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Pearce, G. , Thøgersen-Ntoumani, C. and Duda, J.

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**Running head:** *Body Image during the Menopause*

**Body image during the menopausal transition: A Systematic Scoping Review**

Gemma Pearce, PhD<sup>1\*</sup>, Cecilie Thøgersen-Ntoumani, PhD<sup>2</sup> and Joan L. Duda, PhD<sup>2</sup>

<sup>1</sup>Applied Research Centre for Health & Lifestyle Interventions (ARC-HLI), Coventry University, UK;

<sup>2</sup>School of Sport and Exercise Sciences, University of Birmingham, UK

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\*Corresponding author: Dr Gemma Pearce, Applied Research Centre for Health & Lifestyle Interventions (ARC-HLI), Faculty of Health and Life Sciences, Coventry University, Whitefriars Building, Whitefriars Street, Coventry, West Midlands, UK  
[gemma.pearce@coventry.ac.uk](mailto:gemma.pearce@coventry.ac.uk)

**Author biographies:**

Gemma Pearce, PhD, is a Senior Researcher in the Applied Research Centre for Health & Lifestyle Interventions at Coventry University in the United Kingdom.

Cecilie Thøgersen-Ntoumani, PhD, is a Senior Lecturer in Psychology of Physical Activity & Health in the School of Sport and Exercise Sciences at the University of Birmingham in the United Kingdom.

Joan L. Duda, PhD, is a Professor of Sports and Exercise Psychology in the School of Sport and Exercise Sciences at the University of Birmingham in the United Kingdom.

## **Body image during the menopausal transition: A Systematic Scoping Review**

### **Abstract**

This scoping review aimed to examine women's body image during the menopausal transition systematically. A systematic search strategy and exclusion criteria were applied to ensure only relevant research was included in the review. Fifteen studies in seventeen papers were included highlighting an equivocal relationship between body image and the menopausal transition. The menopausal transition is complex and individual, and should not be examined as a simple positive or negative transition. There is a sense of confusion for women experiencing the menopausal transition due to contradicting medical advice and societal expectations of body image. Currently, the research consists of exploratory-based studies that highlight the importance of researching this field further to aid adaptive coping and self-management across this transition.

**Keywords:** Menopause; climacteric; body image; systematic review; appearance

## **Introduction**

Body image is a multifaceted construct involving perceptual, cognitive and affective components relating to the body's appearance, functions and capabilities (Cash & Pruzinsky, 2002). Research investigating body image has tended to focus on puberty and young adult populations. There is a dearth of knowledge regarding other life transitions, especially the challenges associated with bodily change and ageing in 'middle-aged women' (Tiggemann, 2004). However, interest in body image over the lifespan (Johnston, Reilly, & Kremer, 2004; Mellor, Fuller-Tyszkiewicz, McCabe, & Ricciardelli, 2010) and comparing younger and older women (McKinley, 2006; Pruis & Janowsky, 2010) has increased over the last 10 years. This has led to further questions regarding body image over different life stages, with researchers acknowledging the need to address the important yet complex changes associated with the menopausal transition. As body image has a significant impact on self-esteem and self-confidence (Polivy, Herman, Trottier & Sidhu, 2013), understanding a woman's bodily perceptions is an important step to aid health care professionals when implementing support over this transition (Price, 2010).

Additional to the inevitable cessation of menstruation and ovary function, menopausal symptoms and bodily changes can have negative consequences for health and quality of life, such as increased risk of osteoporosis and lower subjective hedonic well-being (Elavsky & McAuley, 2005). Vasomotor symptoms (i.e., hot flushes and night sweats), vaginal dryness and sleep disturbance are primary symptoms associated with the menopause, with additional secondary symptoms including sexual dysfunction, depression, anxiety, memory loss, fatigue, headache, joint pains and weight gain (Woods & Mitchell, 2005).

### **Definitions of menopause and the menopausal transition**

This section clarifies the terminology used in menopause-based research and defines the meaning of the menopausal transition in this review.

The World Health Organisation (WHO) scientific group (1996) offered a series of definitions associated with the menopausal transition, which were used as the framework in this review. The menopause can occur naturally or be induced as a result of medical treatment (e.g., chemotherapy) or surgery (e.g., undergoing a Bilateral-Salpingo Oophorectomy (BSO) to remove both ovaries<sup>1</sup>). The natural menopause is defined as the permanent cessation of menstruation, which occurs as a result of the loss of ovarian follicular activity and is recognised after 12 months of consecutive amenorrhea, for which there is no other obvious cause. A woman is said to be postmenopausal following such events. Prior to the menopause is the perimenopausal phase, which begins when the endocrinological, biological and clinical features associated with an approaching menopause commence and continues until 12 months following the final menstruation. The reproductive period before the perimenopause is referred to as premenopause.

Additionally, the climacteric is a term used synonymously with the former menopausal terms. The International Menopause Society (IMS, 1999) defines the climacteric as the ageing transition in women from the reproductive phase to the non-reproductive phase. This includes a variable time period during and after the perimenopause, which can be associated with symptomatology. The definition of the whole menopausal transition usually consists of amalgamations of the above terms and involves the transition from premenopause to perimenopause to menopause and then to postmenopause. Therefore, ‘menopausal transition’ will be the term used for the remainder of this paper to encompass all of the above meanings.

## **Body image and the menopausal transition**

Similarly to puberty and pregnancy, the menopausal transition is a milestone in a woman's life, with accompanying bodily changes and symptoms that can have a profound effect on her body image. The bodily changes in appearance and function that some women face, such as weight and shape change, heavy unpredictable bleeding, sleep disruption through night sweats, and bodily markers of ageing, such as changes in skin, hair and sexual function (WHO, 1996), can change the way a woman thinks and feels about her body (Chrisler & Ghiz, 1993). Yet at the same time, a woman's attitudes towards the menopausal transition (Ayers, Forshaw, & Hunter, 2010) and her culture (Freeman & Sherif, 2007) can change her experience of the transition.

Cultures with a societal emphasis on the presentation of the self and positive discrimination towards attractiveness may exacerbate body image concerns for those menopausal women who feel they are moving away from those expectations, reducing their quality of life. A review paper examining the management of the menopausal transition, depression and anxiety examined the profound yet complex impact the menopausal transition can have on women's body image (Deeks, 2003). Deeks found that the changes to the body during the menopausal transition were associated with concerns about ageing, such as concerns of wrinkles and body weight/shape change, and in turn reduced the women's body image and mood. Deeks discussed the complex nature of directionality in the research. For example, women rated themselves as lower in fitness and appearance during and after the menopausal transition compared to premenopause. However, in turn, women who were dissatisfied with their appearance were more likely to experience more menopausal symptoms. The question remains as to whether the menopausal transition changes body image, vice versa, or if the relationship is reciprocal.

Recently, Slevec and Tiggemann (2011) reviewed literature investigating disordered eating in middle-aged women. This review introduced the distinct rationale for investigating body image over the menopausal transition as women ‘move away from the cultural beauty ideals of thinness and youth’ (p516). This review focused on body image across menopausal stage and age, and found three papers with equivocal findings. One cross-sectional study found that postmenopausal women had less positive attitudes towards their appearance than premenopausal women (Deeks & McCabe, 2001). Yet, another cross-sectional study (Koch, Mansfield, Thureau, & Carey, 2005) and a prospective longitudinal study (McLaren, Hardy, & Kuh, 2003) found attractiveness perceptions and body dissatisfaction did not vary by menopausal stage or age. However, these reviews did not consider the broader literature investigating other aspects of body image using a mixture of methods measuring changes across the menopausal transition.

