Perception of Menopause Among Women of Sarawak, Malaysia

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Research Article

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Abstract

Background: Various factors including menopausal status, educational and social background, culture, physical and emotional health may influence women's perception about menopause. This study is to document the perception of menopause and factors influencing it among women in Sarawak, Malaysia.

Methods: A face-to-face interview using a validated questionnaire was conducted with 324 Sarawakian women aged 40-65 years to determine the mean age of menopause and perception of menopause among these women.

Results: The mean age ± standard deviation of the women was 51.37 ± 5.91 years. 90 (27.8%) were premenopausal, 124 (38.5%) perimenopausal and 110 (33.7%) postmenopausal. Majority of these women 228 (70.4%) were local indigenous women of Sarawak. 22.5% agreed problem in menopause is a natural process. 21.9% of the participants agreed menopause should be treated medically. 32.3% of them agreed natural approaches for menopause symptoms are better than hormonal. 75.0% agreed absence of menses after menopause is a relief; 61.2% agreed menopause causes unpleasant symptoms; 51.7% were not sure either women become less sexually attractive after menopause; 51.1% were not sure if they feel less of a woman following menopause. 81.7% of the women were not sure if sexual activity is more enjoyable after menopause and 71.9% of them were uncertain whether changes in life during menopause are more stressful. Among the different menopausal stages; perimenopausal group of women were noted to have more positive perception compared to the pre and postmenopausal women. In this study it was noted, women with higher educational background generally have a better and positive perception on menopause.

Conclusions: The perception of menopause in this study were found to be correspond to those in other studies on Asian women. Better educational level and perimenopausal women were found to have more positive perception on menopause compared to the rest of the women studied. Majority of the women noted that menopausal symptoms is unpleasant and absence of menses after menopause is a relief.

Background

Advancement of modern medicine and improvement of health care and health care delivery systems throughout the world has significantly prolonged human life. In Malaysia, the life expectancy for women has increased from 70.5 years in 1980 to 78.4 years in 2019. [1]

Studies on Malaysian and Asian women, shows that the mean age at menopause was between 49.4 years and 51.1 years with an average mean of 50.7 years, this implies that a significant proportion of Malaysian women live one third of their lives beyond menopause. [2-10]

Menopause is a natural physiological process in women's life. The main reason behind this is the lack of estrogen secretion from ovarian follicles, leading to absence of menstruation. A woman is labelled as postmenopausal when she misses her periods for continuous 12 months. Due to lack of estrogen,
women develop climacteric symptoms and physically become unwell. The climacteric symptoms vary from vasomotor, physical, psychological to sexual dysfunction. [11-15]

Women's perception of menopause is influenced by various factors including cultural, social background, educational, emotional and physical health. It is noted in previous studies, sociocultural factors can affect women's attitude, perception and experience towards menopause. In societies where menopause is viewed as positive, symptoms are found to be less common. Various studies conducted on western and Asian women; including Japanese and Chinese women, have documented the cultural aspect of Menopause. Studies have shown that stigma related to this phase of life begins in early life due to little knowledge and education besides cultural and social factors. Understanding this crucial stage of life may change women's attitude of negative thinking about menopause, which makes omen apprehensive when dealing with this condition, and it also leads to development negative effects on the emotional state. Changing women's views about menopause by knowledge empowerment may cause less emotional distress among them. [12,16,17-26]

Little has been said and viewed on the perception of Malaysian women on menopause and no studies have been conducted among women in Sarawak, Malaysia. Therefore, this study aimed at exploring these women perceptions on menopause.

**Methods**

**Subjects and Setting**

This cross-sectional study was conducted from December 2017 to May 2018 after approval from the Research and Ethics Committee, Faculty of Medicine, Universiti Malaysia Sarawak. All methods of doing the research were performed in accordance with relevant guidelines and regulations of Declaration of Helsinki. The study was carried out among women aged 40 to 65 years who visited four Women Health Camps, a health camp and health campaign conducted with collaboration of local women NGO's around Kuching, Bau, Serian and Semantan, Sarawak, Malaysia. These women have various demographic backgrounds, either from rural, semi-urban or urban areas with different level of educational background which ranged from no formal education to tertiary level.

