SHORT ARTICLE

Quality of life among menopausal women – is it still an enigma?

Somak Majumdar[1], Aparajita Dasgupta[2]

[1]Senior Resident, All India Institute of Medical Sciences, Patna; [2]Professor and Head, Department of Preventive and Social Medicine, All India Institute of Hygiene and Public Health, Kolkata, India.

Corresponding Author

Address for Correspondence: Dr. Somak Majumdar, Senior Resident, Department of Community & Family Medicine, All India Institute of Medical Sciences, Phulwarisharif, Patna – 801507, India
E Mail ID: somakm88@gmail.com

Citation

Majumdar S, Dasgupta A. Quality of life among menopausal women – is it still an enigma?. Indian J Comm Health. 2016; 28, 4: 383-388.

Source of Funding: Nil **Conflict of Interest:** None declared

Article Cycle

Received: 01/09/2016; **Revision:** 15/09/2016; **Accepted:** 25/10/2016; **Published:** 31/12/2016

Abstract

Background: Menopause is a universal event in a women's life occurring in the middle period causing a variety of physical, vasomotor, psychological and sexual symptoms. These symptoms generally tend to usually go underreported. **Aims & Objectives**: To find out the quality of life among the menopausal women and associations of menopausal symptom domains with their socio-demographic parameters. **Material & Methods**: The present cross-sectional study was undertaken in a slum of Chetla, Kolkata. Response to each question in the MENQOL questionnaire, was assigned a score and the composite scores assessed the quality of life and impact of menopause among the study population. **Results**: Out of a total of 100 women, psychosocial symptoms were the most prevalent with anxiety, loss of memory and nervousness to be 76%. Occurrence of vasomotor symptoms was average with 55% of them reporting hot flashes and 40% reporting sweating. Physical symptoms were highly variable and sexual symptoms were not prevalent. Psychosocial symptoms had the most associations and religion, literacy, marital status, and abortion all had significant associations. **Conclusion**: It is indeed imperative that quality of life among menopausal women is affected by the symptoms of menopause and measures should be taken for mitigation of the same

Keywords

Menopause; Quality of Life; Cross-sectional study; post-menopause

Introduction

Menopause is a universal event in midlife, occurring around 45 years in most developing countries (1). It is defined by 12 months of amenorrhea after the final menstrual period. Post menopause describes the period following the final menses. It is characterized by complete dampening of ovarian function and accelerated bone loss (2). The symptoms mainly comprise of sleeping disorders, vasomotor, somatic and psychological manifestations affecting all dimensions of life quality (3,4). The duration, severity, and impact of these symptoms varies affecting personal and social functioning, and quality of life (QOL) (5,6).

Quality of life (QOL) has been defined by the World Health Organization as the "individual's perceptions of their position in life in the context of the cultural and value systems in which they live and in relation to their goals, expectations, standards and concerns".(7) It is used to plan and evaluate health care programs so various validated tools have been used to determine the influence of menopause over

QOL and among them the menopause-specific quality of life questionnaire (MENQOL) proposed by Hilditch *et al*. is the most specific tool depicting only the symptoms of the menopausal women. (8,9,10)

Severe menopausal symptoms compromise overall quality of life for those experiencing them along with their under-reporting due to socio-cultural factors. Thus the need of this kind of a study was felt to be of paramount importance to highlight the symptoms of the menopausal women and to plan effective interventions and programs to pauperize their suffering.

Aims & Objectives

1. To determine the socio-demographic characteristics of women of age 40-60 years,
2. To assess their quality of life by menopause specific quality of life questionnaire (MENQOL) and
3. To find out the variations in the menopausal symptom domains within the various socio-demographic variables and associations between the socio-demographic variables and the domains (if any).

Material & Methods

A descriptive cross-sectional observational study was performed on the above issue for 2 months (December 2014 - February 2015) in a slum of Kolkata on women aged 40-60 years. The selection of women aged 40-60 years was done as at this age women tend to experience menopausal symptoms and this is the age considered to be as peri-menopausal. (1) The study was conducted in Chetla which is the urban field practice area of the All India Institute of Hygiene and Public Health, Kolkata.

