ORIGINAL ARTICLE

MENOPAUSAL, DEPRESSIVE SYMPTOMS AND RELIGIOSITY AMONG WOMEN ATTENDING THE GYNAECOLOGY CLINIC IN A PUBLIC HOSPITAL

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ABSTRACT

Menopause is a normal development in women's lives. Having depressive symptoms during the menopausal transition can be managed, and in many health conditions, religiosity may play an important role in reducing the severity. The objective of this study was to determine menopausal, depressive symptoms and religiosity among women attending the Gynaecology Clinic in a Public Hospital. A cross-sectional study was done at Hospital Sungai Buloh involving 232 women aged 40-60 years from January 2020 to March 2020. The Menopause Rating Scale (MRS), the Centre for Epidemiology Studies-Depression Scale-Revised (CESD-R), the Duke Religious Index (DUREL) and socio-demographic data were used as research tools in this study. The respondents were categorised as premenopausal (n=98, 42.2%), perimenopausal (n=81, 34.9%) and postmenopausal (n=53, 22.8%). The highest percentage of menopausal symptoms were muscle discomfort (56.5%), sleeping problems and lethargy (54.3%). The prevalence of depressive symptoms was 19.2%, and the results showed that unmarried women were more depressed compared to married women (p<0.05). The overall religiosity level of respondents was high (23.09±2.52). The logistic regression analysis showed that as urogenital problems arise, their depressive symptoms will also increase (p<0.05). Women who are transitioning to menopause should be assessed continuously for the severity of urogenital problems as it can impact their psychological and emotional well-being, and depressive symptoms should be assessed thoroughly especially among unmarried women.

Keywords: Menopausal, Depressive, Religiosity, Women

INTRODUCTION

Menopause is a typical condition that all women go through as they age. Menopause, described as the total cessation of the menstrual cycles, is generally correlated with the progressive loss of ovarian follicles. Natural menopause occurs after 12 consecutive months of amenorrhea for which no other physiological or pathological cause exists[1]. Menopause is an unavoidable aspect of ageing and entails the loss of reproductive ovarian function, which happens either naturally or due to other conditions, such as early menopause[2].

The expression "menopause" is regularly used to represent any of the progression a woman encounters either just previously or after she quits bleeding, denoting the end of her regenerative period. Each lady will unexpectedly face menopause during her midlife years[3]. The menopausal advancement frequently begins in the mid '40s and it is expected to be divided into a few stages. In a few women, the period of menopause may be at 51 or 52 years of age[4]. The most common symptoms among menopausal women are joint and muscular discomfort (73.3%), followed by fatigue (58.3%)[5]. Other physical changes during the transition to menopause and post-menopause are back pain, breast discomfort, nausea, night sweats, sleep disturbances, less interest in sex, and frequent urination, and sometimes loss of focus[5]. A previous local study reported that the average age for menopause was 52 years and the most common reported menopausal symptoms were joint and muscle soreness, and urinary tract conditions[6].

Menopausal women commonly reported of having depressive symptoms. Gaining knowledge of the menopause symptoms helps to lessen the burden and stress associated with the condition[7]. The perimenopausal period could last up to six years[8] and the risk of developing depression during perimenopause could be as high as 14 times more than premenopausal women[5]. Women in the middle ages and having menopause are detected as being vulnerable to many emotional related problems such as depression, anger, and anxiety[9]. Similarly, some studies identified that women experience a wide range of physical and psychological symptoms concerning menopause[6] [10]. Thus, the aspect of emotional care is essential, especially among women who experienced a transition period of menopause, to allow and help them in identifying their condition and feelings, and learning to accept it.

Religion involves beliefs, practices and rituals related to the sacred. Religious commitment is defined as the degree to which a person adheres to their religious values, beliefs, and practices and uses them in daily living[11]. Religiosity has been operationalised and measured in several ways, including participation in religious

organisations, the degree of participation in religious activities, the attitudes and importance of religious experience and belief in traditional religious creeds[12]. It was reported that those who had the most frequent and recent religious service attendance had the lowest risk of developing depression[13]. Therefore, this study was conducted to determine the menopausal, depressive symptoms and religiosity among women attending the Gynaecology Clinic in a Public Hospital.

