

Prevalence of menopausal symptoms in perimenopausal women in rural part of North Karnataka- A Community based Cross Sectional study

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Abstract

Background: Middle age is one of the most important phase in one's life, as it is mid-way between the challenges of adulthood and old age; there is additional challenge for women of middle age to cope up with the attainment of menopause. Peri menopausal age group is not covered under any of the national health programmes. There is lack of standard data related to peri menopausal women in India, especially in rural area, where lack of services has been a huge issue and where most of women of this age group are expected to reside.

Aims: To find the Prevalence of menopausal symptoms in perimenopausal women in rural part of North Karnataka

Methods and Material: A cross sectional study was conducted among 350 perimenopausal women

Results: In the present study 84% of the women in study had poor sleep, 75.4% of women had feeling of panic, feeling of sadness was seen in 38.3% of women, 56.6% of women felt anxious, 57.7% of women had lost interest in everyday things, 70.3% of women felt palpitations, 54.7 said that they did not enjoy everyday things, 16.6% of women felt that life was not worth living, 58.9% of women felt tensed, and 56.7% of women did not have good appetite.

Conclusions: The women in this age group need a multi-disciplinary approach which can address not only the physical symptoms or problems but also the psychological stress or problems which are very prevalent in these women.

Key words: Perimenopausal, menopausal symptoms, Rural area.

Introduction

Middle age is one of the most important phase in one's life, as it is mid-way between the challenges of adulthood and old age; there is additional challenge for women of middle age to cope up with the attainment of menopause. The quality of life of women in peri and post-menopausal age group is one of a serious public health problem. Health and wellbeing of these age group women will improve family's health and wellbeing of families and whole communities as these women care, nurture and play educative roles on day to day basis^[1].

Other benefits of improvement of health and wellbeing of these women will increase the participation and productivity in various occupations^[2]. In the process of aging of women, Menopause is a natural step as it represents the end of menstruation after last

menstruation period, in previous 12 months^[3].

Menopause is one of the most important event during midlife period of a woman's life and it is the most identifiable event of the perimenopausal period. The perimenopausal period encompasses the time before; during and after menopause^[4]. It is estimated that about 25 million women worldwide attained menopause in 1990, this number is expected to increase by two times by the late 2021^[5]. It is estimated that by the year 2050, there will be one billion women over the age of 60 years^[6]. About 130 million Indian women are expected to live beyond menopause by 2015^[7]. It is estimated that there were about 65 million Indian women over the age of 45 years in the year 2006 according to Indian Menopause Society. Therefore, health demands for menopausal age group should be given even higher priority in Indian

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scenario^[8]. In Indian health system Reproductive and Child Health-II and National Rural Health Mission only addresses women in the reproductive age group; it doesn't consider the women who have passed their reproductive stage^[5]. Very few studies are available and are conducted in rural areas to understand menopause. As majority of Indian population resides in rural areas that is 68.84% (2011)^[9].

Symptoms in menopause are due to the effects of hormonal changes on different systems of the body, Vasomotor, physical and psychological symptoms are the commonly experienced by them^[10]. The levels of the reproductive hormones become lower and more erratic as the age advances, change in levels of reproductive hormones is seen in Perimenopausal age. Drop in Oestrogen levels during pre-menopause period may give rise to many other physical symptoms, such as hot flashes, night sweats, weight gain, headaches, vaginal dryness, breast tenderness and sleep problems. Many of the of emotional changes including anxiety, irritability, depression and a sudden inability to handle stress may also be seen. In addition to physiological problems, in the perimenopausal period there are some common effects encountered which includes changes in mood, insomnia, fatigue and memory problems. Currently, none of the National health programs specifically target perimenopausal age group. By knowing the prevalence of perimenopausal symptoms in women residing in rural areas, we will be able to address the problem in this age group more efficiently. Hence this study was undertaken to assess the prevalence of perimenopausal symptoms in women of rural North Karnataka region.

Aims and objectives of the study

To know the socio-demographic profile and menopausal symptoms of perimenopausal age group women in rural field practice area of Medical College in North Karnataka.

