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Prevalence of Menopausal Symptoms among Perimenopausal Women

Authors
Dr Rayapu.Vasundhara[1], Kambhampati. Anitha[2], Jonnalagadda. Miryani[3]
[1]Principal cum Professor, [2,3]Lecturer
NRI College of Nursing, Chinakakani, Guntur (Andhra Pradesh)
Email: *jonnalagaddamiryani@gmail.com*

Abstract
Permanent cessation of menstruation is called menopause. Perimenopause is a transitional period around the menopause. It is very difficult to predict the duration and severity of effects of perimenopause on any women. The present study was conducted with an aim to assess the prevalence of menopausal symptoms and the association of symptoms with selected variables. Descriptive survey design was used for conducting the study. By using the purposive sampling technique,150 perimenopausal women, residing in Israelpet, Guntur (dt), Andhra Pradesh were chosen to conduct the study. Data were collected personally by the investigators by using a structured check list. The results revealed that majority of subjects belonged to 43-45 years age group, ,had an education of less than 10th standard, were house wives and were sexually not active. With regard to prevalence of menopausal symptoms, 49.33% had severe vasomotor symptoms, 65.33% had severe musculo-skeletal symptoms, 42% had severe psychological symptoms. Age (χ^2=15.37) of the perimenopausal women had statistically significant association with prevalence of menopausal symptoms. It was concluded that majority of perimenopausal women are suffering with severe menopausal symptoms.
Keywords: *Menopausal Symptoms, Perimenopausal Women, Perimenopause.*

Introduction

During the entire life span, every woman has to experience two important phases - menarche and menopause. As the women approaches menopause, her ovarian function gradually ceases. As the ovarian hormones are Secreted less, the woman experience irregular menstrual periods and finally stops menstruating, as the ovarian hormone secretion stops.

According to Indian Menopause Society, there are about 65 million Indian women in the age group of 45 years. Average age of menopause is around 48 years.

As the life expectancy increases, there will be increasing number of women living beyond post menopause. The potential symptoms of menopause will have negative impact on the quality of life of post menopausal women.

As the woman grows older, her reproductive capability decreases due to the changes in the level of ovarian hormones. However, the body does not stop producing ovarian hormones overnight and the process can take several years, during which the menopausal symptoms arise gradually. This period, during which the changes takes place gradually is called as 'Perimenopause' and the women are called perimenopausal women.

Need for the Study and Review of Literature

The Duration of Perimenopause with noticable bodily effects will last for few years. It is difficult to predict and foretell the exact duration and severity of symptoms during perimenopausal

period. It also varies from woman to woman. During the Perimenopausal period many women experience hot flushes, mood swings, worsening of premenustral syndrome, breast tenderness, irregular periods, urinary urgency, insomnia fatigue, anxiety and problems with memory and concentration.

Around 50% of women do not have any problems related to the menopause; 25% will have problems but will be able to cope with and their quality of life does not suffer much; the remaining 25% will have disabling symptoms which adversely affect their personal and professional life.

A number of alternative and complementary therapies like homeopathy, naturopathy, acupuncture and traditional Chinese medicine have developed remedies for menopausal symptoms. Hormone replacement therapy is used as a remedy for hot flushes, sleep disturbances vaginal symptoms and mood disorders. The side effects of hormone replacement therapy include breast tenderness, leg cramps, irritability, depression and have a risk for breast cancer, ovarian cancer and heart diseases.

Berecki - Gisolf J, etal (2009) conducted a cross sectional study to determine which symptoms commonly reported by women at midlife are associated with the menopausal transition, in school of population health, university of Queensland, Australia. The study results revealed that there were 6,814 (79%) women who reached natural menopause. The median age at menopause was 52 years. Compared with the premenopausal phase, menopause was associated with hot flushes (odds ratio 8.6 [95% CI, 7.5-9.9]),night sweats (odds ratio 5.5 [95% CI 4.8 to 6.3]) and to a lesser extent, stiff or painful joints (odds ratio,1.6 [95% CI,1.4-1.8]), difficult sleeping (odds ratio,1.4[95% CI, 1.2-1.6]) and poor/fair self-rated health [odds ratio1.6 [95% CI,1.3 to 1.9]. prevalence of some symptoms were still raised more than 7 years after menopause. Headaches/migraines were negatively associated with aging; urinary incontinence were positively associated with aging.