All women who fulfilled the criteria were invited to participate in the study. The inclusion criteria consisted of women between the ages of 40 to 65 years who have given written consent. Those who were pregnant, breast feeding, uncontrolled medical conditions such as hypertension, diabetes mellitus or heart diseases or any other chronic diseases, or who undergoing treatment for cancer or were in remission and had history of drug or alcohol abuse were excluded from the study. Those who were on hormonal therapy (hormone replacement therapy) were also excluded from the study.

**Assessing instrument**
Semi-structured questionnaires were used for this study. The questionnaires were divided into three sections:

(1) Socio-demographic data of the women, which included: age, marital status, age of marriage, age of menarche, race, religion, educational level, occupation and average household income.

(2) Menopausal status of the women: The menopausal status was classified according to STRAW (Stages of Reproductive Aging Workshop) classification which divided menopause staging into; 
- **Postmenopausal**: no menstrual bleeding in the previous/last 12 months. 
- **Late perimenopause**: had menstruation in the previous/last 2-12 months but not in the previous/last 2 months. 
- **Early perimenopause**: had increasing irregularity of menses without skipping periods (7 days’ difference from the beginning of a given cycle to the next, experienced after the previously regular cycle and
- **Premenopause**: minor changes in cycle length particularly decreasing length of the cycle. To aid statistical analysis, the early and late perimenopausal transition stages were grouped together as *perimenopausal stage*. [13,28,29]

(3) Perception on menopause: The menopause perception questionnaires in this study were based on; Menopause Attitudes Scale questionnaires constructed by Lieblum and Swartzman, local beliefs and focus group interview; consist of nine menopausal women which were randomly chosen from those attending women.[30] Then, with the help of experienced health-workers and language experts the questionnaires were then constructed and reviewed by two gynecologists and a professor in public health for ascertain of its validity. It consists of 10 items which initially used a scale from 1 to 5 (1= strongly agree, 2=agree, 3=not sure, 4=disagree, 5=strongly disagree). However, after pilot study conducted on among 30 women, nurses and lectures to validate the constructed questionnaires, some modification were made on the grading method of each item due to difficulties faced by the women to grade their agreement on the scale and was reduce to three; “agree”, “disagree” and “not sure”. Factor analysis was performed on the modified questionnaires with Cronbach’s alpha ranging from 0.803 to 0.832 which shows that the questionnaires had a good reliability.

Interviews were done face-to-face in Malay language; the national language which widely spoken in Malaysia by trained health personnel, as this was crucial to make participants understand questions and give right answers. During registration participants who fulfill the criteria were invited to participate in the study. Explanations were given and written informed consent was obtained. Total of 386 women were invited to participate.

**Statistical analysis**

The Statistical Package for the Social Sciences Software Version 25.0 (SPSS, Chicago, IL) was used for analyses. Data were presented as mean ± standard deviations (S.D.), median and percentages. The \( X^2 \) test was applied to compare the categorical data. The p value of < 0.05 was considered as statistical significant.
Results

Three hundred and eighty-six women aged 40-65 years old were invited to participate in this study. Sixty-two participants either did not give consent, had medical problems or did not complete (stopped during interviews) the interviews/questionnaires; thus 324 completed the study. The mean age ± standard deviation of the women was 51.37 ± 5.91 years.

The mean age at menopause for postmenopausal women was 52.34 ± 3.21 years. The mean age of menarche among all the women was 11.71 ± 2.14 years and mean age of marriage was 19.24 ± 2.27 years. Among these women, 90 (27.8%) were premenopausal, 124 (38.5%) perimenopausal and 110 (33.7%) postmenopausal.

The majority of these women were local indigenous women of Sarawak 228 (70.4%); were Christians 166 (51.23%); were married 232 (71.60%), the Iban, Bidayuh, Malay, Melanau, Lumbawang, Kelabit, Kayan and Penan are the local indigenous people of Sarawak.

