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## Original Research Article

# Prevalence, knowledge and attitudes of menopausal symptoms among women aged 40-60 years and their associated factors in a semi urban area, Matara district, Sri Lanka

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## ABSTRACT

**Background:** Menopause is naturally created milestone in a women's life. Every woman experiences unique menopausal symptoms that may be physiological, psychological or both. The aim of this study was to determine the prevalence, knowledge and attitudes of menopausal symptoms among women aged 40-60 years and their associated factors in a semi urban area, Matara district, Sri Lanka.

**Methods:** A descriptive cross-sectional community-based study was carried out among 212 women ages 40-60 years in three selected Grama Niladhari divisions Matara district, Sri Lanka. Data was collected using an interviewer administered questionnaire. A validated menopausal rating scale used to measure menopausal symptoms. Data was analysed using SPSS version 23. A probability of  $p < 0.05$  was considered significant.

**Results:** The mean age of menopause of the study population was 47.84 years ( $SD=4.048$ ). The most prevalent somatic symptoms were hot flushes 157 (74.1%), joint and muscular discomfort 138 (65.1%), sleeping problems 126 (59.5%) and heart discomfort 112 (52.9%). Majority (>50%) reported having psychological symptoms and minority reported urogenital symptoms. All menopausal symptoms were more prevalent and was statistically significant in post-menopausal stage for urogenital symptoms. According to the knowledge categorization, majority (>50%) of the respondents had good knowledge regarding menopause. Mean knowledge score was  $68.4 \pm 18$ . Married women and more educated women had better knowledge regarding menopause ( $p < 0.05$ ). Public health midwives were the main source of knowledge.

**Conclusions:** Education, creating awareness and providing suitable interventions can be done to improve the quality of life of women through menopausal transitional period.

**Keywords:** Attitudes, Knowledge, Menopause, Menopausal symptoms, Prevalence

## INTRODUCTION

Menopause is the time in women's life when menstrual periods permanently stop. World Health Organization defines as the time there has been no menstrual periods for 12 consecutive months and no other biological and physiological cause can be identified. Every woman faces this transitional period in their middle age of life.

Majority of the women experience various physiological and psychological changes during this period. According to Shakila's report there are 3 phases of menopause. The time upto the last menstrual period called pre-menopausal phase. The time period around the menopause, series of menstrual irregularities and endocrine changes are occurring in peri-menopausal/ menopausal transition phase. Post-menopausal phase

recognized after 12 months of amenorrhea.<sup>1</sup> The exact age of menopause varies from population to population in the worldwide.<sup>2</sup> Generally, with advancing age of 50 years, range between 40-60 years.<sup>3</sup> When advancing age, the prevalence of menopausal symptoms becomes mild to severe status gradually due to hormone deficiency. Due to deficiency of female sex hormones, specially oestrogen some symptoms mainly can occur in every woman such as bone problems, vaginal dryness, insomnia, hot flushes, and emotional problems. Hot flushes and night sweats are the most common symptoms (approximately 70%) reported in Europe and North African women.<sup>4</sup> Psychological symptoms associated with menopause are fatigue, irritability and anxiety. One of the important challenges is to understand the mood disorders related to menopause.<sup>4</sup> Mood disorders are one of the main comorbid condition of sexual dysfunction in postmenopausal stage. Not only that, but weight gain also affected for poor sexual functioning. Most of the women noted negative social aspects of aging and also noted that they were treated negatively within the society.<sup>5</sup> This also affects for the behavioural changes of the women within the society. According to Nuzrat's report there are various associated factors that affect the menopausal status of the women. It has been shown the factors such as socioeconomic background, education level of the women were mainly affected for the knowledge about menopause.<sup>6</sup> According to the previous findings from the worldwide, the distribution of menopausal symptoms varied in different ethnics and racial backgrounds.<sup>7</sup> In Sri Lanka, there were researches done recently in Northern Province, Western province and Southern province to describe the symptoms in menopause.<sup>1,8-9</sup>

Several studies from various countries, women reported that they had menopausal symptoms in all pre, peri and post-menopausal phases. But the severity of the symptoms was different according to the menopausal phase.<sup>10</sup> Nearly 25% of Sri Lankan population has been identified as women between the age group of 35-60 years.<sup>11</sup> That means one fourth of population has a risk of menopause and its symptoms. Hence the women age between 40-60 years are more prone to having menopausal symptoms. There are very few limited studies on the menopause in Sri Lankan women compared to western countries.<sup>8</sup>

The above-mentioned study also identifies the lack of knowledge about the prevalence of menopausal symptoms of women in Sri Lanka. So, it's important to research about this topic to determine the prevalence of menopausal symptoms among women for the future health care requirements. When they had menopausal symptoms most of the women took medications for temporary relief. Further, women should be informed on available therapies and management strategies regarding menopausal symptoms. The aim of the study is to describe the prevalence of menopausal symptoms, knowledge and attitudes of Sri Lankan women and to assess the awareness of hormone therapy for the

menopausal symptoms after menopause among women in selected semi urban area, Matara district, Sri Lanka.

