

## Quality of life among post - menopausal women in rural Puducherry

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**Background:** Postmenopausal women are the most vulnerable group affected due to physiological changes. The quality of life during the menopause is assessed by the frequency and severity of menopausal symptoms. **Objectives:** To assess the menopause symptoms and quality of life among post-menopause women in rural Puducherry and study the socio-demographic factors associated with menopausal symptoms and quality of life. **Methods:** A cross sectional study was conducted in rural field practicing area of a medical college. 133 postmenopausal women were selected from 3 villages by Simple random sampling. Socio-demographic details and menopausal symptoms using modified MENQOL questionnaire was elicited. Body mapping was done by the participants. **Results:** The mean age was 51±2 years. About 32% of them were suffering from any one of the chronic diseases like Diabetes, Hypertension. Joint pain (79.2%) was found to have higher prevalence and reduced sexual desire (2.3%) as lower prevalence. Overall, sixty four study population had no menopausal symptoms followed by 35 with mild, 20 had moderate menopausal symptoms. Significant association was seen between age of menopause and the severity of the menopausal symptoms in vasomotor and psychosocial domains. Positive correlations were seen among the domains. Majority (65%) of the women perceived pain any of the parts in body mapping which affects their day to day life. **Conclusion:** The Quality of life (QOL) of the post-menopausal women was poor based on the presence of symptoms in many domains.

**Keywords:** Menopause, Quality Of Life, Body mapping

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## Introduction

According to the World Health Organisation (WHO), it was estimated that in 2030, 1.2 million women will be premenopausal or postmenopausal which will increase by 4.7 million per year [1]. One of the goals of health service for all the people in 21st century is to improve quality of life.

By WHO definition, quality-of- life is the individual's perception of their status in life according to the culture and value systems the person lives in, considering his goals, expectations, standards and concerns [2].

Menopause is the physiological event in women's life. It means permanent cessation of menstruation at the end of reproductive life, due to loss of ovarian follicular activity. It is the end point when final menstruation occurs [3].

It is a stage when the menstrual cycles stops for longer than 12 months and there is a drop in the level of oestrogen and progesterone, the two most important hormones in female body. During menopausal transition, there is a lot of fluctuation in hormone levels making the postmenopausal women susceptible to various mental and physical disorders [4, 5].

It is linked with a variety of symptoms which vary in intensity from mild to severe, they include vasomotor symptoms such as hot flushes, night sweats, anxiety, depressive mood, irritability, genital symptoms like dysuria, dyspareunia, recurrent urinary tract infection, vaginal dryness, joint pain and loss of sexual desire.

The nature of symptoms during the menopausal period also varies among the individual. These symptoms have marked impact on menopausal women's quality of life [6, 7]. There are several scales for rating the quality of life of menopausal women like Menopausal specific Quality of Life scale [MENQOL], Cervantes Scale [CS], Midlife Women's Symptoms Index [MSI], The Utain Quality of Life [UQOL], Menopause Rating Scale [MRS] [8-12].

Menopausal specific Quality of Life [MENQOL] is used to rule out common post-menopausal symptoms. It has 4 domains - vasomotor, psychosocial, physical and sexual health. Various studies from several countries have indicated that menopause is negatively related to Quality Of Life (QOL) by menopause symptoms based on their severity.

A very little information exists about this in developing countries like India. Thus the present study was undertaken to assess the quality of life among post-menopausal women.

## Aims and Objectives

01. To assess the menopause symptoms and quality of life among menopause women in rural Puducherry.
02. To study the socio-demographic factors associated with menopausal symptoms and quality of life.

## Methodology

**Type of study:** A community based cross - sectional study

**Study setting:** Rural field practicing area of a medical college

**Study subjects:** Postmenopausal women (45 years of age and above)

**Duration of study:** 6 months, between June and December 2018

**Sampling methods:** 3 out of 7 villages were randomly selected and the participants were interviewed.

**Sample size calculation:** Sample size was calculated to be 133 using the formula  $n = 4pq/l^2$

Where  $p = 36.7\%$  [13], 10% acceptable error, 95% confidence interval.

