

**Cultural Differences in Menopausal Attitudes and Associated Mental Health Outcomes
of Women in Menopause: A Systematic Review**

Marie Depenau

Department of Psychology, Health and Technology, University of Twente

Master Thesis Positive Clinical Psychology & Technology

1st supervisor: Dr. Marijke Schotanus-Dijkstra

2nd supervisor: Dr. Tessa Dekkers

January 24, 2024

Abstract

Background: Different cultures are likely to foster different attitudes about menopause which forms a menopausal stereotype that influences the way women experience menopause. This review aims to synthesise the evidence about cultural differences in menopausal attitudes and their association with mental illness and mental well-being among perimenopausal women.

Method: A systematic literature review was conducted. Relevant studies were identified using Scopus, Web of Science and PsycINFO. In total, 706 records were screened by title and abstract. After applying the eligibility criteria, 18 articles were included in the current review.

Results: The included studies revealed five themes regarding positive menopausal attitudes and four themes regarding negative menopausal attitudes. Negative menopausal attitudes were associated with increased menopausal depression, increased symptoms of anxiety, and disordered eating. Positive menopausal attitudes were associated with higher body esteem but showed an unclear or no association with depression and anxiety, respectively. No association was found between menopausal attitudes and mental well-being. The association between negative menopausal attitudes and increased menopausal depression was evident in both individualistic and collectivistic cultures. The association between negative menopausal attitudes and increased anxiety was more prominent in collectivistic cultures whereas the association between negative menopausal attitudes and disordered eating was reported in only one individualistic culture.

Conclusion: Most menopausal attitudes were shared among individualistic and collectivistic cultures, indicating no substantial influence of culture on menopausal attitudes. The lack of research about menopausal attitudes and mental well-being limits a comprehensive understanding of women's mental health which indicates a need for future research.

Keywords: menopause, attitudes, culture, perimenopausal women, depression, anxiety, disordered eating, mental well-being

Introduction

Menopause is a natural occurrence every woman goes through. Menopause can be defined as a period of a woman's life when going 12 consecutive months without having a menstrual period and thus indicates the end of the female reproductive years. Menopause is caused by the loss of ovarian follicular function, meaning that the ovaries stop releasing eggs for fertilisation and that the level of the female hormone oestrogen changes as a consequence (World Health Organization (WHO), 2022). The transition to menopause begins several years before the complete year without menstruation (Dalal & Agarwal, 2015). The term perimenopause refers to the menopause transition which begins when the first menopausal symptoms occur (Dalal & Agarwal, 2015; Santoro, 2016). This can happen eight to ten years before menopause when the ovaries gradually decrease their oestrogen production. Perimenopause ends one year after the last menstruation, therefore including menopause (Santoro, 2016). Menopause is a natural part of ageing that the majority of women worldwide experience between the ages of 45 to 55, with an average age of 51 (Namazi et al., 2019). Due to the increasing life expectancy, it is expected that by 2030, the global population will include 1.2 billion women in menopause, with about 47 million women entering menopause each year (Hill, 1996; Namazi et al., 2019).

However, women's reproductive health is greatly affected by menopause. The hormonal changes associated with menopausal symptoms include physical, psychological, and sexual problems, as well as vasomotor symptoms, such as hot flashes or night sweats. Hot flashes describe the feeling of heat in the face and upper body which is usually accompanied by sweating, increased heart rate and feelings of physical discomfort (WHO, 2022). Other commonly experienced symptoms are difficulty sleeping, insomnia and changes in mood, depression, and anxiety (Namazi et al., 2019). The occurrence and severity of menopausal symptoms vary from person to person meaning that some women experience menopause

without any complaints. In contrast, women can be affected greatly by these symptoms for various years which impacts their quality of life.

Mental Health of Women in Menopause

Perimenopause represents a vulnerable time for women to suffer from mental illness as they experience complex physical, hormonal, psychological and social changes (Khalil et al., 2022; Musial et al., 2021). Several reviews concluded that perimenopause was significantly associated with increased depressive symptoms compared to the premenopausal stage (Alblooshi et al., 2023; Freeman, 2010; Llaneza et al., 2012; Vivian-Taylor & Hickey, 2014) which was also supported by multiple longitudinal studies (Bromberger et al., 2007, 2011; Cohen et al., 2006). A relationship between perimenopause and increased anxiety symptoms was also found (Bromberger et al., 2013; Li et al., 2016). Additionally, perimenopause was associated with an increased prevalence of eating disorders, such as binge eating disorder, and negative body image (Baker & Runfola, 2016; Khalil et al., 2022; Mangweth-Matzek et al., 2013).

However, mental health is not solely describing the dimension of mental illness. According to the Two-Continua Model of Mental Health (Keyes, 2002), mental health encompasses two different, but related continua, namely mental well-being and mental illness. When evaluating people's mental health, they are assessed on both continua (Keyes, 2002). Mental well-being encompasses 14 aspects of emotional, social, and psychological well-being (Keyes, 2002). Despite the lack of research focusing on the effects of menopause on women's mental well-being, the systematic review of Brown et al. (2015) investigated the relationship between menopausal stage and/or menopausal symptoms, and positive well-being. Two out of 19 relevant articles found a statistically significant association between menopausal status and positive well-being (Brown et al., 2015). Overall, results indicated that positive well-being seemed to be largely unaffected by perimenopause meaning that positive well-being can be

regarded as a resilience factor that helps menopausal women to cope with adversity or challenging situations during menopause (Brown et al., 2015). However, there is some evidence that positive well-being is related to multiple psychosocial variables, such as menopausal attitudes (Brown et al., 2015).

Menopausal Attitudes and Cultural Influence on Menopausal Experience

Attitudes are relatively consistent and general evaluations of an object, ranging from negative to positive, and are assumed to be derived from specific beliefs, emotions or past behaviours that are associated with that object (American Psychological Association, 2018). Attitudes toward menopause are likely to influence women's mental health during menopause and seem to be influenced by various variables, such as level of social support, level of education and culture (Ayers et al., 2010; Fu et al., 2003).

Culture refers to societies defined by nationality or ethnicity (Birukou et al., 2013). Cultures are associated with specific norms, values, ideas, beliefs, shared meanings, and common ways of behaviour (Birukou et al., 2013). Hofstede (1980) identified five cultural dimensions to distinguish countries from each other based on values. One of them is individualism versus collectivism which describes the individual's relationship with their primary group (Hofstede & Minkov, 2010). Individualistic cultures emphasize the promotion of the individual's self-interest, personal autonomy and independence, self-realisation, privacy, and individual decision-making while being less concerned about the needs and interests of others or the community (Darwish & Huber, 2003). In contrast, collectivistic cultures emphasize collective goals and rights, interdependence, cooperation, and superiority of collective decisions rather than individual decisions (Darwish & Huber, 2003; Kulkarni et al., 2010).

Different cultures are likely to foster different beliefs and attitudes about menopause and ageing which forms a menopausal stereotype (Hunter, 1990). This stereotypical idea of

menopause influences the way women perceive menopause regarding the occurrence and severity of symptoms (Fu et al., 2003). Therefore, women living in cultures that value youth and reproductive capacity where ageing is associated with decline, are more likely to negatively experience menopause (Hickey et al., 2022). For example, menopause in individualistic cultures is perceived as a loss of youth and a decline in sexual attractiveness which can result in more negative attitudes regarding menopause (Namazi et al., 2019). Research showed that women in these societies tended to experience more frequent and more severe symptoms, such as hot flashes or sleeplessness compared to women from collectivistic cultures (Ayers et al., 2010; Fu et al., 2003). Depression can be linked to negative menopausal attitudes and an increase in menopausal symptoms (Ayers et al., 2010).