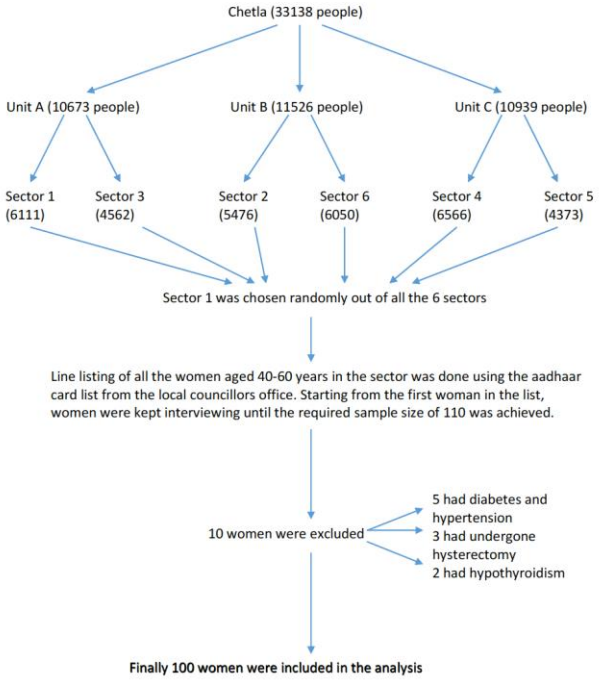
Sample size was established based on the fact that the condition studied, menopause, affects all women, since it is a natural event occurring between approximately 40 and 60 years of age; the variable is therefore the prevalence of the different symptoms, which determine a better or worse QoL. Using an expected frequency of symptoms of around 80%, with a relative error of 10% of P i.e. 8% and calculations done by the formula $4PQ/L^2$ where P is the frequency of the symptoms, Q is 1-P and L is the relative error; a sample size of 100 cases was obtained with a 95% confidence interval. Expecting a dropout of 10%, the sample size was inflated to 110. The Urban Health Centre Chetla caters to a slum population of 33138 people. The whole slum area has been divided into 3 units- A, B and C with a population of 10673, 11526 and 10939 people respectively. Each unit is further divided into 2 sectors. Unit A consists of sectors 1 and 3 with a population of 6111 and 4562 respectively. Unit B consists of sectors 2 and 6 with a population of 5476 and 6050 respectively. Unit C consists of sectors 4 and 5 with a population of 6566 and 4373 respectively. For the purpose of data collection out of the 6 sectors, sector 1 was chosen randomly. All the women aged 40-60 years in the sector were listed using the aadhaar card list from the local councillors office. Starting from the first woman in the list, women were kept interviewing until the required sample size of 110 was achieved.

Ethical approval for the study was obtained from the Institutional Ethics Committee. The interview was conducted with a pre-designed and pre-tested questionnaire after obtaining informed consent from each participant. This questionnaire was translated and retranslated maintaining semantic equivalence. This questionnaire had 2 parts –Part 1: to elicit the socio-demographic characteristics of the sample population, and Part 2: to elicit the quality of life due to menopausal symptoms based on 4 domains (vasomotor, psychosocial, physical and sexual) using the 29-item MENQOL questionnaire.

The Menopause-Specific Quality of Life Questionnaire (MENQOL) was introduced in 1996 as a tool to assess health-related quality of life in the menopausal period. The MENQOL is self-administered and consists of a total of 29 items. Each item assesses the impact of one of four domains of menopausal symptoms, as experienced over the last month: vasomotor (items 1–3), psychosocial (items 4–10), physical (items 11–26), and sexual (items 27–29). Items pertaining to a specific symptom are rated as present or not present, and if present, how bothersome on a zero (not bothersome) to six (extremely bothersome) point scale. Means are computed for each subscale by dividing the sum of the domain's items by the number of items within that domain.