### Inclusion criteria

01. Women above 45 years of age
02. Women whose menopause was natural
03. Women who were residing in the selected rural area more than one year

### Exclusion criteria

01. Women with induced menopause/ undergone hysterectomy/receiving hormonal therapy
02. Women who were not residing for more than 1 year
03. Women who were not in their house for successive three visits

Ethical clearance was obtained. Informed written consent was obtained from participants were interviewed using a predesigned, pretested question-naire which contains three parts:

**Part I: Socio demographic profile-** Information about socio-demographic details like age, educational level, monthly income and occupational status were recorded.

**Part II: Questionnaire on menopausal symptoms-** Menopause specific Quality of life Questionnaire [MENQOL] consists of 29 individual items were modified into 25 items and grouped under four domains (Vasomotor, Psychosocial, Physical and Sexual).

Severity was assessed by 5 point Likert scale which was used in WHOQOL questionnaire. 0- no symptoms, 1- Mild, 2- Moderate, 3- severe, 4- Very severe. The reliability of tool was tested by Alpha Cronbach test. Its result was 0.742 indicating an accepted reliability of the tool.

**Part III: Body Mapping-** Body mapping is a powerful tool for provoking perceived health status and for promoting self-assessment in the identification of health issues which is easily understandable. It is assessable even for illiterates.

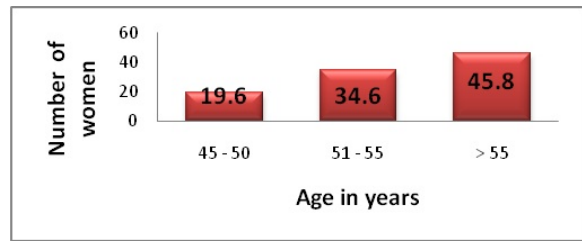
The rationale behind using this tool is to engage the participants to critically appreciate their current symptoms. An outline figure of woman was given to the participant and asked to mark the areas where she experience symptoms after attaining menopause for the past one week. A multiple response symptoms were obtained.

**Statistical analysis-** The collected data was statistically analysed using SPSS version 23.0. Rate, ratio and proportions were calculated. Chi – square test was applied to find out association between two variables.

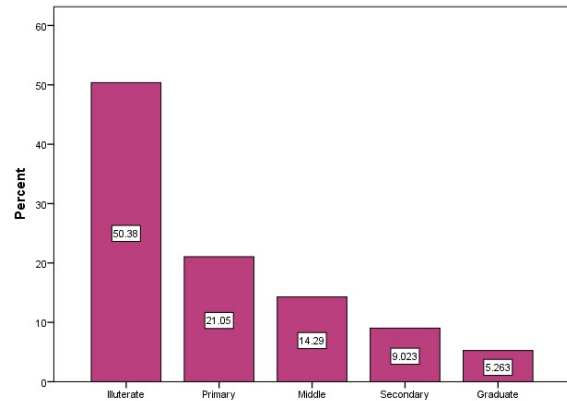
## Results

Totally 133 willing women who gave consent were interviewed. The mean age was 51± 2 years ranges from 45- 68 years. About 45% of study participants were above the age group of 55 years. (Figure 1). About half of the study population (50%) were illiterate and only 5% were educated up to graduate level (Figure 2).

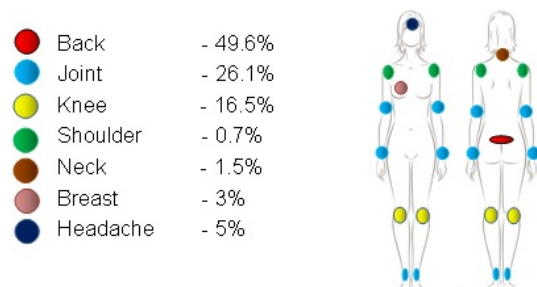
45% were housewives and 81% of them belonged to lower socioeconomic status. About 75.2% were married, 52% had more than three children. About 36.84% attained menopause from 46-50 years of age. Only 2% reported menstrual irregularities. About 32% of them were suffering from any one of the chronic diseases like Diabetes, Hypertension.