The majority of the women studied 282 (87.03%) had received formal education, 155 (47.83%) were housewives and 122 (37.4%) had a monthly household income below RM 1200 (US$ 286). (1 USD = RM 4.2). (Table 1)

Women perception and attitude towards menopause is shown in Table 2. 22.5 % of them agreed that problem in menopause is a natural process. About 21.9 % of the participants agreed that menopause should be treated medically. Meanwhile 32.3% of them agreed that natural approaches for menopause symptoms are better than hormonal. Majority of the women 75.0 % agreed absence of menses after menopause is a relief and while 61.2 % agreed that menopause causes unpleasant symptoms. However, surprisingly only 28.1 % of them agreed that they look forward to not worrying about pregnancy after menopause. However, 51.7% of the women were not sure either women become less sexually attractive after menopause or not and 51.1% were not sure if they feel less of a woman following menopause. 81.7 % of the women were not sure if sexual activity is more enjoyable after menopause and 71.9 % of them were uncertain whether changes in life during menopause are more stressful.

Among the menopausal stage; perimenopausal group of women were noted to have more positive perception compared to the pre and postmenopausal women (Table: 3).

In this study, women with higher education level have a more positive perception towards menopause. Around 55%-80% of women with tertiary level education compared to 14%-50% among women with no formal education have positive perception towards menopause (Table: 4)

Discussion

Various factors determined a woman perceptions about menopause. Menopausal status, social background, education, occupation, physical or emotional health, and general symptoms may influence
the view of menopause. [17,18]

While menopause has been extensively investigated elsewhere, menopause and its related studies are very limited in Malaysia.

Many studies conducted in Asian women as well other parts of the world noted that women perception or attitudes towards menopause and how they themselves and society or the communities perceived menopause have mix responds, the similar findings were noted in this study, more than 50% of the women interviewed were not able or not sure what were their perceptions on menopause [2,19-25]

Ismail in his study reported 16% of women regards menopause as a ‘pity’, 60% was pleased and 24% of women felt it did not matter. NorHayati noted 73.1% of women did not view menopause as a medical condition and 71.7% did not feel they are less of a woman after menopause. [2,19]

Study done in Thailand by Chirawathul et al. (1994) noted that for rural women regarded menopause as a simple and natural biological event which do not need any treatment and they also feel better as they do not have to worry about pregnancy after menopause. Mazhar et al. (2003) noted, Pakistani women have different views about menopause; few see it as medical condition requiring treatment, whereas a majority consider it a natural transition. In contrast, majority of the women (69.1%) in this study were not sure either menopause is medical problem or not. [20,21]

Two community studies done in Taiwan in recent years revealed Taiwanese women were highly aware of menopause (97%), with a very positive attitude to accept menopause and demonstrated great willingness to receive medical treatment. Study by P.Leon et al. (2007) among middle age Ecuadorian women, showed positive attitudes towards menopause, 93.7% viewed it as a normal event and not a problem, 65.3% said it is a relief as there is no more pregnancy risk, 60.7% reported life is easier and calmer. Sinclair et al. (2003) noted that 80% of women agreed with the view that because the menopause is brought on by diminished hormone levels, it should be viewed as a medical condition and treated as such. Majority of them (76.2%) also disagree that a woman feels less of a woman after menopause. [25]

However, in this study, only 28.1% were relief of no more pregnancy risk; 22.5% agreed menopause is a natural process and only 21.9% agreed that menopause should be treated medically, while only 24.2% of the respondents feels less of a woman following menopause [20-24]

In this study it was noted that majority of the women, 69.1% were not sure either to treat menopause medically, while 62.1%, were not sure either natural approach with traditional medicine, herbal or alternatives medicine were better than hormonal approach.

In contrast, a study among Kelantanese women in Malaysia by NorHayati she noted, majority or 73.1% of her respondents did not view menopause as a medical condition. In a similar note, study done by Chirawathul et al. also concluded that Thai women regarded menopause as a simple and natural biological event which do not need any treatment while Mazhar et al. in their study among Pakistani women reported that among his respondent few see it as a medical condition requiring treatment,
whereas a majority consider it as a natural transition. Larroy et al. (2020) in his study among Asian countries, menopause is treated as a natural aging process, and associated with higher social status and wisdom among the communities. [19,20,21,27]. However, study by Sinclair et al, noted that majority of their respondents agreed with the view that, because the menopause is brought on by diminished hormone levels, it should be viewed as a medical condition and treated as such, while in two community studies done in Taiwan in recent years revealed Taiwanese women were highly aware of menopause (97%), with a very positive attitude to accept menopause and demonstrated great willingness to receive medical treatment. [19-25]

