**Prevalence and Management of Menopausal Symptoms in Malaysian Women during Peri and Post Menopause**

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**Abstract** - Women upon reaching menopause often silently suffer debilitating physical and psychological symptoms. The peri and postmenopausal period constitutes a challenging transition time for women’s health, and good menopausal health is a crucial aspect in healthy and successful aging. These situations affect women globally however Malaysian women are mostly unaware how to manage onset of menopause. This study aims to systematically review published data for the prevalence and management of menopausal symptoms in Malaysian women. Findings indicated that Malaysia women experienced similar menopausal symptoms as other women globally. However, these studies indicated that Malaysian women lack the knowledge to manage and prepare for menopause. The menopausal transition demarks dramatic changes at the hormonal, physiological, and metabolic level. Eventually, our study will develop an online tool to provide information and manage menopausal symptom.

**Keywords** - menopause, perimenopause, post menopause, physical symptoms, management

**INTRODUCTION**

A woman’s body undergoes several hormonal changes throughout their lives. A significant change a woman experiences is menopause, as it marks the end of the reproductive function. Menopause is often perceived as a negative period by some cultures especially in the western hemisphere [1]. However, Muslims tend to embrace this change as it no longer prohibits them from performing religious activities [2, 3]. Menopause can be categorized into three stages; premenopause, perimenopause and post menopause. Perimenopause is defined as the time of menstrual irregularity leading up to the last period (menopause) and the 12 months following the last period. This stage is referred to as the transition period. Studies indicate that 55% to 79% women experience menopausal symptoms during this stage [4]. The average duration of these symptoms ranges from five to 10 years, and the frequency of the symptoms peaking during late perimenopause and early post menopause [4].

Symptoms that were prevalent during peri- and post menopause include vasomotor symptoms, psychological symptoms and joint pain. Some women also reported changes in sexuality and urogenital function. A woman may experience all of these symptoms while other may experience some, or none of these symptoms. Severity also varies among individuals, with some women experiencing severe symptoms and others have mild symptoms. A study on Japanese women’s experience of menopause by [5] found that hot flushes were rare while shoulder pain was a commonly occurring symptom. Numerous studies on Asian women have consistently reported lower incidence of hot flushes than Caucasian women [6, 7].

Decisions regarding managing menopausal symptom are complex. Those who are suffer form these symptoms constantly evaluate whether to initiate, continue, and/or discontinue various therapies [8]. Women lack knowledge of the menopause transition and the physiological and psychological changes that occur during this stage [9, 10]. Studies suggest women searching for information [11, 12], but most seek information from lay source; other women, newspapers, and magazines [13, 14]. Lack of knowledge about menopause has also been found to influence decision making regarding symptom management, particularly in the use of HRT and complementary and alternative medications [15, 16]. Management practices are limited by an attitude of acceptance, and few women sought to implement health promoting activities in response to menopause.
METHODOLOGY

A search on peer-reviewed, English and Malay language articles pertaining to factors related to menopausal symptom management decisions of the Malaysian women population were conducted. Excluded was literature addressing (a) management pertaining to other women’s issues, (b) health care professionals’ management making or communication, and (c) studies that referred to management in the title or text but did not study management per se. To locate relevant articles, a search was done using PubMed.gov MEDLINE, EMBASE, PsycINFO, CINAHL, SCOPUS, INFORMIT and Google scholar search engine. Search results included all articles published and indexed prior to the last search date (March 30, 2015).

Search terms were: [(menopause or post menopause or premenopause or premature menopause or peri menopause) AND (decision or decision making or decision aid or decision support or management or managing)] 

Studies that were cross-sectional or longitudinal, included women with natural or surgical menopause, used validated or non-validated tools, in community or clinic settings were also included.

Reference lists of relevant articles were subsequently reviewed to identify any missed articles. All duplicate articles were removed. If the abstract contained insufficient information to determine whether it should be included in the review, then a full text version of the paper was retrieved in order to make a further informed judgement. This process ensured that only relevant articles were included in the analysis stage of the review.

Data were abstracted into evidence tables and summarized descriptively. Column variables in the table were: author and date, country of origin, purpose, methods, design, theoretical framework, sample size, and categories of factors. Each row represented a unique article.

Once analyzing the literature, A framework on the prevalence and management of menopausal symptom will be established. An online tool will be developed based on the Instant messaging format and can be deployed on any android platform, The application will enable ending/receiving message services from one client to the other via Google Cloud Server. The apps will used a customized version of the open standard Extensible Messaging and Presence Protocol (XMPP). It will Gmail ID and password as its login ID for registering to the account. The tool will access the Google Cloud Messaging for Android as it provides free services to the client from its server. The application object is created whenever one of Android components is started and a unique ID under a unique user is created. Login page serve as the main page of the tool which allows user to authenticate the services and be granted authorization to access them. The home page will create the interface between the user and the client for creating a connection within the client server, this session will provide imputing of text and sending the messages to the other client. The instant messaging function will allow users anonymous privileges to communicate with medical profession regarding symptoms and management of their menopause.

