REVIEW ARTICLE

Menopausal Hormone Therapy: Current Review and its Acceptability and Challenges in the Indian Context

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Abstract

Menopause brings hormonal shifts with physical and emotional symptoms. This article delves into Menopausal Hormone Therapy (MHT), vital for global symptom management but hindered by sociocultural, economic, and healthcare factors in India. Despite efficacy, skepticism persists, amplified by post-Women's Health Initiative concerns. Economic challenges, cultural beliefs favoring traditional therapies, and limited health literacy impede MHT adoption, especially in rural areas. Healthcare provider attitudes and time constraints further complicate usage. Addressing these barriers demands tailored interventions integrating cultural preferences and improving health literacy. The review also explores physiological changes in menopause and suggests receptor-specific therapies for tailored treatment. Further research is crucial to bridge knowledge gaps and understand healthcare provider perspectives, enhancing MHT acceptance and supporting menopausal women. By tackling these challenges, healthcare providers can empower women with informed decisions, ultimately enhancing their quality of life.

Keywords

Menopause; Menopausal Hormone Therapy; Acceptance; Challenges; India

Introduction

Menopause is a natural aging process in women, defined by the World Health Organization (WHO) as the cessation of monthly cycles for 12 months due to decreased estrogen and progesterone. It can occur naturally or be induced by treatments like surgery, chemotherapy, or radiation.(1)

Menopause typically occurs between ages 45 and 55, with hormonal changes affecting physical, emotional, mental, and social health. Menstrual cycle regularity and duration vary, and symptoms during and after menopause differ greatly among individuals.(2) The hormonal changes during the menopausal transition can span several years. The menopausal transition will be marked by a diminishing pool of ovarian follicles and by fluctuations in reproductive hormones and changes in the menstrual pattern; often presenting with menstrual irregularities and ending with the final menstrual period

(FMP).(3) Middle-aged women experience progressive changes in ovarian activity and fluctuating hormone levels during the menopausal transition, starting 4-6 years before menopause. Symptoms include hot flashes, sleep disturbances, mood swings, memory problems, and dry vagina. These neurological symptoms can significantly affect physical and mental well-being, quality of life, and productivity. Mood swings, sleep disturbances, and "brain fog" are common complaints.(4)

Early detection of menopausal symptoms can reduce discomfort and concerns. With longer lifespans, women now spend one-third of their lives in menopause. By 2015, India had 130 million elderly women, requiring significant care. Menopausal symptoms can be bothersome, but some manage them well. Sociocultural factors lead Indian women to underreport symptoms.(5)

Menopausal symptoms can be unsettling, impacting women's roles at home, work, and in society. Longitudinal studies show symptom frequency and severity are influenced by individual, geographic, and ethnic factors. These symptoms often lead women to seek treatments to lessen their duration and intensity. Menopausal hormone therapy (MHT), formerly known as hormone replacement therapy, is one of the main conventional therapy.(6)

Need for this review article?

Despite being a well-known therapy globally, the acceptability and challenges of Menopausal Hormone Therapy (MHT) in India have not been extensively reviewed. This article aims to bridge this gap by exploring evolving perspectives and concerns unique to the Indian context. The study did not involve direct human subjects research; therefore, institutional review board approval was not required per the Policy document on the 'Code of Research Ethics' of JSS Academy of Higher Education.

What is MHT & How is it useful in menopause?

Menopausal Hormone Therapy (MHT) or Hormone Replacement Therapy (HRT) supplements hormones lost during menopause to alleviate symptoms. It aims to supplement a postmenopausal woman's decreased hormone levels, but not at the same levels as those secreted by the ovaries during the premenopausal stage. This treatment is most efficient for symptoms of acute climacteric syndrome and helps prevent long-term estrogen deficiency.(7)

MHT, the then HRT was approved by the US Food and Drug Administration (FDA) in 1942 when conjugated equine estrogens (CEE), a mixture of more than ten estrogenic compounds isolated from the urine of pregnant mares, were used to treat symptoms resulting from estrogen deficiency. The drug became an established treatment for the relief of menopausal symptoms, supported by independent studies.(8,9)

Menopause was initially managed without hormones due to a lack of knowledge. MHT was then used, but the Women's Health Initiative (WHI) trial in 2002 revealed the rise of MHT-related health hazards. Heart disease and stroke were significantly increased in MHT users by 29% and 41%, respectively, and venous thromboembolic events were doubled. This led to menopause practitioners ceasing to prescribe MHT, and women who had previously been taking MHT stopped doing so. Although universal MHT is not widely practiced today, it still plays a significant role in the management of menopause.(9,10)