METHODS

The design of this study is a quantitative method with a cross-sectional design, to guide the research in menopausal, depressive symptoms and its association with religiosity among women attending the gynaecology clinic in a public hospital. A three-month quantitative design study was conducted at the Sungai Buloh Hospital Gynaecology Clinic, Obstetrics and Gynaecology Department, from January 1, 2020, to March 31, 2020. The hospital service covers three districts where the community in these areas make up 40% of the total population in a state with approximately 2.18 million inhabitants and provides secondary and tertiary services.

The sample size calculation was determined as calculated by Raosoft software[14] with a Margin of Error of 5% and Confidence Level 95%, as well as published data by Rahman et al.[15] who reported that the prevalence of the most common menopausal symptoms was 80.1%. The estimated sample size was 232 (n=232).

Data was collected within three months, between January and March 2020. Purposive sampling technique was used and the potential respondents, women attending the Gynaecology Clinic every Mondays and Fridays, who met all eligibility criteria were included in the study.

Inclusion and Exclusion Criteria
The eligibility criteria were all women age 40 years to 60 years, Malaysian citizens and were able to understand Malay or English. Women receiving Hormone Replacement Therapy (HRT) were excluded from the study.

Instruments
The instruments used were adopted from the Menopause Rating Scale (MRS)[16], The Centre for Epidemiology Studies, that was revised in 2004 for the depressive symptoms (CESD-R)[17] and the Duke University Religion Index (DUREL), where the Malay version was developed in 2010 by Nurasikin et al.[18] to assess the religiosity.

A total of 43 questions were used and covered the eligible participants' socio-demographic data,

menopause and depressive symptoms and the religiosity of the women. The instruments were divided into four sections. Section A is socio-demographic data which has seven items, Section B is menopause symptoms comprising of 11 items, Section C is depressive symptoms (20 items) and Section D comprises of religious practice with five items.

The instrument was subject to peer review by research experts who ensured that the methodology was accurate when resolving ambiguities and concentrated on items that fulfilled the intended purpose of the analysis. A pilot study was done before the actual study was conducted and found that the Cronbach Alpha for the instruments were acceptable for MRS (α=0.80), CESD-R (α=0.75) and DUREL (α=0.69).

The data collected were analysed with IBM SPSS Statistics Version 23. The descriptive and inferential statistics (i.e. independent t-test, Chi-square and logistic regression) were used for the analysis and a p value of less than 0.05 was considered significant, to reject the null hypothesis.

Ethical Consideration
Ethical approval was obtained from UiTM ethical committee (600-IRMI (5/1/6) prior to the commencement of the study. The approval was also granted by the National Medical Research Registry (NMMR) 19-2914-51192 and by the Malaysian Research Ethics Committee (MREC) (KKM / NIHSEC / P19-2248(7). Permission was obtained from the Director of Sungai Buloh Hospital through a letter of reference Bil (182) HSB / CRC/770/21/01/07 Jld and, at the same time, from the Head of Obstetrics and Gynaecology and Psychiatrics Departments before data collection process began. Respondents were informed about the study matter and their confidentiality was maintained.

RESULTS

Socio-demographic data of respondents
As indicated in Table 1, a total of 232 women aged 40 – 60 years old were invited to participate in this study. All of them (100%) completed the questionnaires. The average age of the women was 47 (±4.28) years. Most of the respondents were Malay, (n=214, 92.2%), tertiary level graduates (n=98, 42.2%), married (n=225, 97%) and 165 (71.1%) of them were employed. Meanwhile, 115 (49.6%) women were from the T20 group with an income of above RM9620. For the menstrual status, 98 (42.2%) of them were premenopausal, followed by 81 (34.9%) perimenopausal and 53 (22.8%), menopausal.

