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Review Article

Navigating Menopause: Insights into Symptoms, Treatments, and Alternative Therapies

Akriti Yadav

Swami Vivekanand Subharti University, Meerut, India.

I N F O

E-mail Id:
akritiyadav07@gmail.com

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A B S T R A C T

With the rise in life expectancy, the population of postmenopausal women is projected to reach 1.1 billion by 2025. The physiological and pathological changes associated with menopause significantly impact the quality of life among women. This narrative literature review aims to provide an overview of the existing literature on menopausal symptoms, treatments, and alternative complementary therapies, as well as to identify knowledge gaps for future research. The literature search was conducted using PubMed, CINAHL, ScienceDirect, and MEDLINE. The search focused on studies related to the prevalence of menopausal symptoms, treatment options including menopausal hormone replacement therapy, and alternative complementary therapies such as yoga, exercise, and hypnosis. The results are thematically categorized as follows: 1) Menopausal symptoms by age, 2) Prevalence and risk factors of menopausal symptoms, 3) Early menopause, 4) Menopausal hormone therapy, and 5) Alternative and complementary therapies like yoga and exercise. Menopause often goes unrecognized and unaddressed in society due to social taboos. There is a need for new methodological and theoretical approaches in research on menopausal women's health and alternative complementary therapies to enhance benefits and reduce complications among hormone replacement therapy users.

Keywords: Menopause Symptoms, Hormone Therapy, Postmenopause

Introduction

Menopause marks the end of a woman's reproductive phase, triggered by a decrease in ovarian hormones.[1] Premenopause, the phase after menarche and before menopause, is characterized by normal fertility.[2] During menopause, the cessation of ovarian hormonal function, mainly due to reduced estrogen levels, can lead to atrophic, vasomotor, psychological, and somatic changes. These changes, known as menopausal syndrome or climacteric, can significantly affect women's quality of life, potentially causing severe physical and mental illness.[3] Common symptoms during pre and post menopause include night sweats, fatigue, insomnia, pain during intercourse, irregular menstruation, hot flashes, irritability, moodiness, sleeplessness, vaginal dryness, and reduced sexual drive. Women often notice irregular menstruation and the sudden cessation of periods.[4]

Estrogen is crucial for receptivity and awareness of sexual engagement. Due to lower estrogen levels, middle-aged women might experience a drop in sexual activity and pain-related vaginal dryness during intercourse. Hormonal therapy helps improve pain relief, orgasm, and lubrication.

HT has significantly enhanced orgasm, pain relief, and lubrication.[5] The series of physical and psychological problems during menopause results in a decline in the quality of life among women. Besides basic physical symptoms, menopausal women also face emotional disorders, leading to depression and anxiety, which in turn affect mental health and sleep quality.[6]

However, menopausal hormone therapy (MHT) has been linked to an increased risk of thromboembolic events, breast cancer, and cardiovascular disease. Due to these health risks, many women choose not to undergo hormone therapy. Complementary and alternative medicine (CAM) is considered safe and effective for managing menopausal symptoms.[7] Exercise is a non-pharmaceutical management option to address several risk factors related to the marked estradiol decreases in the peri- and early postmenopausal stages.[8] Although exercise can relieve menopausal symptoms, studies have shown that a lack of scientific exercise knowledge, such as proper exercise duration, intensity, and type, can lead to poor results and even serious harmful effects like exercise injuries.[9]

Research Methodology and the Findings

Incidence and Risk Factors of Menopause

Menopause is a natural biological process marking the end of a woman's reproductive years, typically occurring between the ages of 45 and 55. It signifies the permanent cessation of menstrual cycles due to the decline in ovarian hormone production, primarily estrogen. The prevalence and experience of menopause can vary widely among women, influenced by various risk factors.