Types of MHT Menopause hormone therapy (MHT), is a set of preparations containing sex hormones that are given when there is insufficient estrogen in the body. Estrogen replacement therapy (ERT) is the term used to describe estrogen-only therapy (ET). Estrogen–progestogen therapy (EPT) refers to the combination of progestogens and estrogens**.** They should be distinguished from one another due to significant variations in their risk-benefit ratios(.7)

The hormone therapy of choice for women in early menopausal transition is gestagen substitution, levonorgestrel intrauterine system (LNG-IUS), or low-dose monophasic contraception. In the late menopausal transition, there should be an initial switch to

gestagen-dominated combined sequential EPT.(11)

Estrogen administration can be customized via oral, transdermal, percutaneous, intramuscular, intranasal, subcutaneous, and local (vaginal) routes. For conditions like hypertriglyceridemia, diabetes, liver issues, and thromboembolic risk, transdermal administration is recommended. The latest technique, metered-dose transdermal spraying (EMDTS), offers precise dosing and the safety of transdermal application.(12)ET is for women without a uterus. For women with an intact uterus, estrogen–progestogen blends are administered, and their application regimen is either continuous or cyclic for 21 days with a 7-day pause. In practice, out of all the progestogens, micronized progesterone, and dydrogesterone seem to have the best safety profile. IUS-LNG has a local effect on the endometrium with minimal systemic effects.(13)

The indications for menopausal issues include:

Treatment of vasomotor symptoms of menopause

Treatment of genitourinary syndrome of menopause (previously known as vaginal and vulvar atrophy)

Prevention of osteoporosis

Contraindications to MHT include a history of breast cancer, CHD, a previous venous thromboembolic (VTE) event or stroke, active liver disease, unexplained vaginal bleeding, high-risk endometrial cancer, or transient ischemic attack.(14)

When is MHT advised?

Each woman needs an individualized health plan management. Differentiating between a menopausal woman who exhibits symptoms and one who does not is crucial. Women may present at the menopausal clinic with menstrual problems, or menopausal symptoms, or request for a general health checkup or as an opportunistic contact to be picked up by the health professional.(15) The safety of MHT is reliant upon a woman's age and the duration of time since menopause, such that the benefits tend to outweigh the risks in healthy women less than age 60 or within ten years from menopause.(16)

Importantly, MHT is a component of a comprehensive management plan for menopausal women that also includes lifestyle choices meant to promote and maintain good health, such as quitting smoking (if applicable), eating a diet low in sugar and fat, engaging in regular physical activity (like brisk walking), reducing intake of alcohol, and managing weight (body mass index (BMI) < 25 kg/m(2)).(17)

The therapeutic approach to menopause aims to address early symptoms and reduce long-term postmenopausal effects. Treatment must be tailored to the menopause stage, as goals vary. Assessing for co-existing risk factors before prescribing hormone therapy (HT) is crucial to ensure the patient is a good candidate for it.(18)

During menopause, women primarily seek hormone therapy for hot flushes. Systemic estrogen therapy effectively treats vasomotor symptoms, sleep disruption, dyspareunia, vaginal dryness, and urinary symptoms. When stopping MHT, gradually reducing Medroxyprogesterone acetate dosage is recommended. Progestin therapy is an alternative if estrogen is not suitable.(9)

Benefits and Risks

Post Women's Health Initiative (WHI), MHT concerns surged due to reported risks like increased breast cancer. Recent reviews note risks and benefits, emphasizing healthcare provider communication for myth dispelling. MHT's historical trajectory saw a rise in the 1980s, sharply declining post-WHI.(19) Notably, WHI revealed a 26% breast cancer risk increase after 5 years but none with seven years of estrogen use.(20) Studies indicate higher breast cancer risk in long-term combined MHT users, decreasing upon cessation.(21)

A Cochrane review of 41,904 women found that combined continuous MHT increases risks of breast cancer, thromboembolism, and stroke. Estrogen-only MHT reduced fractures but raised other risks, including dementia and thromboembolism.(22)

MHT alleviates symptoms like hot flashes and dyspareunia in postmenopausal women. The Endocrine Society advises personalized treatment, weighing cardiovascular and breast cancer risks. While WHI studies caution against MHT for chronic conditions in older women, younger women with severe symptoms may benefit after careful counseling.(23)

Myths and facts

Attitudes towards MHT have shifted since the WHI's findings 15 years ago. Evolving evidence clarifies risks and benefits, emphasizing ongoing research. Future efforts aim to refine MHT, explore targeted therapies, and understand menopause-related changes, alongside emphasizing lifestyle management.(16)