Concerns of body image and the menopausal transition have featured in conceptual and review papers, particularly over the previous two decades, inspiring empirical research in this area. Yet there has been no systematic review that specifically aimed to scope and summarise the existing literature on this topic. This paper aims to systematically review literature that has examined women’s body image during the menopausal transition over the past 20 years. As this research area is still in its relative infancy, it was important to carry out an exploratory scoping review (Arksey & O’Malley, 2005) with a ‘knowledge support’ approach (Mays, Pope, & Popay, 2005). A ‘knowledge support’ scoping review aims to aggregate the evidence base that already exists, assess its quality and highlight the gaps that require further study (Estabrooks, Field, & Morse, 1994). In order to capture all of the emerging evidence, a systematic scoping review including studies using a mixture of methodologies was carried out (Arksey & O’Malley, 2005). A preliminary scoping of the



literature on body image and the menopausal transition found that the body of literature only consists of ‘views’ studies (Harden & Thomas, 2005). This includes the research (qualitative and quantitative) that focuses on people’s perceptions, beliefs and attitudes, which relates largely to the perceptual aspect of body image. There is a paucity of randomised control trials or other phase III intervention studies and so it was inappropriate to carry out a meta-analytical review at this stage (Levac, Colquhoun, & O'Brien, 2010). The objectives of the present review were to examine the extent, range and nature of the research in the field and summarise the research findings to inform future policy, practice and research. The University of York’s systematic scoping review framework (Arksey & O'Malley, 2005) was used as its iterative nature was appropriate to this review’s aims (Alam, Speed, & Beaver, 2011). In light of the background literature addressed in this introduction and the preliminary scoping exercise, the following review questions were posed:

1. What research exists on the perceptions of women’s body image during the menopausal transition over the past 20 years?
2. What aspects of body image and the menopausal transition are measured, and in what context?
3. What is the direction of causation between body image and the menopausal transition (does body image predict menopausal experience, or does the menopausal transition change a woman’s body image)?
4. What are women’s experiences of the menopausal transition in relation to body image?

## **Method**

This review aimed to investigate the complementary bigger picture of how the findings as a whole can be amalgamated to guide researchers and practitioners in the future (Hagger, 2009; 2010). An integrated design (Sandelowski, Voils, & Barroso, 2006), more commonly used in education research, of descriptive mapping and narrative synthesis was used to analyse the research (Templin & Pearce, 2012). This review included a mix of papers with a range of research questions, data collection methods and analysis (numerical and textual). The findings arising from this review are represented as a description of the content, a quality assessment of the studies, and a summary of the arising themes within this review.

### **Searching and identification**

Search key words were combinations based around the two main variables in the review questions: Menopause (climacteric; perimenopause; menopausal symptoms; early postmenopause; MeSH term - Menopause) and body image (appearance evaluation/anxiety/orientation/control/ contingent self-worth; body confidence/satisfaction/appearance/functioning/attitudes/esteem/investment/importance; self-presentation/perception/objectification; perceived attractiveness; physique anxiety; weight concern; MeSH term – Body Image). Limits were applied for only human participants, English language articles from 1992 to present date (October 2012), and excluded letter, commentary and editorial format types.

These keywords were used to conduct searches of peer-reviewed research and grey literature using a wide range of electronic bibliographies (Scopus, MEDLINE, PsychINFO, Google Scholar), a forward citation search using ISI Web of Knowledge, and manual searches through the included studies bibliographies, online specialist journals (Climacteric, Menopause, Maturitas, Menopause International – formerly known as The Journal of the

British Menopause Society, The Journal of North American Menopause, Obstetrics and Gynecology, Body Image) and library catalogues. Research that had not been published in peer-review journals was also included in the review to reduce the risk of publication bias.

### **Screening and exclusion criteria**

The exclusion criteria were formed based on the review question and objectives, and applied successively to each article.

#### **Exclusion criteria.**

EXCLUDE 1. Not human participants.

EXCLUDE 2. Not written in English.

EXCLUDE 3. Written before and including 1<sup>st</sup> January 1992, or after October 2012.

EXCLUDE 4. The study is not empirical - needs to be evidence based. Not conceptual, review or philosophical only.

EXCLUDE 5. The focus is not explicitly about the female menopausal transition (exclude studies that do not state that the women are experiencing the menopausal transition).

EXCLUDE 6. The focus is not explicitly about body image (exclude studies that do not include body image. Exclude studies that only investigate objective measures of the body, such as weight or size, without examining the woman's perception of their body).

EXCLUDE 7: The participants are not women experiencing the menopausal transition (exclude studies with only women who are premenopausal, and those who are postmenopausal and no longer experiencing menopausal symptoms).

EXCLUDE 8: The paper does not have outcomes relating to the menopausal transition and body image, and their relationship (numerical or textual).

If the abstract contained insufficient information to determine whether it should be included in the review, then a full text version of the paper was retrieved in order to make a further informed judgement. Where the same piece of research was written up as multiple publications, this was grouped and analysed as one. The articles were screened and extracted by two reviewers, with a 10% quality assurance check carried out. All disputes were discussed and resolved.

## **Analysis**

Three stages of analysis were included in this review: descriptive mapping, quality assessment and narrative synthesis.

**Descriptive mapping.** This analysis provides contextual and methodological information to answer the first three questions in the review.

**Quality Assessment.** All included studies were assessed for quality and relevance based on the EPPI Centre's Weight of Evidence (WoE) framework (Gough, 2007). It highlighted those studies of lower quality or relevance where caution should be taken when interpreting the results and those of higher quality or relevance where greater weighting of the results should be applied in the narrative synthesis. The assessment of quality examined whether the studies provided explicit detail of their methods and demonstrated sound internal

methodological coherence relative to the methods used (e.g., interview paper using grounded theory reached saturation, or controlled trials were randomised with a comparison group and a follow up). These assessments were also based on whether the research design and analysis were deemed appropriate for answering the study's research question (e.g., a question to investigate significant relationships or differences should collect numerical data and analyse it quantitatively, whereas a study examining the lived experiences of menopausal women would collect textual data and examine it qualitatively). Lastly, the relevance of the study topic to the review was assessed (e.g., if the study only measured body image as a secondary outcome and did not discuss it in great depth, this was given less weight compared to a study for which the main aim was aligned with the focus of the present review). This section aimed to inform the narrative synthesis.

**Narrative synthesis.** Findings regarding body image and the menopausal transition were extracted from the results sections of the included papers. A narrative approach was used to identify patterns of results and examine potential anomalous findings with the main aim of examining the fourth question in the review.

## **Results**

The searches retrieved 2,786 hits, 260 duplicates were removed, and after title and abstract screening, 80 papers were full text screened (see Appendix A for PRISMA flow diagram). Fifteen pieces of research (from 17 papers as two pieces of research had two publications from the same study) remained and were included in the review analysis (see Appendix B for reference list of included studies)<sup>ii</sup>. The two pieces of research with two publications were: (Ballard, Elston, & Gabe, 2005; 2009) and (Banister, 1999; 2000). In the remainder of this

paper, these pieces of research will be referred to using the most recent publication. The studies have been visually mapped over time and method in Appendix C.

## **Descriptive mapping**

**1. What research exists on the perceptions of women's body image during the menopausal transition over the past 20 years?**

**2. What aspects of body image and the menopausal transition are measured, and in what context?**

All together this review includes an estimated 2697 participants<sup>iii</sup> ranging from 2-933 participants in each study. Five of the papers identified their samples as predominantly white, with the remaining papers not specifying ethnicity. The five articles that identified the sexual orientation of the participants reported that the sample in their research was predominantly heterosexual (Banister, 2000; Brayne, 2011; Dillaway, 2005; Koch et al., 2005; McKinley & Lyon, 2008).