In contrast to individualistic cultures, Asian cultures view ageing as prestigious so menopause symbolises freedom, elevated social status and a second youth which shapes the attitudes of Asian women to be more positive towards menopause (Fu et al., 2003; Hickey et al., 2022). They reported fewer complaints and menopausal symptoms, experiencing fewer hot flashes compared to women from individualistic societies (Fu et al., 2003). In summary, different cultural norms, values and beliefs regarding ageing and reproduction shape the menopausal attitudes of women which result in a stereotypical formation that leads to different experiences of menopausal symptoms, including mental health outcomes, across different cultures. Therefore, different menopausal attitudes might explain why menopause is experienced differently in different cultures (Hoga et al., 2015).

The Current Review

The current systematic review aims to synthesise the evidence about women's attitudes about menopause across cultures and the association of such attitudes with women's mental illness and mental well-being. There is a research gap on women's mental well-being in relation to menopause. Brown et al. (2015) only included articles published until 2014,

indicating that more articles might have been published on the relationship between menopause and mental well-being. Furthermore, there is evidence that supports a relationship between mental well-being and menopausal attitudes which was not taken into account before (Brown et al., 2015). This review aims to fill this research gap by incorporating literature published after 2014 and adding menopausal attitudes to obtain an updated and comprehensive overview of current research. Therefore, the following research questions are examined:

1. Which menopausal attitudes are reported in the scientific literature across perimenopausal women from different cultures?
2. In what way are menopausal attitudes associated with depression, anxiety and eating behaviour of perimenopausal women?
3. In what way are menopausal attitudes associated with the mental well-being of perimenopausal women?

Methods

Study Design

To examine the cultural differences in women's attitudes about menopause and its effects on their mental health, a systematic literature review was conducted, synthesising the best available evidence from the selected databases. To ensure minimal risk of bias and reliable as well as meaningful results, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines by Page et al. (2021) were employed providing a structured and transparent research process (Munn et al., 2018).

Eligibility Criteria

This systematic review selected studies based on the following inclusion criteria: (1) written in English, (2) published after 2000, (3) published in a scientific, peer-reviewed

journal, (4) full-text accessibility, (5) about women in natural perimenopause meaning that perimenopause was not surgically induced and (6) focus on perimenopausal attitudes and/or focus on the influence of perimenopausal attitudes on women's mental health. The systematic review focused on literature from 2000 onwards as mental well-being was beforehand mostly considered as the absence of mental illness instead of being a distinctive dimension (Keyes, 2002) which is why it could be expected to find fewer articles concerning mental well-being of menopausal women before the year 2000. Furthermore, when menopausal status was measured, the percentage of perimenopausal women should be higher than 10% to be included in the review. When perimenopausal status was not measured, the sample of selected studies needed to include at least a subpart of perimenopausal women. Literature reviews were excluded.

Information Sources and Search Strategy

Three scientific databases, namely Scopus, Web of Science and PsycINFO, were used, hence combining two multidisciplinary large academic databases (Scopus, Web of Science) with one domain-specific database (PsycINFO) to find a greater variety of relevant articles. The researcher searched the three databases between January and May 2023. Snowball sampling was used by searching references of relevant literature reviews to identify additional eligible articles.

To find the most suitable search query, first, the four constructs of 'menopause', 'attitude', 'culture' and 'mental health' were extracted from the research question as the basis for the literature search. To specify the search, keywords for all constructs were collected and combined into multiple search strings. Thus, a variety of search queries were tested in the abovementioned three databases, continuously adjusting the search query and the incorporated keywords. This process aimed to identify all relevant articles by finding the most suitable search query. Consequently, the two constructs 'menopause' and 'mental health' were further

narrowed down to test them within titles and abstracts. The selected keywords for the final search query can be found in Table 1.

Table 1

Final search query keywords

Variable	Keywords
Menopause	(menopause OR “midlife women” OR “middle-aged women”)
Culture	(cultur* OR “cultur* difference*”)
Mental health	(“mental illness” OR “mental disorder” OR anxiety OR depress* OR “eating disorder*” OR “binge eating” OR “anorexia nervosa” OR “bulimia nervosa” OR “orthorexia nervosa” OR “body image” OR wellb* OR happiness OR “life*satisfaction”)

As the three databases showed differences in their use of Boolean operators, the final search query needed to be adjusted to be used in the databases (Table 2).

Table 2*Final search queries in used databases and associated hits per database*

Date	Database	Search query	Hits
17-05-2023	Scopus	TITLE-ABS((menopause OR “midlife women” OR “middle-aged women”)) AND (cultur* OR “cultur* difference*”) AND TITLE-ABS((“mental illness” OR “mental disorder” OR anxiety OR depress* OR “eating disorder*” OR “binge eating” OR “anorexia nervosa” OR “bulimia nervosa” OR “orthorexia nervosa” OR “body image” OR wellb* OR happiness OR “life*satisfaction”))	659
17-05-2023	Web of Science	((TS=((menopause OR “midlife women” OR “middle-aged women”))) AND ALL=((cultur* OR “cultur* difference*”))) AND TS=(“mental illness” OR “mental disorder” OR anxiety OR depress* OR “eating disorder*” OR “binge eating” OR “anorexia nervosa” OR “bulimia nervosa” OR “orthorexia nervosa” OR “body image” OR wellb* OR happiness OR “life*satisfaction”)))	172
17-05-2023	PsycINFO	(menopause OR “midlife women” OR “middle-aged women”) AND (cultur* OR “cultur* difference*”) AND (“mental illness” OR “mental disorder” OR anxiety OR depress* OR “eating disorder*” OR “binge eating” OR “anorexia nervosa” OR “bulimia nervosa” OR “orthorexia nervosa” OR “body image” OR wellb* OR happiness OR “life*satisfaction”)	166

Study Selection

Using the online screening program Covidence, several rounds of selection were conducted to identify the most suitable and relevant articles. Covidence is a tool that guides researchers through the multiphase review process including the data extraction process (Kellermeyer et al., 2018). After the search was completed, articles were exported from the respective database and imported into Covidence. The researcher screened the articles for eligibility by title and abstract, and subsequently by full text. Therefore, the data extraction process was thoroughly documented, enhancing transparency and facilitating future replication. Figure 1 provides a structured overview of the study screening and selection process by using the PRISMA flow diagram.