Du et al. (2020) conducted a quantitative community-based cross-sectional research among middle-aged women aged 40-60 years. They employed a stratified and quota sampling technique in a community setting, with a sample size of 3417 middle-aged women. The study utilized a structured questionnaire and the Modified Kupperman Menopausal Index (mKMI). The prevalence of menopausal symptoms was reported as follows: 73.8% experienced fatigue, 33.65% had hot flushes and sweats, and 28.81% reported joint pain. A total of 2943 participants responded, resulting in a response rate of 94.09%. Approximately 48.52% of women scored less than 6 on symptom severity, indicating mild symptoms, while 33.74% reported moderate symptoms and 1.19% reported severe symptoms.[4] Wang et al. (2021) employed a quantitative approach using a cross-sectional research design to study women aged 40 to 55 across eastern, central, and western regions of China in 2018. They utilized a purposive sampling technique in community settings, with a sample size of 6,745 women. The study utilized the Modified Kupperman Menopausal Index (KMI) questionnaire and conducted face-to-face interviews to collect demographic, lifestyle, physical, and menopause-related characteristics data. The prevalence of menopausal symptoms was reported as 9.3% (303/3,256) during the reproductive stage, 23.9% (293/1,227) during the menopausal transition, and 21.5% (405/1,881) during the postmenopausal stage.[10] Choe et al. (2020) utilized a quantitative approach in a retrospective comparative study design. The study population consisted of women aged 45 years, divided into two groups from the US and Korea. Data on US women were extracted from the 1999–2014 National Health and Nutrition Examination Survey (NHANES), while Korean data were collected from the 2007–2012 Korea National Health and Nutrition Examination Survey (KNHANES). The sample sizes were 9,209 US women and 9,828 Korean women. The study used surveys and face-to-face interviews to gather data. The results focused on the prevalence of early and premature menopause across ethnic groups, noting a prevalence of premature menopause of 1.7% among US non-Hispanic white women and early menopause rates of 3.2%. Korean women had the highest prevalence of premature menopause at 2.8% and early menopause at 7.2%.[11] Yisma et al. (2017) conducted a quantitative cross-sectional study using a multi-stage clustered random sampling approach. The study focused on perimenopausal and postmenopausal women aged 30-49 years in Gulele, an Ethiopian suburb of Addis Ababa. The sample size was 588 eligible women who participated in interviews. The study found a high prevalence of menopausal symptoms: hot flushes (65.9%), difficulty falling asleep (49.6%), depressive mood (46.0%), irritability (45.1%), and anxiety (39.8%). Less common symptoms included heart discomfort (22.1%), bladder issues (26.1%), and sexual problems (27.0%).[2]

Menopausal Symptoms

Menopausal symptoms refer to the various physical, emotional, and psychological changes that women experience as they transition from their reproductive years into menopause. Common symptoms include hot flashes, night sweats, mood swings, irritability, fatigue, insomnia, vaginal dryness, changes in libido, and irregular periods.

The study utilized a quantitative approach with a cross-sectional observational design to examine menopausal symptoms among women aged 40-60 years across various provinces in Lebanon. Using a purposive sampling technique, 1113 Lebanese women participated, and data were collected using the MENQOL questionnaire in its Arabic version. Results showed that hot flushes (48.9%), memory issues (52.9%), muscle and joint pain (72.3%), and changes in sexual desire (43.4%) were the most frequently reported symptoms. Peri- and post-menopausal women experienced vasomotor, psychosocial, and physical symptoms more frequently compared to menopausal women, who pre-

dominantly suffered from sexual disturbances (p<0.001).[1]

Zhang et al. (2020) conducted a quantitative cross-sectional study at a menopausal clinic in China, involving women aged 40 to 83 from 31 provinces. They employed purposive sampling, resulting in a sample size of 4595 women. Using the Modified Kupperman Menopausal Index (KMI) questionnaire and face-to-face interviews, they found urogenital symptoms were most prevalent (97.92%), while vasomotor symptoms (VMS) were least prevalent (48.83%). Symptoms generally increased until age 60, then showed improvement, varying by menopausal status and associated risks.[12]

Ali (2020) employed a quantitative cross-sectional research approach among peri- and postmenopausal Emirati women in Dubai's public health care centers. Using multistage random sampling, they surveyed 60 women with a structured questionnaire via face-to-face interviews. Psychological symptoms like fatigue (65.0%), anxiety (61.7%), and difficulties sleeping (58.3%) were prevalent and bothersome. Weight gain was experienced by 63.3% of participants, with moderate levels of bother (median = 3.87 ± 2.48). Psychological variables showed significant positive correlations with weight gain, overall MENQOL scores, vasomotor symptoms, and sexual symptoms.[13]

