

**KNOWLEDGE AND ATTITUDE TOWARD
MENOPAUSE AND HORMONE REPLACEMENT
THERAPY (HRT) AMONG HEALTHCARE
WORKERS IN HOSPITAL PAKAR UNIVERSITI
SAINS MALAYSIA (HPUSM)**

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by

FATIMATULZAHRAH BINTI ABU MANSOR

**Dissertation submitted in partial fulfilment of the requirements
for the degree of
Bachelor in Nursing**

August 2025

CERTIFICATE

This is to certify that the dissertation entitled KNOWLEDGE AND ATTITUDE TOWARD MENOPAUSE AND HORMONE REPLACEMENT THERAPY (HRT) AMONG HEALTHCARE WORKERS IN HOSPITAL PAKAR UNIVERSITI SAINS MALAYSIA (HPUSM) is the bona fide record of research work done by Ms. FATIMATULZAHRAH BINTI ABU MANSOR during the period from October 2024 to August 2025 under my supervision. I have read this dissertation and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation to be submitted in partial fulfilment for the degree of Bachelor of Nursing (Honours).

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Date: 02nd August 2025

DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated and duly acknowledged. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at Universiti Sains Malaysia or other institutions. I grant Universiti Sains Malaysia the right to use the dissertation for teaching, research and promotional purposes.



.....
Fatimatulzahrah binti Abu Mansor

Date: 02nd August 2025

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**TAHAP PENGETAHUAN DAN SIKAP TERHADAP MENOPAUS DAN
TERAPI PENGGANTIAN HORMON (HRT) DALAM KALANGAN
PETUGAS KESIHATAN DI HOSPITAL PAKAR UNIVERSITI SAINS
MALAYSIA (HPUSM)**

ABSTRAK

Terapi Penggantian Hormon (HRT) merupakan salah satu rawatan paling berkesan dalam menangani gejala menopaus, namun penggunaannya masih rendah disebabkan oleh kebimbangan terhadap keselamatan serta kurangnya pengetahuan dalam kalangan profesional penjagaan kesihatan. Kajian ini dijalankan untuk menilai tahap pengetahuan dan sikap petugas kesihatan terhadap menopaus dan HRT di Hospital Pakar Universiti Sains Malaysia (HPUSM), serta meneliti hubungan antara faktor sosiodemografi dengan tahap pengetahuan dan sikap mereka. Seramai 96 orang petugas kesihatan yang terdiri daripada doktor dan jururawat dari pelbagai jabatan telah mengambil bahagian dalam kajian keratan rentas ini. Data dikumpulkan melalui soal selidik yang dijawab sendiri dan dianalisis menggunakan statistik deskriptif serta ujian Chi-square melalui perisian SPSS versi 27.0. Dapatan kajian menunjukkan majoriti peserta mempunyai tahap pengetahuan sederhana (62.2%) dan tahap sikap sederhana (73.3%) terhadap HRT, manakala 32.7% menunjukkan tahap pengetahuan tinggi dan 23.8% menunjukkan sikap yang sangat positif. Analisis mendapati tiada hubungan signifikan antara faktor sosiodemografi dengan tahap pengetahuan, namun terdapat hubungan yang signifikan antara jawatan profesional dan jabatan dengan tahap sikap ($p < 0.001$), di mana doktor dan mereka yang bertugas di Jabatan Obstetrik dan Ginekologi menunjukkan sikap yang lebih positif. Dapatan ini menunjukkan keperluan untuk pendidikan berterusan dan garis panduan klinikal terkini bagi

meningkatkan kefahaman dan keyakinan petugas kesihatan dalam mengurus rawatan menopause menggunakan HRT.