Data Collection Process

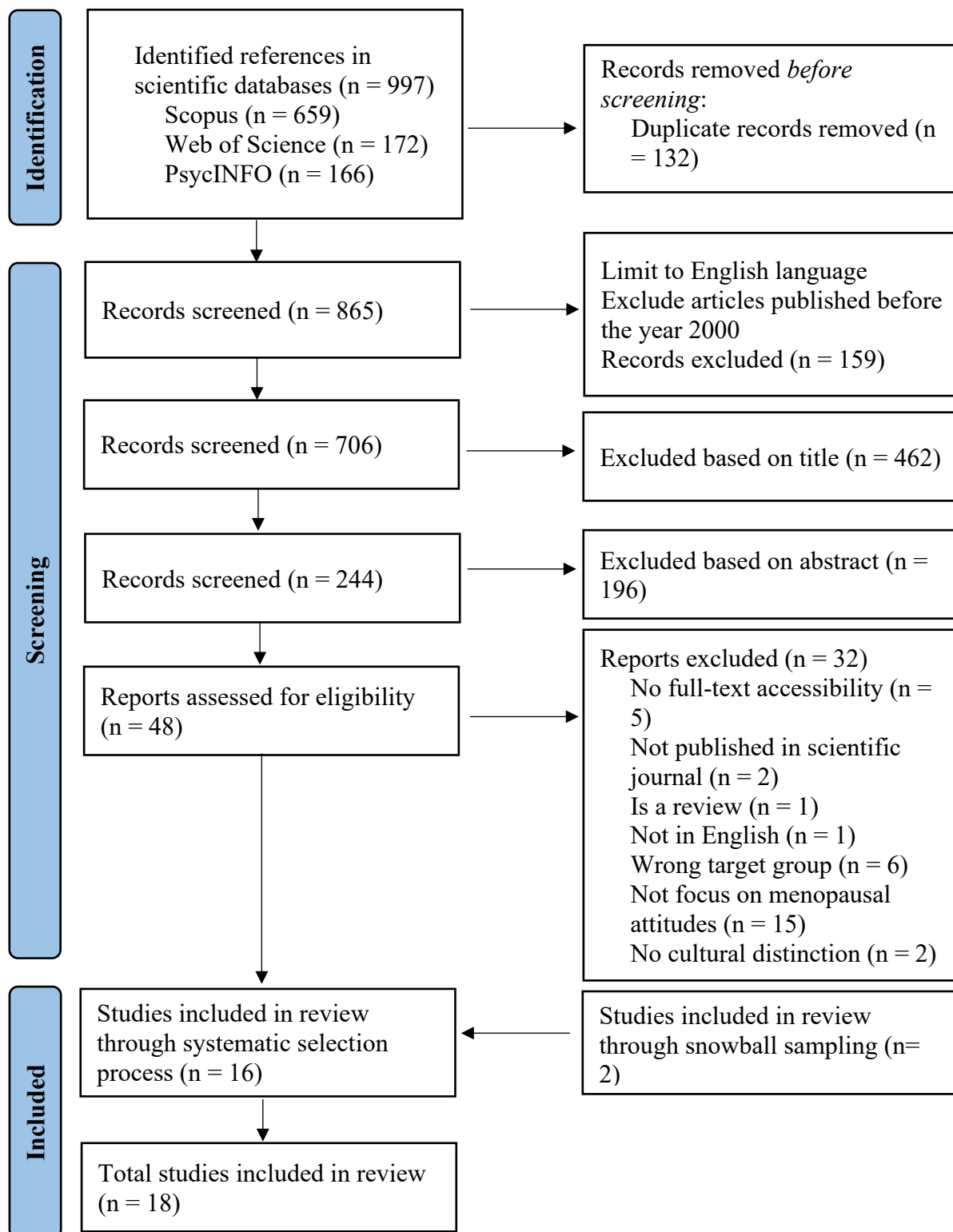
The following data was extracted from included studies: (1) study characteristics (i.e., first author, publication year, used study design), (2) sample characteristics (i.e., sample size, age range, mean age, percentage of pre-, peri- and postmenopausal women, culture), (3) positive and/or negative menopausal attitudes, and (4) menopausal effects on women's mental health.

Synthesis of Results

Menopausal attitudes and their association with mental health outcomes were investigated by identifying and organising the participant characteristics and results of the included studies into common themes and patterns that answered the research questions. Therefore, the results were synthesised by using a thematic analysis approach. Cultures were categorised into individualistic or collectivistic cultures based on their respective values (Darwish & Huber, 2003; Kulkarni et al., 2010) and, in the case of two cultural orientations, their identification with either the dominant or ethnic culture (Berry, 1989).

Figure 1

PRISMA flow diagram of the study screening and selection process



Results

Study Selection

After applying the respective search queries in Scopus, Web of Science and PsycINFO, 997 records were found of which 18 studies met the eligibility criteria and were included in the review (Figure 1).

Study Characteristics

Overall, six studies directly compared different countries or different cultures within one country (Blumstein et al., 2012; Chen et al., 2010; Ferrand et al., 2013; Hunter et al., 2009; Murphy et al., 2013; Sayakhot et al., 2012). Nine studies employed a cross-sectional study design (Blumstein et al., 2012; Chen et al., 2010; Cheng et al., 2005; Deeks & McCabe, 2004; Hunter et al., 2009; Jamil & Khalid, 2016; McKinley et al., 2008; Nagaraj et al., 2021; Sayakhot et al., 2012), and two studies employed an epidemiological study design (Ayranci et al., 2010; Ferrand et al., 2013). Seven qualitative studies were used, divided into five qualitative exploratory studies (Madden et al., 2010; Morrison et al., 2014; Murphy et al., 2013; Sergeant & Rizq, 2017; Stewart, 2003) and two qualitative descriptive studies (Aririguzo et al., 2022; Mahadeen et al., 2008). All qualitative studies used interviews, mostly semi-structured, and/or focus groups as their chosen methodology. The included studies ranged from the publication year 2003 to 2022. An overview including the studies' characteristics, sample characteristics and main findings can be found in Table 3.

Sample Characteristics

The included samples of menopausal women ranged from 35 to 69 years old, with a focus on the age range of 45 to 55 years. The majority of studies used community-based samples and a convenience sampling technique. Mostly around 30% of the sample were perimenopausal women although three studies only studied perimenopausal women (Table 3).

Diverse cultures were represented within this systematic review. Individualistic cultures included: American, Australian, British, European American, French, Indians living in the United Kingdom, and United Kingdom Caucasian. Collectivistic cultures included: African American, Arab Israeli, First Nations women from Canada, Guatemalan Mayan women, Hawaiian, Indian, Israeli, Jordanian, Laotian, Pakistani, Russian immigrants living in Israel, Taiwanese, Tunisian, Turkish, Qatari and non-Qatari living in Qatar. Consequently, many different cultures were compared on various aspects of positive and negative menopausal attitudes and mental health outcomes during perimenopause.

Table 3

Overview of the study characteristics, sample characteristics and main findings of included studies (n = 18)

First author, year	Study design	Culture(s)	n	Age (mean age)	Menopausal status	Menopausal attitudes	Mental health outcomes
Aririguzo, 2022	Qualitative descriptive	African American	16	35-55	100% perimenopause	Positive: positive period, opportunity for self-discovery, period of wisdom and maturity Negative: taboo topic, loss of women's identity, challenging time	
Ayranci, 2010	Epidemiological	Turkish	1551	40-69 (M=49.1)	17.5% pre-, 17.7% peri-, 53.1% postmenopause	Positive: cessation of menstruation, positive period, opportunity for self-discovery, natural period Negative: taboo topic, end of youth	
Blumstein, 2012	Cross-sectional	Israeli, Russian immigrants, Arab Israeli	811	45-64 (M=54.9)	12.7% pre-, 20% peri-, 54.6% postmenopause, 12.7% surgical menopause	Negative: loss of women's identity	Negative attitudes associated with higher depressive symptoms
Chen, 2010	Cross-sectional	Taiwanese, American	222	40-60 (M=52.3)	late-peri- or postmenopause	Positive: cessation of menstruation	Positive attitudes associated with moderate anxiety levels and higher depression scores
Cheng, 2005	Cross-sectional	Taiwanese	1113	43-57 (M=48.5)	39% pre-, 29.1% peri-, 31.9% postmenopause	Positive: natural period Negative: loss of women's identity, challenging time	
Deeks, 2004	Cross-sectional	Australian	Study 1: 304 Study 2: 203	35-65 Study 1: (M=47.8) Study 2: (M=47.5)	Study 1: 39.4% pre-, 25% peri-, 35.6% postmenopause Study 2: 32% pre-, 26.6% peri-, 41.1% postmenopause	Negative: loss of women's identity	Negative attitudes weak impact on women's future purpose in life and self-acceptance

Table 3 (continued)