Table 1: Socio-demographic data (n=232)

	Frequency	Percentage (%)
Age (Mean±SD)	47.32±4.28	
Ethnic		
Malay	214	92.2
Non-Malay	18	7.8
Educational Level		
None	17	7.3
Primary School	65	28.1
Secondary School	52	22.4
Tertiary Level	98	42.2
Marital Status		
Unmarried	7	3
Married	225	97
Occupational		
Unemployed	67	28.9
Employed	165	71.1
Household Income (Mean±SD)	5197.9±4044.4	
B40 (Below RM4360.00)	62	26.7
M40 (RM4361 – RM9619.00)	55	23.7
T20 (Above RM9620.00)	115	49.6
Menstrual Status		
Premenopausal	98	42.2
Perimenopausal	81	34.9
Postmenopausal	53	22.8

Table 2: Menopausal symptoms (n=232)

	NO	MILD	MODERATE	SEVERE	VERY SEVERE
	n (%)	n (%)	n (%)	n (%)	n (%)
Somatic					
Joint and muscular discomfort	101 (43.53)	72 (31.03)	42 (18.10)	14 (6.03)	3 (1.29)
Sleep problems	106 (45.69)	53 (22.84)	58 (25.00)	12 (5.17)	3 (1.29)
Hot flushes	115 (49.57)	70 (30.17)	44 (18.97)	3 (1.29)	0 (0.00)
Heart discomfort	149 (64.22)	51 (21.98)	30 (12.93)	2 (0.86)	0 (0.00)
Psychological					
Lethargy	106 (45.69)	62 (26.72)	56 (24.14)	8 (3.45)	0 (0.00)
Anxiety	109 (46.98)	71 (30.60)	43 (18.53)	9 (3.88)	0 (0.00)
Anger/ irritability	114 (49.14)	68 (29.31)	39 (16.81)	10 (4.31)	1 (0.43)
Depression	122 (52.59)	58 (25)	45 (19.4)	7 (3.02)	0 (0.00)
Urogenital					
Sexual problems	128 (55.17)	47 (20.26)	44 (18.97)	13 (5.60)	0 (0.00)
Vaginal dryness	146 (62.93)	50 (21.55)	25 (10.78)	11 (4.74)	0 (0.00)
Urinary problems	151 (65.09)	37 (15.95)	35 (15.09)	7 (3.02)	2 (0.86)

Table 3: Depressive symptoms (n=232)

Category of depressive	Frequency	Percentage (%)
No depressive symptoms ≤15	186	80.2
Depressive symptoms ≥16	46	19.8

Menopausal symptoms

Table 2 shows the frequency of menopausal symptoms at various menopausal stages. The most prevalent menopausal symptoms for all women (n=232) were mainly from the somatic subscale; joint and muscular discomfort (n=131, 56.5%), sleeping problems (n=126, 54.3%) and hot flushes (n=117, 50.4%). The typical somatic symptoms of menopause less experienced were heart discomfort (n=83, 35.8%). For the psychological subscale symptoms, the highest reported by the respondents were feeling lethargic (n=126, 54.3%), followed by anxiety (n=123, 53%), anger (n= 118, 50.9%) and depression (n=110, 47.4%).

For the urogenital subscale, symptoms reported included sexual problems (n= 104, 44.8%), vaginal dryness (n=86, 37%) and urinary problems (n= 81, 34.9%).

Depressive Symptoms

Table 3 indicates that almost 80% (n=186) of the respondents did not have severe depression that can be significantly included in the category of clinical depressive symptoms. However, there were 46, (20%) that needed extra care with their depression issues due to subthreshold depressive symptoms.

Table 4: Religiosity (n=232)

