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Original Research Article

A cross sectional study to estimate the health care needs of perimenopausal and postmenopausal women

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ABSTRACT

Background: Perimenopause is the period when a woman moves from the reproductive phase to non-reproductive. Postmenopause is a complete cessation of menstrual cycles for 12 months or more. Menopausal symptoms may affect their health and quality of life.

Objective: To estimate the health care needs of perimenopausal and postmenopausal women.

Materials and Methods: It is a cross-sectional study of one hundred women. Participants of the age group 40-70 years were recruited by using consecutive sampling technique. Data was collected by interviewing participants as per a pretested, and validated questionnaire. Apart from the information profile, data was collected regarding the reproductive profile; Obstetrics history; prevalence of perimenopausal and postmenopausal symptoms; and sources used to acquire information about menopause.

Results: The mean age of participants was 53.04 ± 7.35 years. Mean age of attaining menopause was 46.88 ± 4.93 years. Majority of the participants (96%) were vegetarian, half (50%) were overweight as per their BMI. More than half (56%) of the participants reported never doing exercises. The commonly prevalent menopausal symptoms were hot flushes (88%), more tired than usual (86%), joint pains (82%), depressed mood (78%), facing difficulty falling asleep (65%). Most of the participants (74%) rated their level of knowledge little regarding menopausal symptoms and their management. The most frequently used source of information were television/ internet (52%), and friends (47%).

Conclusion: Participants require education, appropriate health-related information, counselling services, and availability of affordable, reliable, and accurate health care services for the management of menopausal symptoms.

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1. Introduction

Perimenopause is the period of transition from reproductive to the non-reproductive stage of a woman's life. The. Menopause is a complete cessation of menstrual cycles for a period of 1 year or more.¹ Most women experience certain menopausal symptoms during menopause with moderate to severe category.² The provision of reliable and

effective learning materials can promote them to take part in the self-care management of menopausal symptoms,³ and improving their wellbeing.⁴

Studies reveals that majority of women had less understanding of menopause and its management.^{5,6} Perimenopausal and postmenopausal women need access to health services that can help and guide them. Unfortunately both access of health services and awareness about the information related to menopause remain a significant challenge in most of the countries. Menopause is generally

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not talked about within families, friends, workplaces, communities, co-workers or health-care institutions.⁷ Menopausal symptoms can be troublesome and may affect a woman's health and quality of life.⁸

To inform women about menopause, it is important to identify their needs first. Trudeau et al.⁹ have reported that the most common needs of perimenopausal and postmenopausal women are regarding the management of menopausal symptoms. Women seek information regarding management of menopausal symptoms from a variety of sources, i.e. family, friends, healthcare providers, radio, television, pamphlets, books, videos and the internet.^{10,11}

There is scarcity of data regarding the identification of health care needs of these women, hence the present study was conducted to estimate the health care needs of perimenopausal and postmenopausal women attending Outpatient department of a tertiary care centre of North India.

2. Materials and Methods

One hundred participants were enrolled consecutively in the study. Perimenopausal women were the women with irregular menstrual cycles not more than 12 consecutive months, and the postmenopausal who didn't have menstrual cycles for the past 12 months or more. Inclusion criteria for the study were; women between 40-70 years of age and able to read, speak- Hindi/English. Women with surgically induced menopause (i.e. Bilateral oophorectomy) and known history of cancer were excluded from the study.

Sample size was estimated by conducting a pilot study to assess the prevalence of symptoms which was found to be 85%. Furthermore, the same was also found in literature.¹²

So, using the formula: $n = \frac{4PQ}{D^2}$

Where $P = 0.85$ (crude prevalence), $Q = 1 - P = 0.15$, and $D = 10\%$ of $P = (\text{Allowable error}) = 0.085$, the calculated sample size was 70.58. However, taking into consideration dropouts, it was decided to include 100 participants.

Data was collected by interviewing participants as per a pretested, and validated interview schedule regarding from the information profile, Reproductive profile; Obstetrics history; and prevalence of perimenopausal and postmenopausal symptoms; Sources used to acquire information about menopause. The participants were asked to self rate their level of knowledge regarding menopausal symptoms and their management. The interview schedule was translated into the Hindi language and retranslated to English to check translation validity. Ethical clearance was obtained from the IEC, of the institute (IEC-INT/2022/PhD-26).