Materials and methods

The present study is a community based Cross-sectional study which was undertaken in Rural health training centre area of Department of Medical College in North Karnataka. The study population comprised of perimenopausal age group women (40 - 55years) residing in the rural field practice area. All Eligible Women Aged 40-55 Years Residing in Shirur village since last one year were included in the study. Women who have not given consent, pregnant women, lactational amenorrhea, women with surgical menopause, women on hormone replacement therapy, women with any severe illnesses or known psychiatric disorders were excluded. Based on the

study done by Gayathry Nayak et al^[4] and taking the prevalence of symptoms of 23%, the sample size was calculated to be 322 which was rounded off to 350. Ethical Clearance was obtained from Institutional Ethical Committee, with reference number **SNMC/IECHSR/2014- 15/A-10a-1.1**. Women aged between 40-55 years were selected using simple random sampling method, a predesigned semi structured questionnaire was used to collect the data, the data was collected by door to door personal interview technique with prior informed consent. The data collection was done in presence of a female attendant or lady intern. Subjects were interviewed in their own language, in comfortable surrounding and in privacy.

Statistical analysis

Data was entered into a computerized Excel (Microsoft Excel 2016) spread sheet. Descriptive statistics (means and percentages) was used.

Results

In the present study a total of 350 women belonging to perimenopausal age group were studied, most of the study population belonged to the age group of 40-45 years followed by 46-50 years. The mean age group of our study population was 46.4±3.7 years. 90% of women were married and 0.9% were unmarried 0.9% were divorced and 1.7% were separated. Majority of the study population were Hindus i.e. 86%, most of the study subjects were educated up to primary school level i.e. 57.7%, followed by illiterate subjects i.e. 26.6%. Majority of the study population lived in nuclear family 50.9% followed by joint family 46.9%. Most of the study population were homemakers 72.9%, followed by unskilled worker 22.3%. 26.6% of women were illiterates, 57.7% of women were educated till primary level, 15.7% were educated till high school level and above. Majority of the study population belonged to the SES class 2 followed by SES class 1 according to the modified B G Prasad classification. Vegetarian women were 54.6%. (Table-1).

Table no 1 Showing distribution of study subjects according to age, marital status, religion, family type, education level and socioeconomic class

Age in Years	Frequency	Percentage
40-45	152	43.5
46-50	149	42.5
51-55	49	14
Total	350	100.0
Marital Status	Frequency	Percentage
Unmarried	3	0.9
Married	315	90.0
Widow	23	6.6

Divorcee	3	0.9
Separated	6	1.7
Total	350	100.0
Religion	Frequency	Percentage
Hindu	301	86.0
Muslim	49	14.0
Total	350	100.0
Type Of Family	Frequency	Percentage
Nuclear	178	50.9
Joint	164	46.9
Broken	8	2.2
Total	350	100.0
Education Level	Frequency	Percentage
Illiterate	93	26.6
Primary	202	57.7
High school	55	15.7
Total	350	100.0
Socio Economic Class*	Frequency	Percentage
1	101	28.9
2	190	54.3
3	43	12.3
4	8	2.3
5	8	2.3
Total	350	100.0

*Modified B G Prasad classification was used for assessing socio economic class

In present study about 84% of the women were reported to have poor sleep. 75.4% of women felt panicky. 56.6% of women said that they felt anxious. 57.7% of them had lost interest in things. 38.3% of the subjects felt "miserable and sad". In present study 70.3% of women said that they have got palpitations. In present study 46% of women said that they have become more irritable. Only 44.9% of women enjoyed everyday things. 42.9% of women had good appetite. About 44% of women said that they become more tired than usual. 50.9% of women said that they pain in legs and arms and joints. 72.6% of women had headaches, Hot flushes were experienced by 65.1% of women, 66.9% of women complained of breast tenderness, abdominal cramps were seen in 48.3%, 82% of women said that they had loss of interest in sexual activity and same number of women also experiences night sweats at least once. 25.2% of women said that they had loss of interest in sexual activity. 54.6% of women complained of increased frequency. 54.0% of subjects had difficulty in concentration. (Table 2)

Table 2 Showing the prevalence of menopausal symptoms in the perimenopausal age group

Sl. No.	Menopausal Symptoms	YES	%	NO	%
1.	Poor sleep	294	84	56	16
2	Feeling of Panic	264	75.4	86	24.6
3	Feel miserable and sad	134	38.3	216	61.7
4	Feel anxious	198	56.6	152	43.3
5	Lost interest in things	202	57.7	148	42.3
6	Palpitations	246	70.3	104	29.7
7	Enjoy everyday things	157	44.9	193	55.1
8	Feel tensed	206	58.9	144	41.1
9	Good appetite	150	42.9	200	57.1
10	Irritability	161	46	189	54
11	Headaches	254	72.6	96	27.4
12	Tiredness	154	44	196	56
13	Breast Tenderness	234	66.9	116	33.1
14	Backache, limb pain	178	50.9	172	49.1
15	Hot flushes	228	65.1	122	34.9
16	Abdominal cramps	169	48.3	181	51.7
17	Nauseous	225	64	125	36
18	Loss of interest in sexual activity	287	82	63	18
19	Night sweats	287	82	63	18
20	Difficulty in getting off to sleep	176	50.3	174	49.7
21	Increased frequency of urination	191	54.6	159	44.4