The tool will also provide a platform for user to seek information regarding menopause and how to management it via dedicated functions within the tool.

RESULTS

A total of 50 papers were identified by initial search. However, a total of 41 articles were excluded as it contained duplicates (outcomes reported in earlier publications) and irrelevant contents. The included studies were published between 1994 and 2015. The studies ranged in size from 20 to 1000 participants. Table 1 shows the deposition of the articles. Studies of Singaporian women were included in the article because of similar geographical and ethnic factors. The study recruited a total of 58 women, where the ages range from 40 to 60, and a median age of 56 years. Findings from study revealed that Singaporian women regard menopause and approach the management of menopausal symptoms in similar ways which caucasians, despite significant differences in cultural beliefs and social location [17]. The women in this study, regardless of their ethnic background or menopausal status, described an attitude of acceptance toward menopause. Singaporian were reluctance to seek professional medical treatment as well as take medication for menopause management. [17] concluded that these woman have limited knowledge and level of acceptance in making their choices.

A study by [18] was conducted on Asian women between January 2006 and February 2006 in five Asian countries (China, Hong Kong, Malaysia, Taiwan, and Thailand). A total of 1000 women participated in the study (China, n = 300; Hong Kong, n = 100; Malaysia, n = 300; Taiwan, n = 150; Thailand, n = 150). Results showed that a very high percentage of women (>90%) experienced some form of postmenopausal symptom. The study also discovered that 59% of women were not currently receiving treatment for postmenopausal symptoms. This result is identical to the percentage reported
in the European Menopause Survey [19]. Women from Thailand were found to have more positive feelings about taking HRT, while women from Hong Kong generally reported more negative feelings towards HRT. As for Malaysians, the low prevalence of HRT use may be explained by the general low incidence of symptoms.

Three hundred and fifty six women participated in the study conducted by [20]. The mean age of respondents in the study was 50.83 ± 6.30 (SD) years. While the mean age at menopause was 51.28 ± 2.28 (SD) years with median of 50 years. Unlike results from studies by [21], the three most prevalent menopausal symptoms of these women are shown in Figure 1. These symptom were prevalent during the perimenopausal stage compared to pre- and postmenopausal stages. This was consistent with previous results obtained by [4]. However urogenital symptoms occurred most in postmenopausal women. This study revealed menopausal symptoms; hot flushes, sweating and night sweats were noted to be lower (41.6%) when compared to findings from studies done on western women who were reported to be from 45% to 75%. Similar result were also noted in two other studies done in Malaysia by [22] (53.0%) and [2] (57.10%). The finding of low menopausal classical symptoms were shared by studies done in other Asian countries [23-25].

The prevalence and management of menopause of the Orang Asli women were studied in [26]. In this study the most apparent symptoms highlighted by most women in this study are experiencing less sexual desire and reduced sexual activity. Other symptoms which were apparent are hot flushes, sleep disturbances, vaginal dryness, joint pains, trouble remembering things and fatigue. The orang also women also indicated the so-called 'empty-nest syndrome'. The orang Asli women in this study felt lonely when the children leave home due to employment or marriage. When managing with their symptoms, the Orang Asli women sought advice outside their family. The uses of HRT or medical treatments were unheard off. They expressed strong belief in the effectiveness of certain medicinal plants which grow wildly in the jungle or planted by them in their backyards to help alleviate their menopausal symptoms.

Study by [27] found that a majority (84.3%) of urban women in Malaysia cited signs and symptoms of menopause should be treated. As to the management of the menopausal symptoms, the respondents, quoted exercise (82.3%), vitamin and food supplement intake (76.5%) and quit smoking (66.8%). More than half (54.4%) did not agree that hormone replacement therapy can effectively control symptoms of menopause. Findings also revealed that most respondents suggested no definitive treatment for menopause. Nearly half (45.8%) believed in traditional remedies for treatment of menopause.
DISCUSSION AND CONCLUSION

Most women in Malaysia will go through the menopausal years without significant changes. But a number of studies have found that the menopausal transition is associated with increased rates of joint pain, physical and mental exhaustion and urogenital discomfort. Unlike their counterpart in the west, Malaysia women have lower risk factors of suffering vasomotor symptoms. It can also be noted that, Malaysian women do not know how to manage and treat the symptoms. The topic of menopause is considered taboo and sensitive by many society in Asia and try to avoid discussion menopause in the public. Women tend to suffer in silence rather than openly acknowledge the symptoms. It is crucial for stress management, clinical psychological counseling, and health-promoting practices to be incorporated into menopausal care programs to improve health and Quality Of Life of mid-life aged women. Health care providers should play a more visible and instrumental role in continuously assessing menopausal women’s needs. This study intends to provide direction and focus for the development of health promotion and clinical practice interventions that are culturally specific to Malaysian women during menopause. The results of this survey will be used for the development of a framework to study prevailing symptoms of menopause and and its mangments. The results can further investigate Malaysian women’s knowledge, attitudes, and management of menopause.
Table 1: Deposition of the literature review