First author, year	Study design	Culture(s)	n	Age (mean age)	Menopausal status	Menopausal attitudes	Mental health outcomes
Ferrand, 2013	Epidemiological	French, Tunisian	French: 774 Tunisian: 1040	French: 48-53 (M=50.5) Tunisian: 45-64 (M=52.2)	French: 33.8% pre-, 23.7% peri-, 42.4% postmenopause Tunisian: 16.5% pre-, 24.8% peri-, 58.7% postmenopause	Negative: loss of women's identity	Higher scores of depressed mood and anxiety associated with negative attitudes
Hunter, 2009	Cross-sectional	Indian living in India (DEL) or United Kingdom (UKA), UK Caucasian (UKC)	DEL: 50 UKA: 52 UKC: 51	45-55 DEL: (M=49.7) UKA: (M=51.4) UKC: (M=52.3)	DEL: 33.3% peri-, 66.7% postmenopause UKA: 27.3% peri-, 68.2% postmenopause UKC: 34% peri-, 66% postmenopause	Positive: cessation of menstruation, natural period Negative: taboo topic, loss of women's identity	
Jamil, 2016	Cross-sectional	Pakistani	110	(M=47.9)	100% perimenopause	Positive: cessation of menstruation	Negative attitudes associated with increased depression; positive attitudes associated with decreased depression
Madden, 2010	Qualitative exploratory	First Nations women from Canada	18	-	all peri- or postmenopause	Positive: natural period, period of wisdom and maturity Negative: taboo topic, challenging time	
Mahadeen, 2008	Qualitative descriptive	Jordanian	25	40-55 (M=50)	100% perimenopause	Positive: cessation of menstruation, natural period, period of wisdom and maturity Negative: taboo topic, end of youth	
McKinley, 2008	Cross-sectional	European American	74	50-68 (M=57.4)	10.8% peri-, 63.5% postmenopause, 20.3% surgical menopause	Negative: end of youth	Negative attitudes associated with higher objectified body consciousness and body shame; positive attitudes related to higher body esteem

Table 3 (continued)

First author, year	Study design	Culture(s)	n	Age (mean age)	Menopausal status	Menopausal attitudes	Mental health outcomes
Morrison, 2014	Qualitative exploratory	Hawaiian	185	45-55	30.8% pre-, 37.3% peri-, 31.9% postmenopause	Positive: cessation of menstruation, positive period, opportunity for self-discovery, natural period, period of wisdom and maturity Negative: challenging time	
Murphy, 2013	Qualitative exploratory	Qatari and non-Qatari women living in Qatar	41	40-60	all pre-, peri- and postmenopause	Positive: cessation of menstruation, period of wisdom and maturity Negative: taboo topic, end of youth, challenging time	
Nagaraj, 2021	Cross-sectional	Indian	200	40-56 (M=45.4)	100% perimenopause	Positive: cessation of menstruation Negative: taboo topic, loss of women's identity, end of youth, challenging time	
Sayakhot, 2012	Cross-sectional	Australian, Laotian	Australian: 56 Laotian: 52	Australian: 40-65 (M=51.7) Laotian: 40-65 (M=45.7)	Australian: 30% pre-, 27% peri-, 43% postmenopause Laotian: 48% pre-, 31% peri-, 21% postmenopause	Positive: cessation of menstruation, natural period Negative: taboo topic, loss of women's identity, end of youth, challenging time	Higher depression associated with more negative menopausal attitudes in Australian women
Sergeant, 2017	Qualitative exploratory	British	11	46-56 (M=51.82)	all peri- or postmenopause	Positive: opportunity for self-discovery, period of wisdom and maturity Negative: taboo topic, end of youth, challenging time	
Stewart, 2003	Qualitative exploratory	Mayan women	27	38-55 (M=48)	all peri- or postmenopause	Positive: cessation of menstruation, positive period, natural period	

Positive Menopausal Attitudes

The included studies showed a variety of positive menopausal attitudes in different cultures. Five central themes emerged as positive menopausal attitudes, namely menopause as the cessation of menstruation ($n = 10$), menopause as a natural period without losing femininity ($n = 8$), menopause as a period of wisdom and maturity ($n = 6$), menopause as a positive period in women's lives ($n = 4$), and menopause as an opportunity for self-discovery and re-defining womanhood ($n = 4$). Four out of the five themes were evident in both individualistic and collectivistic cultures. Menopause as a period of wisdom and maturity was, however, predominantly shared among collectivistic cultures.

Regarding the most prominent positive menopausal attitude, menopausal women in collectivistic cultures indicated that the cessation of menstruation is the most positive thing as it is associated with social gain, increasing prestige, power, respect, freedom, and social status within their predominantly Muslim community (Ayranci et al., 2010; Chen et al., 2010; Jamil & Khalid, 2016; Nagaraj, 2021). Various benefits such as relief of embarrassment, feeling clean as menstruating was connected to being dirty, a sense of liberation in women's sexual lives, freedom of potential pregnancies, and experiencing greater religious freedoms such as being able to consistently participate in religious practices which are forbidden when menstruating were highlighted (Hunter et al., 2009; Mahadeen et al., 2008; Murphy et al., 2013; Stewart, 2003). Individualistic cultures primarily regarded the cessation of menstruation as a relief (Sayakhot et al., 2012). In predominantly collectivistic cultures, menopause was perceived as a period to become a wiser woman, an elder which was regarded as a powerful and positive transition, as having an abundance of experiences, as having shown strength and resilience throughout their lives, and as being more respected and sacred (Aririguzo et al., 2022; Madden et al., 2010; Morrison et al., 2014; Sergeant & Rizq, 2017).

Negative Menopausal Attitudes

Contrasting the positive menopausal attitudes, four main themes emerged as negative attitudes, namely menopause as a taboo topic ($n = 8$), menopause as a challenging and frightening time ($n = 8$), menopause as a loss of women's identity ($n = 8$), and menopause as the end of youth and decrease in attractiveness ($n = 7$). The first three themes were predominantly evident in collectivistic cultures whereas the last theme was shared by both individualistic and collectivistic cultures.

Regarding primarily collectivistic cultures, menopausal women reported a generational silence or culture of silence about menopause; hence, they did not discuss menopause with anybody or indicated a tendency to not talk about menopause openly as it was often perceived as too personal and thus culturally inappropriate (Aririguzo et al., 2022; Ayranci et al., 2010; Hunter et al., 2009; Madden et al., 2010; Mahadeen et al., 2008; Murphy et al., 2013; Nagaraj et al., 2021). Furthermore, menopausal women reported fear of divorce or conflicts with their husbands due to being menopausal, fear of being judged by others as belonging to older age, feeling irritability, depression, shame, denial, anger, and embarrassment about being menopausal or experiencing menopausal symptoms (Aririguzo et al., 2022; Cheng et al., 2005; Madden et al., 2008; Morrison et al., 2014; Murphy et al., 2013; Sergeant & Rizq, 2017). For instance, 15% of the Indian sample regarded menopause as a disease (Nagaraj et al., 2021), and almost 50% of Taiwanese women believed that menopausal women worry about losing their minds (Cheng et al., 2005). Menopausal women regarded menopause as a loss of their primary role in the family because their identity as a woman is tightly connected to their reproductive ability and the care of their families (Aririguzo et al., 2022; Blumstein et al., 2012; Deeks & McCabe, 2004; Ferrand et al., 2013). For example, 10% of Indian women believed that menopausal women are no longer real women and have no real purpose in life (Nagaraj et al., 2021). In contrast, individualistic cultures perceived the loss of reproductive ability as negative because outward appearance and youth represent the cultural construction

of ideal femininity, demonstrating the persistent cultural valuing of female reproductive abilities (McKinley et al., 2008; Sergeant & Rizq, 2017).