Discussion

In present study about 84% of the women were reported to have poor sleep. In a study done by Gayathry Nayak et al^[4] in perimenopausal women in coastal region of Karnataka, difficulty in sleeping was seen in 44% of the subjects, which was less than our study result. In study by O K Duffy et al^[11] in Northern Scotland had 63.1% sleeping difficulties. 56.6% of women said that they felt anxious. In a cross sectional study by Gayatry Nayak et al^[4] among perimenopausal women in coastal region of Karnataka reported feeling anxious or nervous to be 40.2% and, in study done by Sayed Alwi Syed Abdul Rehaman^[12], it was 55.4%. According to our study 38.3% of the subjects felt "miserable and sad", similar result was found in study done by Gayatry Nayak et al^[4] in perimenopausal women in coastal region of Karnataka where 34.9% of women felt depressed or

sad. In a cross sectional study by Shahedur Rahman^[13] in Kushtia, Bangladesh showed depressive mood in 37.3% of subjects, this was in agreement with our study. 70.3% of women said that they have got palpitations. In a cross sectional study by Donald Christian et al^[14] with 147 post-menopausal women residing in Piparia village of Vadodara district, Gujarat palpitations were experienced by 37.4% of women. In present study 46% of women said that they have become more irritable. A study by C.G. Hussain Khan and Jyoti S. Hallad^[15], in North Karnataka village in Dharwad district found that, 46.7% of perimenopausal age group women complained of irritability which was very close to our study. In present study 44% of women said that they become more tired than usual. Gayatri Nayak et al^[4] found 67.5% of women complained of feeling tired or worn-out, which was more than our study. 50.9% of women said that they pain in legs and arms and joints. Manjusha K D et al^[16] of Maharashtra found that muscle and joint pain was seen in 44.9% of subjects, in present study 65.1% of women said that they experienced hot flushes. In a cross sectional study was conducted by Akanksha Singh and Shishir Kumar Pradhan^[5] in Dichaon Kalan village, Najafgarh, located in South-West district, New Delhi, hot flushes were seen in 46.4% of study population. In a cross sectional study by Donald christaian et al^[14] with 147 postmenopausal women residing in Piparia village of Vadodara district, Gujarat. Hot flushes were seen in 40.1% of women. In present study 82% of women said that they had loss of interest in sexual activity. In a cross sectional study conducted by Doyal Dasgupta and Subha Ray^[17] among 110 post menopausal women in rural area of Chakda village, Nadia district, Kolkata, loss of sexual desire was seen in 90.8% women.

In a cross sectional study on postmenopausal women by Sagar A Boker et al^[18], conducted in Anjarakandy a field practice area under Kannur Medical College, sexual problems (decreased libido, dyspareunia) was seen in 31.8% of study population. In present study 25.2% of women said that they had loss of interest in sexual activity. In a cross sectional study on post menopausal women by Sarkar Amrita et al^[10], 300 women were included in study and 23.66% suffered from vaginal dryness. which was in agreement with our study.

In a study by Avanie Pal et al^[19] in rural Maharashtra in perimenopausal women aged above 40 years 53.3% had vaginal dryness. In present study 61.4% of women complained of burning micturation and 54.6% of women complained of increased frequency. In a cross sectional study on postmenopausal women by Sagar A Boker et al^[18], conducted in Anjarakandy

a field practice area under Kannur Medical College dysuria was seen in 58.9% of women.

In a cross sectional study conducted by Doyal Dasgupta and Subha Ray^[17] among 110 post-menopausal women in rural area of Chakda village, Nadia district, Kolkata, following results were obtained, Increased urine frequency was seen in 57.2% of women, which was close to our study result. 54.0% of subjects had difficulty in concentration. A study by C.G. Hussain Khan and Jyoti S Hallad^[15], in North Karnataka village in Dharwad, difficulty in concentration was seen in 35% of women, which was lesser than our study.

Conclusions: The women in this age group need a multi-disciplinary approach which can address not only the physical symptoms or problems but also the psychological stress or problems which are very prevalent in these women.

Recommendations: Health education should be undertaken to create awareness about the menopause and its effects. Health promotional activities should be planned and executed by the health sector which will help these women to cope up with the difficulties and improve the health status. "Information Education Communication" activities should be carried out to increase awareness.