	Frequency (n)	Percentage (%)	Min/Max
ORA			
1. Never	17	7.33	-
2. Once a year or less	7	3.02	-
3. A few times a year	105	45.26	-
4. A few times a month	51	21.98	-
5. Once a week	29	12.5	-
6. More than once a week	23	9.91	-
Total (n)	232	100	-
NORA			
1. Never	2	0.86	-
2. Once a year or less	6	2.59	-
3. A few times a year	11	4.74	-
4. A few times a month	23	9.91	-
5. Once a week	123	53.02	-
6. More than once a week	67	28.88	-
Total (n)	232	100	
PRACTICE 1 (IR)			
1. Not at all	0	0.00	-
2. More towards not true	2	0.86	-
3. Not sure	11	4.74	-
4. More towards true	12	5.17	-
5. Very true	207	89.22	-
(Mean±SD)	4.83±0.54		2/5
PRACTICE 2 (IR)			
1. Not at all	0	0.00	-
2. More towards not true	2	0.86	-
3. Not sure	6	2.59	-
4. More towards true	13	5.6	-
5. Very true	211	90.95	-
(Mean±SD)	4.87±0.47		2/5
PRACTICE 3 (IR)			
1. Not true at all	0	0.00	-
2. More towards not true	0	0.00	-
3. Not sure	5	2.16	-
4. More towards true	23	9.91	-
5. Very true	204	87.93	-
(Mean±SD)	4.86±0.41		3/5
Total score (DUREL)	23.09±2.52		11/27

Note: ORA refers to organised religious activities that asks about the frequency of attendance at religious services and NORA is non-organised religious activities that asks regarding the frequency of private religious activities for the assessment of intrinsic religiosity; Intrinsic religiosity (IR) asks about experiencing the presence of God in our lives (Practice 1), Religious belief is with regards to the factors that lie behind our whole approach to life (Practice 2) and whether we carry our religious belief into all other dealings in life (Practice 3).

Religiosity

The result shows that most women attending the Gynae Clinic in a Public Hospital have high beliefs in religion. Almost more than 93% of the respondents have gone to religious activities at the religious place while 99% of the respondents do religious activities alone at their convenience.

For Intrinsic Religiosity (IR), it shows that a majority of the respondents answered "very true" which proved that they believe in religion where the minimum answer was 2 and maximum was 5. The average score for Practice 1, Practice 2 and Practice 3 were 4.83±0.54, 4.87±0.47 and 4.86±0.41 respectively. See Table 4.

Depressive symptoms and socio-demographic data

Table 5 shows the relationship between depressive symptoms and socio-demographic data. Only marital status was statistically significant with depressive symptoms (p=0.012), where single women were having more depressive symptoms than married women. Other variables did not show any statistically significant differences with the groups of depressive symptoms (p>0.05).

Effects of menopausal symptoms and religiosity towards depressive symptoms

Logistic regression was performed to examine the effects of menopausal symptoms and religiosity in the likelihood that respondents have depressive symptoms (Table 6). The model contained four independent variables (somatic, psychological, urogenital and religiosity). The full model containing all predictors was statistically significant, x^2 (4, N=232) = 10.74, p<0.05, indicating that the model was able to distinguish between respondents who reported and did not report depressive symptoms. The model explained between 0.5% (Cox and Snell R Square) and 0.7% (Nagelkerke R Squared) of the variance of depressive symptoms, and correctly classified 80.2% of cases. As shown in Table 6, only urogenital was statistically significant to the model (p=0.001), with an odds ratio of 1.765. This indicated that respondents who had urogenital problems were 1.8 times more likely to report the depressive symptoms than those who did not have urogenital problems.

Table 5: Depressive symptoms and socio-demographic data (n=232)

	Absence of depressive symptoms (n=186)	Presence of depressive symptoms (n=46)	Test Statistic	p-value
Age[a] (mean ±SD)	47.35±4.36	47.17±4.00		0.206
Ethnicity[c]			7.062	0.700
Malay	172 (80.4%)	42 (19.8%)		
Non-Malay	14 (77.8%)	4 (22.2%)		
Educational Level[c]			3.678	0.298
None	15 (88.2%)	2 (11.8%)		
Primary School	48 (73.8%)	17 (26.2%)		
Secondary School	45 (86.5%)	7 (13.5%)		
Tertiary Level	78 (79.6%)	20 (20.4%)		
Marital Status[c]				
Unmarried	3 (42.9%)	4 (57.1%)	6.322	0.012*
Married	183 (81.3%)	42 (18.75%)		
Occupation[b]			1.424	0.233
Unemployed	57 (85.1%)	10 (14.9%)		
Employed	129 (78.2%)	36 (21.8%)		
Household Income[b]			0.309	0.857
B40 (Below RM4360.00)	51 (80.9%)	11 (19.1%)		
M40(RM4361-RM9619.00)	34 (73.9%)	12 (26.1%)		
T20 (Above RM9620.00)	92 (80%)	23 (20.0%)		
Menstrual Status[b]			0.992	0.055
Premenopausal	113 (85.6%)	19 (14.4%)		
Perimenopausal	49 (72.1%)	19 (27.9%)		
Postmenopausal	24 (75.0)	8 (25.0%)		