## METHODS

A community based cross sectional descriptive study was carried out in the Southern province of Sri Lanka in one Divisional Secretariat area (DS). The districts of Sri Lanka are divided into administrative sub units known as divisional secretariats. Women aged between 40-60 years were selected and women who had undergone hysterectomy and bilateral oophorectomy, taking hormone replacement therapy and on chemotherapy for any malignancy were excluded. At 95% significance level, assuming 74.7% commonly prevalent menopausal symptoms according to Waidyasekera's report and assuming a 5% nonresponse rate, the final sample size was 212. All the roads in selected division were listed and every second house was randomly selected. Any women between the ages 40-60 years who fulfil the inclusion criteria were selected until the final sample size was achieved. A pre tested, interviewer administered questionnaire was developed which consisted of socio-demographic data, regarding gynecology and medical history, regarding prevalence of menopausal symptoms using menopausal rating scale (MRS), knowledge and attitudes regarding menopause after obtaining informed written consent. MRS is a health-related quality of life scale which has been well accepted internationally translated to several languages.<sup>12</sup> The women were questioned to report their symptoms and to rate the severity as mild, moderate, severe and very severe. The scale has 11 symptoms and the score was generated by adding the score for each given symptom. Scoring for each symptom was given as follows: none=0, mild=1, moderate=2, severe=3, very severe=4.

SPSS (statistical package for social sciences) version 23 was used to enter data and for analysis. Descriptive statistics was used for summarizing and presenting data. The association between knowledge and associated factors was analysed using the Chi square test and  $P < 0.05$  were taken as a significant level. To calculate the knowledge each correct statement was given "1" mark and "0" mark for incorrect and don't know responses. There were 10 knowledge questions and the maximum score was 10 marks. The mean overall score of the marks was  $68.4 \pm 18$ . Then depending on the mean value, overall knowledge divided in to two groups named good and poor knowledge. Attitudes regarding menopause were analysed by using Likert scale. Ethical approval was obtained from Ethics Review Committee, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka.

## RESULTS

The mean age of menopause of the study population was 47.84 years (SD = 4.048). Majority (N=207, 97.6%) of the study population were Sinhala, Buddhist and were

married. More than 75% were living with their children. Most of the participants had studied above O/L. (N=129, 60.8%). Almost, half of the participants were in the postmenopausal category (N=107) (50.5%) (Table 1).

**Table 1: Frequency distribution of socio-demographic characteristics of study population (N=212).**

Characteristics	Frequency (N)	Percentage
<b>Age (years)</b>		
<50	113	53.3%
>50	99	46.7%
<b>Ethnicity</b>		
Sinhala	207	97.6%
Tamil	1	0.5%
Muslim	4	1.9%
<b>Religion</b>		
Buddhist	201	94.8%
Christian	6	2.8%
Islam	4	1.9%
Hindu	1	0.5%
<b>Marital status</b>		
Married	175	82.5%
Single	21	9.9%
others	16	7.5%
<b>Education level</b>		
Up to o/l	83	39.2%
Above o/l	129	60.8%
<b>Living status</b>		
With partner	36	17%
With children/others	159	75%
Alone	17	8%

**Table 2: Frequency distribution of prevalence of menopausal symptoms among study population (N=212).**

Menopausal symptoms	Mild-moderate		Severe-very severe	
	No.	%	No.	%
<b>Somatic</b>				
Hot flushes, sweating	124	58.5%	33	15.6%
Heart discomfort	98	46.3%	14	6.6%
Joint and muscular discomfort	94	44.3%	44	20.8%
Sleep problems	89	42%	37	17.5%
<b>Psychological</b>				
Depressive mood	100	47.2%	20	9.4%
Irritability	88	41.5%	19	9%
Anxiety	91	43%	25	11.7%
Physical and mental exhaustion	93	43.9%	43	20.3%
<b>Urogenital</b>				
Sexual problems	69	32.6%	1	0.5%
Bladder problems	85	40.1%	20	9.4%
Dryness of vagina	87	40.1%	8	3.8%