The data was collected in specified room. The participants were made to sit comfortably. The purpose and need of the study was explained to women with Perimenopausal and postmenopausal symptoms in their local language (i.e. Hindi). Written informed

consent was obtained from eligible women. The privacy and confidentiality of information was ensured to the participants.

One to one interview was conducted by asking questions as per the prepared interview schedule.

Data was analyzed using SPSS version 20. Percentage, Mean, Standard Deviation (SD), Range, and Interquartile Range (IQR) were used to analyze the data.

3. Results

Table 1 depicts the sociodemographic profile of the participants. Around half (46%) of the participants' age ranged from 40 to 70 years with mean age of 53.04 ± 7.35 years. One third (37%) of the participants had no formal education. Majority (82%) of participants were housewives, and 86% of the participants were married. One third (36%) of the participants were from upper middle class as per BG Prasad scale 2022.

Table 2 depicts the personal profile of the participants, 64% of the participants reported their health as of poor category. Majority of the participants (96%) were vegetarian, half (50%) were overweight, and 9% were in the obese category as per their BMI. More than half (56%) of the participants reported never doing exercises.

Figure 1 shows the comorbidity among participants. The most frequently reported health problems were extreme fatigue (58%) followed by low back pain (33%), hypertension (28%), diabetes (20%), fibroids (14%), hypothyroidism (10), hyperthyroidism (9%), cholecystectomy (8%), hysterectomy (7%), urinary incontinence (6%), arthritis (6%), endometriosis (5%), fracture (5%), colitis (3%), cataract (3%).

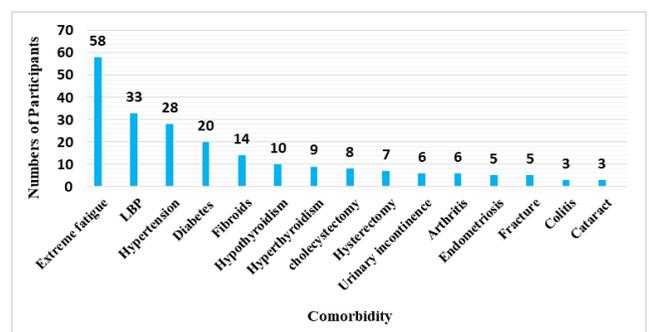


Figure 1: Comorbidity among the participants

Table 3 depicts the reproductive and obstetrics history of participants, the menarche age ranged from 10 to 18 years with the mean age of 13.99 ± 1.60 years. Mean age of the menopause was 46.88 ± 4.93 . Half (55%) of participants were not using any kind of the method of birth control. More than half (58%) of the participants were in postmenopausal status and 42% were in perimenopausal status. 40% of the participants reported parity between 3 and 5. 71% of the

Table 1: Sociodemographic profile of participants (n=100)

| Variables | f /% |
|---|------|
| Age (years) # | |
| 41-50 | 46 |
| 51-60 | 34 |
| >60 | 20 |
| Education | |
| No formal education | 37 |
| Primary | 15 |
| Middle | 05 |
| Matric | 16 |
| Senior secondary | 15 |
| Graduate and above | 12 |
| Occupation | |
| House wife | 82 |
| Maid/labourer | 03 |
| Govt. employee | 14 |
| Self employed | 01 |
| Marital status | |
| Married | 86 |
| Divorced/Separated/Widowed | 14 |
| Religion | |
| Hindu | 66 |
| Sikh | 32 |
| Christian | 02 |
| *Socioeconomic class (Revised BG Prasad 2022) ## | |
| Upper Class (8220 and above) | 28 |
| Upper Middle Class (4110-8219) | 36 |
| Middle Class (2465-4109) | 23 |
| Lower Middle Class (1230-2464) | 09 |
| Lower Class (Less than 1230) | 04 |
| Type of family | |
| Nuclear | 42 |
| Joint | 58 |

Mean±SD (Range): #53.04±7.35(41-70);

##10455.56±12190.02 (1000-62500)

Median (IQR): 5000 (3083.25-14047)

participants having 1 to 2 full term birth, one fourth (25%) of the participants had a history of atleast one abortion and premature birth, and 57% of the participants having 1 to 2 children.