*Note: [a]An independent t-test was used to analyse the mean difference of continuous data, the [b]Chi-square test and [c]Fisher Exact test (for count of each cell less than 5) were used to compare the proportion of the two groups for categorical data, *p<0.05, statistically significant*

Table 6: Logistic Regression Test (n=232)

	B	S.E	Wald	df	p	Odds Ratio	95% CI for Odds Ratio	
							Lower	Upper
Somatic	-0.109	0.206	0.277	1	0.599	0.897	0.599	1.344
Psychological	0.024	0.238	0.010	1	0.919	1.025	0.642	1.635
Urogenital	0.568	0.177	10.321	1	0.001*	1.765	1.248	2.497
Religiosity	0.021	0.070	0.088	1	0.766	1.021	0.891	1.170
Constant	-2.353	1.680	1.963		0.161	0.095		

Note: *p<0.05, statistically significant

DISCUSSION

Socio-demographic data

A total of 232 women aged 40 – 60 years old were recruited in this study. The average age of respondents in this study was 47 years, the lower age was 40 and the highest age was 59 years. This data is comparable to previous studies, which is around 48-49 years[19] [20] [21]. However, in other studies, their mean age was above the age of 50; for example, 58 years (since their sample was women aged from 45 to 86 years)[5], 57 years[22] and 51 years[6].

For ethnicity, the majority was Malay (92%) and it was similar to a previous study[5]. This study was done in an area where a majority of the residents are Malays although they came from three different districts (Gombak, Petaling and Kuala Selangor). In this study, respondents were categorised as married (97%), even though they have already divorced or separated. However, in a study done by Hongyan et al.[23], divorced and widowed women were categorised as "single".

Educational level in this study was classified according to the educational level in Malaysia in view of the current situation. Nearly half of the respondents graduated at tertiary level (42.2%). Furthermore, the results from this study showed that a majority of them were employed (71%) and 50% of the respondents fall under the category of T20. It can be stated that a majority of the women attending the clinic were of a higher household income. The median income for the respondents in this study was RM5197 and was concurrent with the latest median monthly household income which is RM5228 in 2016[24].

Menopausal Symptoms

In general, the most frequently reported menopausal symptoms tend to be in the somatic subscale; joint muscle discomfort, sleeping problems, and hot flushes. According to Ketch et al.[25], somatic symptoms can happen at any time in life, but most often begins in early adulthood. This study findings were quite similar with another study, that reported a higher incidence of physical symptoms (91.5%), followed by psychosocial (44.7%), vasomotor (21.3%), and sexual (0%)[19]. In this study, the frequency of hot flushes (50.4 %) was found to be lower compared to other local studies[5] [6]. Nevertheless, there is a study that

showed only 40% reported the symptoms[22], however, the results might not be generalised as the sample also included women with hormone replacement therapy. A study conducted in Saudi Arabia suggested hot flushes may be attributable to the exceptionally hot local climate, which decreases the vulnerability of women to elevated temperatures, or alternatively, women may attribute the warming sensation of hot flushes to ambient weather[20].

For psychological symptoms, the result shows that the highest percentage reported was lethargic symptoms, but the score was around mild to moderate, which was similar to a study conducted in Egypt[26]. Likewise, a study done among Turkish women stated that the percentage of women with this symptom was 21.9%[27]. A study conducted in India found that only 6% of postmenopausal women had depression[28], while another study found that, this symptom was higher in the postmenopausal group[20]. The psychological symptoms were reported to be very high (90.7%) among women in Kerala, India[29], but it could be due to the wide-range of the women's age in their study sample (32 to 82 years).

