



Original Article

Comparison of knowledge regarding psychological and hormonal changes about menopause between urban and rural women

Tanpreet Kaur Badwal*, Pawandeep Kaur, Mandeep Kaur

Department of Pharmacy Practice, ISF College of Pharmacy, Moga, Punjab, India

Corresponding Author: Dr. Tanpreet Kaur Badwal, Assistant Professor, ISF College of Pharmacy, E-mail id: singh.tan13@gmail.com

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ABSTRACT

Objective: The objective of the study was to compare the awareness regarding mental and hormonal changes about menopause as well as quality of life in women residing in selected urban and rural communities. **Materials and Methods:** Prospective comparative study on knowledge regarding psychological symptoms and hormonal changes about menopause between urban and rural women. **Results:** During the study period, a total number of 154 menopausal women fulfilling the study criteria were enrolled into the study. Analysis of the demographic profile of the patients enrolled into the study revealed that out of 154 menopausal women, majority of the menopausal women, 50 (32.5%) were of age group 45–50 years. Further analysis of different types of menopause in the women recruited for the present study revealed that more number of the women, 83 (53.9%) women had natural menopause followed by 41 (26.6%) women had surgical menopause and very less number of women 30 (19.5%) had premature menopause. **Conclusion:** There is great controversy on sexual function and its influencing factors in the literature. Some postmenopausal women consider the menopausal period as the best time of their lives in terms of sexuality. Each woman reacts differently to different symptoms. Symptoms may be minor or severe.

Keywords: Menopause, Psychological symptoms, Hormones, Urinary tract

INTRODUCTION

Menopause is the permanent physiologic cessation of menses associated with declining ovarian function; during this time, reproductive function diminishes and ends. It is also natural event that normally occurs between the ages of 45 and 55. Once menopause is complete, they can no longer pregnant. Changes and symptoms can start several years earlier. The symptoms of menopause are caused by changes in estrogen and progesterone levels. As the ovaries become less functional, they produce less of these hormones and body responds accordingly.^[1] The transition phase before menopause is medically referred to as per menopause or climacteric. During this transition time before menopause, the supply of mature eggs in a

woman's ovaries diminishes and ovulation becomes irregular. At the same time, the production of estrogen and progesterone decreases. It is the enormous drop in estrogen levels that cause most of the symptoms commonly associated with menopausal.^[2] According to Indian Menopause Society research, there are about 65 million Indian women in the age group of 45 years. Average age of menopause is around 45 years but it strikes Indian women as the age as 30–35 years. Hence, menopausal changes in health and illness of individuals create a process of transition, and client in transition period tends to be more vulnerable to be risks that may, in turn, affect their health, uncovering these risks may be enhanced by understanding the transition process.^[3]

Physical signs and symptoms may include:

- Hot flushes (occurring in approximately 60% of women)
- Sweats (often at night)
- Fatigue
- Headaches

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- Joint and bone pain
- Palpitations
- Unusual skin sensations
- Vaginal dryness, incontinence, and infections of the urinary tract and vagina may occur due to the thinning of the vagina and bladder walls.^[4]

Psychological signs and symptoms may include:

- Anxiety
- Reduced interest in sex
- Irritability and mood swings
- Difficulty concentrating
- Loss of confidence
- Forgetfulness
- Difficulty sleeping^[5]

MATERIALS AND METHODS

Methodology

The statistical data collected using the questionnaire was entered into the Statistical Package for the Social Sciences (SPSS) software. The study has been commenced after obtaining approval and clearance from the institutional ethics committee.

Study site

The study will be conducted in rural as well as urban area including Ghal Kalan, Moga. The study is delimited to only an urban and rural area.

Study criteria

Inclusion and exclusion criteria for study are as illustrated below:

Inclusion criteria

The following criteria were included in the study:

- Those who have experience 1 year of amenorrhea in the age group of 35–55 years.
- Those who are willing to participate in this study.

Exclusion criteria

The following criteria were excluded from the study:

- Those women who are not willing to participate in the study.
- Method and collection of data

Based on the inclusion and exclusion criteria, the women after signing the informed consent form (Annexure II), the data will be collected from the menopausal women.

- Patient data collection form

A suitably designed data collection form was prepared from standard textbooks and journals, which include information of patient details such as age, menopausal status, educational status, type of menopause, cause of menopause, marital status, hormonal replacement therapy,

and score to menopause on basis of signs and symptoms (menopause rating scale [MRS]).

- Instrument intended to be used

Demographic pro forma and MRS to assess the quality of life.