The frequency of menopausal symptoms as per Menopause Health Questionnaire (MHQ) is depicted in Table 4. More than eighty percentage of the women were having the symptoms of hot flashes (88%), tiredness (86%), breast tenderness (81%). The other symptoms were night sweats (78%), difficulty in concentration (74%), more irritable than usual (73%), mood swings (72%), joint pains (72%), poor memory (71), crying spells (69%), urinate more than usual (67%), butterflies sensation in chest or stomach (67%), bloated stomach (66%), difficulty getting to sleep(65%), headaches (65%), difficulty staying asleep (64%), pain during intercourse(60%), limited opportunities for sexual activity (54%), lack of desire in sexual activity

Table 2: Personal profile the participants (n=100)

| Variables | f/% |
|--|-----------|
| Self-reported health status | |
| Good | 30 |
| Fair | 06 |
| Poor | 64 |
| Dietary habits | |
| Vegetarian | 96 |
| Non-vegetarian | 04 |
| Body mass index (Kg/m2) | |
| <18.5 (Underweight) | 01 |
| 18.5-22.9 (Normal weight) | 40 |
| 23-24.9 (Over weight) | 50 |
| > 25 (Obese) | 09 |
| Frequency of exercises (recommended 5 times a week) | |
| Almost daily | 11 |
| At least 3 times in a week | 05 |
| Occasionally | 19 |
| Rarely | 09 |
| Never | 56 |

(54%), difficulty achieving orgasm (52%), pain inside during intercourse (51%).

3.1. Medication history of the participants

Twenty-one percent (21%) of the participants were taking calcium supplements, 4% were on iron & vitamin B complex, and only 2% participants were on Hormone Replacement Therapy

Only 2% of the participants each were practicing yoga and were taking homeopathy, and 1% were using acupuncture for management of menopausal symptoms.

Figure 2 shows the level of knowledge of participants regarding menopausal symptoms and their management. Most of the participants (74%) rated their level of knowledge as 'little knowledge', sixteen percent of the subjects 'moderate knowledge', six percent of the subjects rated 'fair knowledge', and only four of the participants reported 'very good knowledge'.

Figure 3 shows the sources used by the participants to obtain information about the menopause. Half (52%) of the participants used television / internet, forty-seven (47%) friends, 35% health care providers, and 19% magazines and books for acquiring information regarding menopause.

4. Discussion

Middle age is a transition phase in a woman's life when her body also gears up with a major change termed as menopause, and the reproductive capacity of women phases out.

It is important to estimate the health care needs of these women in order to plan certain interventions accordingly to improve their QOL.

Table 3: Reproductive history of the participants (n=100)

| Variables | f/% |
|--|-----------|
| Age at menarche (years)* | |
| 10-12 | 28 |
| 13-15 | 50 |
| 16-18 | 22 |
| Age at marriage (years)** | |
| 15-20 | 63 |
| 21-25 | 30 |
| 26-30 | 05 |
| 31-35 | 02 |
| Duration of marriage (years)*** | |
| 1-10 | 10 |
| 11-20 | 40 |
| 21-30 | 32 |
| 31-40 | 15 |
| 41-50 | 03 |
| Method of birth control | |
| None | 55 |
| Tubal ligation | 35 |
| Condoms | 05 |
| Copper-T | 04 |
| Birth control pills | 01 |
| Menopausal status | |
| Perimenopause | 42 |
| Postmenopause | 58 |
| Age at menopause (years)**** | N=58 |
| 41-45 | 15(25.86) |
| 46-50 | 18(31.03) |
| 51-55 | 22(37.93) |
| 56-65 | 03(5.17) |
| Parity | |
| 0 | 02 |
| 1-2 | 57 |
| 3-5 | 40 |
| >5 | 01 |
| Term birth | |
| 0 | 02 |
| 1-2 | 71 |
| 3-5 | 24 |
| >5 | 03 |
| Abortion | |
| 0 | 75 |
| 1 | 19 |
| 2 | 05 |
| 3 | 01 |
| Premature birth | |
| 0 | 77 |
| 1 | 19 |
| 2 | 04 |
| Total number of children | |
| No child | 01 |
| 1-2 | 57 |
| 3 | 29 |
| >3 | 12 |
| Adopted children | 01 |