Katarzyna et al. found mental ailments prevalent during menopause, with MHT commonly used as prevention among postmenopausal women in Poland.(6) Malik HS et al.'s study in Karachi found postmenopausal women lack knowledge about MHT, perceiving menopause as natural, not medical.(24) Pershad et al.'s review highlighted factors such as knowledge of MHT effectiveness, societal opinions, and concerns about adverse effects on women's perceptions. It underscored hormone therapy as a safe, effective tool for improving quality of life in menopausal women.(25) Professor M.H. Birkhauser's survey reassured healthcare professionals maintain confidence in MHT, emphasizing progestogen dosage optimization awareness for prescribers.(11)

Insights into MHT Usage

Several studies shed light on the use and perceptions of MHT among menopausal women. It remains a primary approach in climacteric medicine, emphasizing the importance of selecting the right MHT preparation for each patient.(7) Individualized care, considering a woman's needs and preferences, is crucial. Initiating MHT early in menopause, tailored to each patient's characteristics, seems to pose minimal risks for healthy women.(9) Studies from Italy and Thailand highlight varying levels of awareness and acceptance of MHT, influenced by factors like education, menopausal status, and information sources.(26,27) Notably, women often focus on short-term symptom relief rather than long-term benefits.

Physician attitudes vary, with some expressing caution despite evidence suggesting lower cardiovascular risk with MHT. Communication and time in consultations affect MHT use. Many women and doctors lack full knowledge of MHT benefits and risks, contributing to concerns. Social and economic factors, like unemployment, also influence MHT usage and confidence levels.(28-32)

Improving scientifically validated information is crucial to address misconceptions about MHT. Fear of side effects and misinformation hinder adoption. Researchers prioritize enhancing women's self-efficacy, healthcare support, and knowledge to improve quality of life and encourage MHT adoption. Population-based studies and understanding social influences are essential for a patient-centered approach to menopausal care.(32-37)

Studies in the Indian Context

In India, limited studies on MHT acceptance among postmenopausal women highlight significant gaps. Sociocultural factors lead to symptom underreporting. Tailoring effective interventions requires understanding attitudes, knowledge, and preferences. Provider counseling influences MHT use, stressing communication's importance. The Indian Menopause Society provides guidelines on MHT usage in this context.(38)

Acceptability in India: In the Indian context, acceptance of Menopausal Hormone Therapy has been influenced by cultural, social, and economic factors. Traditionally, women in India might be hesitant to discuss menopausal symptoms due to cultural taboos surrounding women's health. However, as societal attitudes evolve, there is a growing awareness and acceptance of MHT as a viable option to manage menopausal symptoms.

Several Indian studies, such as the one conducted by Sharma et al., have shown an increasing willingness among Indian women to consider MHT. The study reported that women who were well-informed about the therapy

and its potential benefits were more likely to accept it as a part of their menopausal healthcare.(39)

Challenges in the Indian Context: Despite increasing acceptability, Menopausal Hormone Therapy in India faces unique challenges that need careful consideration. Economic factors may pose a barrier, as MHT can be expensive, making it less accessible for a significant portion of the population.

1. Economic Challenges

A study by Subramaniyan et al. examined the economic factors influencing the acceptance of Menopausal Hormone Therapy in urban and rural areas of India. The research highlighted that women in urban areas were more likely to afford MHT, and economic factors played a crucial role in the decision-making process. This underscores the need for targeted interventions to make MHT more economically accessible, especially in rural settings.(40) The study by Gupta et al. highlighted economic constraints as a major hindrance to the widespread adoption of MHT in India.(41)

2. Cultural Perspectives and Alternative Therapies

Cultural nuances significantly influence attitudes toward menopause management among Indian women, who may favor traditional or lifestyle-based therapies. Integrating these preferences into healthcare strategies is vital for enhancing MHT acceptability.

Moreover, India's diverse healthcare landscape challenges providing standardized menopausal healthcare nationwide. Strengthening healthcare infrastructure is crucial to ensure equitable access to quality information, consultation, and treatment options for women of varying socio-economic backgrounds.

In a qualitative study by Deshmukh et al., cultural perspectives on menopause and MHT were explored among Indian women. The study found that cultural beliefs significantly influenced women's choices regarding healthcare during menopause. Many women expressed a preference for alternative therapies such as Ayurveda or Yoga. Understanding these cultural preferences is crucial for healthcare providers to tailor interventions that align with women's beliefs.(42)

3. Health Literacy and Knowledge Gaps

Reddy et al.'s study assessed menopausal women's knowledge of Menopausal Hormone Therapy, revealing significant gaps and misconceptions. Health literacy initiatives are crucial to improve education, dispel myths, and support informed decision-making about MHT.(43)

4. Healthcare Provider Perspectives

Khan et al. studied healthcare providers' perspectives on prescribing Menopausal Hormone Therapy in India, highlighting challenges such as time constraints and the need for specialized training. These insights are crucial for improving communication and understanding between providers and menopausal women.(44)

Concerns about MHT side effects and long-term risks make Indian women cautious. Healthcare providers must address these through proper education and counseling. Patel and Mehta's study emphasized the need for comprehensive healthcare strategies that consider cultural and health literacy aspects influencing MHT perception in India.(45)

These studies highlight the multifaceted nature of MHT acceptance in India, involving economic, cultural, educational, and healthcare provider perspectives. Continuous research and targeted interventions are essential to improve MHT acceptability and enhance menopausal women's overall well-being in India.