**Fig-1: Age wise distribution of participants**



**Fig-2: Educational status of participants**



**Fig-3: Self-reported body mapping**

Prevalence of symptoms among the study participants shows under the vasomotor domain, about 27.1% of the study population reported to have sweating and waking up at night.

Under the psychosocial domain, 34.6% of the study population reported to have forgetfulness. Under the physical domain, joint pain was the commonest with about 79%.

Under the sexual health domain, only 3% of the study participants had reported to have symptoms (dyspareunia and avoiding intimacy) (Table 1). The menopausal women were asked to map their perceived present symptoms in the body image.

The predominant complaints were Back pain (49.6%) followed by Joint pain (26.1%) and Knee

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Pain (16.5%) (Figure 3).

**Table-1: Prevalence of menopausal symptoms of participants.**

Symptoms	Domains	Present n (%)	Absent n (%)
Hot flush	Vasomotor	22 (16.5)	111 (83.5)
Night sweats		24 (17.1)	109 (82.9)
Sweating		36 (27.1)	97 (72.9)
Depression	Psychosocial	34 (25.6)	99 (74.4)
Feeling anxious or nervous		17 (12.8)	116 (87.2)
Experiencing poor memory		46 (34.6)	87 (65.4)
Lack of concentration		36 (27.1)	97 (72.9)
Sleeplessness		41 (30.9)	92 (69.1)
Irritability	Physical	22 (24.1)	101 (75.9)
Headache		08 (06)	125 (94)
Fatigability		57 (42.9)	76 (57.1)
Urine frequency		29 (21.8)	104 (78.2)
Urinary urgency		17 (12.8)	116 (87.2)
Stress incontinence		10 (07.6)	123 (92.4)
Dysuria		07 (05.3)	126 (94.7)
Burning micturition		23 (17.3)	110 (82.7)
Body ache		102 (76.7)	31 (23.3)
Joint pain		106 (79.2)	27 (20.8)
Back ache		104 (78.1)	29 (21.9)
Dry skin		11 (08.3)	122 (91.7)
Feeling bloated		20 (15)	113 (85)
Flatulence or Gas pain		21 (15.8)	112 (84.2)
Vaginal dryness		Sexual	04 (03)
Avoiding intimacy	04 (03)		129 (97)
Reduced sexual desire	03 (02.3)		130 (97.7)

**Table-2: Association of menopausal age with severity of symptoms.**

Age in years	No n=64	Mild n=35	Moderate n=20	Severe n=14	Fisher's exact test	p value
<b>Vasomotor</b>						
<41 years	5	2	1	0	17.792	0.03
41-50 years	14	8	6	3		
51-55 years	38	15	8	3		
>55 years	7	10	5	8		
<b>Psychosocial</b>						
<41 years	6	2	0	0	25.914	0.002
41-50 years	17	9	5	0		
51-55 years	13	16	9	2		
>55 years	28	6	12	12		
<b>Physical</b>						
<41 years	9	3	0	0	5.70	0.769

41-50 years	10	6	4	2		
51-55 years	21	12	7	5		
>55 years	24	14	9	7		
<b>Sexual</b>						
<41 years	3	2	3	0	14.72	0.09
41-50 years	12	6	8	5		
51-55 years	24	12	1	5		
>55 years	25	18	9	4		

**Table-3: Correlation analysis of four domains of menopausal symptoms**

Domains	R	Sig.
Vasomotor vs Psychosocial	0.355**	< 0.01
Vasomotor vs Physical	0.454**	< 0.01
Physical vs Psychosocial	0.651**	< 0.01
Sexual vs Psychosocial	0.191*	0.028

\*\* Correlation is significant at the 0.01 level (2-tailed). \* Correlation is significant at the 0.05 level (2-tailed).