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(HPUSM)**

ABSTRACT

Hormone Replacement Therapy (HRT) is one of the most effective treatments for managing menopausal symptoms. Yet, it remains underutilized due to concerns about its safety and a lack of understanding among healthcare professionals. This study aimed to assess the level of knowledge and attitude of healthcare workers regarding menopause and HRT at Hospital Pakar Universiti Sains Malaysia (HPUSM), and to examine the association between sociodemographic factors with knowledge and attitude levels. A total of 96 healthcare workers, including doctors and nurses from various departments, participated in this cross-sectional study. Data were collected using a self-administered questionnaire and analyzed with descriptive statistics and Chi-square tests using SPSS version 27.0. The results showed that the majority of participants had a moderate level of knowledge (62.2%) and a moderate level of attitude (73.3%) towards HRT. Only 32.7% had high knowledge and 23.8% showed highly positive attitudes. The analysis revealed no significant association between sociodemographic factors and knowledge. However, both professional position and department were significantly associated with attitude levels ($p < 0.001$), with doctors and those in Obstetrics and Gynecology showing more favorable attitudes. These findings highlight the need for continuous education and updated clinical guidelines to improve healthcare workers' understanding and confidence in managing menopausal care using HRT.

CHAPTER 1

INTRODUCTION

1.1 Introduction

This research aims to assess the knowledge and attitudes of healthcare workers toward menopause and Hormone Replacement Therapy (HRT) at Hospital Pakar Universiti Sains Malaysia (HPUSM). This chapter discusses the background of the study, followed by the problem statement, research questions and objectives, hypotheses, significance of the study, and finally, the conceptual and operational definitions of the key terms used throughout the research.

1.2 Background of Study

Menopause, marking the cessation of menstruation and reproduction function, typically occurs in women by their early 50s, with significant variation in onset and duration. The increasing global life expectancy has heightened the importance of addressing menopause, as the postmenopausal population is projected to reach 1.2 billion by 2030 (Ilankoon et al., 2021). This transition often brings symptoms like hot flashes, sleep disturbances, and mood changes, as well as long-term health risks such as cardiovascular disease and osteoporosis due to estrogen decline (Talaulikar, 2022; Verdonk et al., 2022). Management strategies range from lifestyle adjustment to medical interventions, including Hormone Replacement Therapy (HRT), which effectively mitigates symptoms and prevents bone fractures but remains controversial due to potential risks like cardiovascular events and breast cancer (Pugazhandhi Bakthavatchalam et al., 2021).

The 2002 Women's Health Initiative (WHI) findings associate HRT with health risks, creating widespread caution and reduced usage. However, these studies

are criticized for methodological flaws, leading to overly generalized conclusions influencing healthcare workers' perceptions and recommendations (Machens, 2003; Gao et al., 2017). Healthcare provider's knowledge and attitude toward menopause and HRT directly impact patient education and decision-making. Misconceptions among providers can lead to underutilizing effective treatment, with many patients turning to alternative therapies based on non-evidence-based sources (Low et al., 2024).

Cultural and religious perspectives also shape attitudes toward menopause and HRT, with some women normalizing symptoms as a natural life stage and avoiding 7 medical interventions (Mohamad Ishak et al., 2021). Addressing these gaps in knowledge and attitudes among healthcare providers through targeted education and training is critical for improving menopause management, empowering patients, and fostering informed evidence-based choices. This study explores these factors within the Malaysian context, contributing to both regional and global understanding of menopause.

1.3 Problem Statement

The knowledge and attitudes of healthcare providers toward Menopause Hormone Therapy (MHT), including Hormone Replacement Therapy (HRT), are crucial factors in effectively supporting menopausal women in their treatment choices. However, healthcare providers exhibit significant knowledge gaps and misconceptions regarding HRT benefits, risks, and appropriate use. Influential studies like the Women's Health Initiative (WHI) and the Heart and Estrogen/Progestin Replacement Study (HERS) have significantly contributed to these misconceptions, particularly concerning increased cardiovascular and cancer risks (Yu & Lin, 2022). Despite

subsequent evidence indicating that these risks are minimal and comparable to certain lifestyle choices, a considerable number of healthcare providers believe that MHT could increase the risk of breast cancer (Zhu et al., 2023). This fear is deeply rooted not only among healthcare providers but also in the public, especially in China, where HRT usage is significantly lower compared to Western countries (Zhu et al., 2023).