In this study, the responses to the questions were adapted to a 2 point scale consisting of yes and no options from a 6 point severity scoring pattern in the original version considering the difficulty to answer on a 6 point scale due to low level of education of the respondents. Finally 100 women of menopausal age were included in the analysis. Women with induced menopause, hysterectomy, premature menopause, receiving any kind of hormone therapy, presence of

medical conditions like diabetes, hypertension, cardiac disease and thyroid disorders were not included in the study. Data was entered and analysed using SPSS (statistical package for social sciences) version 20 software.



Results

In the study we found that majority of the women belonged to the age group of 46-50 years. Mean age of women in the study was 49.45 years. Maximum were Hindus and majority of them were illiterate. The prevalent occupation was housewives and majority were currently married and 66% of them belonged to joint families. The mean per-capita income was Rs. 1412. 39% of them had an abortion, 64% had >2 children and 78% had attained menopause while 22% were in menopause transition. (table 1).

Occurrence of vasomotor symptoms was average with most of them reporting hot flashes and sweating. Most prevalent psychosocial symptoms reported were feeling of anxiety and nervousness and loss of memory. Physical symptoms were quite varying in occurrence with some symptoms like decrease in physical strength occurring in 94% to just 12% occurrence of facial hair and 18% occurrence of involuntary micturition. Overall sexual changes were the least reported. (table 2)

On performing regression analysis for determining any associations it was found that religion had a significant effect on the physical symptoms and women of muslim religion had 86% less odds of experiencing physical symptoms. Illiterate women experienced 8 times more psychosocial symptoms than literate women. Housewives tended to feel psychosocial symptoms 86% less than their working counterparts. Widows had 0.2 times chance of experiencing vasomotor symptoms but they had 6 times more chance of psychosocial symptoms than married women. Abortion had 5 times more effect on the psychosocial symptoms than the women who did not undergo it. Overall it was seen that psychosocial symptoms were the most associated with socio-demographic variables. (table 3)

Discussion

Menopausal symptoms have always been intriguing for the researcher and a point of concern for the women. Some women sail through the phase smoothly while some pass the phase woefully. Many studies have been done to study the phase and many instruments have been developed to gauge the quality of life during the phase. Our study used one such instrument MENQOL which is both a valid and a reliable instrument for assessing the postmenopausal symptoms of women. (10)

Many studies have demonstrated the effects of menopause on quality of life of women. (11,12,13,14,15) One particular study done by Kalarhoudi *et al* (11) showed that the mean menopausal age was 47.6±4.1 years. The overall mean scores obtained for each domain was 2.82±1.64 for vasomotor, 2.71±1.2 for psychosocial, 2.46±0.99 for physical and 2.89±1.73 for sexual domains. The mean age obtained in our study was 49.46 years which is more or less equivalent to the study due to the similarities of the Indian with the Iranian population. Our study on the contrary showed vasomotor domain to be prevailing over sexual domain.

Nisar N (16) in their study showed that mean age of women was 52.17 ± 6.019 years, most prevalent symptom within study subjects was body ache 165 (81.7%), some classical symptoms were "hot flushes", "lack of energy“ and decrease in "physical strengths" respectively. These findings somewhat corroborated with our study in which the mean age of women was 49.46 years and most prevalent symptom within my subjects was decrease in physical strength, hot flashes, lack of energy and lack of stamina respectively. Physical symptoms are the most commonly to be identified by menopausal women. Even due to age some symptoms get

aggravated but none of the studies could differentiate the age effect from those of menopause.

Nayak G. *et al* (17) also demonstrated findings in tune with our study. They showed that physical and psychosocial symptoms were reported more than vasomotor and sexual symptoms which was the same as that found by our study.

