be audiotaped and transcribed so that there is an accurate record of the discussion. Please feel free to ask any questions regarding the procedures and goals of the study or your role.

Potential Risks: Some of your experiences with nonverbal communication and your body image may be quite personal and sensitive in nature. It is possible that you will experience some discomfort sharing these experiences. It is very important for you to know that you are free to decide what you will or will not share. You can answer only those questions that you are comfortable with and may choose to turn off the tape recorder at any point during the self-reflection or interview. After the interview, if you need or want to talk about the thoughts and feelings you are having, I will provide you with a list of counseling or support resources in the community that you may contact.

Potential Benefits: If you choose to participate, you will have the opportunity to share your experiences of nonverbal communication and body image in your own words. Your involvement may help you to gain knowledge about yourself. The findings of this study also have the potential to illuminate women's experiences of nonverbal communication and body image in the research literature. Please note that these are possible benefits and are not guaranteed.

Confidentiality: The findings from this study will be reported in my Doctoral thesis, and may be used in subsequent academic publications or conference presentations. The findings will be presented as common themes, and direct quotations from the individual transcripts will be reported to illustrate the themes. Measures will be taken to maintain confidentiality of the information you contribute to the study and ensure that it is not shared outside of the research team. You will be asked to choose a pseudonym (an alias or fake name) that will be used to protect your identity. The pseudonym will be substituted for your actual name in all instances within the transcripts and final report. Additionally, any personally identifying information will not be included when describing the characteristics of the participants in the final report. While the study is being conducted, all the data will be stored securely.

Prior to the data being written up, you will have the opportunity to review the complete transcript of your interviews, and to add, alter, or delete information from the transcript as you see fit. You will then be asked to sign a transcript release form to indicate that the transcript accurately reflects what you said during the conversation, self-reflection, and interview and that you give permission for me to use quotations from the transcript.

Storage of Data: Upon completion of the study, Dr. Gerry Farthing will securely store all the data, including the videotaped conversations, interview transcripts, audiotapes, and consent forms at a secure location at the University of Saskatchewan. This data will be kept for a minimum of five years. When the data is no longer required, it will then be appropriately destroyed.

Right to Withdraw: Your participation is voluntary and you can answer only those questions that you are comfortable with. You will also be informed of any new information that may affect your decision to participate. You may withdraw from the research project for any reason, at any time without explanation or penalty of any sort. Should you wish to withdraw, any data that you have contributed will be destroyed at your request. Your right to withdraw data from the study will apply until the transcript data has been pooled and analysis has begun. After this date, it is possible that some form of research dissemination will have already occurred and it may not be possible to withdraw your data.

Follow-up: If you are interested in learning about the study's findings, you may request a copy of the final report from the researcher or supervisor at any time.

Questions: If you have any questions concerning the research project, please feel free to ask at any point. You are also free to contact the researcher or supervisor at the email addresses or numbers provided above in you have questions at a later time.

This research project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics Office at ethics.office@usask.ca or (306) 966-2975. Out of town participants may call toll free at (888) 966-2975.

Consent: I have read and understand the description provided. I have had an opportunity to ask questions and my questions have been answered. I consent to participate in the research project. A copy of this Consent Form has been given to me for my records.

_____   _____   _____

Name of Participant   *Signature*   *Date*

_____   _____

Researcher's Signature   *Date*

A copy of this consent will be left with you, and a copy will be taken by the researcher.

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Qualitative Study Debriefing Form

Thank you for participating in the study entitled *An Examination of Nonverbal Communication and Women's Body Image within Dyad Interactions: A Mixed Methods Approach*. This study is being conducted as part of a Doctoral thesis in Clinical Psychology. The primary purpose was to understand how women construct meaning of nonverbal communication and body image.

The sociocultural model of body image suggests that cultural ideals of beauty, currently thin bodies, are transmitted via parents, peers, and the media (Thompson, Coovert, et al., 1999; Thompson, Heinberg, et al, 1999; van den Berg et al., 2002). Because it is impossible to achieve current ideals of beauty, body image disturbance results (Tiggemann, 2011). Thus, parents, peers, and the media directly affect body image disturbance through interpersonal communication (Thompson, Coovert, et al., 1999; Thompson, Heinberg, et al, 1999; van den Berg et al., 2002). Research over the past few decades has investigated the relationship between verbal messages from parents and peers and females' body image. However, the process by which nonverbal communication conveys information relevant to body image has largely been ignored.

The study in which you participated examined body image as a plural and socially constructed concept. For example, individuals are thought to have more than one body image, depending upon the situation in which they find themselves. A qualitative approach, one in which the researcher is interested in learning from the participant, was used so that the relationship between body image and nonverbal communication could be examined in greater depth and so that participants' voices are heard. Examining how women construct meaning around body image and nonverbal communication is expected to lead to an understanding of ways to foster positive body image among women.

As a participant you were required to watch the videotaped conversation you had previously within another participant and comment on your thoughts and feelings approximately every minute. After the self-reflection, you were asked to discuss your particular experiences regarding nonverbal communication and your body image.

If you are interested in learning more about this topic, these sources will be helpful:
Grogan, S. (2008). *Body image: Understanding body dissatisfaction in men, women, and children*. East Sussex:
     Routledge.
Martijn, C., Vanderlinden, M., Roefs, A., Huijding, J., & Jansen, A. (2010). Increasing body satisfaction of body
     concerned women through evaluative conditioning using social stimuli. *Health Psychology, 29*(5), 514-520.
Thompson, J. K., Heinberg, L. J., Altabe, M., & Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment, and*

treatment of body image disturbance. Washington, DC: American Psychological Association.

If you would like to receive a summary of the results of this study, please feel free to contact Michelle Conan at michelle.conan@usask.ca or Dr. Gerald Farthing at gfarthing@stmcollege.ca.

If you have any complaints, concerns, or questions, please contact the supervisor, Dr. Gerald Farthing at 966-8925 or gfarthing@stmcollege.ca.

Thank you once again for participating!

Appendix N – Transcript/Data Release Form

Transcript/Data Release Form

I,_____, have reviewed the complete transcript of my personal conversation, self-reflection, and interview in this study, and have been provided with the opportunity to add, alter, and delete information from the transcript as appropriate. I acknowledge that the transcript accurately reflects what I said in my conversation with another participant and in my self-reflection and personal interview with Michelle Conan. I hereby authorize the release of this transcript to Michelle Conan to be used in the manner described in the Consent Form. I have received a copy of this Data/Transcript Release Form for my own records.

_____   _____
Name of Participant   Date

_____   _____
Signature of Participant   Signature of researcher

Appendix O – Table of Qualitative Themes Arranged by Sociocentric and Egocentric Self

Sociocentric Self	Egocentric Self
Comparing	Grappling with the influence of society and the sociocultural ideal
Judging	
Separating	Revealing
Revealing	
Body consciousness: Feeling bad created with others	Body consciousness: Pre-occupying appearance concerns