Mean±SD (Range): *13.99 ± 1.60(12-18);**20.07±3.43(14-32);
 20.07±3.43(14-32);*46.88±4.93(41-65)

Table 4: Prevalence of menopausal symptoms among participants as per menopause health questionnaire (MHQ) (n=100)

| Variables | Yes f/% |
|---|---------|
| Hot flashes | 88 |
| More tired than usual | 86 |
| Breast tenderness | 81 |
| Night sweats | 78 |
| Difficulty in concentrating | 74 |
| More irritable than usual | 73 |
| Mood swings | 72 |
| Joint pains | 72 |
| Poor memory | 71 |
| Crying spells | 69 |
| Urinate more often than usual | 67 |
| butterflies sensation in chest or stomach | 67 |
| Weight gain/ bloated stomach | 66 |
| Difficulty getting to sleep | 65 |
| Headaches | 65 |
| Difficulty staying asleep | 64 |
| Pain during intercourse | 60 |
| Limited opportunity for sexual activity | 54 |
| Lack of desire or interest in sexual activity | 54 |
| Difficulty achieving orgasm | 52 |
| Pain inside during intercourse | 51 |
| An abnormal vaginal discharge | 50 |
| Uncontrollable loss of stool or gas | 50 |
| Bleeding after intercourse | 48 |
| Vaginal itching | 47 |
| Bladder infections | 47 |
| Urinary Incontinence | 47 |
| Vaginal infections | 45 |
| More anxious than usual | 45 |
| Skin is crawling or itching | 44 |
| Burning when urinating | 44 |
| Vaginal dryness | 42 |
| More depressed moods | 40 |

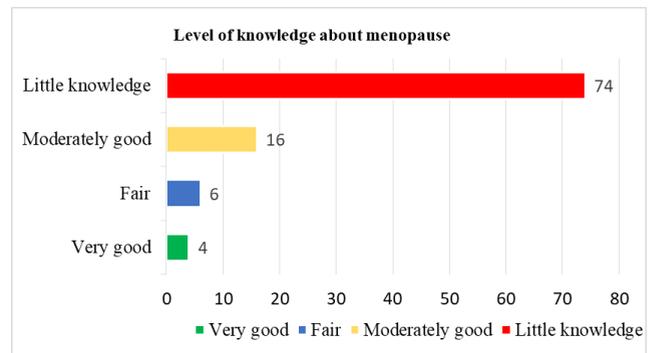


Figure 2: Level of knowledge of the study participants about menopause (self-rated) n=100

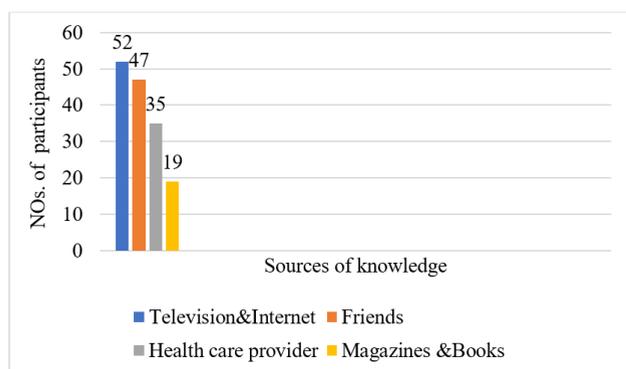


Figure 3: Sources of knowledge of the study participants about menopause (n=100)

In current study menopausal age ranged from 41 to 65 years with mean age of menopause was 46.88 ± 4.93 years. The finding is similar to findings in the study done by Jain N, et al.¹³

In our study, 64% of the participants rated their health poor, half (50%) of the participants were overweight as per their BMI and 56% of the participants reported never doing exercises. Majority (96%) of the participants were vegetarian. These findings are similar with the findings of other studies^{14–17} A RCT carried out by Aliassen et al.¹⁸ showed that increased weight gain, an waist circumference during menopause could be decreased with physical activity, and dietary intervention.

