



Impact of Socio-demographic, Physiological and Psychological variables on Menopause: A Scoping Review

Ekta Singh¹ and Dr. Seema Sahay²

1. Research Scholar, Department of Anthropology, Savitribai Phule Pune University, Maharashtra, India
2. Scientist, ICMR-National AIDS Research Institute, Pune, Maharashtra, India

ABSTRACT

Menopause is defined by the World Health Organization as the stage in which the menstrual cycle ceases for more than 12 consecutive months, accompanied by a decline in estrogen and progesterone levels (WHO, 1996). While menopause is a universal biological process, its experience varies among women, encompassing differences in the age of onset and the presentation of associated signs and symptoms. This study aims to investigate factors influencing the age at menopause, as well as the symptoms observed during the pre- and post-menopausal periods. The literature review drew upon journals and peer-reviewed articles from databases such as PubMed, MEDLINE, JSTOR, Embase, and Google Scholar, spanning until 2022. Boolean combinations of terms like 'menopausal health,' 'psychological effects of menopause,' 'determinants of age at menopause,' and 'ethnicity and menopausal age' were utilized in the search.

The review seeks a comprehensive understanding of diverse variables associated with menopausal health, including age variations, the impact of dietary and lifestyle choices in rural and urban settings, and ethnic disparities. Notably, there is a gap in the literature regarding menopause among indigenous populations, who maintain homogeneity through endogamy and adherence to traditional beliefs. Consequently, the forthcoming scope of this review involves an assessment of menopause within the Bhil tribe, the largest indigenous group in Maharashtra.

Keywords: Determinants of age at menopause, ethnicity and menopause, psychological effects of menopause.

INTRODUCTION

The World Health Organization provides a definition of natural menopause as the permanent cessation of menstruation resulting from the loss of ovarian follicular activity, confirmed only after a continuous absence of menstrual periods for 12 consecutive months, accompanied by a decrease in estrogen and progesterone levels [1]. Generally, natural menopause occurs between the ages of 45 and 55. The onset of menopause is marked by diverse symptoms such as hot flashes, night sweats, urinary and genital changes, dyspareunia, and insomnia. Globally, natural menopause is typically experienced between the ages of 45 and 55 [1].

Currently, the average age of menopause for women is approximately 51 years in industrialized countries, while in developing countries, it falls within the range of 43 to 49 years [2]. In India, the average age at menopause is reported as 46.6 years (95% CI: 44.83, 48.44), which is lower than in many other countries where comparable data is available [35]. Early menopause has been associated with a heightened risk of cardiovascular diseases, osteoporosis, venereal cancers, and even early-onset Alzheimer's disease. Conversely, late menopause is linked to an increased risk of breast and endometrial cancers [4]. The average age at natural menopause in India varies by region, with Eastern India at 47.3 years, Western India at 46.2 years, Northern India at 45.5 years, Southern India at 46.1 years, and Central India at 47.8 years. Notably, significant differences in the average age at natural menopause were observed between various regions, including North and East, North and Centre, West and Centre, and between South and Central India [7-16].

METHODOLOGY

The literature review, conducted until 2022, explored articles in English from databases such as PubMed, Google Scholar, Medline, Jstor, and Embase, utilizing Boolean combinations of relevant terms. Inclusion criteria encompassed original research studies/articles with primary data and full text, focusing on menopausal women as participants, including qualitative studies, case studies, and systematic reviews. Unpublished manuscripts and dissertation studies were excluded.

A total of 36 references were scrutinized to gain insights into the socio-demographic, physiological, and psychological factors associated with menopause.

SOCIO-DEMOGRAPHIC VARIABLES

The social environment in which a woman resides plays a pivotal role in her comprehension of the menopausal transition. Across different countries, discrepancies in symptom reporting can be attributed to linguistic variances, culturally influenced perceptions of menopause, gender roles shaped by culture, and disparities in socioeconomic status. The language chosen to discuss a subject reflects societal attitudes towards it, and in the Western world, menopause is often approached with a medicalized discourse, laden with negative connotations such as "reproductive failure" or "ovarian failure" [2].

In the Indian context, Kapur et al. [20] discovered that women from a middle-class background experienced a later onset of menopause (45.47 years) compared to those from a lower socioeconomic background (42.13 years), and this difference was statistically significant. The likely explanation for the association between low socioeconomic status and early menopause could be inadequate nutrition within lower-class families, with females bearing the brunt of poor nutritional conditions. Moreover, challenging socioeconomic circumstances are conducive to stress and other psychological issues, potentially contributing to early menopause.

Key socio-demographic factors-

- **Low socio-economic condition:** Women residing in rural areas of developing countries, facing disadvantaged socio-economic conditions, limited access to essential health services, and living at higher altitudes, are more prone to experience earlier natural menopause compared to their counterparts in developed countries, urban areas, and lower altitudes [5].
- **Age at Menopause:** Cumulative social disadvantage is linked to an earlier age of menopause [8,34], and individuals in negative psychosocial environments exhibit an increased likelihood of reporting symptoms [35].
- **Marital status:** Gold et al.'s study [23] underscores that separated, divorced, or widowed women experience earlier menopause than their married counterparts.
- **Contraceptive use:** Gold et al.'s findings [21] suggest that the use of oral contraceptives (OCPs) during the reproductive span is associated with an earlier age at natural menopause. This contrasts with Palmer et al.'s findings [24], which indicate an inverse association between OCP use and age at menopause. The probable explanation for parity and OCP use leading to later age at natural menopause might be their role in reducing ovulatory cycles in earlier life, thus preserving oocytes for a longer duration and resulting in later age at menopause.
- **Parity:** Nulliparous or low-parity women, with limited or no time spent breastfeeding and low use of oral contraceptives, tend to report an earlier onset of menopause [4]. Conversely, women with high parity, prolonged breastfeeding, and extended oral contraceptive use have a lower incidence of menopausal symptom reporting [8]. Stanford et al.'s earlier study (1987) observed differentials in the relationship with parity, irregular periods, and breastfeeding practices [13,31].