Majority of the respondents agreed that absence of menses after menopause is a relief 75.0% and 61.2% agreed that menopause causes unpleasant symptoms however only 28.1% agreed that they look forward to not worrying about pregnancy after menopause. This correspond with study by P.Leon et al. (2007) among middle age Ecuadorian women, showed positive attitudes towards menopause, 93.7% viewed it as a normal event and not a problem, 65.3% said it is a relief as there is no more pregnancy risk, 60.7% reported life is easier and calmer. Another study by Chirawathul et al. (1994) on Thai women, noted they feels better after menopause as they do not have to worry about pregnancy. [20,24] Meanwhile, in another study conducted by Wong et.al (2007) among middle-aged women in Kuala Lumpur noted most of the participants had positive attitude towards menopause. Majority agreed that menopause indicates loss of youth and fertility and a sign for aging. Responses relating positive reactions included that; menopause is a part of getting old, freedom from menstruation, pregnancy and child birth.

Negative attitude towards menopause such as, it is a disease, feeling no longer like a real Women, old and useless, loss of drive to perform daily chores were rejected by many most participants. Surprisingly, despite positive attitude towards menopause, many participants expressed nervousness, fear and sadness about approaching menopause. [26]

In this study, it could be concluded that majority of the respondents have not thought that menopause and sexual activity were related. This can be interpreted from the study because only 2.8% of the women agreed that sex is more enjoyable after menopause; and only 34.8% agreed that women are less sexually attractive after menopause and 24.2% feels like less than a woman after menopause.

When comparing at the status or stages of menopause, those with positive perception or attitude towards menopause in this study were generally among perimenopausal women in compare to pre or postmenopausal women, the same findings were noted by Larroy et al. (2020), Wong et al. (2007) and a few other studies conducted in Asian and European women where positive perceptions were shared more by younger women compared to older women in their post-menopausal stages. [19,20,22,24,26,27]

Level of educational standard and background were also noted to be a positive influence among women regarding menopause, this study and few other studies done have noted that women with higher educational background generally have a better and positive perception on menopause. [28-34]
While collecting data, it was noted that there was reservation among participants on sensitive questions especially on questionnaires regarding sex. This could be due to the norm of Malaysian and Asian society in which women were reluctant to discuss openly on this topic. Another limitation was the difficulty in translating the question into different local dialects/languages; but in order to minimize this effect, the researcher had conducted face-to-face interviews with the help of a translator and explanation was given to respondents who had problem understanding the questions.

Conclusions

The study of perception of menopause among Sarawak women between the age 40 and 65 years showed the mean age of menopause was 52.34 ± 3.21 years. The perception of menopause on some issues that reported by them were different when compared to other studies done in Malaysia and other Asian countries.

These findings could be because of misunderstandings or misconception regarding menopausal among Sarawak. Educational level plays an important role on how women perceive menopause. From this study, the higher the educational level the more positive perception on menopause.

Since menopause is an issue which is not generally discussed openly in most eastern communities, including among Sarawak women, there seems to be lack of information, knowledge and awareness regarding menopause which is reflected on the answers given during the interview.

Primary care providers including primary care physicians, plays an important role to educate and create awareness among women of all ages about menopause since primary care providers are the first contact with formal health care providers for individuals, families and communities.

Declarations

Ethics approval and Consent to publication

Ethics approval was obtained from Research and Ethics Committee, Faculty of Medicine, Universiti Malaysia Sarawak. All participants provided written informed consent. Confidentiality and anonymity were ensured.

Consent for publication

Participants were assured that in all forms of dissemination i.e.: publications or meetings, the participants would not be identified by name or any other identifier. All data were stored in locked files. Participants anonymity and confidentiality were maintained through-out data collection and analysis.

Availability of data and materials
The data used and/or analyzed during the current study are available from the corresponding author upon request.

**Competing interests**

The authors declare that they have no competing interests.