RESULTS AND DISCUSSION

Age

A total of 154 cases were collected. The age was divided into four categories as 34–40, 40–45, 45–50, and 50–55. The age distribution of enrolled menopausal women is as follows: 32.5% were between the age group of 45 and 50 that is at peak and 16.2% were between the age group of 40 and 45 [Table 1].

Occupation status

The occupation status was divided into three categories, that is, housewife, government worker, and private worker. The results showed that 46.1% of patients are housewife followed by 26.0% of women are government workers [Table 2].

Marital status

The results showed that more number of women 66.9% were married followed by 3.2% women were unmarried [Table 3].

Region

Among 154 menopausal women enrolled in the study, 53.9% were from rural area and 46.1% women were from urban areas [Table 4].

Cause of menopause

Menopause among 46.8% of women was by age and very less number of women 12.3% were affected from any other disease [Table 5].

Table 1: Age distribution of menopausal women

Age distribution (years)	Number of menopausal women (n)	%
35–40	44	28.6
40–45	25	16.2
45–50	50	32.5
50–55	35	22.7
Total	154	100

Table 2: Occupation status of menopausal Women

Occupation status	Number of menopausal women (n)	%
Housewife	71	46.1
Government worker	40	26.0
Private worker	43	27.9
Total	154	100

Table 3: Details of marital status of menopausal women

Marital status	Number of menopausal women (n)	%
Married	103	66.9
Unmarried	5	3.2
Divorced	15	9.7
Widow	31	20.1
Total	154	100

Type of menopause

From 154 women, 53.9% of women had natural menopause followed by very less number of women 19.5% had premature menopause [Table 6].

Menstrual history

Among 154 menopausal women, 51.3% had regular menstrual history and 48.7% had irregular menstrual history [Table 7].

Hot flushes, sweating (Episodes of sweating)

Among 154 menopausal women enrolled in the study, 30.5% having mild menopausal symptoms, 41.6% of women having moderate menopausal symptoms, 22.1% of women having severe menopausal symptoms, and very less women 5.8% having very severe menopausal symptoms.

Heart discomfort

Among 154 menopausal women enrolled in the study, 4.5% having none menopausal symptoms such as unusual awareness of heart beat, heart skipping, heart racing, and tightness, 45.5% of women having mild, 37.0% of women having moderate, 14 (9.1%) having severe, whereas very less 3.9% having very severe menopausal symptoms.

Sleep problems such as difficulty in falling asleep and difficulty in sleeping through waking up early

Among 154 menopausal women enrolled in the study, 1.9% having none menopausal symptoms, 29.2% of women having mild menopausal symptoms, 67 (43.5%) women having moderate menopausal symptoms, 20.1% having severe menopausal symptoms, and 5.2% having very severe menopausal symptoms.

Depressive mood (Feeling down, sad, on the verge of tears, lack of drive, and mood swings)

Among 154 menopausal women, 1.9% having none menopausal symptoms, 26.0% of women having mild menopausal symptoms,

37.0% of women having moderate menopausal symptoms, 26.6% having severe menopausal symptoms, and 8.4% having very severe menopausal symptoms.

Irritability (Feeling nervous and inner tension feeling aggressive)

Among 154 menopausal women, 1.3% having none menopausal symptoms, 29.2% of women having mild menopausal symptoms, 42.9% of women having moderate menopausal symptoms, 20.8% having severe menopausal symptoms, and 5.8% having very severe menopausal symptoms.

Anxiety (Inner restlessness and feeling panicky)

Among 154 women, 44.2% suffer with the moderate symptoms, whereas 1.3% having none menopausal symptoms [Table 8].

Physical and mental exhaustion (General decrease in performance, impaired memory, decrease in concentration, and forgetfulness)

Among 154 women, 6% having none, 26.6% of women having mild, 46.1% of women having moderate, 24.0% having severe, and 2.6% having very severe menopausal symptoms.

Sexual problems (Change in sexual desire in sexual activity and satisfaction)

From 154 women, 44.2% having mild while 2.6% experience none menopausal symptoms [Table 9].

Bladder problems (Difficulty in urinating, increase need to urinate, and bladder incontinence)

Among 154 women, 20.8% having no symptoms, 57.1% having mild, 16.9% having moderate, 2.6% having severe, and 2.6% having very severe menopausal symptoms.

Dryness of vagina (Sensation of dryness or burning in vagina and difficulty with sexual intercourse)

From 154 women, 19.5% having none, 51.3% having mild, 20.8% having moderate, 5.8% having severe, and 2.6% having very severe symptoms.