Mental Illness

Mental illness represented a reoccurring topic in menopausal research, mostly in cross-sectional studies. Depression was most discussed ($n = 5$) whereas anxiety ($n = 2$) and eating behaviour ($n = 1$) were scarcely investigated concerning menopausal attitudes. Negative menopausal attitudes seem to be related to higher levels of depression in both individualistic and collectivistic cultures (Blumstein et al., 2012; Ferrand et al., 2013; Jamil & Khalid, 2016; Sayakhot et al., 2012). The association between positive menopausal attitudes and depression was unclear due to contradicting findings in both individualistic and collectivistic cultures (Chen et al., 2010; Jamil & Khalid, 2016). Negative menopausal attitudes can be associated with increased symptoms of anxiety which was prominent in one collectivistic culture (Ferrand et al., 2013). Thus, Tunisian menopausal women demonstrated higher anxiety scores, compared to French menopausal women, which can be related to the Tunisians' negative menopausal attitude, particularly emphasising the loss of their identity and social function due to menopause (Ferrand et al., 2013). Positive menopausal attitudes seem to have no association with anxiety symptoms in both individualistic and collectivistic cultures (Chen et al., 2010). Negative menopausal attitudes, particularly regarding perceived decreased attractiveness, seem to be related to disordered eating tendencies, increased body image concerns, more body shame and objectified body consciousness (McKinley et al., 2008) which was reported in one individualistic culture. Positive appearance-related menopausal attitudes were associated with higher body esteem (McKinley et al., 2008).

Mental Well-Being

The subject of mental well-being was researched by only one epidemiological study by Deeks and McCabe (2004), which consisted of one study and one follow-up study with the

same participants from an individualistic culture. Purpose in life and self-acceptance as psychological aspects of well-being were measured first, and the follow-up study investigated social roles (Deeks & McCabe, 2004). Australian perimenopausal women showed more negative feelings about their change of roles (Deeks & McCabe, 2004) indicating a more negative attitude toward menopause. The results showed no significant relationship between purpose in life and self-acceptance with menopausal status (Deeks & McCabe, 2004).

Discussion

This systematic review aimed to synthesise the evidence about women's menopausal attitudes in different cultures and the association of such attitudes on women's mental illness, particularly depression, anxiety and eating behaviour, and mental well-being. In total, 18 studies were found and demonstrated that women of both individualistic and collectivistic cultures regarded menopause both positively and negatively. Negative menopausal attitudes were associated with increased menopausal depression, symptoms of anxiety, disordered eating tendencies, body image concerns, body shame and objectified body consciousness. Positive menopausal attitudes showed an unclear or no association with depression and anxiety, respectively. However, positive menopausal attitudes were associated with higher body esteem. One study found no significant relationship between menopausal attitudes and purpose in life and self-acceptance as indicators of mental well-being.

Main Findings

The first main finding is that five positive and four negative themes emerged as menopausal attitudes among perimenopausal women. Four out of the five positive menopausal attitudes and all four negative menopausal attitudes were supported by prior studies (Avis & McKinlay, 1991; Bahri et al., 2016; Harper et al., 2022; Richard-Davis et al., 2022; Sommer et al., 1999; Tariq et al., 2023; Yanikkerem et al., 2012). For example, the longitudinal study of Avis and McKinlay (1991) among 2565 women aged 45 to 55 years

from Massachusetts, found that perimenopausal women reported feelings of relief due to the cessation of menstruation, agreed that menopause does not change women and regarded menopausal women as 'real' women, but believed that women would become depressed or irritable during menopause. According to the Study of Women's Health Across the Nation, individualistic and collectivistic cultures regarded menopause as a positive period in women's lives due to freedom and independence and connected menopausal age to increased respect for the elderly (Sommer et al., 1999). Tariq et al. (2023) analysed the responses of 3143 mostly British menopausal women and found that menopausal women felt happiness about the cessation of menstruation, that menopause was connected to fertility loss which was associated with an end of youth and a loss of identity as a woman, and that women lacked knowledge about menopause reinforcing the stigma and the culture of silence about menopause. Therefore, the generated themes about menopausal attitudes are supported by both prior and recent literature which enhances the validity of the obtained results.

The only attitude not found in prior research was the positive attitude of menopause as an opportunity to rediscover themselves and redefine womanhood which seemed to be a novel topic. This might be explained as the menopausal attitudes of prior studies were less based on thematic analyses and more derived from specific items of measurement tools (Avis & McKinlay, 1991; Richard-Davis et al., 2022; Sommer et al., 1999). In summary, the perspective on menopausal attitudes is mostly similar between this systematic review and other research.

The second main finding is that individualistic and collectivistic cultures showed predominantly similarities in their perception of menopause. Therefore, it could be implied that culture might not have a great influence on women's menopausal attitudes. One explanation for the similarities between cultures could be that multiple cultures could exist within countries due to different religions, different social classes, multiple ethnicities, or other seemingly fixed factors that influence people's individualistic or collectivistic

backgrounds (Oyserman, 2017). Due to globalisation and migration, different cultures coexist in the same geographic space, representing culture mixing which is rooted in polyculturalism treating cultures as interacting, changing and evolving systems (Hao et al., 2016; Morris et al., 2015). It can be assumed that multiple cultures within one country influence each other, generating more hybrid cultures compared to the assumption of independent static entities (Morris et al., 2015).

Another explanation might be that individuals from two cultures, such as African Americans, employ different acculturation positions, namely assimilation, integration, separation, and marginalisation (Berry, 1989). Thus, African American women (Aririguzo et al., 2022) could be regarded as belonging to an individualistic culture due to living in the United States. In the current review, it became evident that the description of menopausal attitudes of African American women coincided with menopausal attitudes of collectivistic cultures. Therefore, most African American women identified largely with their ethnic culture (African) and rather separated from the dominant culture (American). In contrast, Indian women living in the United Kingdom mostly identified with the dominant culture (British; Hunter et al., 2019), thus being more integrated into an individualistic culture. Furthermore, individuals can hold two or more cultural orientations and engage in cultural frame switching meaning switching between the two cultural orientations (Hong et al., 2000) which could also explain the similarities in menopausal attitudes between cultures.

The third main finding is that the association of menopausal attitudes on women's mental health is mainly investigated for mental illness, particularly depression, and rarely for mental well-being. Publication bias might be a reason for the lack of published research on mental well-being (Nair, 2019) as the results might indicate a non-significant relationship to menopausal attitudes (Deeks & McCabe, 2004). Furthermore, menopause is commonly framed in the context of a biomedical discourse, viewing menopause as a hormone deficiency that requires medical treatment (Hickey et al., 2022; Rostosky & Travis, 1996). According to

a systematic review investigating measurements of menopausal vasomotor symptoms, only questions asking about negative symptoms and experiences were found, reinforcing the negative focus on menopause (Iliodromiti et al., 2020). In addition, the medicalisation of menopause as a woman's decay and decline is continuously presented in the media which might amplify women's negative attitudes about menopause, reinforce the social stigma surrounding menopause and reinforce the research's focus on the relationship between menopause and mental illness (Hickey et al., 2022; Krajewski, 2019; Rowson et al., 2023). This medicalisation might generate a higher financial gain as menopause is regarded as a deficiency in need of treatment (Hickey et al., 2022), which is likely to be more lucrative than media and research coverage about menopause and mental well-being. Consequently, the media's negative narrative of menopause fits the scope of the menopausal research.

Strengths and Limitations

The present review encompassed 18 studies including a great diversity of cultures. The same cultures were investigated in different studies which enabled a comparison of results and, therefore, a more comprehensive understanding of menopausal attitudes and their association with women's mental health. The choice of scientific databases, combining two multidisciplinary large academic databases with one domain-specific database, ensured an extensive output of relevant articles. Currently, no known systematic literature review focused on the cultural differences in menopausal attitudes and their association with mental health among perimenopausal women which could consequently fill a considerable research gap.