Furthermore, the lack of comprehensive understanding among healthcare professionals extends to basic aspects of HRT, such as its efficacy in relieving menopausal symptoms. The study by Zhu et al. (2023) revealed that most Chinese medical professionals did not fully grasp the benefits and risks of HRT, underscoring the necessity for comprehensive education to ensure that healthcare providers can offer accurate and balanced information to patients. This knowledge deficit directly translates into suboptimal patient counselling. For instance, if healthcare workers overestimate the risks associated with HRT, they may be less inclined to recommend it, even when it could significantly benefit the patient. This reluctance can lead to patients not receiving appropriate treatment for their symptoms or being provided with incomplete information necessary to make informed decisions about their health. 9

The decline in HRT usage following the WHI study, particularly in the early 2000s, highlights the profound impact that research findings and subsequent media reporting can have on medical practice and patient behaviour. Later research presented a more balanced view, demonstrating that the benefits of HRT often outweigh the risks when used appropriately, especially for women under 60. HRT use has not rebounded to pre-2000 levels. This persistent low uptake underscores the ongoing influence of initial negative perceptions and the critical need for improved education and training for healthcare professionals to address these misconceptions (Manson & Kaunitz, 2016).

In the Malaysian context, similar patterns are evident, where the low recommendation rates of HRT by doctors contribute to the minimal use of HRT among women. This situation suggests that knowledge gaps and misconceptions among Malaysian healthcare providers may mirror those identified in other settings, such as China. Therefore, it is imperative to investigate the specific knowledge and attitude gaps regarding HRT among Malaysian healthcare workers. Focusing on issues directly involving healthcare professionals, such as potential knowledge gaps in patient counselling and misconceptions about HRT risks, this study aims to provide valuable insights that can inform targeted educational interventions. By addressing these gaps, the study seeks to enhance the quality of patient care and empower menopausal women in Malaysia to make informed decisions about their treatment options.

1.4 Research Questions

1. What is the level of knowledge of menopause and HRT among healthcare workers in HPUSM.
2. What is the level of attitude regarding menopause and HRT among healthcare workers in HPUSM.
3. Is there any association between selected sociodemographic factors (years of employment, professional position, and department) and the knowledge and attitude among healthcare workers in HPUSM regarding menopause and HRT.

1.5 Research Objectives

1.5.1 General Objective

To measure the level of knowledge and attitude on menopause and HRT among healthcare workers in HPUSM.

1.5.2 Specific Objectives

1. To assess the level of knowledge on menopause and HRT among healthcare workers in HPUSM.
2. To evaluate the level of attitude toward menopause and HRT among healthcare workers in HPUSM.
3. To examine the association between selected sociodemographic factors (years of employment, professional position, and department) and knowledge and attitude among healthcare workers in HPUSM regarding menopause and HRT.

1.6 Research Hypothesis

Hypothesis 1:

(Ho) There is no association between sociodemographic factors (professional position, department) and the level of knowledge regarding menopause and HRT in HPUSM.

(HA) There is an association between sociodemographic factors (professional position, department) and the level of knowledge regarding menopause and HRT.

Hypothesis 2:

(Ho) There is no association between sociodemographic factors (age, gender, years of employment, professional position, department) and the attitude regarding menopause and HRT.

(HA) There is an association between sociodemographic factors (age, gender, years of employment, professional position, department) and the attitude regarding menopause and HRT.

1.7 Significance of the study

This study holds significant potential to improve healthcare outcomes for menopausal women by addressing knowledge and attitude gaps among healthcare providers. Healthcare workers play a crucial role in managing menopausal symptoms, diagnosing health conditions related to menopause, and educating patients on treatment options. By examining the level of knowledge and attitude toward menopause and Hormone Replacement Therapy (HRT) among healthcare workers, this research can identify specific gaps that may impact patient care. Addressing these gaps can enhance the ability of healthcare providers to support menopausal women more effectively, leading to better patient education and improved treatment outcomes (Tariq et al., 2023; Zhang et al., 2021).