All the studies reported the women's ages, which ranged from 30-68 years old. Overall, ten studies specified the menopausal status of the participants they were investigating, with definitions congruent with the WHO definition (1996). This included all quantitative papers, one mixed methods study (Rubenstein & Foster, 2013) and two qualitative studies (Ballard et al., 2009; Deeks, 2004). Five of these studies included premenopausal women and seven included postmenopausal women to compare body image across menopausal stage, with the remainder stating they were investigating perimenopause and/or the menopausal transition. The study by McKinley and Lyon (2008) only included postmenopausal women in their final analysis as they did not recruit enough participants to

analyse the other menopausal stages using inferential statistics. This study did not measure menopausal symptoms or length of time post menopause (only menopausal attitudes). The group of women investigated may therefore have consisted of a heterogeneous group of women, ranging from those experiencing symptoms not long after a 12 month cessation of their menstruation to those no longer experiencing symptoms years after their menopause. The remainder of the studies in the review were based on self-reported menopausal status and specified that participants should only take part in the research if they felt they were menopausal or experiencing symptoms associated with the menopausal transition. However, it was not clear if a definition was provided to participants for guidance when judging their suitability for the study.

Five studies clarified whether their participants had undergone a surgical, medical or natural menopause. The longitudinal prospective study by McLaren et al. (2003) measured each woman's menstruation status at eight time points and included detail of menopausal stage. Bellerose and Binik (1993) specifically investigated surgical and natural menopause differences. Jafary, Farahbakhsh, Shafiabadi, and Delavar (2011) stated that they excluded surgically and medically-induced menopause. Bloch (2002) excluded those that had undergone a surgical menopause through a BSO. Deeks (2004) gives details of the natural menopausal stage of the two women in the case studies. Two pieces of research stated that they included those who had experienced a hysterectomy (Ballard et al., 2009; Brayne, 2011) but did not explicitly state if they were naturally menopausal before or after the operation, or surgically menopausal as a result of a hysterectomy with BSO.

The studies that included qualitative analyses reported the following body image constructs specifically attributed to the menopausal transition: age-related changes in body appearance; physiological changes in body functioning; changes in physical attractiveness;

body-awareness – women’s perceptions and experience of their own body and looks; embodiment and “body literature” (Stephens, 2001, p. 655).

The studies that included quantitative analyses examined body image by measuring BMI, diet, exercise behaviour, fitness, health, perceived attractiveness/appearance, perceived body shape/figure; overweight preoccupation, body areas satisfaction, body-esteem, appearance-related menopausal attitudes, objectified body consciousness/self-objectification, body surveillance, body shame, and appearance-related ageing anxiety. The key findings as reported by the authors are summarised in Appendix E.

### **3. What is the direction of causation between body image and the menopausal transition (does body image predict menopausal experience, or does the menopausal transition change a woman’s body image)?**

To examine the direction of causation between body image and the menopausal transition, the studies using a hypothetico-deductive approach, numerical data and quantitative analyses were the most appropriate sources of information. These studies (Bellerose & Binik, 1993; Bloch, 2002; Deeks & McCabe, 2001; Jafary et al., 2011; Koch et al., 2005; McKinley & Lyon, 2008; McLaren et al., 2003; Rubenstein & Foster, 2013) have proposed a hypothesis based on their scope of the literature, and tested a specified direction of causation between body image and the menopausal transition.

Some of these studies provided evidence that the menopausal transition, and its associated changes, can impact a woman’s body image (for better, worse, or a combination of both). Two cross-sectional studies found that premenopausal women regarded themselves as more attractive than menopausal women (Deeks & McCabe, 2001; Koch et al., 2005).

However, a prospective study spanning 48 years showed that postmenopausal women felt



more satisfied with their appearance than their younger selves (McLaren et al., 2003). Bellerose and Binik (1993) found that those who experienced the natural menopausal transition were more likely to feel satisfied and comfortable with their bodies and view their bodily change as positive, than those who had experienced a surgically-induced menopause. The women who had a BSO and no hormonal treatment afterwards reported the lowest levels of body satisfaction and comfort, and perceived their bodily change to be the most negative overall when compared to other groups.

Bloch (2002) concluded that it may not only be changes in oestrogen levels that affects symptoms in menopausal women, but also attitudes and self-perception. Those women with higher appearance evaluation, self-esteem and positive attitudes towards the menopausal transition experienced fewer symptoms associated with the menopausal transition. In addition, women with negative attitudes towards the menopausal transition experienced higher levels of self-objectification, body surveillance, body shame and body esteem (Rubenstein & Foster, 2013)<sup>iv</sup>. Body shame also acted as a moderator, with lower levels of body shame strengthening the positive relationship between appearance-related menopausal attitudes and body esteem (McKinley & Lyon, 2008).

Menopausal women with perceptions of greater levels of fitness, body areas satisfaction, self-efficacy and health evaluation felt they had a higher meaning and quality of life, compared to those with low scores. Additionally, the menopausal women who rated themselves as more attractive compared to those who perceived themselves to have low levels of attractiveness, assessed their health status as 'better' and experienced a higher quality of life as an indirect result (Jafary et al., 2011).

## **Quality Assessment**

In a quality assessment of the papers within this review, the highest weighted study was Rubenstein and Foster's (2013) mixed method paper. Their research question was highly relevant and design appropriate to answer our review question. They measured a sample of 270 participants using a range of variables (menopausal attitudes, self-objectification, body surveillance and body shame), adopted a questionnaire and analysed the data using inferential statistics investigating relationships and variance. This was followed by in-depth interviews complementing and delving into the findings based on the questionnaire data. For example, the quantitative data revealed a negative association between positive attitudes towards the menopausal transition and body image concerns. The qualitative portion found that a negative attitude towards the menopausal transition and high levels of concern about body image may be due to women perceiving the relationship between the menopausal transition and ageing as synonymous, and the feeling of being invisible and less sexually attractive. Individually these two methods have merits, but together they can be combined to present a clearer picture by either answering a question in more depth or a broader range of questions.

The paper by Koch et al. (2005) reports a cross-section of a larger longitudinal cohort study with a mixture of numerical and textual data. It collects numerical and textual data through a questionnaire method, and analyses the closed questions using inferential statistics and the open questions using content analysis. Thus the answers to the open questions are presented as both numerical and textual to complement the findings from the closed questions. This method allowed the researchers to answer a wider range of questions and provide a deeper contextual element to their findings.

The papers that only used numerical data and quantitative analyses included in the review were of moderate to high methodological rigour<sup>v</sup>. Validity and reliability were usually both reported in the method section and reflected upon in the discussion. The highest rated

paper was the McLaren et al. (2003) prospective 48 year-long study combining objective measures of BMI with subjective measures of body satisfaction over the lifespan and menses-oriented life transitions. The paper by Jafary et al. (2011) was detailed and explicit with the design well matched to their study questions. The study focus was assessed as highly relevant to this review. It examined body image (body areas satisfaction, health evaluation, fitness evaluation and appearance evaluation) and its predicted impact on quality of life within a sample of menopausal women.