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>State/Country</th>
<th>Purpose</th>
<th>Method</th>
<th>Design</th>
<th>Study</th>
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<tbody>
<tr>
<td>Ko-En Huang et. al.,</td>
<td>2010</td>
<td>Asian</td>
<td>Examine postmenopausal symptoms, HRT use and knowledge, breast discomfort and knowledge of breast cancer risks, and sexual Function</td>
<td>Qualitative</td>
<td>Cross-sectional</td>
<td>1000 postmenopausal women from China, Malaysia, Taiwan, Thailand and Hong Kong 45–60 years of age and were postmenopausal, but not &gt;5 years beyond menopause</td>
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<tr>
<td>Dhillon, H. K. et. al.,</td>
<td>2006</td>
<td>Kelantan, Malaysia</td>
<td>Document the prevalence of 16 symptoms commonly associated with menopause, in women living in Kelantan.</td>
<td>Qualitative</td>
<td>Cross-sectional</td>
<td>326 naturally menopausal women living in Kelantan who were healthy and had menopausal naturally and had no menses for a period of 1 year or more. Women with uncontrolled medical conditions such as hypertension, diabetes mellitus or heart disease, or who had undergone oophorectomy or those who were undergoing treatment for cancer or were in remission were excluded from the study</td>
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<tr>
<td>Wong L. P., &amp; Liyana, A. H.</td>
<td>2007</td>
<td>KL, Malaysia</td>
<td>Examine the knowledge and perception of menopause among young to middle aged women</td>
<td>Qualitative</td>
<td>Cross-sectional</td>
<td>385 young to middle-aged adult women, aged 15 to 49 years old from Kuala Lumpur</td>
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<tr>
<td>Ismael, N. N.</td>
<td>1994</td>
<td>Malaysia</td>
<td>Examine menopause in Malaysia in general as well as within the three main ethnic groups, Malays, Chinese and Indians</td>
<td>Qualitative</td>
<td>Cross-sectional</td>
<td>400 women aged 40-60 years which consisted of 70% Malays, 13% Chinese and 17% Indians. 10% (n = 40) of the participants were either patients who came to the gynaecology and antenatal clinics or nursing staff at the hospital.</td>
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<tr>
<td>Nor Afiah MOHD ZULKIFLI</td>
<td>2003</td>
<td>Negeri Sembilan, Malaysia</td>
<td>Examine both the prevalence of menopause and menopausal symptoms in a group of employed Malaysian women and to determine their sources of information regarding menopause</td>
<td>Qualitative</td>
<td>Cross-sectional</td>
<td>550 female teachers aged 35 and above in Seremban, Negeri Sembilan, Malaysia between 1 June and 31 December 2000.</td>
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<tr>
<td>Nurazzura Mohamad Diah</td>
<td>2013</td>
<td>Gombak, Malaysia</td>
<td>Explore the women’s personal attitudes to, and perceptions of, menopause and identify how menopause is learnt in the Orang Asli family. Finally, to explore the diverse range of treatments Orang Asli use to reduce their menopausal symptoms</td>
<td>Qualitative</td>
<td>Cross-sectional</td>
<td>20 Orang Asli women in Gombak of different clans - Semai, Temiar, Temuan and Semelai. All of them are in their menopausal stage and experiencing natural menopause. Participants were excluded if they had experienced surgical menopause.</td>
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<tr>
<td>Rahman, S. A. S. A. et al.</td>
<td>2010</td>
<td>Sarawak, Malaysia</td>
<td>Examine the commonly reported menopausal symptoms among Sarawakian women using a modified Menopause Rating Scale (MRS document of 11 symptoms (divided into somatic, psychological and urogenital domain) commonly associated with menopause</td>
<td>Qualitative</td>
<td>Cross-sectional</td>
<td>356 Sarawakian women aged 40-65 years were interviewed and was conducted from the January 2007 to November 2007. Pregnant and breast feeding women, women with uncontrolled medical conditions such as hypertension, diabetes mellitus or heart disease, or who were undergoing treatment for cancer, or were in remission, or who had history of drug or alcohol abuse and on hormone replacement therapy were excluded from the study.</td>
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<tr>
<td>Mackey, S et al.</td>
<td>2013</td>
<td>Singapore</td>
<td>Examine knowledge, attitudes, and practices associated with the menopause transition particular to women in the multi-ethnic cultural context of Singapore</td>
<td>Qualitative</td>
<td>Cross-sectional</td>
<td>58 Singaporean citizen or permanent resident, and Chinese, Malay, or Indian aged between 40 and 60 years. Participants excluded those with a history of surgical, chemical, or other induced menopause or had experienced premature menopause. Data were collected between October and November 2010 using a conversational-style interview format</td>
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<tr>
<td>Sakdiah, M. H et al.</td>
<td>2015</td>
<td>Malaysia</td>
<td>Explore the views of the middle-aged women on ageing.</td>
<td>Qualitative</td>
<td>Cross-sectional</td>
<td>36 urbanized women aged between 35 and 59 years old within a focused group. Respondents were selected using the maximum variation sampling involving five age categories which include 35 to 39, 40 to 44, 45 to 49, 50 to 54 and 55 to 59 years old.</td>
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