The study's findings could also guide the development of targeted training and educational programs that address identified deficiencies in understanding and misconceptions about menopause and HRT. Educational interventions based on this research could emphasize evidence-based practices and correct common misconceptions, such as the overstated breast cancer risks associated with HRT (Walker & Thornton, 2020). By promoting accurate knowledge and positive attitudes toward HRT, these programs could help healthcare workers offer balanced information, enabling women to make informed decisions about their health. This approach aligns with best practices, which advocate for individualized, evidence-based care to optimize patient outcomes (North American Menopause Society, 2020).

Additionally, this study is precious because it addresses a gap in region-specific research on menopause and HRT in Malaysia, where limited studies exist on healthcare providers' knowledge and attitudes toward these topics. While global research has explored menopause and HRT extensively, there remains a lack of data

on healthcare professionals' understanding of these topics within certain regions, including Malaysia (Zhang et al., 2021). Focusing on healthcare providers within HPUSM, this research contributes important insights to the global literature, emphasizing the need for culturally and regionally tailored approaches to managing menopause and educating patients on HRT.

Ultimately, this study underscores the importance of targeted educational interventions to equip healthcare providers with the knowledge and skills necessary to support menopausal women, while also contributing valuable regional data that can inform future research and policy development.

1.8 Definitions of Operational Terms

There operational terms used in this research proposal are show below:

Menopause	<ol style="list-style-type: none">1. Conceptual Definition: Menopause is the natural biological process that marks the end of a woman’s reproductive years, defined by the permanent cessation of menstruation for 12 consecutive months due to decreased ovarian hormone production (Lopes, 2020; North American Menopause Society, 2020).2. Operational Definition: In this study, menopause operationalised as the identification by healthcare workers of a woman who has stopped menstruating for 12 consecutive months, with no other medical cause. (Tariq et al., 2023; Zhang et al., 2021).
Hormone Replacement Therapy (HRT)	<ol style="list-style-type: none">1. Conceptual Definition: Hormone Replacement Therapy refers to the medical treatment used to relieve menopausal symptoms by supplementing estrogen, progesterone, or both, which are no longer produced after menopause (North American Menopause Society, 2020).2. Operational Definition: HRT knowledge measured through questions assessing healthcare workers' understanding of its uses, benefits, risks, and alternative treatments. This will include their

	<p>awareness of HRT's role in managing symptoms like hot flashes and 17 preventing conditions like osteoporosis, as well as common misconceptions about its risks (Tariq et al., 2023; (Walker & Thornton, 2020)</p>
<p>Knowledge of Menopause and HRT</p>	<ol style="list-style-type: none"> 1. Conceptual Definition: Knowledge refers to the understanding, awareness, and information possessed by healthcare workers regarding menopause and HRT, including related symptoms, treatments, risks, and benefits. 2. Operational Definition: Knowledge levels assessed via a structured questionnaire that measures respondents' awareness of menopause and HRT. (Tariq et al., 2023; Zhang et al., 2021). In this study, the knowledge measured regarding menopause and HRT includes understanding the common physiology and psychological symptoms of menopause, familiarity with its clinical diagnostic criteria, awareness of HRT benefits in managing symptoms and preventing osteoporosis, knowledge of potential risks such as increased breast cancer and cardiovascular issues, and comprehension of available treatment options, including HRT regimens, non-hormonal alternatives, and contraindication.

<p>Attitude Toward Menopause and HRT</p>	<ol style="list-style-type: none"> 1. Conceptual definition: Attitude toward menopause refers to an individual’s overall perspective, feelings, beliefs, and opinions about menopause. It includes emotional responses and culturally influenced views about menopause and its treatment. The training of specialists and the popularisation of Menopausal Hormone Therapy (MHT) among the public and healthcare professionals (HPs) have aimed to improve attitudes toward managing menopause. However, attitudes vary, and gaps in knowledge remain, especially regarding less recognised symptoms like systemic muscle and joint pain commonly experienced by women (Lin et al., 2020). 2. Operational definition: To measure "attitude toward menopause" in research, participants could be surveyed using a questionnaire. This could include items assessing knowledge and beliefs about menopause (e.g., “Menopause is a natural and manageable phase of life” or “Menopause requires medical intervention”). (Lin et al., 2020).
<p>Sociodemographic Factors</p>	<ol style="list-style-type: none"> 1. Conceptual Definition: Sociodemographic factors refer to characteristics of the healthcare workers, including professional status, and department which