Depressive Symptoms

Depressive symptoms are common in all populations but tend to be higher during the transition to menopause among women[3]. According to Ellen[3], there is evidence to support the role of the evolving endocrine environment in developing the depressive mood during menopause transition, but the hormone contribution is considered small. This study has shown that almost 80% of the respondents did not have serious depressive symptoms. However, there were 20% of the respondents that needed extra care due to subthreshold depression symptoms. Also, in the MRS, under the psychological subscale, only 3% of the respondents reported having severe symptoms of depression. This study shows similarities with previous studies conducted where the percentage of the CESD scores of 16 and above were around 23-24%[9] [30]. A previous study done in 2016 found that depressive symptoms among respondents was 11.4%[23]. It was reported that depressive symptoms among women were not merely linked to menopause per se, but could possibly be due to other conditions[3].

Religiosity

Most of the women attending the Gynae Clinic in a Public Hospital have high beliefs in religion. Although there were some respondents who reported low frequency of attending the house of worship (such as mosques, temples or churches), this cannot be considered significant because all of the respondents were women, and in this study the majority of respondents were Malays (Muslim). In the Islamic religion, the presence of women in the house of worship such as mosques or surau is not an obligation of their beliefs as narrated by Ibn Umar Radiallahu Ánhu who said : The Prophet S.W.T said: Do not prevent your woman from going to mosques. But their homes are better for them *(Sunan Abu Daud, Kitab as Solat, Bab Ma Jaa Fi Khuruj an-Nisa'llal al-Masjid, hadis no 479, Sahih Lighairih)*.

A previous study done in 2010 found that only 20.9% of the respondents attended church or other religious meetings, whereas 46% spent time in private religious activities[12]. However, this study was done in a Western country and most of them were non-Muslims. In a local study conducted by Nurasikin et al.[18] it was found that those who were committed to religion used a more positive religious coping pattern.

Depressive symptoms and socio-demographic data

The data for the relationship between depressive symptoms and demographics indicated that there was a relationship between marital status and depressive symptoms, where depressive symptoms were prevalent among unmarried women.

It was stated that marital status showed a significant result in relation to depression symptoms among women[3]. Marital status was related with the occurrence of major depression; however, the strength of the relationship was modified by age[31]. Furthermore, a study found that the depressive rates were lower for those who were single, widowed or divorced compared to those who were married[28]. In contrast, other studies found that there were no significant differences between married women and those who were widowed, divorced or separated with depressive symptoms[32 33].

Menopausal, religiosity and depressive symptoms

In this study, the results showed that only urogenital problems affect the depressive symptoms. Menopausal women with urogenital problems were 1.8 timesmore likely to develop depressive symptoms. This is similar to a previous study, which stated that urinary incontinence was related with developing depressive and anxiety symptoms[34]. A study done among menopausal women in Iran mentioned that depression and sexual dysfunction were correlated[35]. Menopausal

period occurs mostly among the senior citizens, and those urogenital symptoms will influence their mood, sexuality and emotional well-being during the ageing process. It is hoped that in the future, a special therapeutic assessment and intervention for menopausal women can be provided in order to reduce urogenital symptoms and thus prevent the development of depression.

CONCLUSION

In conclusion, most of the respondents reported joint and muscle discomfort and sleeping problems as symptoms of menopause. Yet, they have good religiosity, in terms of belief and practice. The results also showed that the prevalence of depressive symptoms was relatively low, and single women were more depressed than married women. There was also an association between urogenital problems and depressive symptoms among menopausal women.

Although the percentage of depressive symptoms in this study was small, the potential of this population to have depression cannot be ignored. The government needs to establish a dedicated facility or service especially for those with urogenital and depressive symptoms. Special attention and screening for depressive symptoms need to be given to single menopausal women and women who developed urogenital problems. Pre-menopause clinic programs are suggested to be provided in existing health facilities to encourage women to get early care advice when appropriate.

Conflict of Interest
None

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