Table 2 illustrates the prevalence of menopausal symptoms as assessed by the modified MRS according to the most frequent complaints. The most prevalent somatic symptoms were hot flushes 157 (74.1%), joint and muscular discomfort 138 (65.1%), sleeping problems 126 (59.5%) and heart discomfort 112 (52.9%). Among psychological symptoms majority had physical and mental exhaustion 136 (64.2%), depressive mood 120 (56.6%), anxiety 116 (54.7%) and irritability 107 (50.5%). When inquired about urogenital symptoms, most stated bladder problems 105 (49.5%), dryness of vagina 95 (43.9%) and 70 (33.1%) women reported sexual problems. However, only 28 (13.2%) had medications for above symptoms (Table 2).

Symptom prevalence in pre-, peri- and post- menopausal women is shown in Table 3. Among all menopausal symptoms were more prevalent in post-menopausal compared with pre- and peri-menopausal stages. Postmenopausal women had a higher proportion of menopausal symptoms when compared to pre/ menopausal transition states such as presence of hot flushes ( $p=0.02$ ), heart discomfort ( $p=0.01$ ), sleep problems ( $p=0.02$ ), depressive moods ( $p=0.045$ ), irritability ( $p=0.000$ ), anxiety ( $p=0.019$ ), physical and mental exhaustion ( $p=0.000$ ) and joint and muscular discomfort ( $p=0.000$ ). These differences were statistically significant ( $p<0.05$ ). However, the symptoms of sexual problems, bladder problems and dryness of vagina was reported by similar numbers by all three categories ( $p>0.05$ ) (Table 3).

According to the knowledge categorization, majority (>50%) of the respondents had good knowledge regarding menopause. The mean knowledge score was  $68.4 \pm 18$ . Majority 157 (74.1%) of women were aware about the meaning of menopause and how it occurs. However, most 142 (67%) of them had no knowledge that the occurrence of symptoms was due to the hormonal change during menopause. Majority 198 (93.4%) knew the age range of when menopause occurs. Most, 147 (69.3%) women consider menopause as natural process of aging and 38 (17.9%) perceived it as a disease. Most 178 (84%) women knew that they no longer become pregnant after menopause and 177 (83.5%) had knowledge about early indicator of menopause as menstrual irregularities. Nearly 88 (41.5%) women were not aware about hormone replacement therapy and a majority 115 (54.2%) of women had no idea about the future risk factors of menopause such as cardiovascular problems, osteoporosis (Table 4).

Table 5 shows that the frequency distribution of women's attitudes towards menopause and its symptoms. Almost half (48%) agreed to see a doctor at the menopause. Few (37.3%) women considered that the menopause is the best thing that ever happened. Almost half of women (50%) were happy about that they can quit worrying about getting pregnant. Majority 87 (41%) of women thought that they felt better after menopause. Few women

stated 77 (36.3%) that they were unhappy about the loss of youth and beginning of the end of life. Majority 104 (51.5%) were agreed about natural approaches for

treating menopausal symptoms are better than hormone replacement therapy (Table 5).

**Table 3: Prevalence of menopausal symptoms compared among menopausal stages.**

Menopausal symptoms	Pre- menopausal		Menopausal transition		Post- menopausal		p value
	No.	%	No.	%	No.	%	
Hot flushes, sweating	39	24.8%	34	21.7%	84	53.5%	0.02
Heart discomfort	25	22.2%	30	26.8%	57	50.9%	0.01
Sleep problems	30	23.8%	26	20.6%	70	55.6%	0.02
Joint and muscular discomfort	29	21%	29	21%	80	58%	0.000
Depressive mood	34	28.3%	29	24.2%	57	47.5%	0.045
Irritability	25	23.4%	30	28%	52	48.6%	0.000
Anxiety	31	26.7%	29	25%	56	48.3%	0.019
Physical and mental exhaustion	31	22.8%	22	16.2%	83	61%	0.000
Sexual problems	18	25.7%	19	27.1%	33	47.1%	0.062
Bladder problems	25	23.8%	22	21%	58	55.2%	0.072
Dryness of vagina	26	27.4%	24	25.3%	45	47.4%	0.063