	<p>may influence their knowledge of menopause and HRT.</p> <p>2. Operational Definition: Sociodemographic data was collected through a demographic questionnaire. The study examine associations between these factors (professional status, and department) and knowledge levels on menopause and HRT, analysed using statistical methods (Tariq et al., 2023; Gebretatyos et al., 2020).</p>
Healthcare Worker	<p>1. Conceptual definition: Healthcare workers (HCWs) are individuals who are trained and employed in various sectors of the healthcare system, providing medical care, support, and services to maintain or improve health. This includes professionals like doctors and nurses who operate in diverse settings such as hospitals, clinics, and community care. Their roles vary but are critical for achieving universal health coverage and addressing public health needs. (Szabo et al., 2020).</p> <p>2. Operational Definition: In this study, healthcare workers are defined as individuals employed at a Hospital Pakar Universiti Sains Malaysia (HPUSM), in this study nurses and doctors were chosen as</p>

	Healthcare workers who are involved in providing clinical care and support to patient.
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CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

A well-rounded understanding of menopause and Hormone Replacement Therapy (HRT) is essential, especially among healthcare professionals, to effectively manage the symptoms associated with this natural phase in women's lives. Menopause, marking the cessation of reproductive ability, is accompanied by various physical and psychological changes that can significantly impact the quality of life. HRT has been a common treatment used to manage symptoms such as hot flashes, mood swings, and osteoporosis, though its use remains controversial due to perceived risks, including increased risks of cardiovascular disease and breast cancer (Santen et al., 2010). The decision to initiate HRT often hinges not only on patient preferences but also on healthcare providers' knowledge, communication, and attitudes. Studies indicate that healthcare professionals with higher knowledge about menopause and HRT are better equipped to provide accurate information and support informed decision-making, which can enhance patient satisfaction and improve adherence to treatment plans (Madsen et al., 2023).

In a survey of healthcare providers, those with advanced training in menopausal health and HRT showed a 25% higher likelihood of recommending tailored treatment plans than providers with less training. Additionally, recent data highlights that HRT usage varies across healthcare settings. For instance, findings suggest that gynaecologists are more likely to discuss HRT routinely with menopausal patients than general practitioners, reflecting a knowledge gap that could affect care quality (Madsen et al., 2023). These findings underscore the importance of continuous education for healthcare professionals on menopause and HRT to foster informed patient decisions and improve

health outcomes. Therefore, understanding how well-informed healthcare professionals are about menopause and HRT is crucial in ensuring effective patient education and enhanced health outcomes.

2.2 Menopause

Menopause is defined as the permanent end of menstrual periods, which occurs because of the loss of ovarian follicle function. It is typically diagnosed after a woman has gone 12 consecutive months without menstruation, meaning the exact date of the final period is confirmed in retrospect. On average, menopause occurs around the age of 51 (Greendale et al., 1999). Menopause is diagnosed retrospectively after 12 consecutive months without menstruation, assuming there is no other physiological or pathological cause for the absence of periods. It signals the end of reproductive capacity and ovarian function. Both chronological aging and ovarian aging are factors that jointly affect the rate and duration of the menopausal transition. The age at which menopause occurs is influenced by several factors, including dietary habits, physical activity, smoking, socio economic status, body mass index (BMI), ethnicity, cultural practices, and any underlying medical or gynaecological conditions (Taulikar, 2022).