This study provided a useful focus on the assessment of quality of life in the menopausal women in a slum area. To the researcher's knowledge hardly any study has ever focused on such an issue in the concerned settings. The information obtained for the MENQOL was self-reported and may have been affected by personality and social circumstances, yet self-report is an appropriate method to obtain information on perceptions, such as bothersome psychosomatic symptoms. This study also proves itself quite effective in a limited time-frame with limited resources. Further studies in rural settings and throughout a time-period may be demanded to consolidate the validity of the findings and promulgate them.

Conclusion

The results support the popular belief that menopause causes both physical and psychiatric problems. Almost all areas or domains evaluated were impaired in menopausal women. The menopausal symptoms were also significantly related with religion, occupation, education, marital status and abortion. A large number of women all over the world suffer from menopausal symptoms and the problem cannot thus be ignored. Education, creating awareness and providing suitable intervention to improve the quality of life are important social and medical issues which need to be addressed.

Recommendation

The study guides us towards the fact that there is a significant distress among middle aged women due to the menopausal symptoms which need to be addressed by the means of improved health facilities, providing support and guidance to middle aged women to recognize the symptoms and if possible formulate a public health program for mitigation of suffering from menopausal symptoms.

Limitation of the study

Despite the findings being similar to most of the studies, our study had certain limitations. The study was done in an urban setting and on a limited sample so study findings may not be generalized to rural areas and a greater sample may be required. The study period was limited so the women in the menopause transition period could not be followed up to notice the impact of the symptoms on their life with time. A longitudinal study may prove useful here. Women were asked to recall symptoms within the past one month. Although this may be regarded as a reasonable time-frame for recall, there is a possibility of some recall bias to creep in here.

Relevance of the study

This study enlightens the purpose of early recognition of menopausal symptoms and adds to previous studies, the knowledge and importance of each domain of menopausal symptom, their occurrence and relation with the socio-demographic variables.

Authors Contribution

SM conceptualized the whole study, made the proposal, collected and analyzed the data, prepared the manuscript and applied for publication. AD provided useful inputs for correcting the methodological flaws and suggestions for publication.

Acknowledgement

The author sincerely thanks Dr. Somnath Das and Dr. Mahul Mukhopadhyay for providing support in the implementation of the study and help in data collection. The author also thanks Dr. G.K. Pandey, Director, AIIHPH, for providing the permissions to conduct the study in his area.

References

1. Leplege A, Dennerstein L. Menopause and quality of life. Quality of Life Research 2000; 9: 689-92.
2. Soules MR, Sherman S, Parrott E, Rebar R, Santoro N, Utian W, Woods N. Executive summary: Stages of Reproductive Aging Workshop (STRAW). Fertil Steril. 2001 Nov;76(5):874-8. PubMed PMID: 11704104.[PubMed].
3. Bosworth HB, Bastian LA, Kuchibhatla MN, Steffens DC, McBride CM, Skinner CS, Rimer BK, Siegler IC. Depressive symptoms, menopausal status, and climacteric symptoms in women at midlife. Psychosom Med. 2001 Jul-Aug;63(4):603-8. PubMed PMID: 11485114.[PubMed].
4. Vandenakker CB, Glass DD. Menopause and aging with disability. Phys Med Rehabil Clin N Am. 2001 Feb;12(1):133-51. Review. PubMed PMID: 11853033.[PubMed].
5. Gold EB, Sternfeld B, Kelsey JL, Brown C, Mouton C, Reame N, Salamone L, Stellato R. Relation of demographic and lifestyle factors to symptoms in a multi-racial/ethnic population of women 40-55 years of age. Am J Epidemiol.