Overall, the numerical/quantitative research included more explicit detail regarding sample, method and definitions of key terms being investigated than the textual/qualitative research. As the book by Brayne (2011) was not a peer-reviewed journal article, it was assessed as the lowest weight of evidence. The research was not explicit or sufficiently detailed to be replicated (e.g., number of participants was unknown, and data collection and analysis was not systematic) and therefore findings were more likely to be biased. However, all of the textual/qualitative studies included in the review were of high relevance and provided valuable information, especially in regard to understanding mechanisms. They examined the meaning and complexities that explain patterns and anomalies. While quantitative investigation can be rigorous, it is less suitable when carrying out exploratory investigations into a complex topic where researchers have minimal information to form hypotheses for interventions.

## **Narrative synthesis**

### **4. What are women's experiences of the menopausal transition in relation to body image?**

There were two main outcome themes identified from the 15 studies in this review. The first related to the finding that women often simultaneously interpret their experiences as both positive and negative. The second theme related to the confusion regarding the changing body and the menopausal transition, which often arose as a result of contradicting information supplied by peers and health care professionals. The mixed messages between information supplied by professionals and expectations placed on them by society created a feeling of role ambivalence (e.g., no longer being a potential child bearer and the loss of sexual and feminine stereotypes that accompany that).

**The double-edged sword.** As discussed in the introduction, the experience of body image across the menopausal transition has shown equivocal results in the quantitative research in previous reviews. By examining the broader literature in this review, it became clear that the relationship is complex. The experience of the menopausal transition was simultaneously interpreted by the women as both positive and negative, and was viewed as heavily related to a woman's experience of bodily changes and how she managed them (Brayne, 2011; Deeks, 2004; Dillaway, 2005; Hvas, 2006; Rubenstein & Foster, 2013). For example, the cessation of menstruation was often interpreted as liberating because of the freedom from bodily functions associated with reproduction, and therefore, from the worry about the use of contraception or tampons (Hvas, 2006; Stephens, 2001). Yet, at the same time, the loss of child bearing ability was sometimes mourned (Ballard et al., 2009; Banister, 2000; Bloch, 2002; Rubenstein & Foster, 2013). To some women, the menopausal transition was associated with a feeling of the loss of social function with regard to child bearing capability. This loss could be perceived negatively by women, who often felt concerned about reduced sex appeal and sex drive, and / or conversely perceived positively with women celebrating sexual liberation and freedom of bodily responsibility (Brayne, 2011; Deeks &

McCabe, 2001; Koch et al., 2005; Rubenstein & Foster, 2013). This dualism of experience predominantly arose as a theme in the textual/qualitative research as it allowed participants to reflect upon and explain a larger complexity of meaning to bodily changes during the menopausal transition.

Body image changes are important to consider at this time in a woman's life, as they can often be perceived as the negative changes that taints a generally positive transition for some women (Dillaway, 2005; Hvas, 2006). This is because it concerns changes to both visceral body function and external visible features, which can affect a woman's feeling of control over her body and her concerns regarding the presentation of herself to others (Ballard et al., 2009; Stephens, 2001). Menopausal symptoms were often viewed as inconveniences creating a sense of feeling less well (Rubenstein & Foster, 2013), which was an experiential dimension that affected a woman's wellbeing and sense of self-worth (Stephens, 2001). Stephens's (2001) highlighted that this loss of control and wellness relates to the philosopher Leder's (1990) concepts of dysfunction and 'dysappearance', when one's sense of the visceral body is only heightened when it is not functioning normally. These bodily changes and menopausal symptoms can act as a barrier to fitness and health by reducing feelings of vitality (Deeks & McCabe, 2001). It also affects feelings of attractiveness, body satisfaction, and the quality of sexual relations. A woman may feel less confident that she will achieve the "body criteria" expected of her by society, which in turn results in lowered self-efficacy "in a feminine role" (Jafary et al., 2011, p635). This combination of consequences can negatively impact a woman's quality of life (Deeks & McCabe, 2001; Jafary et al., 2011; Koch et al., 2005).

There is evidence to suggest that a woman's interpretation of her menopausal experiences relates to her attitude towards the menopausal transition and body image. For

example, a woman with a negative attitude might think that physical changes she perceives to be negative, like weight gain, are likely to happen and are out of her control, and that in turn these changes make her less sexually desirable (McKinley & Lyon, 2008). A negative attitude towards the menopausal transition is associated with higher body dissatisfaction, self-objectification, appearance-related ageing anxiety, and lower perceived attractiveness during the menopausal transition (Banister, 2000; Bloch, 2002; Koch et al., 2005; McKinley & Lyon, 2008; Rubenstein & Foster, 2013).

Self-presentation concerns regarding appearance were often higher in employed and heterosexual women (Brayne, 2011; Dillaway, 2005; Hvas, 2006; Stephens, 2001). They felt that men judged them on their appearance, and that other women engaged in social comparisons with regard to appearance (Rubenstein & Foster, 2013). Women reported feeling worried about job security and were irritated as they felt they were not valued as highly for their knowledge and experience as they ought to be. At the same time, they were concerned that the bodily changes, such as more aches and pain, and less ‘strength’ (p249)<sup>vi</sup>, were not letting them live up to their work demands (Hvas, 2006). This was found to be less of an issue in work environments where self-worth was judged on knowledge, achievement and experience, such as academia, rather than on appearance (Brayne, 2011).

Despite all of these changes and new experiences to understand and address, there were women who reported feeling positive, in control of their bodies and well (Bellerose & Binik, 1993; Hvas, 2006; Stephens, 2001). Even though premenopausal women had more positive perceptions of attractiveness than those going through the menopausal transition and body dissatisfaction remains stable throughout the lifespan (McLaren et al., 2003), menopausal women were more likely to accept and be happy with a slightly larger figure, with one third still evaluating their bodies as sexually appealing (Deeks & McCabe, 2001).

More importantly, women experience fewer menopausal symptoms when they have greater positive perceptions of attractiveness and appearance satisfaction (Bloch, 2002). Adjusting to the menopausal transition and construing the transition as a natural life event was accompanied by a newfound confidence to embark on the next stage of life and the freedom to focus on women's own needs as opposed to those of their families (Brayne, 2011; Hvas, 2006; Rubenstein & Foster, 2013; Stephens, 2001). It is useful to learn about the nuances of the women's positive interpretations in body image during the menopausal transition. This information enables researchers, health practitioners and policy makers to gain further insight to help support women to cope, not only with their symptoms, but with the bodily changes and associated feelings that arise.

**The menopausal transition paradox.** There were many contradictions and much confusion about the menopausal transition, with many of the reviewed papers discussing the conflicting theory surrounding this transition and how best to cope with the bodily changes and symptoms (for examples of discussions on the biomedical and feminist literature, please see Ballard et al., 2009; Banister, 2000; Brayne, 2011; Dillaway, 2005; Hvas, 2006; Koch et al., 2005; Rubenstein & Foster, 2013; Stephens, 2001). The biomedical view portrays the menopausal transition negatively as a disease that can be treated. Therefore medical professionals are viewed as searching for a cure to fix a woman's hormone deficient body, for example through Hormone Replacement Therapy (HRT). Feminist literature argues that the menopausal transition does not have to be negative, and questions the social connotations of the menopausal transition and the perception of menopausal women as deviants from the socially accepted young sexual objects. This deviant, deficient and ageing view of the menopausal body has potential implications for how a woman perceives the menopausal transition and its impact on her body image.

Women receive a mixture of modern and out-of-date information and expectations about their bodies from health care professionals, peers and family (Bellerose & Binik, 1993; Brayne, 2011; Rubenstein & Foster, 2013). In addition, these are often a confusing mixture of viewpoints about the body presented as facts. A woman's uninformed treatment choices have the potential to do them and their bodies serious harm and make them feel like they are not in control of their bodies (Brayne, 2011). Women often expressed difficulty in voicing their experiences and lack of control of their body choices as they lacked a vocabulary to explain their transition, bodily changes and management (Banister, 2000). This not only undermines their trust in the medical profession advising them, but encourages them to try and regain a feeling of control of their bodies by turning to alternative or complementary solutions that are often not grounded in evidence (Brayne, 2011; Rubenstein & Foster, 2013).