Health problems of participants as reported by them were extreme fatigue (58%) followed by low back pain (33%), hypertension (28%), diabetes (20%), fibroids (14%), hypothyroidism (10), hyperthyroidism (9%), financial problems (9%) cholecystectomy (8%), hysterectomy (7%), urinary incontinence (6%), arthritis (6%), endometriosis (5%), h/o fracture (5%), suicidal thoughts (4%) colitis (3%), cataract (3%). Among perimenopausal and postmenopausal women in present study were similar to those of the North Indian population study done by Mahajan N et al.¹⁷

As prevalence of hot flushes in the current study was found 88%. The finding is similar to results of the studies done by Ramandeep et al.,¹⁹ Iliodromiti S, et al.,²⁰ Meenakshi Kalhan, et al.,¹² Arwinder Kaur et al.²¹ was found to be in which the prevalence of hot flushes found 80%, 81%, 79% and 85.3%, respectively.

Prevalence of sleep disturbances in the current study was 65%. This is similar to the results in the studies done by Nader Salari et al, (52%)²² Vishal R Tandon et al (62%),²³ Akanksha Singh et al., (62.7%).²⁴

This prevalence of depressive mood in the study was found 40%. This is similar to the results in the studies done by Sukriti Khatak et al.,²⁵ Vikas Yadav et al.,²⁶ Pooja Ahlawat et al.,²⁷ in which the prevalence of depression has been reported as 39%, 42.47%, and, 41.6% respectively.

Prevalence of dyspareunia in the present study was 60%. It is similar to results in the studies done by Angelo Cagnacci et al.,²⁸ Neelam Jain et al.,¹³ in which dyspareunia was 76% and, 60% respectively.

Prevalence of Urinary Incontinence in the current study was found 47%. This is similar to results of the studies done by Eleonora Russo et al.,²⁹ Uma Singh,³⁰ in which urinary incontinence were 55% and, 73.8% respectively.

Prevalence of vaginal dryness in the present study found 42%. This is similar to results in the studies done by Nidhi Gupta et al.,³¹ in which vaginal dryness was found 48%.

Prevalence of decreased libido in the present study was 54%. This is similar to results in the study done by Manpreet Kaur et al., (61%)³² Sagar A Borker et al., (53.3%).³³

Prevalence of weight gain in the present study was in 66% of the participants which is similar 66%, similar to results of the study conducted by Isaac Mensah Bonsu et al.,³⁴ Manpreet Kaur et al.,³² in which weight gain was in 73.2% and, 53% respectively.

Prevalence of Joint pain in the current study was reported by 72% of the participants. This is similar to results in the study conducted by Madhavarshini Sundararajan et al., (74.1%)³⁵ Shringarpure, Kalpita S et al.³⁶ in which Joint pain was reported by 68.2% and, 74.1% respectively.

In present study, most of the participants (74%) rated their level of knowledge as ‘little knowledge’, 16% of the subjects ‘moderate knowledge’, 6% of the subjects rated ‘fair knowledge’, and only 4% of the participants reported ‘very good knowledge’. This is similar to results in the study conducted by Shabana Sultan et al.³⁷

In present study, most frequently used sources were television/ internet (52%), and friends (47%). The least frequently used sources health care providers (35%), and the magazines and books (19%). This is similar to results in the study done by Sadrieh Hajesmael-Gohari et al.³⁸

In present study, one fourth (21%) of the participants were on calcium supplements, 4% of the participants on iron & vitamin B complex, and only 2% of the participants were on Hormone Replacement therapy for the management of menopausal symptoms, are similar to results in study conducted by Priyanka Bharat Aglawe, et al.³⁹

5. Conclusion

Women health is a pivotal components of public health. Menopause is a natural phase in the life of women. The present study concluded that women had variety of health care needs about management of menopausal symptoms. They need education, appropriate health related information, support from family and community, counselling services, and availability of affordable, reliable, accurate, and approachable quality health care services for the management of menopausal symptoms.

A similar kind of study is recommended on the women with disability (WWD) as they have their own sexual and

reproductive health problems.⁴⁰

6. Sources of Funding

None.

7. Conflict of Interest

None.

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