2000 Sep 1;152(5):463-73. PubMed PMID: 10981461.[PubMed].
6. Anderson E, Hamburger S, Liu JH, Rebar RW. Characteristics of menopausal women seeking assistance. Am J Obstet Gynecol. 1987 Feb;156(2):428-33. PubMed PMID: 3826179.[PubMed].
7. World Health Organization. Quality of life assessment: International perspectives. Berlin: Springer, 1994.
8. Yekkefallah L. The Effect of Physical Exercise on the Pulmonary Function and Quality of Life in Asthmatic Patients. J Sabzevar School of Med Sci 2006; 12: 14-9.
9. Zöllner YF, Acquadro C, Schaefer M. Literature review of instruments to assess health-related quality of life during and after menopause. Qual Life Res. 2005 Mar;14(2):309-27. Review. PubMed PMID: 15892422.[PubMed].
10. Hilditch JR, Lewis J, Peter A, van Maris B, Ross A, Franssen E, Guyatt GH, Norton PG, Dunn E. A menopause-specific quality of life questionnaire: development and psychometric properties. Maturitas. 1996 Jul;24(3):161-75. Erratum in: Maturitas 1996 Nov;25(3):231. PubMed PMID: 8844630.[PubMed]
11. Abedzadeh Kalarhoudi M, Taebi M, Sadat Z, Saberi F. Assessment of quality of life in menopausal periods: a population study in kashan, iran. Iran Red Crescent Med J. 2011 Nov;13(11):811-7. PubMed PMID: 22737420; PubMed Central PMCID: PMC3371893.[PubMed]
12. Blumel JE, Castelo-Branco C, Binfa L, Gramegna G, Tacla X, Aracena B, Cumsille MA, Sanjuan A. Quality of life after the menopause: a population study. Maturitas. 2000 Jan 15;34(1):17-23. PubMed PMID: 10687878.[PubMed].
13. Chen Y, Lin SQ, Wei Y, Gao HL, Wang SH, Wu ZL. Impact of menopause on quality of life in community-based women in China. Menopause. 2008 Jan-Feb;15(1):144-9. PubMed PMID: 18030176.[PubMed].
14. Chiu YW, Moore RW, Hsu CE, Huang CT, Liu HW, Chuang HY. Factors influencing women's quality of life in the later half of life. Climacteric. 2008 Jun;11(3):201-11. doi: 10.1080/13697130801946779. PubMed PMID: 18568785.[PubMed].
15. 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 Feb 20;62(2):153-9. doi: 10.1016/j.maturitas.2008.12.006. PubMed PMID: 19157732.[PubMed].
16. Nisar N, Sohoo NA. Frequency of menopausal symptoms and their impact on the quality of life of women: a hospital based survey. J Pak Med Assoc. 2009 Nov;59(11):752-6. PubMed PMID: 20361673.[PubMed].
17. Nayak G., Kamath A., Rao A; A study of quality of life among peri-menopausal women in selected coastal areas of Karnataka, India; J Midlife Health, 2012, July-Dec., 3(2):71-75.

Tables

TABLE 1 DESCRIPTIVES OF THE SOCIO-DEMOGRAPHIC CORRELATES USED IN THE STUDY (N=100)

Parameters	Groups	Mean (SD)	Frequency n (%)
Age (in years)	41-45	49.45 (4.47)	24 (24)
	46-50		46 (46)
	51-55		22 (22)
	55-60		8 (8)
Religion	Hindu	-	81 (81)
	Muslim		19 (19)
Education	Illiterate	-	60 (60)
	Primary		28 (28)
	Middle		12 (12)
Occupation	Housewife	-	82 (82)
	Working		18 (18)
Marital status	Married	-	82 (82)
	Widow		18 (18)
Type of family	Nuclear	-	34 (34)
	Joint		66 (66)
Abortion	Yes	-	39 (39)
	No		61 (61)
Per-capita income (In rs/month)	<773	1412.03 (607.45)	9 (9)
	773-1546		58 (58)
	1547-2577		30 (30)
	2578-5155		3 (3)
Number of children	≤ 2	2.97 (1.291)	36 (36)
	>2		64 (64)
Menopause attained	Yes	-	78 (78)
	No		22 (22)