The simultaneously positive and negative experiences mentioned in the previous theme have also caused confusion. Women sensed an ambiguity between the experience of changes in body function, appearance and their self-presentation. They were now experiencing a double jeopardy of ageism and sexism, and balancing this incongruence was sometimes difficult to manage (Koch et al., 2005). The menopause represents a new life transition linked with ageing, particularly due to the higher risk from age-associated diseases, such as osteoporosis (Deeks & McCabe, 2001). Many women discussed reassessing their roles in society and their identities, as the 'me' that had always existed inside the body was becoming inconsistent with their changing visible bodies, influencing the impressions that others made about them (Hvas, 2006).

A 'double consciousness' was reported (Banister, 2000) between information received and societal expectations. On the one hand the menopausal women wanted to accept ageing, be carefree and experience a better quality of life. On the other hand they did not want to feel



undesirable, invisible or less socially influential. They wanted to gain attention and approval from others by remaining young and attractive (Banister, 2000; Brayne, 2011; Dillaway, 2005; Rubenstein & Foster, 2013; Stephens, 2001). Those who reported high levels of self-objectification felt negatively about both their attractiveness and value in society, taking longer to adjust to the menopausal transition. They had the greatest difficulty in no longer being the centre of attention because of changes in appearance, with some even seeking attention through other methods such as hypochondria (Rubenstein & Foster, 2013).

## **Discussion**

This paper reviews the literature over the last 20 years examining the menopausal transition and body image. Overall, this research topic is at its relative infancy, and has thus far explored potential relationships and reasons for these relationships. The findings in this review have emphasised the complex role of body image and body image concerns during the menopausal transition. Importantly, the dearth of answers highlights gaps in knowledge, provides rationales for future research and guides practice and policy towards the next steps.

The mix of methods included in this review provides a vital overview, and highlights their complementary nature (Hagger, 2009; 2010). An excellent example of this is the attempt to linearly measure if a person's perceptions of the menopausal transition and their body image are either positive OR negative, when this research clearly highlights that responses to a change or situation are complex. The women included in the studies in this review emphasised multiple reactions to the menopausal transition and the associated bodily changes. The bodily transition was perceived as both positive and negative simultaneously, and as a result confusing to the individual trying to manage the changes. This cannot always be discovered or further understood from the crude quantitative Likert-scaled continuum

usually asked of participants<sup>vii</sup> and may result in equivocal findings in the literature (corroborating with the conclusions in Deeks' (2003) review). This provides information on how to increase the validity of scales measuring aspects of the menopausal transition and bodily change, and actually examines the complexity of how women feel. It is recommended that a scale is developed to measure these intricate evolutions. This should allow for the possibility of a multiple range of both positive and negative feelings in response to each bodily change, with individual coping solutions. The use of the resulting measure should aim to help improve menopausal women's quality of life.

It is encouraging that women experiencing less menopausal symptoms and who have more positive body image perceptions tend to report a high quality of life (Jafary et al., 2011). However, it is still unclear how this can be achieved and how women can best manage the changes. Evidence demonstrates the importance of the subjective experience of the menopausal transition and its associated symptoms. For example, menopausal attitudes do not only influence perceived symptoms (Ayers et al., 2010), but also perceptions of body image. This suggests that subjective experience is a stronger predictor than the previously predicted impact of physical changes (e.g., weight gain and body shape change) on symptoms experienced, coping ability and self-presentation concerns (Bloch, 2002). Individuals with different attitudes and cultural backgrounds experience the menopausal transition differently, so there is ambiguity as to whether the same 'solutions' to the menopausal 'problem' will work for all women, or whether individualised support is more appropriate (Jafary et al., 2011; McKinley & Lyon, 2008).

## **Implications**

This systematic scoping review pulls together the findings of the heterogeneous research examining the menopausal transition and body image in the last 20 years. The remainder of the discussion focuses on the conclusions made by the papers in the review regarding the implications for policy, practice and research. Not all of the papers discussed each type of implication and so we encourage readers to be cautious (see Appendix F for detailed list).

**Implications for policy.** Research on the menopausal transition and body image has the potential to ‘plant seeds of political correctness and action among women’ (Banister, 2000, p. 760). The menopausal transition was often reported to be a taboo subject<sup>viii</sup> engulfed in stigma that often makes talking about it uncomfortable and women feel that their transitioning bodies are not accepted in society with confusing outcomes for their body image. Consequently, knowledge and understanding of the transition can be lost to the detriment of women’s support and education to best cope with the symptoms and body image changes during this time. This results in the isolation and confusion of the stigmatized group potentially creating an increase in self-presentation concerns. The implications for policy in this case are therefore not just directed at policy makers, but urging women to become more politically active. Women need to challenge health care decision makers and structures that affect the quality of life in women and society, such as the media, medical profession, researchers and social support focusing on women’s health. It is important for women to strive for further research, and better education and support over the menopausal transition to take better control over their bodies and their lives during this time.

**Implications for practice.** As with policy implications, the recommendations for practice were largely based around the provision and quality of education and support. Currently women receive inconsistent and confusing messages often by deleterious fads lacking research fuelled by the media. Evidence-based information and provision is needed to

help women self-manage their transition and to understand that culture, attitudes, lifestyle and body image can influence quality of life. This in turn, should encourage women to feel empowered and autonomous over the decisions about their bodies and lives, and increase their wellbeing and feeling of worth in society.

It would be beneficial if health practitioners implemented programmes that provided evidence-based information to familiarise menopausal women and their partners with the physical, psychological and social aspects associated with the menopausal transition. Support groups and regular meetings with higher quality educational (not just biomedically-focused) provision can supply valuable social support. Encouraging dialogue with others experiencing the transition can create a feeling of attachment and belonging, reduce feelings of isolation, and help women to improve their attitudes towards the menopausal transition and their bodies. A fuller understanding of how to accept and cope with bodily changes can increase a woman's feeling of control and confidence over her body, and potentially reduce self-objectification and self-presentation concerns. This, in turn, should decrease appearance-contingent self-worth, but improve overall feelings of worth and quality of life.

Health practitioners can engage women to articulate personal meanings of the menopausal transition, critically reflect, and create new positive directions in their lives. This should facilitate consciousness raising to encourage a positive attitude towards a woman's body and ageing women in our society. Practitioners need to treat women as the experts of their own experience. They need to encourage them to be more active in their own health through self-management in order to feel more competent and autonomous about their body. Often women reported that medical professionals made sweeping judgements based on their stage of life. Many symptoms can be explained away by the menopausal transition, which can lead to shallow investigation and misdiagnosis of conditions. Healthcare professionals should

not assume that a menopausal woman will suffer symptoms from a hormonally-deficient body that needs to be treated, but instead provide individualised information, examination and choice that is sensitive to a woman's body image concerns. It is important to avoid unnecessary negative expectations and discussion of undetermined future risk, and instead focus on a current agenda of coping with real-life problems and experienced bodily changes (both gains and losses).