Reed SD, et al. (2013) conducted a cross sectional study of peri and post menopausal women aged 45 to 58 years to evaluate the assocsiation of self reported vasomotor symptom (VMS) frequency with race/ethnicity among a diverse midlife US population and explore menopause symptom differences by dietary soy isoflavone consumption in university of Washington, at USA. Five thousand six hundred twenty four women were included in the study. The results revealed that 82.1% reported hot flushes ever; 73.1% reported night sweats ever; 48.8% and 38.6% reported recent hot flushes (or) night sweats, respectively. Compared with white women, chineese, japaneese, vietnamese, other asian (p<0.001) and phillipino (p<0.01) women less commonly reported ever having hot flashes. Menopausal symptoms, independent of isoflavone intake, varied considerably by race / ethnicity and were least common among Asian races.

Oppermann K etal (2012) conducted a cross sectional study to identify the prevalence of physical, psychological and menopause related symptoms and their association with minor psychiatric disorders in premenuopausal, perimenopausal and post menopausal women. The study was conducted among 324 brazilian women aged 36 to 62 years. The results revealed that the mean age was 44.8years (premenopausal women), 46.3 years (perimenopausal women) and 53.3 years (post menopausal women). Hot flushes, Night sweats and vaginal dryness were more prevalent among perimenopausal women (p<0.001). The study concluded that low educational level, memory loss, irritability and menopausal transition represent risk factors for positive findings in a screening for minor psychiatric disorders.

Problem statement

A study to assess the prevalence of menopausal symptoms among perimenopausal women in selected community area at Guntur (Dt), Andhra Pradesh.

Objectives

1. To assess the prevalence of menopausal symptoms among perimenopausal women.

2. To find the association between the presence of menopausal symptoms and the selected variables among perimenopausal women.

Selected Variables

- Age
- Education
- Occupation
- Monthly family income
- Weight of the woman
- Pattern of menstruation
- Marital status
- Sexual activity

Hypotheses

H_1 –There will be significant association between the age and prevalence of menopausal symptoms among perimenopausal women.

H_2 –Significant association will be there between the education and the prevalence of menopausal symptoms among perimenopausal women.

H_3 – Association will be significant between the occupation and the prevalence of menopausal symptoms among the perimenopausal women.

H_4 –There will be significant association between the weight and the prevalence of menopausal symptoms among perimenopausal women.

H_5 –Significant association will be there between the pattern of menstruation and the prevalence of menopausal symptoms among the perimenopausal women.

H_6 – Association will be significant between the sexual activity and the prevalence of menopausal symptoms among the perimenopausal women.

Research Methodology

Research approach: Quantitative research approach was choosen for the study.

Research design: The study was conducted by using a descriptive survey design.

Target population: Perimenopausal women were the target population for the present study.

Accessible population: Perimenopausal women living in Israel pet, Guntur were choosen as the accessible population for the present study.

Sample: The sample consisted of 150 perimenopausal women.

Sampling technique: The subjects for the sample were chosen by using the purposive sampling technique.

Setting of the study: The present study was conducted in Israel pet, which is an urban community area located in Guntur (dt), Andhra Pradesh.

Tool for data Collection: The tool for data collection Was developed and used by the investigator. The tool consisted of two sections- section A and section B. Section A contained 13 questions on selected variables and section B contained structured checklist with 5 items on vasomotor symptoms, 6 items on musculoskeletal symptoms, 16 items on psychological symptoms and 5 items on genitourinary symptoms, making a total of 33 items. A scoring system was developed for the check list items. A score of "1" is given, if women has a symptom and a score of "0" was given, if a woman doesn't have a symptom. The total score for the check list was 33. The subjects who got a score between 1% to 33% were considered as having mild symptoms, a score between 34% to 67% was considered as having moderate symptoms and a score between 68% to 100% was considered as having severe symptoms.

Content validity: Content validity was obtained from 3 Nursing experts in the filed of OBG nursing and 2 gynaecologists. The suggested modifications were incorporated in the tool.

Reliability of the tool: test – retest method was used to test the reliability of the tool, where 15 respondents were given the same tool with a gap of 2 weeks. Karl pearson coefficient of correlation

was computed for finding out the reliability. The calculated r value was found to be 0.86. This indicated that the tool was reliable.

Pilot study: Pilot study was conducted on 15 perimenopausal women at Mangaldas Nagar, Guntur District. The results of the pilot study revealed that the study was feasible to conduct.

Collection of data: Data were collected personally by the investigator after obtaining permissions from authorities and the consent from the study subjects. The data collection was done by administering the tool to the subjects during January 2015. The collected data were edited coded, classified and analyzed by using descriptive and inferential statistics.