Each year, around 1.5 million women experience the menopausal transition, which is often marked by challenging symptoms such as vasomotor issues (hot flashes, night sweats), vaginal dryness, decreased libido, sleep disturbances, fatigue, and joint pain. These symptoms, including mood changes and cognitive difficulties, affect a significant portion of menopausal women. Vasomotor symptoms, affecting up to 85% of women, typically peak in the late menopausal phase, lasting an average of five years, but for some, they may persist for over a decade. The root of these symptoms lies in estrogen related disruptions in thermoregulation and can be managed through hormone

therapy or non-hormonal treatments such as SSRIs. Vulvovaginal atrophy, impacting 27–60% of women, is caused by decreasing estrogen levels, leading to vaginal dryness and pain 21 during intercourse, which can be treated with estrogen therapies or newer options like ospemifene. Sleep issues, common in midlife women, are often linked to night sweats but can also occur independently, and treatments include hormone therapy, sleep hygiene, and addressing other causes like sleep apnoea. Mood changes, including heightened depression risk during perimenopause, are influenced by hormonal shifts and life stressors, are treatable with antidepressants or cognitive-behavioral therapy. Cognitive symptoms, such as memory and concentration issues, tend to improve after menopause, with no clear evidence that hormone therapy benefits cognition, though a healthy lifestyle may support cognitive health (Santoro, Epperson, et al., 2020).

Since this study focuses on healthcare workers, it's essential to recognize that menopausal symptoms can often intersect with or complicate the management of other health conditions that healthcare professionals commonly treat. For instance, symptoms such as joint pain and fatigue may mimic or exacerbate chronic conditions like arthritis or cardiovascular issues, potentially leading to misdiagnosis or under-treatment if healthcare workers are not fully aware of menopausal impacts. Additionally, mood changes and cognitive difficulties can be mistaken for primary mental health concerns, underscoring the need for providers to differentiate menopausal effects from other psychiatric or neurological conditions (Liu et al., 2020).

Symptom variation further highlights the importance of awareness and understanding among healthcare providers. With symptoms manifesting differently across patients, healthcare workers equipped with a comprehensive understanding of menopause are better positioned to make accurate diagnoses and provide tailored treatments. This awareness can improve the quality of care by ensuring that menopause

related issues are neither overlooked nor misattributed to other health problems, allowing for a more holistic approach to women's healthcare (Liu et al., 2020).

2.3 Hormone Replacement Therapy (HRT)

Menopause, a natural physiological process, typically occurs around the age of 51 and marks the end of a woman's reproductive years. Hormone Replacement Therapy (HRT) is commonly used to alleviate menopausal symptoms by providing estrogen, which can be administered in various forms, such as orally, vaginally, or through transdermal patches. For women with an intact uterus, estrogen is combined with progestogen to prevent endometrial hyperplasia. Progestogen can be delivered via oral tablets, skin patches, or an intrauterine device (IUD) like the Mirena. There are different HRT regimens, including daily estrogen with progestogen added in cycles (cyclic regimen) or continuous (continuous combined regimen). Additionally, tibolone, a synthetic steroid with estrogenic, androgenic, and progestogenic effects, can be used as an alternative to traditional HRT (Hickey et al., 2012). The National Institute for Health and Care Excellence (NICE) recommends HRT for managing menopausal symptoms, with careful monitoring, and suggests that testosterone supplementation may be necessary for some women experiencing low sexual desire (Alsugeir et al., 2022).

HRT remains the most effective treatment for alleviating severe vasomotor symptoms associated with menopause, such as hot flashes and night sweats. A subgroup analysis of the timing of HRT initiation revealed that women who started HRT within 10 years of menopause or by the age of 60 experienced significantly greater benefits in terms of reduced all-cause mortality, cardiovascular events, and improved arterial dilation compared to those who began HRT later, more than 10 years after menopause or at the age of 65 or older (Gu et al., 2024). Large-scale randomised controlled trials

have demonstrated that hormone replacement therapy (HRT) significantly lowers the risk of fractures, enhances vaginal lubrication, and improves sexual function. Additionally, it may alleviate sleep problems and muscle discomfort and improve the overall quality of life for women experiencing menopausal symptoms (Hickey et al., 2012).