**Implications for research.** As a result of this exploratory-based research, it is now evident that there is a necessity for well-designed studies, such as longitudinal; cohort; diary; life history; mixed methods; and prospective investigations. It is important that future articles provide a background to the cultural and societal views to which the research relates. Future articles should also include explicit information about the sample regarding ethnicity, sexual orientation, menopausal and hormonal status. Currently, the majority of research investigates heterosexual white educated women. There is therefore still a need to examine the body image experiences of those whose self-objectification may not be heightened by the judgement of a male partner; those from other cultures with different societal norms and attitudes; those who have and have not had children; and those of differing education levels, employment types, social economic status and relationship status. Additionally, there is a paucity of research investigating the menopausal transition at different ages as this may have important implications on a woman's body image and perceptions of life disruption.

It is also recommended that more studies measure menopausal symptoms, as well as status and attitudes, in relation to body image. Further research needs to consider the extent to which body consciousness actually affects symptoms, and to examine the influence of symptoms on vitality, and its impact on wellbeing and health behaviour. There is also equivocal research regarding the influence that hormonal change has on the menopausal

experience, creating a need for a prospective study investigating body image perceptions before and after a hysterectomy with and without oophorectomy. This review highlights the dearth in qualitative research examining the surgically- and medically-induced menopause and body image.

Presently, there are a range of body image variables being measured in the studies. Some are negatively focused and therefore have bias limitations. For example, body dissatisfaction focuses on how unhappy a person is with their body, rather than both how positive and negative a person feels about their body. The employment of this questionnaire assumes a negative association with body image and asks the participant to focus only on negative aspects, skewing the overall findings about how the person feels about their body. Others lack detail defining how these variables fit into the larger concept of body image. There is the big question as to whether body image is a predictor or outcome of menopausal symptoms, or whether it is a symptom itself. This incongruence creates difficulty when comparing research findings. Vivally, there is no research to date examining how concerns regarding body image changes during the menopausal transition affect behaviours, and the methods women use that are most effective in reducing those concerns. The question of if, and then how, daily fluctuations in symptoms affect body image also remains to be addressed. This information can inform intervention design, support groups and educational materials aimed at encouraging adaptive coping with bodily changes that occur during the menopausal transition.

## **Conclusion**

This review examines the literature that investigates the menopausal transition and body image over the last 20 years. This is a growing field of research currently consisting of

exploratory-based studies that highlight the complex and individual nature of the menopausal transition and the intertwined relationship with body image. More research is needed to explore the potential direction of causation and reciprocity between these two factors. Future research should also address the multifaceted nature of perceptions regarding bodily changes during the menopausal transition as attributed meanings may be both positive and negative simultaneously, which impacts a researchers means of measuring this perceptual aspect. It is clear that the menopausal transition can be a period of ambiguity for a woman, and it is important to develop methods of intervention and implementation in practice (Wallace, Brown & Hilton, 2013) to support adaptive coping and self-management across this transition.

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<sup>i</sup> A hysterectomy without BSO does not result in a surgical menopause.

<sup>ii</sup> Two full texts could not be found and so for the purpose of explicitness were marked as potentially relevant to this review (Calandra, 2001; Donaldson, 1995).

<sup>iii</sup>  $n \approx 2695$ , which includes a definite 2625 participants from articles plus 'at least 70' from Brayne's book (2011). The exact number could not be confirmed when the review team contacted the author.

<sup>iv</sup> A systematic review (Ayers et al., 2010) has also provided evidence that women with negative attitudes towards the menopause suffer more menopausal symptoms. However, this was not included in this review paper as it was not a primary empirical study and did not examine body image.

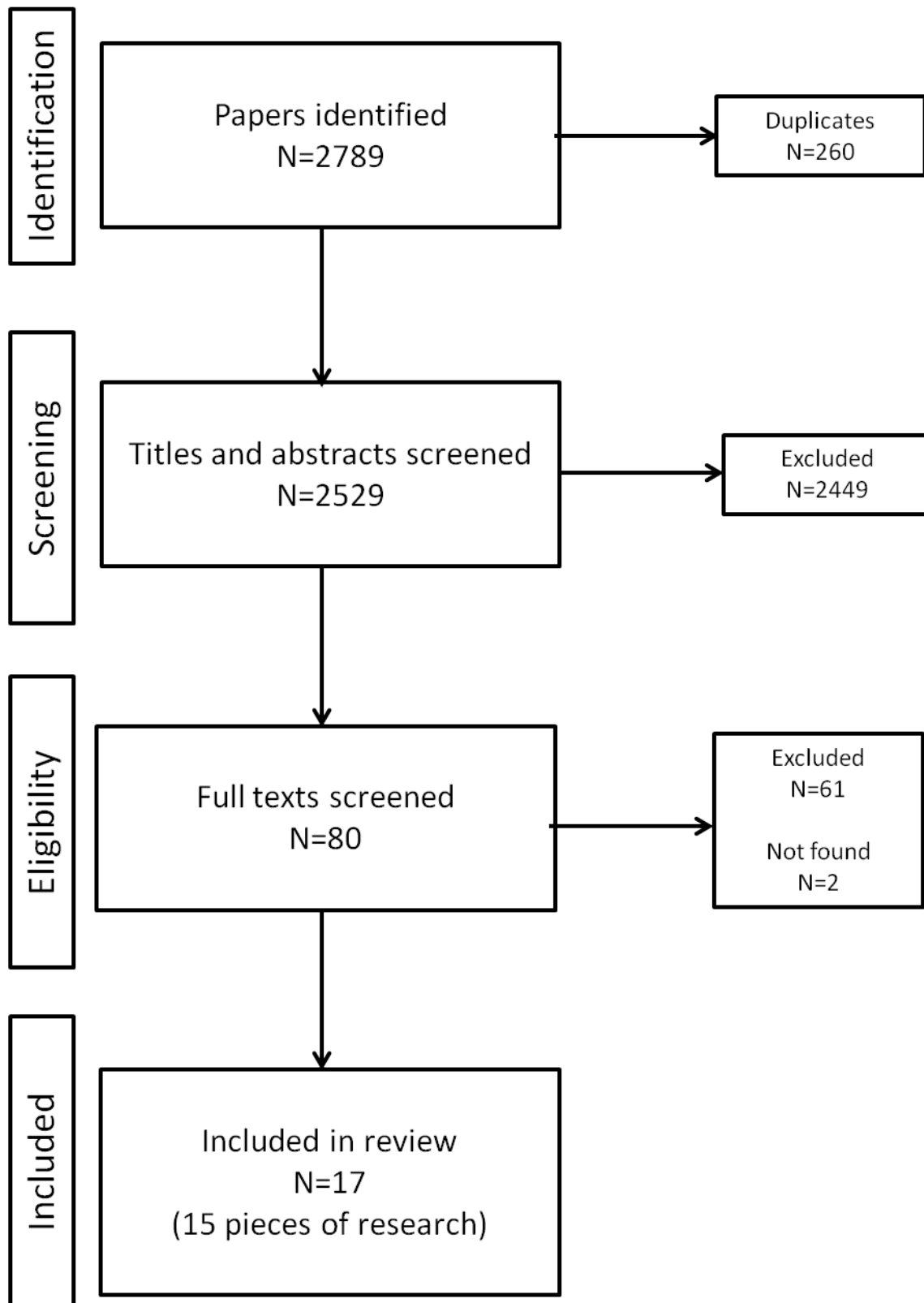
<sup>v</sup> This judgement was made relative to the questionnaire-based studies being examined. Other studies, such as high quality randomised control trials, would be judged with higher methodological rigour but none have been carried out on menopause and body image and therefore not in this review.

<sup>vi</sup> It is not clear here what the participant who quoted this means by strength (e.g., physical, psychological, emotional or a mixture).

<sup>vii</sup> However, we do acknowledge the usefulness of these types of measures to answer other research questions.