The average age at menopause demonstrates a positive association with the age at menarche, with women whose age at menarche was less than 12.5 years experiencing an average age at menopause of 46.1 years, while those with an age at menarche of 12.5-13.5 years and 13.5 years or above had average ages at menopause of 46.59 years and 47.22 years, respectively [35].

PHYSIOLOGICAL VARIABLES

Bansal et al. [21] observed that women with a higher body weight underwent menopause at a later age (46.13 years) in comparison to those with a normal BMI (45.32). Similarly, Maru et al. [22] conducted a cross-sectional study, revealing a positive correlation between body mass index (BMI) and the age of menopause. The increase in BMI was associated with a corresponding increase in the age of menopause, indicating a statistically significant relationship.

This could be attributed to the potential extension of the reproductive span in obese women, stemming from heightened estrogen production in adipose tissue.

Furthermore, women with shorter menstrual cycles (less than 26 days) between the ages of 20-35 were reported to experience natural menopause 1.4 years earlier than those with longer cycles (26-32 days), while late menopause was observed in women with cycles lasting 33 days or more [6]. Additionally, a positive association was identified between age at menarche and age at menopause. Smoking, as noted by Gold et al. [23] and Palmer et al. [24], was linked to an earlier onset of menopause. This association may be elucidated by the adverse effects of polycyclic aromatic hydrocarbons present in cigarette smoke, leading to the depletion of ovarian follicles and the occurrence of early menopause.

PSYCHOLOGICAL VARIABLES

The individual's attitudes toward menopause play a pivotal role in shaping the overall experience of this life stage, often acting as self-fulfilling prophecies. Women harboring negative attitudes toward menopause and aging are more prone to reporting a greater number and frequency of menopausal symptoms [18].

1. *Personal psychological vulnerability:*

- Experience of mood disorders.
- Negative attitude towards menopause and aging: Women with more pessimistic views regarding menopause tend to report more symptoms during the menopausal transition [18].
- Life events, personality, and coping.
- Self-esteem: Women with lower self-esteem typically experience more pronounced menopausal complaints.

2. *Life stressors:*

- Lack of social support.
- Unemployment.
- Surgical menopause.
- Poor overall health status.

3. *Interpersonal relationships*

- Social interpersonal relationships significantly influence an individual's life and general well-being. These relationships serve as a major social support system for women, aiding them in managing stressors and life challenges with considerable effects on psychological health.

These relationships encompass:

- Relationship with a partner.
- Relationship with children.
- Relationship with friends/social support.

The menopausal transition can be a stressful period influenced by various beliefs surrounding fertility and evolving societal roles or shifts. Depression during menopause is linked to the Empty Nest Syndrome, a phenomenon observed in some men and women when their youngest child is about to leave home. Interestingly, many women report an enhanced sense of well-being during this time, relishing opportunities to pursue goals postponed due to child-rearing [17]. Additionally, premenstrual dysphoric syndrome, characterized by mood changes with hormonal fluctuations before menstruation, is noteworthy. Anecdotal evidence suggests that as women approach menopause, symptoms of premenstrual dysphoric syndrome may worsen during the onset of perimenopause and alleviate with the transition into menopause [19].

CONCLUSION

Menopause, a natural phase in a woman's life, is intricately linked to bio-psycho-social events in midlife and the aging process. The physical and emotional changes associated with menopause significantly impact women, marking a period characterized by both gains and losses. Throughout menopause, women exhibit increased resilience and adopt coping strategies to enhance their physical and emotional well-being. Given the connection between early menopause and health risks like osteoporosis, it is imperative to ensure that economically disadvantaged women have access to adequate nutrition and health interventions [33]. Various factors, including health issues, family dynamics,

marital relations, sociocultural background, and the significance attributed to women's sexual experiences, influence whether menopausal experiences are perceived as positive or not. Women should be adequately prepared and have their needs supported based on their unique perspectives.

Key findings from the National Family Health Survey (NFHS-5), 2019-2020, for Maharashtra state [36] reveal a decline in fertility trends from NFHS-1 to NFHS-5 (2.9 to 1.7). The most significant differentials in fertility are observed based on religion, caste/tribe, and school. In a notable addition to NFHS-5, waist circumference and hip circumference of women aged 15-49 years were measured. The results indicated that more than two-fifths of women, or 45%, have a waist-to-hip ratio putting them at the risk of metabolic complications. This risk increases with age, as reported waist-to-hip ratios were 37% for women aged 15-19 and 51% for those aged 40-49. An anthropological inquiry delving into people's perceptions is crucial, particularly in studying menopause within the cultural context. Understanding the cultural perception of this biological phenomenon is essential, especially in communities such as indigenous populations situated in remote locations with lower literacy rates and limited healthcare access. Recognizing, reporting, and understanding the effects of menopausal symptoms within specific cultural contexts provide valuable insights through a clear research lens.

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