Estrogen is considered the most effective component in hormone replacement therapy (HRT) for managing menopausal symptoms. For women with an intact uterus, it's essential to combine estrogen with progestogen to protect the endometrium from potential hyperplasia or cancer. In contrast, women who have undergone a hysterectomy can safely use estrogen alone. The decision on which HRT formulation to prescribe should be individualized, considering the patient's age, time since menopause, and any existing health conditions. Because the benefits and risks of HRT vary with these factors, shared decision-making between the patient and healthcare provider is crucial to select the most suitable HRT method and to determine the appropriate time for discontinuation (Mehta et al., 2021).

The controversy surrounding Hormone Replacement Therapy (HRT), particularly following the findings of the Women's Health Initiative (WHI), has significantly shaped healthcare providers' attitudes and patient acceptance. The WHI revealed potential risks associated with HRT, such as increased cardiovascular disease and breast cancer, which led to a marked decline in its use and created a climate of apprehension among both providers and patients (Madsen et al., 2023). This skepticism often influences providers' willingness to recommend HRT, leading to hesitancy in discussing its benefits, thereby impacting patient decisions. For those who are reluctant to pursue HRT due to these concerns, alternative and complementary therapies, such as lifestyle modifications, dietary changes, and non-hormonal medications like selective serotonin reuptake inhibitors (SSRIs) and phytoestrogens, offer potential relief from

menopausal symptoms. Understanding these options and addressing the ongoing concerns surrounding HRT can 24 empower healthcare providers to support patients in making informed choices that align with their health needs and personal preferences (Madsen et al., 2023).

2.4 Knowledge regarding Menopause and HRT

2.4.1 Knowledge Gap in Menopause and HRT Management Among Healthcare Workers

Healthcare workers (HCWs) play a critical role in managing menopausal symptoms and providing hormone replacement therapy (HRT). However, significant gaps exist in their knowledge and attitudes toward menopause and its treatments.

2.4.1.1 Current Understanding of Menopause Management Among Healthcare Providers

Studies highlight that while many healthcare professionals, particularly obstetricians and gynaecologists (OB/GYN), recognise the importance of menopause management (MM), others lack sufficient training. (Lin et al., 2020) found that OB/GYN had a stronger grasp of MM and HRT, but gaps in identifying menopausal symptoms, such as systemic muscle and joint pain, were common across specialities. Only about half of healthcare workers knew about HRT contraindications, such as the link between breast cancer and HRT.

2.4.1.2 Need for Continue Training Education

Furthermore, a significant number of professionals have not received recent training, which underscores the need for ongoing education. Nearly half of the study's

respondents, including 58.5% of residents and assistant physicians, reported limited access to related training within the past year. This lack of training contributes to inconsistent knowledge levels and influences attitudes towards menopause care. Educational interventions, especially for non-OB/GYN specialists, are critical for improving knowledge and practices related to menopause and HRT (Lin et al., 2020).

2.4.1.3 Understanding of Contraindications and Risks Related to HRT

Gaps remained in recognizing menopausal symptoms and contraindications, such as the link between HRT and breast cancer. Another study highlighted that only 13.4% of HCWs correctly identified the risks of breast cancer associated with HRT (Lin et al., 2020). Similarly, the lack of knowledge regarding HRT's protective effects against osteoporosis and colon cancer was noted across various clinical roles, including nurses and technicians, suggesting the need for enhanced education across multiple departments.

2.4.1.4 Interdisciplinary Approaches to Addressing Knowledge Gaps

This need for interdisciplinary education was echoed in the findings from the study conducted by Wei et al. (2023), which emphasized the importance of tailored training sessions and interdisciplinary academic exchanges to address these knowledge gaps among healthcare professionals in China. For example, the inclusion of menopause related topics in residency programs and continuing professional development courses could enhance understanding across departments, fostering interdisciplinary academic exchanges. Online and on-site educational opportunities, tailored to various specialties, can also bridge these knowledge gaps and ensure that healthcare workers across disciplines are equipped to manage menopause effectively.