<sup>viii</sup> As one example, the menopausal transition is referred to as the M-word in Brayne's book (2011).

**Appendix A: PRISMA flow diagram** (Moher, Liberati, Tetzlaff, Altman, & The PRISMA Group, 2009)

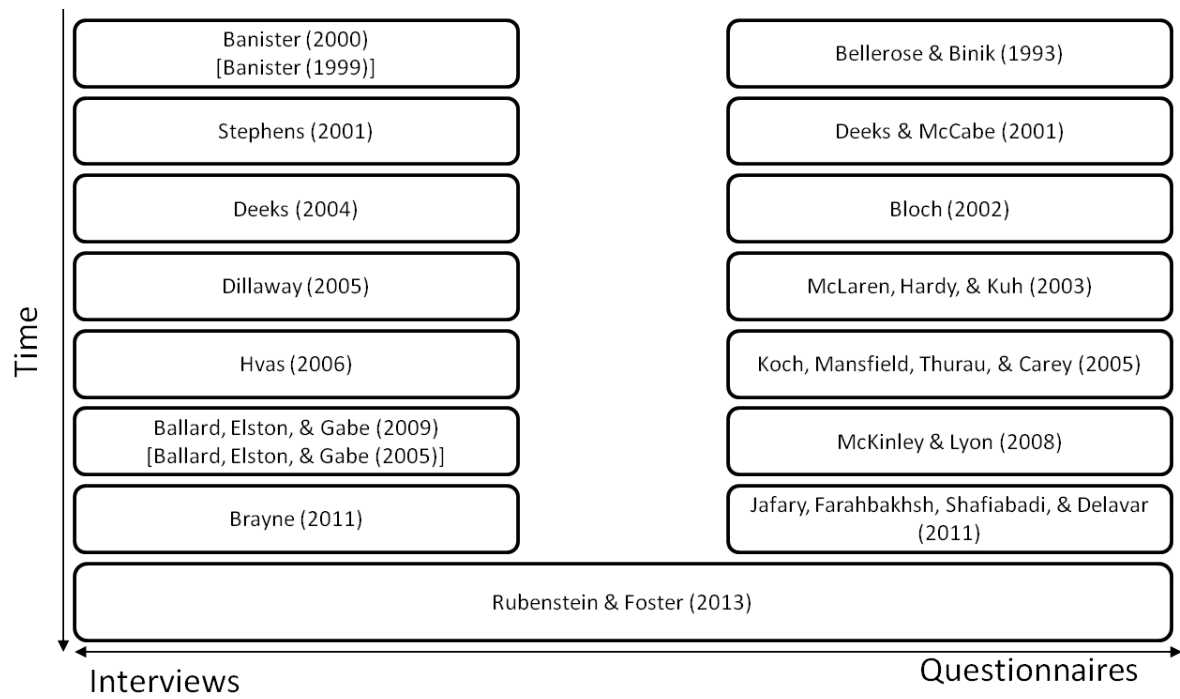


## **Appendix B: List of included studies**

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### Appendix C: Visual map showing studies over time and method



**Appendix D: Included studies in the review in chronological order**

<b>Title</b>	<b>Author(s)</b>	<b>Year</b>	<b>Source</b>	<b>Country</b>	<b>Design</b>	<b>Sample</b>
Body image and sexuality in oophorectomized women.	Bellerose & Binik	1993	Archives of Sexual Behaviour	Canada	First stage was structured closed interview/questionnaire. Second stage was a photoplethysmograph measuring vaginal blood flow and monitoring of subjective arousal.	Stage 1: 129 Stage 2: 58.
Women's midlife confusion: "Why am I feeling this way?" [Women's midlife experience of their changing bodies.]	Banister	2000 [1999]	Issues in Mental Health Nursing [Qualitative Health Research]	USA	Ethnographic study, two individual interview each plus focus group interviews. Doctoral research.	11
Menopausal stage and age and perceptions of body image.	Deeks & McCabe	2001	Psychology and Health	Australia	Structured questionnaire	304
Women's experience at the time of menopause: Accounting for biological, cultural and psychological embodiment.	Stephens	2001	Journal of Health Psychology	New Zealand	Focus group discussions (n=48) and individual interviews (n=32).	80
Self-awareness during the menopause.	Bloch	2002	Maturitas	Austria	Numerical measures for difference and association tests.	51
Women's body satisfaction at midlife and lifetime body size: A prospective study.	McLaren, Hardy, & Kuh	2003	Health Psychology	UK	Repeated measures prospective study across the women's lifespan.	933
Is this menopause? Women in midlife-	Deeks	2004	Australian family	Australia	Case studies	2



psychosocial issues.			physician			
(Un)changing menopausal bodies: How women think and act in the face of a reproductive transition and gendered beauty ideals.	Dillaway	2005	Sex Roles	USA	Focus group interviews (n=8) and then individual interviews (n=53).	61
"Feeling frumpy": The relationships between body image and sexual response changes in midlife women.	Koch, Mansfield, Thureau, & Carey	2005	The Journal of Sex Research	USA	Questionnaire with closed and open questions.	307
Menopausal women's positive experience of growing older.	Hvas	2006	Maturitas	Denmark	Individual interviews	24
Menopausal attitudes, objectified body consciousness, ageing anxiety, and body esteem: European American women's body experiences in midlife.	McKinley & Lyon	2008	Body Image	USA	Numerical questionnaire	74
Private and public ageing in the UK: The transition through the menopause.		2009	Current Sociology			
[Beyond the mask: women's experiences of public and private ageing during midlife and their use of age-resisting activities.]	Ballard, Elston, & Gabe	[2005]	[Health: An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine]	UK	Individual interviews	32
Quality of life and menopause: developing a theoretical model based on meaning in life, self-efficacy beliefs and body image.	Jafary, Farahbakhsh, Shafiabadi, & Delavar	2011	Ageing and Mental Health	Iran	Numerical questionnaire	349
Sex, meaning and the menopause: a book for men and women.	Brayne	2011	Book: London, Continuum International	UK	Range of interview methods for book	more than 70

Publishing Group

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'I don't know whether it is to do with age or to do with hormones and whether it is do with a stage in your life': making sense of menopause and the body.	Rubenstein & Foster	2013	Journal of Health Psychology	UK	Mixed methods, first stage was online questionnaire and second stage was interviews	Stage 1: 270 Stage 2: 12
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**Appendix E: The key findings of the included research (directly copied as written)**

<b>Author(s)</b>	<b>Key findings</b>
Bellerose & Binik	Overall, the 'untreated group' (UNT) and 'estrogen replacement therapy group' (EST) had significantly lower self-reported desire and arousal than the remaining three groups. Body image was significantly poorer in the UNT. All surgical groups reported more sexual problems than the 'control group' (CTL). Furthermore, about a third of the CTL reported positive changes in body image and sexuality in the previous 5 years. This effect was attenuated in the 'hysterectomy-only group' (HST), 'androgen-estrogen replacement therapy group' (COM), and EST and almost absent in the UNT. No significant group differences were obtained, however, on mood or vaginal blood flow and subjective arousal to an erotic stimulus.
Banister	In an ethnographic study of women's midlife experience of their changing bodies, 11 participants voiced their uncertainty and confusion around bodily changes, responses exacerbated by the lack of consistent health-related information in this area. This confusion emerged as one of the major thematic elements of the study. Midlife women's experience of confusion may reflect a much broader problem, the locus of which is not so much in the women themselves, but rather in negative societal attitudes about aging women.
Deeks & McCabe	The aim of this study was to investigate the association between menopausal stage and age and women's perception of their body image. The effects of age and menopausal stage could not be separated in rulings of appearance evaluation, fitness evaluation, current, ideal and societal ratings of the Stunkard Body Shape Figure Scale. Premenopausal women (who were likely to be younger) had more positive ratings of appearance evaluation and fitness evaluation than menopausal women (who were likely to be older). Women who were premenopausal nominated smaller figures from the Stunkard Body Shape Figure Scale for ratings of the current, ideal and societal body shape than women who were perimenopausal and postmenopausal.
Stephens	This paper presents arguments for the consideration of an integrated approach to embodiment and, drawing upon recent theorizing, a conceptual framework that is able to take into account the integration of psyche, biology, and culture. The accounts of 80 New Zealand women, aged between 45 and 60, are analysed, using categories labelled, 'visceral', 'experiential', 'normative' and 'pragmatic', to provide a description of women's embodied and culturally embedded experience of menopause.
Bloch	The aim of the study was to test the hypothesis that body-image and self-esteem are major contributors to the severity of menopausal symptoms, and furthermore to measure the influence of hormonal therapy and postmenopausal oestrogen level on specific complaints such as vasomotor symptoms. It turned out, that their