**Table 4: Frequency distribution of knowledge regarding menopause and its symptoms among study population.**

Characteristics	Good knowledge		Poor knowledge	
	No.	%	No.	%
Menopause refers to permanent cessation of menstruation	157	74.1%	55	25.9%
During the menopause the ovaries produce an increasing amount of hormones progesterone and oestrogen	70	33%	142	67%
Menopause can begin before age 40 years	129	60.8%	83	39.2%
Normally menopause begins with age between 40 - 55 years	198	93.4%	14	6.6%
Menopause is a natural aging process	147	69.3%	65	30.7%
Menopause is a disease	174	82.1%	38	17.9%
After menopause is completed a woman can no longer become pregnant	178	84%	34	16%
Early indicator of menopause is irregularities in menstruation	177	83.5%	35	16.5%
The use of hormone replacement therapy will decrease the symptoms of menopause	124	58.5%	88	41.5%
Cardiovascular problems, osteoporosis are main risk factors of menopause	97	45.8%	115	54.2%

**Table 5: Frequency distribution of attitudes regarding menopause and its symptoms among study population.**

Attitudes	Disagree		Neutral		Agree	
	No.	%	No.	%	No.	%
A woman should see a doctor at the menopause	47	22.2%	62	29.2%	103	48.6%
Menopause is the best thing that ever happened to women	47	22.2%	79	37.3%	86	40.6%
A good thing about menopause is that a woman can quit worrying about getting pregnant	27	12.8%	79	37.3%	106	50%
Women are generally feeling better after menopause	48	22.6%	53	25%	111	52.3%
After the change of life, a woman gets more interested in community affairs than before	123	58%	55	25.9%	34	16.1%
Unmarried women have a harder time than married women do at the time of the menopause	47	22.2%	110	57.9%	55	19.9%
Menopause is an unpleasant experience	54	25.4%	86	40.6%	72	33.9%
Menopause is the loss of youth and beginning of the end of life	68	32%	67	31.6%	77	36.3%
Natural approaches for treating menopausal symptoms are better than hormone replacement therapy	12	5.6%	96	42.9%	104	51.5%
Menopause means no more worry about contraception	25	11.8%	82	38.7%	105	49.5%



**Table 6: Association between socio demographic characteristics and knowledge regarding menopause and menopausal symptoms.**

Characteristics	Poor knowledge		Good knowledge		p value
	No.	%	No.	%	
Age					
<50	29	52.7%	84	53.5%	0.921
>50	26	47.3%	73	46.5%	
Marital status					
Married	50	90.9%	125	79.6%	0.043
Unmarried	5	9.1%	16	10.2%	
Others	0	0%	16	10.2%	
Education level					
<O/I	33	60.0%	50	31.8%	0.000
>O/I	22	40.0%	107	68.2%	
Menopausal status					
Pre menopause	19	34.5%	47	29.9%	0.687
Menopausal transition	11	20%	28	17.8%	
Post menopause	25	45.5%	82	52.2%	

The association between the socio demographic characteristics and knowledge regarding menopause and menopausal symptoms are depicted in Table 6. The results indicated that those who were married had better knowledge regarding menopause when compared to their counterparts. This difference was statistically significant ( $p < 0.05$ ). Those who had higher level of education had better knowledge regarding menopause and menopausal symptoms and this was statistically significant ( $p < 0.05$ ). Here were no association between age, menopausal status with the knowledge regarding menopause and menopausal symptoms (Table 6).

## DISCUSSION

In the current study, mean age of menopause was found 47.84 years ( $SD=4.048$ ) years which was similar to a study done in Sri Lanka, India and Pakistan.<sup>9,13-15</sup> In this study more than half of the study population 107 (50.5%) was postmenopausal and rest was 66 (31.1%) premenopausal or 39 (18.4%) in menopausal transition Waidyasekera et al, had similar findings in Sri Lanka.<sup>8</sup>

All the women in study sample had at least one menopausal symptom in their middle age. In this study, most commonly reported symptoms were hot flushes 157 (74.1%), joint and muscular discomfort 138 (65.1%), physical and mental exhaustion 136 (64.2%), and sleep problems 126 (59.5%). Among somatic symptoms hot flushes were most prevalent symptom in present study which is similar with the results of the studies reported in the past.<sup>9,13,16</sup> Waidyasekera et al, reported that joint and muscular discomfort was the most prevalent menopausal symptom at that time and urogenital symptoms such as bladder problems 105 (49.5%), vaginal dryness 95 (43.9%) and sexual problems 70 (33.1%) were reported least frequent symptoms.<sup>8</sup> Urogenital symptoms were

reported low in this study as well. Similar results were found from previous researches.<sup>13,16-17</sup> In contrast, Chuni and Sreeramareddy's report showed the higher proportion of urogenital symptoms.<sup>12</sup>