Overall, out of 133 participants, about sixty four had no menopausal symptoms followed by 35 with mild, 20 had moderate menopausal symptoms and none of the participants had very severe menopausal symptoms.

Association of age of menopause with the severity of menopausal symptoms in four domains shows significant association in all domains except Physical (Table 2).

Also, there was a positive correlation among the three domains of menopausal symptoms (vasomotor vs Psychosocial, Vasomotor vs Physical, Psychosocial and Physical) (p-value < 0.01). Sexual symptoms were positively correlated with Psychosocial (p value < 0.05). (Table 3)

## Discussion

In the current study, mean age of the study population was found to be 51±2 years with half of them were illiterate which was lower than the study by Borker et al and Sarkar et al. in Jamnagar, Bansal et al. in Punjab where the mean age was 57 years with 67% illiterate [13-15].

In the current study, most prevalent symptoms reported were joint pain followed by backache. This is similar to the study done by Poomala and Arounasalane in Puducherry (low back ache - 79% and muscle joint pain - 77.2%).

Sagdeo in a comparative study showed that most common symptoms were joint and muscular symptoms followed by hot flushes and night sweats

Which is similar to the present study [16]. Only 3% of the study participants had dyspareunia and avoiding intimacy which was similar to the study done by Poomala GK et al and Nisar et al [17, 18].

In a study done by Vijayalakshmi et al among peri- and post-menopausal women in rural areas of Amritsar using menopausal rating scale reported that most prevalent symptoms were feeling tired (92.90%), headache (88.8%), joint and muscular discomfort (76.20%), physical and mental exhaustion (60.1%), sleeplessness (54.40%) [19].

From the present study, there is a need to create awareness among the postmenopausal women about the physiology of menopause by which they can improve their quality of life. Early the awareness will reduce the severity of the symptoms.

The present study shows that postmenopausal women in rural area of Puducherry suffer from various symptoms, physical as well as vasomotor related to menopausal changes with varied frequencies, depending upon their demographic features.

These women should be addressed separately. Due to the increasing burden of life style diseases, there is a need to educate them to improve quality of life by style modifications.

## Conclusion

In the current study higher prevalence of menopausal symptom was observed. Joint pain and back ache were the most common complaints plotted on body mapping by the subjects. There was significant association between symptoms and menopausal age. Positive correlations were seen among the menopausal symptom domains. Education, creating awareness and providing suitable intervention to improve the QOL are important to address the social and medical issues.

## What this study adds to existing knowledge

The study had highlighted the prevalence of major symptoms among post-menopausal women. The study highlights the importance by marking themselves on body mapping.

## Author's contribution

First author (SR): Concepts, Design, Literature search, Data analysis, Statistical analysis,

Manuscript preparation, Manuscript editing. Second author (DG): Data collection, entry and coding  
Corresponding author (AM): Concepts, Design, Data acquisition, Data analysis, Manuscript preparation, Manuscript editing. All authors discussed the results and contributed to the final manuscript.

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## Limitations

There may be chances of recall bias. Due to lack of time in-depth discussions and Focus Group Discussion (FGD) cannot be done.

## Reference

01. Nisar N, Sohoo NA. Severity of menopausal symptoms and the quality of life at different status of menopause- A community based survey from rural Sindh, Pakistan. *Inter J Collab Res Int Med Public Health*. 2010;2(3)118-30. [Crossref]
02. Ray S, Dasgupta A. An assessment of QOL and its determining factors pf post-menopausal women in rural area of West Bengal, India- A multivariate analysis. *Int J Med Public Health*. 2012;2(4)67-9. DOI: 10.5530/ijmedph.2.4.3 [Crossref]
03. Dutta DC, Konar H. Menopause DC Dutta's Textbook of Gynaecology. 6th ed, London- New Central Book Agency; 2013;57-65. [Crossref]
04. Karmakar N, Majumdar S, Dasgupta A, Das S. Quality of life among menopausal women- A community -based study in a rural area of West Bengal. *J Mid-life Health*. 2017;8 (1)21-7. DOI: 10.4103/jmh.JMH\_78\_16 [Crossref]