Results

Section-I – Characteristics of the study sample.

Age: Majority of subjects (64 i.e. 42.66 %) were in the age group of 43 to 45 years; 43 (28.66%) subject were in 46 to 48 years age group; 30(20%) were in the age group of 49 years and above and only 13 (8.66%) subjects were in the age group of 40 to 42 years.

Education: Seventy six (50.66%) subjects had education of less than 10th standard, 71(47.33%) subjects knew only to read and write, only 3(2%) studied up to 12th standard.

Occupation: Eighty subjects (53.33%) were house wives, 34 (22.66%) were coolies, 29 (19.33%) had self business, 5(3.33%) were private employees and 2(1.33%) were government employees.

Monthly income of the family: Ninety seven (64.66%) subjects had a family income of Rs.5001/- to 10,000/- per month, 52 (34.66%) had less than 5000/ rupees per month and only 1(0.66%) had Rs 10001/- to 15000/- per month.

Weight of the women: Most of the subjects (130 i.e. 86.66%) were between 50 to 59 Kgs of weight, 11 (7.33%) were less than 50 Kgs, 9 (6%) were between 60 to 69 Kgs weight.

Pattern of Menstruation: One hundred and twenty eight subjects (85.33%) had irregular mentruation and only 22(14.66%) had regular menstruation.

Marital status: One hundred and thirty two (88%) were married and 18 (12%) were unmarried out of these 132 married women, 115 (87.12%) were living with spouse and 17(12.87%) were widows.

Sexual activity: Out of 115 perimenopausal women who were living with the spouse, 98 (85.21%) were not participating in the regular sexual activity; only 17 (14.21%) were involving in sexual activity regularly.

Out of these 98 perimenopausal women who were not regularly participating in sexual activity, 38(38.77%) reported 'vaginal dryness' as a reason for that; 31 (31.63%) reported that they had 'no interest' in sexual activity and 29(29.59%) reported that 'they were feeling difficulty while participating in the sexual activity'.

Out of 29 perimenopausal who were feeling difficulty to participate in the regular sexual activity, only 9 (31.06%) were taking treatment with the advice of the doctor to overcome the difficulty and the remaining 20(68.96%) did not take any treatment.

Section-II- prevalence of menopausal symptoms

Table-1 Frequency and percentage distribution of perimenopausal women based on the prevalence of menopausal symptoms   N=150

S.No	Menopausal Symptoms	Mild Symptoms		Moderate Symptoms		Severe Symptoms	
		f	%	f	%	f	%
1	Vasomotor Symptoms	20	13.33	50	33.33	74	49.33
2	Musculoskeletal Symptoms	19	12.66	33	22	98	65.33
3	Psychological Symptoms	45	30	42	28	63	42
4	Genito Urinary Symptoms	106	70.66	16	10	28	18.66
5	Over all symptoms	24	16	88	58.66	38	25.33

The results presented in table-I revealed the following

Vasomotor symptoms

The vasomotor symptoms included in the check list were 1. Sudden feeling of warmth in the body; 2. Excessive sweating at night; 3.Increased heart beat; 4. General weakness in the body; 5. Tingling of fingers.

The results revealed that 74 (49.33%) respondents had severe vasomotor symptoms, 50 (33.33%) respondents had moderate vasomotor symptoms and 20 (13.33%) respondents had mild vasomotor symptoms.

Musculoskeletal symptoms

Musculoskeletal symptoms included in check list were - 1.back pain; 2.leg pains; 3.joint pains; 4.leg cramps; 5.numbness; 6.weight gain.

The results showed that 98(65.33%) respondents had severe musculoskeletal symptoms, 33(22%) respondents had moderate musculoskeletal symptoms and 19 (12.66%) had mild musculoskeletal symptoms.

Psychological symptoms

The psychological symptoms included in study were- 1.Feeling of nervousness; 2.Tension; 3.Inability to adjust to factors in the environment; 4.Getting angry on everything; 5.Feeling irritable; 6.Getting head ache very often; 7.Difficulty in remembering the things; 8.Restlessness; 9.Feeling of grief; 10.Feeling of loneliness; 11.Inability to concentrate on the work; 12.Inabilty to cope with the situations; 13.Inabitity to make decisions; 14.Feeling uncomfortable with family members ;15.Insomnia ;16.Disturbed sleep during night.

The results revealed that 63(42%) respondents had severe psychological symptoms, 45 (30%) respondents had mild psychological symptoms and 42 (28%) respondents had moderate psychological symptoms.