One limitation of the current systematic review is that one researcher conducted the literature review. Adding a second researcher to the screening and selection process would have increased the reliability of the results by ensuring that all relevant studies were included and that the researcher bias would have been decreased (Stoll et al., 2019). Another limitation is the missing quality assessment of included studies as potential biases or systematic errors in

included studies were not assessed. Therefore, the validity and generalisability of the derived results for perimenopausal women might be limited (Negarandeh & Beykmirza, 2020). Future reviews should include a quality assessment of included studies to minimize the risk of bias and increase confidence in review findings (Negarandeh & Beykmirza, 2020). Another limitation might be the inclusion of the keyword 'culture' in the search query. Based on later-found reviews, more relevant studies were conducted that might not include the word 'culture' in-text and were therefore not included in the screening process (Bahri et al., 2016; Dashti et al., 2021; Pearce et al., 2014). Future reviews could exclude the keyword 'culture' to ensure an extensive output of relevant studies.

Future Recommendations

Most studies primarily focus on the relationship between negative menopausal attitudes and mental illness. More research is needed about the relationship between positive menopausal attitudes and mental well-being. This lack of research might exist because positive menopausal attitudes seem to correlate with fewer experienced menopausal symptoms, hence showing weak or non-existent associations with the predominantly studied topic of mental illness (Brown et al., 2015; Erbil, 2018; Strauss, 2011; Yanikkerem et al., 2012). Therefore, the association between positive menopausal attitudes and mental health should be investigated as they might have beneficial effects on women's mental health (Ayers et al., 2010; Tariq et al., 2023).

Furthermore, the current review only encompasses one study focusing on women's menopausal attitudes and their association with two psychological well-being aspects, namely purpose in life and self-acceptance (Deeks & McCabe, 2004). However, mental well-being encompasses 14 distinct aspects of emotional, social, and psychological well-being (Keyes, 2002). According to Brown et al. (2015), mental well-being seemed to be related to multiple psychosocial variables including menopausal attitudes, indicating a gap in research.

Therefore, mental well-being, particularly other aspects of psychological and social well-being, such as personal growth or social acceptance, should be covered more in research about menopausal attitudes to determine possible resilience factors and to promote flourishing among perimenopausal women during the menopausal transition (Brown et al., 2015).

In addition, future research could facilitate comparisons of results as well as a more comprehensive understanding by defining and determining the menopausal status within the sample. Some studies made no distinction of menopausal status although the sample's age range fits the target group (Table 3) resulting in heterogeneous data regarding the perimenopausal status of women. Thus, it is impossible to determine the percentage of perimenopausal women which needs to be taken into account when drawing conclusions and comparing results with other studies. Synthesizing the evidence would be facilitated by defining menopausal status in the respective paper and using standardised measurement tools to determine menopausal status, such as the Stages of Reproductive Aging Workshop (STRAW) criteria (Harlow et al., 2012; Santoro, 2016).

Conclusion

The current systematic literature review provides an extensive and comprehensive overview of the scientific research on perimenopausal women's attitudes toward menopause and their association with perimenopausal women's mental health from 2003 to 2022. Most menopausal attitudes were in line with prior literature and were shared among individualistic and collectivistic cultures, hence, implying that culture might not have a great influence on women's menopausal attitudes. The lack of research on mental well-being and positive menopausal attitudes indicates a need for future research. Consequently, future research is needed to obtain a complete picture regarding the association between menopausal attitudes and women's mental health, to determine possible resilience factors and to promote flourishing among perimenopausal women during the menopausal transition.

References

- American Psychological Association. (2018). *APA Dictionary of Psychology: Attitude*.
American Psychological Association. <https://dictionary.apa.org/attitude>
- Alblooshi, S., Taylor, M., & Gill, N. (2023). Does menopause elevate the risk for developing depression and anxiety? Results from a systematic review. *Australasian psychiatry: bulletin of Royal Australian and New Zealand College of Psychiatrists*, *31*(2), 165-173. <https://doi.org/10.1177/10398562231165439>
- Aririguzo, C., Spencer, B. S., & Frey Steinson, W. (2022). “You’re acting womanish!” A qualitative descriptive study of the experiences of African American women in menopausal transition. *Journal of Women & Aging*, *34*(2), 258-275.
<https://doi.org/10.1080/08952841.2021.1915095>
- Avis, N. E., & McKinlay, S. M. (1991). A longitudinal analysis of women's attitudes toward the menopause: Results from the Massachusetts Women's Health Study. *Maturitas*, *13*(1), 65-79. [https://doi.org/10.1016/0378-5122\(91\)90286-Y](https://doi.org/10.1016/0378-5122(91)90286-Y)
- Ayers, B., Forshaw, M., & Hunter, M. S. (2010). The impact of attitudes towards the menopause on women's symptom experience: A systematic review. *Maturitas*, *65*(1), 28-36. <https://doi.org/10.1016/j.maturitas.2009.10.016>
- Ayranci, U., Orsal, O., Orsal, O., Arslan, G., & Emeksiz, D. F. (2010). Menopause status and attitudes in a Turkish midlife female population: An epidemiological study. *BMC women's health*, *10*, 1-14. <https://doi.org/10.1186/1472-6874-10-1>
- Bahri, N., Latifnejad, R. R., Tohidinik, H. R., & Sadeghi, R. (2016). Attitudes towards menopause among Iranian women: A systematic review and meta-analysis. *Iranian Red Crescent Medical Journal*, *18*(10). <https://doi.org/10.5812/ircmj.31012>
- Baker, J. H., & Runfola, C. D. (2016). Eating disorders in midlife women: A perimenopausal eating disorder?. *Maturitas*, *85*, 112-116.
<https://doi.org/10.1016/j.maturitas.2015.12.017>

- Berry J. W. (1989). Psychology of acculturation. *Nebraska Symposium on Motivation*.
Nebraska Symposium on Motivation, 37, 201-234.
- Birukou, A., Blanzieri, E., Giorgini, P., & Giunchiglia, F. (2013). A formal definition of culture. *Models for intercultural collaboration and negotiation*, 1-26.
https://doi.org/10.1007/978-94-007-5574-1_1
- Blumstein, T., Benyamini, Y., Hourvitz, A., Boyko, V., & Lerner-Geva, L. (2012). Cultural/ethnic differences in the prevalence of depressive symptoms among middle-aged women in Israel: The Women's Health at Midlife Study. *Menopause*, 19(12), 1309-1321. <https://doi.org/10.1097/gme.0b013e318258b1dd>
- Bromberger, J. T., Kravitz, H. M., Chang, Y., Randolph, J. F., Jr, Avis, N. E., Gold, E. B., & Matthews, K. A. (2013). Does risk for anxiety increase during the menopausal transition? Study of women's health across the nation. *Menopause*, 20(5), 488-495.
<https://doi.org/10.1097/GME.0b013e3182730599>
- Bromberger, J. T., Matthews, K. A., Schott, L. L., Brockwell, S., Avis, N. E., Kravitz, H. M., Everson-Rose, S. A., Gold, E. B., Sowers, M., & Randolph, J. F. (2007). Depressive symptoms during the menopausal transition: The Study of Women's Health Across the Nation (SWAN). *Journal of Affective Disorders*, 103(1-3), 267-272. <https://doi.org/10.1016/j.jad.2007.01.034>
- Brown, L., Bryant, C., & Judd, F. K. (2015). Positive well-being during the menopausal transition: A systematic review. *Climacteric*, 18(4), 456-469.
<https://doi.org/10.3109/13697137.2014.989827>
- Chen, C. H., Booth-LaForce, C., Park, H., & Wang, S. Y. (2010). A comparative study of menopausal hot flashes and their psychosocial correlates in Taiwan and the United States. *Maturitas*, 67(2), 171-177. <https://doi.org/10.1016/j.maturitas.2010.06.013>