Table 4: Region-wise distribution of menopausal women

Region	Number of menopausal women (n)	%
Rural	83	53.9
Urban	71	46.1
Total	154	100

Table 5: Cause of menopause

Cause of menopause	Number of menopausal women (n)	%
Age	72	46.8
Stress	21	13.6
Surgery	42	27.3
Disease	19	12.3
Total	154	100

Table 6: Type of menopause

Type of menopause	Number of menopausal women (n)	%
Natural menopause	83	53.9
Premature menopause	30	19.5
Surgical menopause	41	26.6
Total	154	100

Table 7: Menstrual history

Menstrual history	Number of menopausal women (n)	%
Regular	79	51.3
Irregular	75	48.7
Total	154	100

Table 8: Anxiety

Anxiety	Number of menopausal women (n)	%
None	2	1.3
Mild	42	27.3
Moderate	68	44.2
Severe	38	24.7
Very severe	4	2.6
Total	154	100

Joint and muscular discomfort (Pain in joints and rheumatoid complaints)

Among 154 women, 3.9% having none menopausal symptoms, 37.0% having mild menopausal symptoms, 39.6% of women having moderate menopausal symptoms, 14.9% having severe, and 4.5% having very severe menopausal symptoms.

Hair and skin changes

In the number of 154 menopausal women, 34.4% having none menopausal symptoms while 0.6% having very severe [Table 10].

Breast changes (Breast pain and breast shrinkage)

Among 154 women enrolled in the study, 53.2% having none menopausal symptoms, 46.1% women having mild, where else 0.6% having moderate.

Gastrointestinal changes (Excessive gas production, stomach cramping, nausea, and obesity)

From 154 women, 22.7% having no symptoms, 33.1% having mild, 21.4% having moderate, 18.8% having severe, and 3.9% having very severe menopausal symptoms.

Irregular periods

Among 154 women, 35.1% having no symptoms, 50.0% having mild, 11.7% having moderate, 2.6% having severe, and 0.6% having very severe menopausal symptoms.

Increase in allergies

From 154 women in the study, 48.1% showing no allergies, 45.5% having mild, 5.8% having moderate, and only 2.6% having very severe allergies.

Headaches (Stress)

Among 154 women, 50.0% having mild headaches whereas only 1 (0.6%) having very severe [Table 11].

Table 9: Sexual problems

Sexual problems	Number of menopausal women (n)	%
None	4	2.6
Mild	68	44.2
Moderate	58	37.7
Severe	19	12.3
Very severe	5	3.2
Total	154	100

Table 10: Hair and skin changes

Hair and skin changes	Number of menopausal women (n)	%
None	53	34.4
Mild	81	52.6
Moderate	14	9.1
Severe	5	3.2
Very severe	1	0.6
Total	154	100

Total MRS

Among 154 women enrolled in the study, 8.4% having none menopausal symptoms and 9.1% having very severe menopausal symptoms [Table 12].

Any vaginal examination

Among 154 women, 36.4% have done vaginal examination and 63.6% women not have done any vaginal examination.

Knowledge of menopause

Among 154 women, 35.7% have knowledge of menopause and 64.3% having no knowledge about menopause [Table 13].

Feeling of menopausal symptoms

Among 154 menopausal women enrolled in the study, 33.1% have feel symptoms of menopause and 66.2% of women having no feeling of menopausal symptoms.

Health risks

Among 154 women, 32.5% having no disease and 9.7% have arthritis [Table 14].

Menopausal status

Among 154 women, 56.5% having late reproductive menopausal status and 43.5% having early menopausal transition.

Table 11: Headache (stress)

Headache	Number of menopausal women (n)	%
None	54	35.1
Mild	77	50.0
Moderate	18	11.7
Severe	4	2.6
Very severe	1	.6
Total	154	100

Table 12: Total MRS

MRS	Number of menopausal women (n)	%
None	13	8.4
Mild	32	20.8
Moderate	47	30.5
Severe	48	31.2
Very severe	14	9.1
Total	154	100

Table 13: Knowledge of menopause

Knowledge of menopause	Number of menopausal women (n)	%
Yes	55	35.7
No	99	64.3
Total	154	100

Table 14: Health risks

Health risks	Number of menopausal women (n)	%
Without disease	50	32.5
Hypertension	38	25.3
Diabetes	50	32.5
Arthritis	15	9.7
Total	154	100

Hormonal therapy

Among 154 women, 39.6% taking hormonal therapy and 60.4% were not [Table 15].

Duration of signs and symptoms

Among 154 women, 51.9% suffered from 3 years where else 18.8% suffered from 4 years [Table 16].

Menopausal needs treatment

Among 154 women, 42.2% of menopausal women needs treatment and 57.8% of menopausal women needs no treatment.

Use of medicine

Among 154 women, 52.6% of menopausal women use medicine and 73 (47.4%) were not.