Limitations: The present study was done in a single area; therefore generalisation is not possible for the whole population. A multi centric study with a larger sample size would give a better idea of the perimenopausal problems.

References

1. Zolnierczuk-Kieliszek D, Kulik TB, Jarosz MJ, Stefanowicz A, Pacian A, Pacian J, Janiszewska M. Quality of life in peri- and post-menopausal Polish women living in Lublin Province-differences between urban and rural dwellers. *Annals of Agricultural and Environmental Medicine*. 2012;19(1).
2. Woods NF, Mitchell ES. Symptoms during the perimenopause: prevalence, severity, trajectory, and significance in women's lives. *The American journal of medicine*. 2005 Dec 19;118(12):14-24.
3. Dutta R, Dcruze L, Anuradha R, Rao S, Rashmi MR. A population based study on the menopausal symptoms in a rural area of Tamil Nadu, India. *J Clin Diagn Res*. 2012;6:597-601.
4. Nayak G, Kamath A, Kumar P, Rao A. A study of quality of life among perimenopausal women in selected coastal areas of Karnataka, India. *Journal of mid-life health*. 2012 Jul;3(2):71.
5. Singh A, Pradhan SK. Menopausal symptoms of postmenopausal women in a rural community of Delhi, India: A cross-sectional study. *J Mid-life Health* 2014;5:62-7.
6. Hoga LA, Rodolpho JR, Goncalves BG, Quirino B. Women's experiences of menopause: a systematic review protocol of qualitative evidence. *JBI Database of Systematic Reviews and Implementation Reports*. 2014 Jan 1;12(7):72-81.
7. Kaulagekar A. Age of menopause and menopausal symptoms among urban women in Pune, Maharashtra. *The Journal of Obstetrics and Gynecology of India*. 2011 Jun 1;61(3):323-6
8. *Making Menopause Easier*. New Delhi: Indian Menopause Society. Available from: <http://www.indiatogether.org/2006/Oct/were-menopause.html>

9. Chandramouli C, General R. *Census of India 2011. Provisional Population Totals*. New Delhi: Government of India. 2011:409-13.
10. Amrita S, Pradeep P, Kakoli G, Sudip B, Naresh M, Sudha Y, Dipesh P. *A Study on Health Profile of Post-menopausal Women in Jamnagar district, Gujarat*. *Journal of Research in Medical and Dental Science*. 2014;2(2):25-9.
11. Duffy OK, Iversen L, Hannaford PC. *The impact and management of symptoms experienced at midlife: a community-based study of women in northeast Scotland*. *BJOG: An International Journal of Obstetrics & Gynaecology*. 2012 Apr 1;119(5):554-64.
12. Rahman SA, Zainudin SR, Mun VL. *Assessment of menopausal symptoms using modified Menopause Rating Scale (MRS) among middle age women in Kuching, Sarawak, Malaysia*. *Asia Pacific family medicine*. 2010 Feb 22;9(1):1.
13. Rahman S, Salehin F, Iqbal A. *Menopausal symptoms assessment among middle age women in Kushtia, Bangladesh*. *BMC research notes*. 2011 Jun 15;4(1):188.
14. Christian DS, Kathad MM, Bhavsar BS. *A clinico-epidemiological study on health problems of post-menopausal women in rural area of Vadodara District, Gujarat*. *National Journal of Medical Research*. 2012 Dec 31;2(04):478-80.
15. Khan HG, Hallad SJ. *Age at menopause and menopausal transition: Perspectives of Indian rural women*. [Last accessed on 2011 Aug 27].
16. Deotale MK, Ranganathan U, Mankeshwar R, Akarte SV. *Study of epidemiological features of health problems in perimenopausal and postmenopausal women in an urban community*. *International Journal of Medicine & Public Health*. 2015 Apr 1;5(2).
17. Dasgupta D, Ray S. *Menopausal problems among rural and urban women from Eastern India*. *Journal of Social, Behavioral, and Health Sciences*. 2009;3(1):2.
18. Borker SA, Venugopalan PP, Bhat SN. *Study of menopausal symptoms, and perceptions about menopause among women at a rural community in Kerala*. *Journal of mid-life health*. 2013 Jul 1;4(3):182.
19. Pal A, Hande DD, Khatri DS. *Assessment of menopausal symptoms in perimenopause and postmenopause women above 40 years in rural areas, Maharashtra, India*. *International Journals of Healthcare and Biomedical Research*. 2013;1(3):166-9.

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