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05. Som N, Ray S. Menopause-specific quality of life of urban women in West Bengal, India. *Menopause Int.* 2012;18(3)99-105. DOI: 10.1258/mi.2012.011107 [Crossref]
06. Nusrat N, Nishat Z, Gulfareen H, Aftab M. Asian Knowledge, Attitude and Experience of Menopause. *J Ayub Med Coll Abbottabad.* 2008;20(1)56-9. [Crossref]
07. Dutta R, Dcruze L, Anuradha R, Rao S, MR Rashmi. A population based study on the menopausal symptoms in a rural area of Tamilnadu, India. *J Clin Diagn Res.* 2012;6(4)597-601. [Crossref]
08. Williams RE, Levine KB, Kalilani L, Lewis J, Clark RV. Menopause-Specific Questionnaire Assessment in US Population-Based Study Shows Negative Impact On Health-Related Quality Of Life. *Maturitas.* 2009; 62(2)153-9. DOI: 10.1016/j.maturitas.2008.12.006 [Crossref]
09. Lima JE, Palacios S, Wender MC. Quality of life in menopausal women- a Brazilian Portuguese version of the Cervantes Scale. *Scientific World J.* 2012;620519. DOI: [Article] [Crossref]
10. Lee B, Im EO, Chee W. Psychometric evaluation of the Midlife Women's Symptom Index in multiethnic groups. *West J Nurs Res.* 2010;32(8)1091-111. DOI: 10.1177/0193945910362066 [Crossref]
11. Jenabi E, Shobeiri F, Hazavehei SM, Roshanaei G. Assessment of Questionnaire Measuring Quality of Life in Menopausal Women- A Systematic Review. *Oman Med J.* 2015;30(3)151-6. DOI: 10.5001/omj.2015.34 [Crossref]
12. Heinemann K, Ruebig A, Potthoff P, Schneider HP, Strelow F, Heinemann LA, et al. The Menopause Rating Scale (MRS) scale- A methodological review. *Health Qual Life Outcomes.* 2004;2;45. DOI: 10.1186/1477-7525-2-45 [Crossref]
13. Borker SA, Venugopalan PP, Bhat SN. Study of menopausal symptoms, and perceptions about menopause among women at a rural community in Kerala. *J Midlife Health.* 2013;4(3)182-7. DOI: 10.4103/0976-7800.118997 [Crossref]
14. Sarkar A, Pithadia P, Goswami K, Bhavsar S, Makwana NR, Yadav S, et al. A study on health profile of post-menopausal women in Jamnagar district, Gujarat. *J Res Med Dent Sci.* 2014; 2(2)25-9. DOI: 10.5455/jrmds.2014226 [Crossref]
15. Bansal P, Chaudhary A, Soni RK, Kaushal P. Menopausal problems among rural middle aged women of Punjab. *Int J Res Health Sci.* 2013;1(5)103-9. [Crossref]
16. Sagdeo MM, Arora D. Menopausal symptoms- A comparative study in rural and urban women. *JK Sci J Med Educ Res.* 2011;13(1)23-6. [Crossref]
17. Poomalar GK, Arounassalame B. The quality of life during and after menopause among rural women. *J Clin Diagn Res.* 2013;7;135-9. DOI: 10.7860/JCDR/2012/4910.2688 [Crossref]
18. Nisar N, Sahoo NA. Frequency of menopausal symptoms and their impact on the quality of life of women- A hospital based survey. *J Pak Med Assoc.* 2009;59(11)752-6. [Crossref]
19. Vijayalakshmi S, Chandrababu R, Eilean Victoria L. Menopausal transition among Northern Indian women. *Nitte Univ J Health Sci.* 2013;3(2)73-9. [Crossref]