CONCLUSION

In conclusion, menopause is a pivotal life stage for women, marked by hormonal changes and diverse symptoms. Menopausal Hormone Therapy (MHT) plays a critical role in managing these symptoms, enhancing quality of life. Understanding these aspects is essential for healthcare providers to deliver effective menopausal care.

Different types of MHT, like ERT and EPT, cater to individual needs and preferences based on health status, age, and menopausal stage. Dispelling myths and providing evidence-based information are crucial for informed decision-

making about MHT, especially in diverse cultural and economic contexts, such as in India.

Challenges such as economic constraints, cultural preferences, and knowledge gaps highlight the need for targeted interventions and healthcare system improvements to enhance MHT acceptability. Future research should focus on refining MHT regimens, understanding menopause-related pathophysiological changes, and addressing socio-cultural determinants of MHT usage.

By acknowledging these highlights and recommendations, healthcare providers can adopt a patient-centered approach, empowering menopausal women to navigate their health journey with confidence and improved well-being.

RECOMMENDATIONS

Despite challenges, MHT remains a primary therapy. Customized treatment plans and lifestyle changes, considering individual risk factors, are crucial. Health education programs targeting menopausal women and healthcare providers with evidence-based information on MHT benefits, risks, alternatives, and symptom management strategies can enhance acceptance. Addressing economic barriers through subsidies and insurance coverage is essential for equitable access. Cultural sensitivity in healthcare delivery respects diverse beliefs and preferences, tailoring interventions accordingly.

Future research should focus on receptor-specific therapies and physiological changes during menopause, exploring efficacy, safety, and long-term effects. Understanding these can optimize MHT treatment regimens for better outcomes and fewer side effects.

LIMITATIONS OF THE STUDY

This review paper faces several limitations, including a lack of recent, large-scale Indian data on MHT usage and long-term outcomes, which restricts its generalizability to the diverse Indian population. It primarily focuses on MHT without adequately addressing alternative menopause management options, such as traditional therapies and lifestyle interventions that are prevalent in India. Variations in study design, potential publication bias, and a limited inclusion of primary data from both healthcare providers and patients further constrain the findings. Additionally, the paper's discussion of sociocultural and economic barriers is somewhat generalized, without delving deeply into regional differences or policy solutions. These gaps underscore the need for more comprehensive, region-specific studies that integrate qualitative insights and a balanced risk-benefit analysis tailored to Indian women's unique experiences.

RELEVANCE OF THE STUDY

This study addresses the significant knowledge gap in the understanding and utilization of Menopausal Hormonal Therapy (MHT) within the Indian context. While MHT is a well-established treatment for managing menopausal symptoms like hot flashes, vaginal dryness, and cardiovascular issues, its acceptance and implementation in India remain limited. The study explores the underlying barriers from both healthcare providers and patients, highlighting concerns over potential side effects, misconceptions about cancer risks, financial burdens, and limited availability of MHT options in government healthcare systems. By shedding light on these challenges, the study emphasizes the need for more comprehensive, culturally relevant research and targeted awareness initiatives. It also calls for improved access to accurate information and cost-effective MHT options, ultimately aiming to enhance the quality of life for menopausal women in India.

AUTHORS CONTRIBUTION

Both authors contributed significantly to the development of this review article. SB not only gathered and collated the relevant literature but also actively participated in data extraction and synthesis, ensuring that key findings were accurately represented. SS originated the initial idea and played a pivotal role in conceptualizing the framework and research questions, while also developing the headings and subheadings to structure the manuscript effectively. In addition, SS led the process of

refining the literature, editing the content for grammar and language, and coordinating the overall project to ensure a coherent final product. Both authors critically reviewed and revised the manuscript and provided final approval, ensuring that the study met high scholarly standards throughout its development.

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Conflict of Interest

There are no conflicts of interest.

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Declaration Of Generative AI And AI Assisted Technologies In The Writing Process

During the preparation of this work, the authors sparingly used Claude to refine the English language and improve grammatical accuracy. The tool was employed solely to enhance clarity and language quality once the manuscript was ready. After using this service, the authors thoroughly reviewed and edited the content and take full responsibility for the final version of the publication.

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