2.4.1.5 Effectiveness of Educational Intervention for Patient Outcomes

To strengthen the case for increased education, the literature highlights the effectiveness of healthcare education programs specifically designed for menopausal women, which demonstrate promising results in improving patient outcomes. One study employed a pre- and post-intervention design to assess changes in menopausal symptoms, knowledge, and attitudes among participants. The intervention consisted of three 30-minute sessions covering menopause basics, potential health issues, and coping mechanisms. The findings indicated that participants experienced a significant decrease in somatic and psychological menopausal symptoms, including fatigue, joint and muscle disorders, and nervousness. Furthermore, there was an increase in knowledge about menopause, along with positive shifts in attitudes related to this life stage.

2.4.1.6 Role of Healthcare Providers in Patient Education

The researchers concluded that healthcare education is an effective strategy for positively changing the perceived severity of menopausal symptoms while enhancing knowledge and fostering positive attitudes towards menopause. Importantly, the authors emphasize the crucial role that healthcare providers can play in educating their patients about menopause, which may lead to a reduction in the perceived severity of symptoms. This underscores the necessity for well-informed healthcare workers, as gaps in their knowledge could negatively impact patient experiences and outcomes.

2.4.1.7 The Importance of Targeted Educational Programs

When healthcare providers lack up-to-date information and best practices, they may struggle to offer adequate support and guidance to their patients. Therefore, targeted educational programs are essential to ensure that healthcare workers possess the necessary knowledge and skills to address the diverse needs of their patients effectively. By investing in continuing education and professional development, healthcare systems can empower their workforce to deliver high-quality patient-centered care (Koyuncu et al., 2018).

2.5 Attitude Regarding Menopause and HRT

2.5.1 Impact of Early Studies and Cultural Attitude on HRT Usage

Healthcare workers (HCWs) play a pivotal role in managing menopause and offering hormone replacement therapy (HRT), but research highlights significant gaps in their knowledge and attitudes. Despite the known benefits of HRT, early controversial studies like the Women's Health Initiative (WHI) caused widespread hesitation and a decline in HRT usage (Wei et al., 2023). This is further complicated by cultural fears, particularly in Asia, where menopausal hormone therapy (MHT) use remains low (Lin et al., 2020). In Malaysia and neighbouring regions, misconceptions about HRT are often influenced by cultural beliefs and societal norms that associate menopause with aging and a decline in femininity. Many women in these cultures may fear that HRT could lead to weight gain, increased cancer risks, or other health complications, fostering a reluctance to seek out or accept treatment. Moreover, the stigma surrounding menopause as a taboo subject in many Asian communities can discourage open discussions between patients and healthcare providers, further exacerbating the knowledge gaps.

2.5.2 Influence of Healthcare Professionals' Attitude on HRT Acceptance

Healthcare professionals' attitudes directly influence HRT acceptance, with studies showing that gynecologists knowledgeable about HRT can significantly improve patient outcomes. For instance, 80% of female gynaecologists and spouses of male gynaecologists with in-depth knowledge accept MHT, and patient acceptance increases by 50% when their gynaecologists have a positive attitude (Wei et al., 2023). However, many HCWs remain undertrained, with 83.2% expressing interest in more education (Wei et al., 2017).

2.5.3 Educational and Awareness Initiative for Improving Knowledge

To address these knowledge gaps, awareness efforts must target both patients and healthcare professionals to reduce misconceptions about HRT and boost confidence in prescribing it. Training programs, such as those offered by the International Menopause Society, are key to advancing the quality of menopause management in clinical settings (Wei et al., 2023).

2.5.4 Cross-Cultural Attitudinal Studies and Their Implications

Examining attitudinal studies from other regions with similar cultural backgrounds, such as Indonesia or the Philippines, may provide valuable context. These studies often reveal a common trend: healthcare providers in these regions also express concerns about the risks of HRT due to cultural beliefs, which in turn affects their willingness to recommend treatment. By understanding these cultural attitudes and misconceptions across different settings, targeted educational initiatives can be developed to promote more informed and supportive menopause care practices among HCWs, ultimately leading to better health outcomes for women in these communities (Wei et al., 2023).