TABLE 2 MENQOL ITEM AND DOMAIN DISTRIBUTION DESCRIPTIVES

Domains	Symptoms	Frequency n (%)	Mean (SD)	Domain mean (SD)
Vasomotor	Hot flushes	55 (55)	0.55 (0.50)	0.46 (0.39)
	Night sweats	43 (43)	0.43 (0.49)	
	Sweating	40 (40)	0.40 (0.49)	
Psychosocial	Dissatisfaction with personal life	49 (49)	0.49 (0.50)	0.59 (0.27)
	Feeling anxious or nervous	76 (76)	0.76 (0.42)	
	Experiencing poor memory	76 (76)	0.76 (0.42)	
	Accomplishing less than I used to do	55 (55)	0.55 (0.50)	
	Feeling depressed or down	55 (55)	0.55 (0.50)	
	Impatience with other people	54 (54)	0.54 (0.51)	
	Willing to be alone	49 (49)	0.49 (0.52)	
Physical	Flatulence or gas pains	73 (73)	0.73 (0.44)	0.58 (0.21)
	Aching in muscles or joints	75 (75)	0.75 (0.43)	
	Feeling tired or worn out	85 (85)	0.85 (0.35)	
	Difficulty in sleeping	55 (55)	0.55 (0.50)	
	Aches in back of neck or head	57 (57)	0.57 (0.49)	
	Decrease in physical strength	94 (94)	0.94 (0.23)	
	Decrease in stamina	88 (88)	0.88 (0.32)	
	Feeling lack of energy	88 (88)	0.88 (0.32)	
	Drying skin	46 (46)	0.46 (0.50)	
	Facial hair	12 (12)	0.12 (0.32)	
	Weight gain	30 (30)	0.30 (0.46)	
	Changes in appearance, texture, tone of skin	42 (42)	0.42 (0.49)	
	Feeling bloated	39 (39)	0.39 (0.49)	
	Low backache	69 (69)	0.69 (0.46)	
	Frequent urination	60 (60)	0.60 (0.49)	
	Involuntary urination when laughing or coughing	18 (18)	0.18 (0.38)	
Sexual	Change in sexual desire	42 (42)	0.42 (0.49)	0.37 (0.37)
	Vaginal dryness during intercourse	30 (30)	0.30 (0.46)	
	Avoiding intimacy	39 (39)	0.39 (0.49)	

TABLE 3 ASSOCIATIONS OF THE MENQOL DOMAINS WITH THE SOCIO-DEMOGRAPHIC VARIABLES

Variables	Groups	Vasomotor AOR (95% CI)	Psychosocial AOR (95% CI)	Physical AOR (95% CI)	Sexual AOR (95% CI)
Age	≤ 49years	1	1	1	1
	> 49 years	0.780 (0.212-2.875)	0.491 (0.121-1.986)	0.806 (0.219-2.966)	0.275 (0.067-1.134)
Religion	Hindu	1	1	1	1
	Muslim	0.683 (0.192-2.437)	0.399 (0.100-1.593)	0.143 (0.030-0.687)*	0.584 (0.156-2.186)
Education	Literate	1	1	1	1
	Illiterate	0.657 (0.213-2.030)	8.069 (1.992-32.680) *	0.606 (0.195-1.887)	0.284 (0.079-1.017)
Occupation	Working	1	1	1	1
	Housewife	0.831 (0.192-3.593)	0.142 (0.027-0.751) *	0.367 (0.083-1.627)	0.467 (0.101-2.158)
Marital status	Married	1	1	1	1
	Widow	0.227 (0.053-0.973) *	6.205 (1.446-26.631) *	1.194 (0.357-3.997)	---
Per-capita income	>1250	1	1	1	1
	≤1250	0.990 (0.375-2.614)	1.053 (0.369-3.009)	0.630 (0.234-1.691)	2.147 (0.724-6.361)
Abortion	No	1	1	1	1
	Yes	1.814 (0.700-4.698)	5.236 (1.511-18.149) *	1.177 (0.446-3.105)	0.325 (0.104-1.020)
Menopause	No	1	1	1	1
	Yes	1.121 (0.266-4.726)	1.754 (0.379-8.111)	1.719 (0.393-7.518)	1.875 (0.420-8.373)