- Cheng, M. H., Wang, S. J., Wang, P. H., & Fuh, J. L. (2005). Attitudes toward menopause among middle-aged women: A community survey in an island of Taiwan. *Maturitas*, 52(3-4), 348-355. <https://doi.org/10.1016/j.maturitas.2005.06.001>
- Cohen, L. S., Soares, C. N., Vitonis, A. F., Otto, M. W., & Harlow, B. L. (2006). Risk for new onset of depression during the menopausal transition. *Archives of General Psychiatry*, 63(4), 385. <https://doi.org/10.1001/archpsyc.63.4.385>
- Dalal, P. K., & Agarwal, M. (2015). Postmenopausal syndrome. *Indian journal of psychiatry*, 57(2), 222-232. <https://doi.org/10.4103/0019-5545.161483>
- Darwish, A. F. E., & Huber, G. L. (2003). Individualism vs collectivism in different cultures: A cross-cultural study. *Intercultural education*, 14(1), 47-56. <https://doi.org/10.1080/1467598032000044647>
- Dashti, S., Bahri, N., Najafi, T. F., Amirideli, M., & Roudsari, R. L. (2021). Influencing factors on women's attitudes toward menopause: A systematic review. *Menopause*, 28(10), 1192-1200. <https://doi.org/10.1097/GME.0000000000001833>
- Deeks, A. A., & McCabe, M. P. (2004). Well-being and menopause: An investigation of purpose in life, self-acceptance and social role in premenopausal, perimenopausal and postmenopausal women. *Quality of Life Research*, 13, 389-398. <https://doi.org/10.1023/B:QURE.0000018506.33706.05>
- Erbil, N. (2018). Attitudes towards menopause and depression, body image of women during menopause. *Alexandria Journal of Medicine*, 54(3), 241-246. <https://doi.org/10.1016/j.ajme.2017.05.012>
- Ferrand, F., Hajri, S., Benzineb, S., Draoui, D. M., Hassoun, D., Delanoë, D., ... & Ringa, V. (2013). Comparative study of the quality of life associated with menopause in Tunisia and France. *Menopause*, 20(6), 609-622. <https://doi.org/10.1097/GME.0b013e318278b0ce>

- Freeman, E. W. (2010). Associations of depression with the transition to menopause. *Menopause, 17*(4), 823-827. <https://doi.org/10.1097/gme.0b013e3181db9f8b>
- Fu, S. Y., Anderson, D., & Courtney, M. (2003). Cross-cultural menopausal experience: Comparison of Australian and Taiwanese women. *Nursing & Health Sciences, 5*(1), 77-84. <https://doi.org/10.1046/j.1442-2018.2003.00139.x>
- Hao, J., Li, D., Peng, L., Peng, S., & Torelli, C. J. (2016). Advancing our understanding of culture mixing. *Journal of Cross-Cultural Psychology, 47*(10), 1257-1267. <https://doi.org/10.1177/0022022116670514>
- Harlow, S. D., Gass, M., Hall, J. E., Lobo, R., Maki, P., Rebar, R. W., Sherman, S., Sluss, P. M., de Villiers, T. J., & STRAW 10 Collaborative Group (2012). Executive summary of the Stages of Reproductive Aging Workshop + 10: Addressing the unfinished agenda of staging reproductive aging. *Menopause, 19*(4), 387-395. <https://doi.org/10.1097/gme.0b013e31824d8f40>
- Harper, J. C., Phillips, S., Biswakarma, R., Yasmin, E., Saridogan, E., Radhakrishnan, S., C Davies, M., & Talaulikar, V. (2022). An online survey of perimenopausal women to determine their attitudes and knowledge of the menopause. *Women's health, 18*. <https://doi.org/10.1177/17455057221106890>
- Hickey, M., Hunter, M. S., Santoro, N., & Ussher, J. (2022). Normalising menopause. *BMJ (Clinical research ed.), 377*. <https://doi.org/10.1136/bmj-2021-069369>
- Hill, K. (1996). The demography of menopause. *Maturitas, 23*(2), 113-127. [https://doi.org/10.1016/0378-5122\(95\)00968-x](https://doi.org/10.1016/0378-5122(95)00968-x)
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.
- Hofstede, G., & Minkov, M. (2010). Long-versus short-term orientation: New perspectives. *Asia Pacific business review, 16*(4), 493-504. <https://doi.org/10.1080/13602381003637609>

- Hoga, L., Rodolpho, J., Gonçalves, B., & Quirino, B. (2015). Women's experience of menopause: A systematic review of qualitative evidence. *JBI database of systematic reviews and implementation reports*, 13(8), 250-337.
<https://doi.org/10.11124/jbisrir-2015-1948>
- Hong, Y. Y., Morris, M., Chiu, C. Y., & Benet-Martí'nez, V. (2000). Multicultural minds: A dynamic constructivist approach to culture and cognition. *American Psychologist*, 55, 709-720. <https://doi.org/10.1037/0003-066X.55.7.709>
- Hunter M. S. (1990). Psychological and somatic experience of the menopause: A prospective study. *Psychosomatic medicine*, 52(3), 357-367.
<https://doi.org/10.1097/00006842-199005000-00009>
- Hunter, M. S., Gupta, P., Papitsch-Clark, A., & Sturdee, D. W. (2009). Mid-aged health in women from the Indian subcontinent (MAHWIS): A further quantitative and qualitative investigation of experience of menopause in UK Asian women, compared to UK Caucasian women and women living in Delhi. *Climacteric*, 12(1), 26-37.
<https://doi.org/10.1080/13697130802556304>
- Iliodromiti, S., Wang, W., Lumsden, M. A., Hunter, M. S., Bell, R., Mishra, G., & Hickey, M. (2020). Variation in menopausal vasomotor symptoms outcomes in clinical trials: A systematic review. *BJOG: An International Journal of Obstetrics & Gynaecology*, 127(3), 320-333. <https://doi.org/10.1111/1471-0528.15990>
- Jamil, F., & Khalid, R. (2016). Factors contributing to depression during peri menopause: Findings of a Pakistani sample. *Sex Roles*, 75, 612-622.
<https://doi.org/10.1007/s11199-016-0690-2>
- Kellermeyer, L., Harnke, B., & Knight, S. (2018). Covidence and Rayyan. *Journal of the Medical Library Association: JMLA*, 106(4), 580.
<https://doi.org/10.5195/jmla.2018.513>

- Keyes, C. L. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of health and social behavior*, 207-222. <https://doi.org/10.2307/3090197>
- Khalil, J., Boutros, S., Kheir, N., Kassem, M., Salameh, P., Sacre, H., ... & Hallit, S. (2022). Eating disorders and their relationship with menopausal phases among a sample of middle-aged Lebanese women. *BMC women's health*, 22(1), 1-10. <https://doi.org/10.1186/s12905-022-01738-6>
- Krajewski, S. (2019). Advertising menopause: You have been framed. *Continuum*, 33(1), 137-148. <https://doi.org/10.1080/10304312.2018.1547364>
- Kulkarni, S. P., Hudson, T., Ramamoorthy, N., Marchev, A., Georgieva-Kondakova, P., & Gorskov, V. (2010). Dimensions of individualism-collectivism. *Verslo ir teisės aktualijos*, 93. <https://doi.org/10.5200/1822-9530.2010.03>
- Li, R. X., Ma, M., Xiao, X. R., Xu, Y., Chen, X. Y., & Li, B. (2016). Perimenopausal syndrome and mood disorders in perimenopause. *Medicine*, 95(32). <https://doi.org/10.1097/md.0000000000004466>
- Llaneza, P., García-Portilla, M. P., Llaneza-Suárez, D., Armott, B., & Pérez-López, F. R. (2012). Depressive disorders and the menopause transition. *Maturitas*, 71(2), 120-130. <https://doi.org/10.1016/j.maturitas.2011.11.017>
- Madden, S., St Pierre-Hansen, N., Kelly, L., Cromarty, H., Linkewich, B., & Payne, L. (2010). First Nations women's knowledge of menopause: Experiences and perspectives. *Canadian family physician Medecin de famille canadien*, 56(9), 331-337.
- Mahadeen, A. I., Halabi, J. O., & Callister, L. C. (2008). Menopause: A qualitative study of Jordanian women's perceptions. *International nursing review*, 55(4), 427-433. <https://doi.org/10.1111/j.1466-7657.2008.00662.x>
- Mangweth-Matzek, B., Hoek, H. W., Rupp, C. I., Kemmler, G., Pope Jr, H. G., & Kinzler, J. (2013). The menopausal transition - A possible window of vulnerability for eating