Present study indicated that, symptoms most prevalent were among post-menopausal stage compared to pre and peri menopausal stages. All somatic and psychological symptoms were more prevalent in the postmenopausal stage and were significant ( $p < 0.05$ ). These results were similar to the studies done by Sri Lanka in 2009 and 2019.<sup>8,9</sup> However, in this study, there was no significant difference in urogenital symptoms. Some Western countries have reported higher occurrence of hot flushes, night sweats, decreased interest in sex and urogenital problems.<sup>18-20</sup> Due to cultural issues, urogenital and sexual issues are not discussed openly in the Asian cultures and they think it is part of the ageing process.

This study reported that more than half 184 (86.6%) of the women were not taking any medication for symptoms. Similar findings were reported by Nusrat et al.<sup>6</sup>

In the present study we found that 157 (74.1%) of women were aware about the meaning of menopause and how it occurs. However, most 142 (67%) of the women had poor knowledge regarding the hormonal changes during menopausal transition. Similar findings were reported by Nusrat et al.<sup>6</sup> However, a study done by Wong and Liyana reported that 89% of women knew the definition of menopausal state and were aware of the hormonal changes.<sup>2</sup> This could be due to that this study was done in an urban area, Malaysia. Majority 198 (93.4%) of study population knew the age range of menopause and most 147 (69.3%) women consider menopause as a natural aging process, only 38 (17.9%) perceived it as a disease

condition. Similar results were reported from Malaysia, Pakistan and India.<sup>2,6,15</sup>

Another important finding of the present study was most 124 (58.5%) were aware about the hormone replacement therapy for menopausal symptoms. However, this findings were in contrast to findings in Malaysia and India.<sup>2,21</sup> This study findings showed that only 28 (13.2%) were on medication and these findings were similar to previous studies.<sup>12,22</sup>

The most striking finding from the present study was clear underestimation of menopause related risk factors such as cardiovascular diseases and osteoporosis. Out of 212, only 97 (45.8%) respondents had good knowledge about the main risk factors of menopause. This finding was similar to research in 2017.<sup>21</sup> Wong and Liyana's report revealed that knowledge on associated health risks of menopause, participants knew that osteoporosis risk and heart disease risk in 76% and 36% respectively.<sup>2</sup>

Overall knowledge about menopause in our study revealed more than half of the respondents 157 (74.1%) had good knowledge. This can be due to the fact that it was conducted in a semi urban area and the most of the women were educated above ordinary level. However, the results were in contrast to other studies reported in 2008 and 2017.<sup>6,14,21</sup>

The main sources of knowledge related to menopause was by television 86.6%, health care personnel 83% and 75% from books respectively. Research from 2007 also reported that 68.1% of women received information from health care personnel.<sup>2</sup> These findings were in contrast to More's and Pathak's findings.<sup>15,21</sup>

Majority 103 (48.6%) of the women in the study population had positive attitudes towards consulting a doctor after menopause and 86 (40.6%) agreed they felt better after menopause. Most 104 (51.5%) of them had positive attitude towards natural approaches for treating menopausal symptoms. These findings were similar to previous research findings from Asia.<sup>2,15,22</sup> However, it was in contrast to Pathak's research results.<sup>21</sup>

Respondents in present study, majority of them had negative attitudes such as loss of youth and beginning of the end of life, menopause is an unpleasant experience like statements. This result was similar with the study done by Wong and Liyana and More in 2007 and 2018 respectively.<sup>2,15</sup>

The present study reported those who were married had better knowledge regarding menopause when compared to their counterparts. Those who had higher level of education had better knowledge regarding menopause and menopausal symptoms and this was statistically significant ( $p < 0.05$ ). Similar findings were reported by Pathak et al.<sup>21</sup>

## CONCLUSION

Present study concludes that improving knowledge regarding the menopausal transition and its effects can change the attitudes among women in their middle life. Education, creating awareness and providing suitable interventions can be done to improve the quality of life of women through menopausal transitional period. Our study findings revealed that health care personnel especially public health midwives were the main source of knowledge. Therefore, public health midwives should promote and encourage women to actively participate in well women clinics which will help them to detect any menopausal transitional symptoms and give appropriate advice. Due to cultural issues urogenital symptoms were not disclosed openly. Health care personnel need to update their knowledge continuously so that they can impart proper knowledge regarding menopausal transition to women in their community thereby improving their quality of life.

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