Kim et al. (2018) conducted a quantitative cross-sectional observational study among women aged 44 to 56 at healthcare centers in Seoul and Suwon, South Korea. The study utilized a sample of 634 eligible women visiting between November 2012 and March 2013. Researchers employed the MENQOL questionnaire and Pittsburgh Sleep Quality Index (PSQI). Results indicated that vasomotor and physical menopausal symptoms correlated with poor sleep quality, while no significant association was found with psychosocial and sexual symptoms. Additionally, lower education and income levels were linked to higher prevalence of poor sleep quality (ß = 0.240, P = 0.020) and increased vasomotor and physical symptoms (ß = 0.572, P < 0.001).[14]

Effectiveness of Hormone Therapy for Menopausal Women

Women assigned to CEE alone had an 18% higher incidence of hypertension compared to those assigned to placebo (HR [95% CI] 1.18 [1.09, 1.29]), resulting in 103 more hypertension diagnoses per 10,000 person-years. In the first year (p=0.04), the average treatment-related increase in systolic blood pressure was 0.68 (0.02, 1.33) mmHg. Across the entire group, CEE did not impact average diastolic pressure. Only baseline systolic blood pressure influenced the likelihood of developing hypertension during estrogen therapy. The hazard ratio (HR) for the overall effect on the composite endpoint of self-reported hypertension showed no significant impact of baseline factors during the post-intervention period (HR 1.06 [0.94, 1.20], p=0.35). Furthermore, the treatment-associated risk of hypertension lost statistical significance. The risk of incident hypertension was 18% higher during the CEE and CEE plus MPA intervention phases compared to placebo (CEE: HR, 1.18; 95% CI, 1.09, 1.29; CEE plus MPA: HR, 1.18; 95% CI, 1.09, 1.27). This effect diminished post-intervention (CEE: HR, 1.06; 95% CI, 0.94, 1.20; CEE plus MPA: HR, 1.02; 95% CI, 0.94, 1.10).[15]

Qualitative methodology was employed in this study, involving thirty women under 60 years of age currently undergoing systemic hormone therapy (HT) in both a large metropolis in Northern California and a small town in the Rocky Mountain region. Women with severe osteoporosis were excluded from the study. The sample size of 30 participants was considered adequate for qualitative exploration of HT usage among older women. Audio-recorded interviews were meticulously transcribed and analyzed using conventional grounded theory methods. Coded passages were organized using NVivo 10 software (QSR International).

During the interviews, all participants referred to hormone replacement therapy (HRT) using terms like "HRT" or "hormone replacement therapy," which they described as replacing natural or essential chemicals. One participant, despite a medical history including two mastectomies and a cholecystectomy, persisted in finding a clinician willing to prescribe estrogen. She expressed, "Without HRT, I would not feel feminine," emphasizing the naturalness of replacing estrogen lost during menopause. Participants also expressed concerns about sexual health, fearing that discontinuing HT would lead to decreased sexual enjoyment and desire due to vaginal symptoms such as dryness. They shared sentiments like, "I still enjoy having great sex, and I'm worried that would change if I stopped taking them. And I'm not yet ready to abandon that. And so, I don't want to give that up." Some participants speculated that women not using HT might be less likely to desire sexual activity.[16]

Alternative and complementary therapy of Menopause

An 18-month comprehensive exercise program's effect on menopausal symptoms and risk factors, particularly focusing on changes in bone mineral density (BMD), was investigated. Postmenopausal women with osteopenia or osteoporosis were divided into two groups: a control group (CG) engaged in low-intensity exercise and an experimental group (EG) participating in high-impact weight-bearing and high-intensity velocity resistance training. Both groups received calcium and cholecalciferol supplements. The primary research finding, LS-BMD, was maintained in the EG (p=0.517) but significantly decreased in the CG (p=0.015). Menopausal symptoms improved in both groups

post-intervention; however, the EG showed notably greater changes from pre- to post-intervention (EG: p=0.002 vs CG: p=0.891) (17).

Conclusion

Our study revealed that perimenopausal women exhibit the highest prevalence of menopausal symptoms among middle-aged women. Interestingly, only a small percentage of participants sought medical attention despite experiencing these symptoms. Health education could effectively promote awareness and encourage medical consultation among middle-aged women experiencing menopausal symptoms. The Menopause Rating Scale was employed to assess symptoms in perimenopausal and postmenopausal women. Regular exercise emerged as a protective factor against some symptoms. Hormone replacement therapy (HRT) significantly alleviated all symptoms, underscoring its efficacy when used consistently. Conversely, women not using hormone treatment and reporting no physical complaints were notably more likely to experience sexual issues.

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