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There was no funding source for this study, so the decision to publish and all the aspects of this study, are the responsibility of the authors alone.

**Authors contributions**

Syed Alwi S.A.R. Designed the study, participated in conception coordinated recruitment of participants, education of participants, training of health personnel's, preparing of teaching materials, literature search, data analysis and editing of manuscript.

Brohi I.B. Assured of quality of data collection, coordinated in participant’s recruitment, writing of all the drafts, assisted in drafting manuscript, and literature search.

Awi I. Designed the study, participated in the conception coordinated recruitment of participants, education of participants, literature search, data analysis, and editing of the manuscript. All authors read and approve the final version of the manuscript.

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Tables

Table 1 Socidemographic characteristics of the study population (n=324)
| Sociodemographic Data          | n  | %    |
|-------------------------------|----|------|
| **Age group (years)**         |    |      |
| 40 – 44                       | 58 | 17.90|
| 45 – 49                       | 95 | 29.32|
| 50 – 54                       | 78 | 24.07|
| 55 – 59                       | 60 | 18.51|
| 60 – 65                       | 33 | 10.18|
| **Ethnic Distribution**       |    |      |
| Iban                          | 90 | 27.77|
| Chinese                       | 96 | 29.62|
| Bidayuh                       | 60 | 18.52|
| Malay                         | 50 | 15.43|
| Melanau                       | 18 | 5.55 |
| Others (Lumbawang,Kelabit, Kayan, Penan) | 10 | 3.10 |
| **Religion**                  |    |      |
| Christian                     | 166| 51.23|
| Muslim                        | 70 | 21.60|
| Buddhist                      | 68 | 20.98|
| Others                        | 20 | 6.17 |
| **Marital status**            |    |      |
| Married                       | 232| 71.60|
| Widow/divorcee                | 88 | 27.16|
| Single                        | 4  | 1.23 |
| **Educational level**         |    |      |
| No formal education           | 42 | 12.98|
| Primary level                 | 102| 31.50|
| Secondary level               | 140| 43.20|
| Tertiary level                | 40 | 12.40|
| Occupation     | Count | Percentage |
|---------------|-------|------------|
| Housewife     | 155   | 47.83      |
| General worker| 40    | 12.34      |
| Semi-professional | 100  | 30.86      |
| Professional  | 29    | 8.95       |

| Household income (monthly) | Count | Percentage |
|---------------------------|-------|------------|
| Below RM 1200             | 122   | 37.40      |
| RM 1001 – RM 2000         | 54    | 16.80      |
| RM 2001 – RM 3000         | 65    | 19.90      |
| RM 3001 – RM 4000         | 35    | 10.90      |
| RM 4001 – RM 5000         | 18    | 5.70       |
| Above RM 5000             | 30    | 9.30       |

Table 2: Positive and Negative Perceptions towards menopause among Sarawak women. (n=324)
| Positive perceptions                                                                 | Agree (n) (%) | Disagree (n) (%) | Not Sure (n) (%) |
|-------------------------------------------------------------------------------------|---------------|-----------------|-----------------|
| Menopause is a natural process                                                      | 73 (22.5)     | 44 (13.5)       | 207 (64.0)      |
| Natural approaches for menopausal symptoms are better than hormonal                 | 105 (32.3)    | 18 (5.6)        | 201 (62.1)      |
| Absence of menses after menopause is a relief                                       | 243 (75.0)    | 2 (0.6)         | 79 (24.4)       |
| After menopause, no changes in sex enjoyment                                        | 9 (2.8)       | 50 (15.4)       | 265 (81.7)      |
| Not to be worried about pregnancy                                                  | 91 (28.1)     | 7 (2.2)         | 226 (69.7)      |