Genito-Urinary Symptoms

Genito-urinary symptoms included in the study were - 1.Lack of interest in the sex; 2.Pain during sexual intercourse; 3.Feeling of vaginal dryness; 4.Itching at the vulva; 5.Need to pass urine very

urgently; 6.Passing urine more number of times than usual.

The results showed that 106 (70.66%) respondents had mild genitourinary symptoms, 28 (18.66%) respondents had severe genitourinary symptoms and 16 (10%) had moderate genitourinary symptoms.

Overall symptoms

On the whole, 88(58.66%) respondents had moderate menopausal symptoms, 38(25.33%) respondents had severe menopausal symptoms and 24(16%) respondents had mild menopausal symptoms.

Table-2 Mean and Standard Deviation Of Menopausal Symptoms Among Perimenopausal Women   N=150

S.No	Menopausal Symptoms	Mean	SD
1	Vasomotor Symptoms	3.14	1.58
2	Musculoskeletal Symptoms	4.53	1.49
3	Psychological Symptoms	7.73	4.36
4	Genitourinary Symptoms	4.75	3.84
5	Over all symptoms	28.81	7.25

The results in Table – 2 shows that vasomotor symptoms had a mean score of 3.14 with a standard deviation of 1.58; the mean score of muscoloskeletal symptoms was 4.53 with a standard deviation of 1.49; psychological symptoms had a mean score of 7.73 with a standard deviation of 4.36 and the mean score of genitourinary symptoms was 4.75 with a standard deviation of 3.84. The overall symptoms had a mean score of 28.81 with standard deviation of 7.25.

Table 3 Association of prevalence of menopausal symptoms with selected variables   N=150

S.No	Variables	Chi-square Value	Degree of Freedom
1	Age	15.37[*]	6
2	Education	1.46[NS]	4
3	Occupation	2.51[NS]	8
4	Monthly Family Income	2.08[NS]	4
5	Weight of Woman	2.70[NS]	4
6	Pattern of Menstruation	0.66[NS]	2
7	Marital Status	1.58[NS]	2
6	Sexual activity	0.56[NS]	2

Note: ***-** Indicate significant at 0.05 level.

NS- Indicate not significant at 0.05 level.

The results presented in the above table shows that the chi-square value (χ^2=15.37) computed between the age and the prevalence of menopausal symptoms was significant at 0.05 level of significance. It showed that there was a significant association between the age and prevalence of menopausal symptoms, hence the research hyposesis H_1 was retained.'

Association was not significant between education (χ^2=1.46), occupation (χ^2=2.51), monthly income of the family(χ^2= 2.08),weight of the women(χ^2=2.70), pattern of mensuration (χ^2= 0.65), marital status(χ^2=1.58),sexual activity (χ^2=0.56),and the prevalence of menopausal symptoms at 0.05 level of significance. Hence the researcher failed to reject the null hypotheses $Ho_2,Ho_3,Ho_4,Ho_5, Ho_6,Ho_7$ and Ho_8.

Discussion

The present study was conducted with an aim to assess the prevalence of menopausal symptoms and the association of symptoms with selected variables among perimenopausal women. The results revealed that majority of the subjects belonged to 43 to 45 years age group, had education less than 10th standard and were not sexually active. Seventy four (49.33%) respondants had severe vasomotor symptoms, 98(65.33%) had severe musculo skeletal symptoms, 63(42%) had severe Psychological symptoms. Age had a significant association with prevalence of menopausal symptoms.

The results were supported by a study conducted by Chedraui .p etal (2007). In their study it was revealed of that the mean age of the sample was 45.1 years, 62% of the subjects were not sexually active and 8.3% had less than 12 years of schooling. The five most frequent menopausal symptoms found were muscle and joint problems (77%), depressive mood (74.6%), sexual problems (69.6%), hot flushes (65.5%) and sleeping disorders (45.6%).

In a study conducted by Maroco .j,etal (2012)showed that the age of perimenopausal women was significantly associated with cognitive impairment (β=0.087; P=0.003) aches/pain (β=.072; P= 0.006),urinary(β=0.115;P=0.004) and also sexual symptoms (β=107;P=0.021).

Conclusion

Based on the study results it was concluded that majority of the subjects had severe vasomotor, musculoskeletal and psychological symptoms; whereas majority had mild genitourinary symptoms. Age (χ^2=15.37) was significantly associated with the prevalence of menopausal symptoms.

Acknowledgement

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