## **SHORT REPORT**

# Prevalence of menopausal symptoms among female teachers in Seremban, Negeri Sembilan

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#### **Abstract**

**Background:** Menopause is a condition that every woman faces in later life and can have many associated effects which might disrupt the quality of life.

**Aim:** To determine both the prevalence of menopause and menopausal symptoms in a group of employed Malaysian women and to determine their sources of information regarding menopause.

**Methods:** A cross sectional study was conducted among female teachers aged 35 and above in Seremban, Negeri Sembilan, Malaysia between 1 June and 31 December 2000. A total of 550 self administered questionnaires were distributed to teachers selected through simple random sampling of selected schools.

**Results:** The response rate was 78.9%. The prevalence of menopause was 21.9%. There was a high prevalence of skin dryness (44.2%), hot flushes (43.2%), fatigue (41.0%) and excessive sweating (34.7%) among the menopausal respondents and there was a significant difference between menopausal and non menopausal symptoms of respondents (p < 0.05).

**Conclusion:** The prevalence of menopause and each menopausal symptom are high in the present group of women. Improved health care programs about the menopause might help give women a better quality of life.

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Key words: Malaysian women, menopausal symptoms, menopause.

#### Introduction

The life expectancies of women are increasing with improved health services and living conditions. The life expectancy of a Malaysian woman was 74.6 years in 1999 compared to 65.6 years in 1970. In the western world, menopause occurs at a median age of 51.4 years, with a Gaussian distribution ranging from 40 to 58 years. The median age of menopause in the United Arab Emirates is 48 years. Ismael found that the mean age of menopause among Malaysian women aged 40–60 years was 50.7 years. This implies that a significant proportion of a woman's life is spent postmenopausal.

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Email: norafiah@medic.upm.edu.my Accepted for publication 4 August 2003. Effects of menopause include discomfort related to excessive sweating, hot flushes, night sweats, sleep disturbances, vaginal dryness and psychological changes. Besides all these effects, menopause can affect the quality of life by being a major cause of morbidity (cardiovascular diseases and osteoporosis) in postmenopausal women. <sup>6-8</sup> In Singapore perimenopausal women experienced a significantly higher prevalence of vasomotor, urogenital and psychological symptoms compared with pre-perimenopausal and postperimenopausal women. <sup>9</sup>

The present study was carried out to determine the prevalence of menopause and menopausal symptoms and to determine the sources of information about menopause used by a group of Malaysian women.

#### Materials and methods

The present cross sectional study using self administered questionnaires was conducted from June to

December 2000 in the district of Seremban, Negeri Sembilan, Malaysia. Negeri Sembilan is one of the states in Malaysia. In Seremban (the capital city of Negeri Sembilan), women aged 35–54 years constitute 24% of the total number of residential females in 2000.<sup>1</sup>

A total of 550 female teachers aged between 35 and 55 years old were selected via stratified random sampling of teachers from selected schools. Schools were stratified into secondary or primary schools. Teachers who refused to participate, were on maternity leave, or who were attending courses were excluded from the present study.

The self administered questionnaires included questions on sociodemographic profile, menopausal status, sources of information on menopause and symptoms of menopause. In the present study we defined menopause as females who have amenorrhea for 12 or more consecutive months.<sup>3</sup>

Data was analyzed using SPSS version 7.5. Samples were divided into menopausal and non menopausal groups in order to calculate the percentage of menopausal symptoms among them. Categorical variables in both groups were compared using the  $\chi^2$  test. The analysis was considered to be statistically significant at p < 0.05.

#### Results

The response rate in the current study was 78.9% (434 out of the 550 teachers responded).

Table 1 shows the sociodemographic profile of the respondents. The majority were Malays (56.0%) and

**Table 1** Sociodemographic profile of female teachers who participated in the study (n = 434)

Sociodemographic profile	n	%	
Ethnicity			
Malay	243	56.0	
Non-Malay	191	44.0	
Age			
Less than 44 years	230	53.0	
44 years and above	204	47.0	
Level of education			
Diploma	302	69.9	
Degree	132	30.4	
Mean income			
Less than Ringitt Malaysia 3600	222	51.2	
Ringitt Malaysia 3600 and above	212	48.8	
Marital status			
Single	39	9.0	
Married	376	86.6	
Widowed or separated	19	4.4	

aged 44 years and above (57.0%). Most had diplomas from teacher training colleges (69.6%) while 30.4% were university graduates. Over 50% earned less than Ringgit Malaysia (RM) 3600 (US \$1.00 = RM 3.8087), most (86.6%) were married. A total of 21.9% of these women were menopausal.