- pathology. *International Journal of Eating Disorders*, 46(6), 609-616.
<https://doi.org/10.1002/eat.22157>
- McKinley, N. M., & Lyon, L. A. (2008). Menopausal attitudes, objectified body consciousness, aging anxiety, and body esteem: European American women's body experiences in midlife. *Body image*, 5(4), 375-380.
<https://doi.org/10.1016/j.bodyim.2008.07.001>
- Morris, M. W., Chiu, C.-y., & Liu, Z. (2015). Polycultural psychology. *Annual Review of Psychology*, 66, 631-659. <https://doi.org/10.1146/annurev-psych-010814-015001>
- Morrison, L. A., Brown, D. E., Sievert, L. L., Reza, A., Rahberg, N., Mills, P., & Goodloe, A. (2014). Voices from the Hilo women's health study: Talking story about menopause. *Health care for women international*, 35(5), 529-548.
<https://doi.org/10.1080/07399332.2013.829067>
- Munn, Z., Stern, C., Aromataris, E., Lockwood, C., & Jordan, Z. (2018). What kind of systematic review should I conduct? A proposed typology and guidance for systematic reviewers in the medical and health sciences. *BMC medical research methodology*, 18(1), 1-9. <https://doi.org/10.1186/s12874-017-0468-4>
- Murphy, M. M., Verjee, M. A., Bener, A., & Gerber, L. M. (2013). The hopeless age? A qualitative exploration of the experience of menopause in Arab women in Qatar. *Climacteric: the journal of the International Menopause Society*, 16(5), 550-554.
<https://doi.org/10.3109/13697137.2013.771330>
- Musial, N., Ali, Z., Grbevski, J., Veerakumar, A., & Sharma, P. (2021). Perimenopause and first-onset mood disorders: A closer look. *Focus (American Psychiatric Publishing)*, 19(3), 330-337. <https://doi.org/10.1176/appi.focus.20200041>
- Nagaraj, D., Ramesh, N., Devraj, D., Umman, M., John, A. K., & Johnson, A. R. (2021). Experience and perceptions regarding menopause among rural women: A cross-

- sectional hospital-based study in South Karnataka. *Journal of Mid-life Health*, 12(3), 199. https://doi.org/10.4103/jmh.JMH_196_20
- Nair A. S. (2019). Publication bias - Importance of studies with negative results!. *Indian journal of anaesthesia*, 63(6), 505-507. https://doi.org/10.4103/ija.IJA_142_19
- Namazi, M., Sadeghi, R., & Behboodi Moghadam, Z. (2019). Social determinants of health in menopause: An integrative review. *International Journal of Women's Health*, 637-647. <https://doi.org/10.2147/IJWH.S228594>
- Negarandeh, R., & Beykmirza, R. (2020). Quality assessment in systematic reviews: The importance of choosing the right tools. *Nursing Practice Today*. <https://doi.org/10.18502/npt.v7i3.3342>
- Oyserman, D. (2017). Culture three ways: Culture and subcultures within countries. *Annual review of psychology*, 68, 435-463. <https://doi.org/10.1146/annurev-psych-122414-033617>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... & Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *International journal of surgery*, 88, 105906. <https://doi.org/10.1016/j.ijssu.2021.105906>
- Pearce, G., Thøgersen-Ntoumani, C., & Duda, J. (2014). Body image during the menopausal transition: a systematic scoping review. *Health Psychology Review*, 8(4), 473-489. <https://doi.org/10.1080/17437199.2013.848408>
- Richard-Davis, G., Singer, A., King, D. D., & Mattle, L. (2022). Understanding attitudes, beliefs, and behaviors surrounding menopause transition: Results from three surveys. *Patient related outcome measures*, 13, 273-286. <https://doi.org/10.2147/PROM.S375144>

- Rostosky, S. S., & Travis, C. B. (1996). Menopause research and the dominance of the biomedical model 1984–1994. *Psychology of Women Quarterly*, 20(2), 285-312. <https://doi.org/10.1111/j.1471-6402.1996.tb00471.x>
- Rowson, T. S., Jaworska, S., & Gibas, I. (2023). Hot topic: Examining discursive representations of menopause and work in the British media. *Gender, Work & Organization*. <https://doi.org/10.1111/gwao.13021>
- Santoro, N. (2016). Perimenopause: From research to practice. *Journal of women's health*, 25(4), 332-339. <https://doi.org/10.1089/jwh.2015.5556>
- Sayakhot, P., Vincent, A., & Teede, H. (2012). Cross-cultural study: Experience, understanding of menopause, and related therapies in Australian and Laotian women. *Menopause*, 19(12), 1300-1308. <https://doi.org/10.1097/gme.0b013e31825fd14e>
- Sergeant, J., & Rizq, R. (2017). ‘Its all part of the big CHANGE’: A grounded theory study of women’s identity during menopause. *Journal of Psychosomatic Obstetrics & Gynecology*, 38(3), 189-201. <https://doi.org/10.1080/0167482X.2016.1270937>
- Sommer, B., Avis, N., Meyer, P., Ory, M., Madden, T., Kagawa-Singer, M., ... & Adler, S. (1999). Attitudes toward menopause and aging across ethnic/racial groups. *Psychosomatic Medicine*, 61(6), 868-875. <https://doi.org/10.1097/00006842-199911000-00023>
- Stewart, D. E. (2003). Menopause in Highland Guatemala Mayan women. *Maturitas*, 44(4), 293-297. [https://doi.org/10.1016/s0378-5122\(03\)00036-7](https://doi.org/10.1016/s0378-5122(03)00036-7)
- Stoll, C. R. T., Izadi, S., Fowler, S., Green, P., Suls, J., & Colditz, G. A. (2019). The value of a second reviewer for study selection in systematic reviews. *Research synthesis methods*, 10(4), 539-545. <https://doi.org/10.1002/jrsm.1369>
- Strauss, J. R. (2011). Contextual influences on women's health concerns and attitudes toward menopause. *Health & social work*, 36(2), 121-127. <https://doi.org/10.1093/hsw/36.2.121>

Tariq, B., Phillips, S., Biswakarma, R., Talaulikar, V., & Harper, J. C. (2023). Women's knowledge and attitudes to the menopause: A comparison of women over 40 who were in the perimenopause, post menopause and those not in the peri or post menopause. *BMC Women's Health*, 23, 460.
<https://doi.org/10.1186/s12905-023-02424-x>

Vivian-Taylor, J., & Hickey, M. (2014). Menopause and depression: is there a link?. *Maturitas*, 79(2), 142-146. <https://doi.org/10.1016/j.maturitas.2014.05.014>

World Health Organization. (2022). *Menopause*. World Health Organization.
<https://www.who.int/news-room/fact-sheets/detail/menopause>

Yanikkerem, E., Koltan, S. O., Tamay, A. G., & Dikayak, Ş. (2012). Relationship between women's attitude towards menopause and quality of life. *Climacteric*, 15(6), 552-562.
<https://doi.org/10.3109/13697137.2011.637651>