| Negative perceptions                                                                |               |                 |                 |
|-------------------------------------------------------------------------------------|---------------|-----------------|-----------------|
| Menopause should be treated medically                                               | 71 (21.9)     | 29 (9.0)        | 224 (69.1)      |
| Women are less sexually attractive after the menopause                               | 113 (34.8)    | 44 (13.5)       | 167 (51.7)      |
| Feels less of a woman following menopause                                          | 79 (24.2)     | 80 (24.7)       | 165 (51.1)      |
| Menopause causes unpleasant symptoms                                               | 198 (61.2)    | 0 (0%)          | 126 (38.8)      |
| Changes in life during menopause are stressful                                      | 89 (27.5)     | 2 (0.6)         | 232 (71.9)      |
Table 3: Perception on menopause among Sarawak women according to menopausal status
| Positive perceptions                                                                 | Premenopausal | Perimenopausal | Postmenopausal |
|-------------------------------------------------------------------------------------|---------------|----------------|----------------|
| Menopause is a natural process                                                      | 19 (31.7)     | 76 (66.7) *†   | 22 (21.5)      |
| Natural approaches for menopausal symptoms are better than hormonal                  | 3 (5.0)       | 74 (64.9) *†   | 19 (18.6)      |
| Absence of menses after menopause is a relief                                        | 8 (13.3)      | 52 (45.6) *†   | 22 (21.7)      |
| After menopause, no changes in sex enjoyment                                          | 10 (16.7)     | 26 (22.8)      | 20 (19.6)      |
| Not to be worried about pregnancy                                                    | 43 (71.7)     | 89 (78.1) **   | 79 (77.5) **   |

| Negative perceptions                                                                 | Premenopausal | Perimenopausal | Postmenopausal |
|-------------------------------------------------------------------------------------|---------------|----------------|----------------|
| Menopause should be treated medically                                                | 38 (63.3)     | 80 (70.1)      | 80 (78.4)      |
| Women are less sexually attractive after the menopause                                | 8 (13.3)      | 32 (28.1)      | 43 (42.2)      |
|Feels less of a woman following menopause                                           | 43 (71.6)     | 86 (75.4) **   | 81 (79.4) **   |
| Menopause causes unpleasant symptoms                                                | 26 (43.4)     | 59 (51.7)      | 61 (59.8)      |
| Changes in life during menopause are stressful                                       | 38 (63.3)     | 76 (66.7)      | 66 (64.7)      |
Table 4: Perception of menopause among the Sarawak women according to educational level
| Perception of Menopause                                      | No formal education (n=42) | Primary level (n=102) | Secondary level (n=140) | Tertiary level (n=40) |
|-------------------------------------------------------------|----------------------------|-----------------------|-------------------------|-----------------------|
|                                                             | n (%)                      | n (%)                 | n (%)                   | n (%)                 |
| Positive perceptions                                        |                            |                       |                         |                       |
| Menopause is a natural process                              | 16 (38.2)                  | 40 (39.5)             | 58 (42.0)               | 28 (70.0)             |
| Natural approaches for menopausal symptoms are better than hormonal | 11 (25.0)                  | 28 (27.2)             | 57 (41.1) *             | 26 (65.0) †           |
| Absence of menses after menopause is a relief               | 7 (20.6)                   | 19 (18.2)             | 49 (34.6) *             | 32 (80.0) †           |
| After menopause, no changes in sex enjoyment                | 6 (14.7)                   | 15 (14.8)             | 30 (21.5)               | 22 (55.0) †           |
| Not to be worried about pregnancy                           | 21 (50.9)                  | 75 (74.1)             | 105 (75.7)              | 30 (75.0)             |
| Negative perceptions                                        |                            |                       |                         |                       |
| Menopause should be treated medically                       | 29 (67.6)                  | 74 (72.8)             | 103 (73.8)              | 28 (70.0)             |
| Women are less sexually attractive after the menopause      | 8 (17.6)                   | 18 (17.2)             | 59 (42.1) *             | 24 (60.0) †           |
| Feels less of a woman following menopause                  | 22 (52.9)                  | 85 (82.7) **          | 122 (86.9) *            | 28 (70.0)             |
| Menopause causes unpleasant symptoms                        | 14 (33.8)                  | 41 (40.7)             | 97 (69.2)               | 32 (80.0) †           |
| Changes in life during menopause are stressful              | 22 (51.5)                  | 62 (60.5)             | 107 (76.7)              | 28 (70.0)             |
* Significant difference p < 0.05 compared to no formal education and primary level

† Significant difference p < 0.05 compared to no formal education, primary level and secondary level

** Significant difference p < 0.05 compared to no formal education