Table 2 shows that main sources of information on menopause were magazines (40.6%) and newspapers (37.8%), while only 28.8% reported radio and television as their sources of information. A total of 18.0% identified medical and health personnel as a source of information.

In the present study, the prevalence of menopause among respondents was 21.9%. Table 3 shows the menopausal symptoms among respondents. There was a high prevalence of skin dryness (44.2%), hot flushes (43.2%), fatigue (41.0%), irritability (35.8%) and excessive sweating (34.7%) among the menopausal respondents.

### Discussion

In 2000, 20% of women 45 years old and above were menopausal.<sup>10</sup> The main sources of information among women in the current study were magazines and newspapers, 40.6 and 37.8%, respectively. These findings are similar to the study on Dutch women between the ages of 45-65 years, that reported women's magazines as their source of information (35%).<sup>11</sup> The results from the present study are also similar to another study among 750 American women between the ages of 45-60 where 14% of them reported that books were their main source of information.12 Only 18.0% of the female teachers we surveyed identified medical and health personnels as a source of information on menopause. Studies in Hong Kong and South China also found that few women obtained knowledge and information from medical sources.13

In general, it has been estimated that almost 75% of menopausal women will experience hot flushes and in 20–25% of these persist for up to 5 years. <sup>14</sup> In

**Table 2** Sources of information on menopause among female teachers who participated in the study (n = 434)

Source of information	n	0/0
		70
Magazines	176	40.6
Newspaper	164	37.8
Friends	147	33.9
Radio and television	125	28.8
Medical and health personnels	78	18.0
Others	17	3.9

**Table 3** Prevalence of menopausal symptoms among menopausal female teachers who participated in the study (n = 95)

Symptoms	Menopause $(n = 95)$		
	n	%	
Fatigue			
Yes	39	41.0	
No	56	59.0	
Hot flushes			
Yes	41	43.2	
No	54	56.8	
Irritablity			
Yes	34	35.8	
No	61	64.2	
Excessive sweating			
Yes	33	34.7	
No	62	65.3	
Insomnia			
Yes	30	31.6	
No	65	68.4	
Palpitation			
Yes	27	28.4	
No	68	71.6	
Skin dryness			
Yes	42	44.2	
No	53	55.8	
Vaginal dryness			
Yes	29	30.5	
No	66	69.5	

the west, 80% of women have hot flushes, fatigue, skin dryness, excessive sweating and vaginal dryness. A study carried out by Kuh *et al.* reported that 45% of menopausal women have problems of exces-

sive sweating.<sup>15</sup> The findings from the present study are also consistent with another study in Malaysia by Ismael. Ismael's study showed that 57% of women aged 40–60 years had hot flushes, followed by excessive sweating, palpitations, urinary incontinence, less sexual activity and dysparaeunia.<sup>5</sup> However, the prevalence of menopausal symptoms was slightly higher than the present study because his sample belonged to an older age group compared to the current study.<sup>5</sup>

The present study was conducted on female teachers because we felt teachers are better educated and therefore, will be better informed regarding menopausal symptoms. There was no review of medical records. Further studies can also be carried out to assess the knowledge and attitude of health providers, who are important in providing correct information and should play greater roles as sources of information on the menopause.

#### Conclusion

Prevalence of menopause was high among female teachers in the present study. Menopausal women significantly presented with hot flushes, skin dryness, fatigue, excessive sweating, headache and skin dryness. As Malaysia will be an aging population, programs on menopause must be emphasized and accessible to all women. Services and counseling for menopausal women are being provided by some private clinics and hospitals. In the public sector, these services are provided by general hospitals but not yet in the health clinics. In addition, medical and health personnels must play a greater role in delivering health messages about menopause to the public in general and women in particular.

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