attitude towards menopause was of major influence on the degree of specific symptoms (e.g. depression, misery, headache etc.)—women who had a negative attitude towards the menopause suffered much more from such symptoms than women who had a positive one. Moreover, women who were satisfied with their physical appearance experienced fewer troublesome symptoms. There was a significant association between high self-esteem and fewer menopausal symptoms. The higher the self-esteem, the lower the symptoms. Women with a postmenopausal oestrogen level did not experience more menopausal symptoms than women with an average oestrogen level. Moreover, the symptoms were neither fewer nor more whether the women had undergone a hysterectomy or not whether they got hormonal treatment or not. That refutes the hypothesis, that the decrease of the oestrogen level during menopause is the main reason for the accompanying complaints.

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McLaren, Hardy, & Kuh

Women who were dissatisfied at midlife were heavier at age 7 and showed a more rapid increase in body mass index with age. A late menarche, being postmenopausal, and having started hormone replacement therapy before menopause were associated with less dissatisfaction.

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Deeks

This article describes the many psychosocial factors that influence the experience of menopause including midlife issues, role and purpose in life, interpersonal relationships, libido, personality, psychological history and present psychological functioning, body image and sociocultural issues. Case studies are included to illustrate the importance of including psychosocial factors in the assessment and treatment of the menopausal woman. Any assessment of the menopause experience should include psychosocial influences and the context of women's lives. In a consultation where both the physical and psychosocial issues are explored, we come closer to addressing the true needs of each patient.

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Dillaway

Results from interviews with a snowball sample of 61 women in 2001 illustrate how a change discourse on menopause and gendered beauty ideals combine to create a context within which some women believe that changes in their physical appearances can be attributed to menopause and that bodily change is problematic. In addition, during focus groups and in-depth interviews, women suggested that, in the face of these discourses or ideologies and changing external bodies, they face a "category crisis." Interviewees also discussed how they attempt to prevent/mask bodily change in order to remain attractive, visibly feminine, and desirable in the eyes of men. Findings from this qualitative study illustrate that we must continue to explore women's perceptions and experiences of bodily change during menopause, as we lack a full understanding of this developmental transition and its biosocial contexts.

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Koch, Mansfield, Thurau,  
& Carey

**This study investigated the relationships between self-rated attractiveness and self-reported sexual response changes (over the past decade) and current sexual satisfaction. Results indicated that regardless of the woman's specific age, she**

**was more likely to consider herself more attractive when she was 10 years younger, and her self-perceived attractiveness did not significantly differ based on her menopausal status. The more a woman perceived herself as less attractive than before, the more likely she was to report a decline in sexual desire or frequency of sexual activity. The more she perceived herself as attractive, the more likely she was to experience an increase in sexual desire, orgasm, enjoyment, or frequency of sexual activity. There were no significant statistical relationships between a woman's perception of her own attractiveness as she aged and her current sexual satisfaction.**

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Hvas

This paper aims to describe menopausal women's positive experience of growing older and becoming middle-aged. The women expressed varied and many-faceted views on ageing and clearly connected the fact that they were menopausal to the ageing process. All, except one, mentioned positive aspects of growing older: 1. they had become more experienced and competent; 2. they had gained more freedom; 3. they perceived possibilities of personal development that made them able to hold on to their own opinions and better speak their minds. The described positive effects were the result of having lived a long life, of good and evil, not of the menopause itself. The women also mentioned negative aspects: 1. negative expectations; 2. negative experiences. Positive aspects, often of psychological or existential nature, seemed to outweigh the negative experiences which were mostly related to bodily changes or losses. This paper discusses the importance of avoiding unnecessary negative expectations of ageing and menopause and of focusing, instead, on the positive aspects of growing older. Health professionals should reconsider the necessity to talk about future risks with healthy women, and instead support the women's agenda when they try to cope with real-life problems.

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McKinley & Lyon

Hypotheses based on the connections between cultural constructions of femininity and menopause were partially supported. Menopausal attitudes and appearance-related aging anxiety were related to body surveillance. Appearance-related menopausal attitudes were related to both body surveillance and body esteem. Body shame moderated the relationship between appearance-related menopausal attitudes and body esteem.

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Ballard, Elston, & Gabe

The authors draw on their previous findings of private and public ageing and show how British women experience both 'public', visible age-related changes in body appearance and 'private', invisible age-related physiological body changes that they attribute to the menopause. Within private ageing, women report the changes in ovarian physiology as altering their reproductive status, and they thus experience the emergence of a new identity.

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Jafary, Farahbakhsh,  
Shafiabadi, & Delavar

Results showed that there is a significant direct relationship between quality of life and meaning in life, self-efficacy, body areas satisfaction, and health evaluation. In addition, the model predicted 33% of quality of life variance in menopausal women. The best predictors were body area satisfaction, health evaluation, and self-efficacy. Step-by-step regression analysis confirmed the results. Based on our results, there is a direct and meaningful relationship

between the independent variables of this study and the quality of life. Therefore, in order to improve the quality of life in menopausal women, one or all of these variables needs to be improved.

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Brayne

This is about the lived, felt experience of what it means to reach the menopause in today's highly-sexualised society, how it affect relationships and alters lives. It tackles taboos around sexual changes, looks at the grief of saying goodbye to youth and fertility, explores the deeper spiritual significance of the ageing process, provides a different perspective on medical treatments and alternative approaches, and hears from men about what it's like to live with a menopausal woman.

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Rubenstein & Foster

There was a positive association between rating highly on body dissatisfaction scales and holding negative attitudes towards menopause. Interviews were conducted to investigate this further. Menopause was inextricably linked with aging for these women, and changing appearance was a particular concern for women who rated high on self-objectification.

## Appendix F: List of papers that discussed each implication

<b>Implications</b>	<b>Papers that discussed these implications</b>
<b>Policy (n=4)</b>	Bannister, 2000; Brayne, 2011; Jafary et al., 2011; Koch et al., 2005.
<b>Practice (n=6)</b>	Bannister, 2000; Brayne, 2011; Hvas, 2006; Jafary et al., 2011; Koch et al., 2005; Stephens, 2001.
<b>Research (n=12)</b>	Ballard et al., 2009; Bannister, 2000; Bellerose & Binik, 1993; Bloch, 2002; Brayne, 2011; Deeks & McCabe, 2001; Dillaway, 2005; Jafary et al., 2011; Koch et al., 2005; McLaren et al., 2003; Rubenstein & Foster, 2013; Stephens, 2001.