Visit to hospital for treatment

Among 154 women, 53.2% of menopausal women visit hospital and 46.8% were not.

DISCUSSION

Very few studies have been undertaken regarding the importance of women's awareness level about the menopause phenomenon in their mental, psychological, and physical health. The mean age of these women was 56 years. They had menopause at the mean age of 48.5 years and all were multifarious. The average duration for disappearance of premenopausal symptoms was 4.5 years. About 70% of women were still symptomatic with a minimum of 11 MRS score while 30% were symptom free. Hormone replacement therapy was ever taken by 8% of women, the MRS ranged from 9 to 21 with a mean of 12. The most commonly reported symptoms were hot flushes (90%) and sleep disturbances (89%) followed by palpitations (42%). Sexual problems (18%) and bladder symptoms (12%) were reported least frequently.^[6]

Demark-Winfried W, Aziz NM, Rowland JH (1994) conducted study regarding only 4% of the women attained menopause before the age of 40 years. This suggests that the prevalence of women attaining menopause before the age of 40 years is very low. A total of 225 (89.3%) postmenopausal women experienced at least one or more

Table 15: Hormonal therapy

Hormonal therapy	Number of menopausal women (n)	%
Yes	61	39.6
No	93	60.4
Total	154	100

Table 16: Duration of signs and symptoms

Duration of signs and symptoms	Number of menopausal women (n)	%
2 years	29	18.8
3 years	80	51.9
4 years	45	29.2
Total	154	100

menopausal symptom(s) such as sleep disturbances (62.7%), muscle or joint pain (59.1%), hot flushes (46.4%), and night sweats (45.6%).^[7]

According to Overlie I, Moen MH, Holte A (2002), 47.4% of postmenopausal women complained of hot flushes. This finding is comparable to finding in the studies carried out in which the prevalence of hot flushes was found to be 55.9%, 59.4%, 53.86%, and 60.9%, respectively.^[8]

Dennerstein L, Smith AM (1993) found the prevalence of night sweats in the current study, that is, 45.6%. This is consistent with the findings of the studies carried out in which the prevalence of night sweats was found to be 53.86%, 36.7%, 35.8%, and 48.3%, respectively.^[9]

Sleep disturbances were reported by 62.7% of postmenopausal women in the current study. This is comparable to the results in the studies conducted in which the prevalence of sleep disturbances was found to be 70.0%, 52.0%, and 54.4%, respectively.^[10]

According to Villaverde-Gutiérrez and Araujo (2006) in the current study, 9.9% of postmenopausal women had urinary complaints. This is comparable with the results of the studies found urinary complaints in 14.9% of Afro-Colombian women. Decreased libido was reported by 33.7% of postmenopausal women in the present study 34.5% observed similar results. More than a quarter of postmenopausal women suffered from depression, which is a matter of concern found the prevalence of depressive mood to be 37.3%. The prevalence of depressed mood found to be 57.2%. Furthermore, in this study, 21.1% of postmenopausal women were found to be suffering from either mild or moderate anxiety the prevalence of anxious mood as 67.2% and 78.8%, respectively. The variation in the findings of depression and anxiety in the current study from the findings of other studies could probably be because of the reason that the above-mentioned studies reported the prevalence of depressed and anxious mood rather than actual depression and anxiety; and no psychiatric scale was used by them.^[11]

The present study results revealed using modified MRS questionnaire, 154 menopausal women aged between 35 and 55 years were interviewed to document of 18 symptoms divided into somatic, psychological, and physiological symptoms which are commonly associated with menopause. The mean age of menopause was 45–50. The most extensive symptoms reported were joint and muscular pains (76%); physical and mental exhaustion (58%); and concentration and sleeping problems (60%), followed by symptoms of hot flushes and night sweating (66%); irritability (64%); itching in private parts (68%); anxiety (92%); and depressive mood (80%). Among 154 menopausal women enrolled in the study, 13 (8.4) having none menopausal symptoms, 32 (20.8%) women having mild menopausal symptoms, 47 (30.5%) women having moderate menopausal symptoms, 48 (31.2%) having severe menopausal symptoms, and 14 (9.1%) having very severe menopausal symptoms. The prevalence of menopausal symptoms was measured using modified MRS in this study.

CONCLUSION

Some postmenopausal women consider the menopausal period as the best time of their lives in terms of sexuality, because they lack

the fear of pregnancy and have been living with their partners for a longer time. Menopause was associated with an increase in sexual problems, such as lack of sexual desire, decreased frequency of sexual activity, decreased sexual response, orgasmic problems, and decrease in genital sensitivity related to reduced levels of estradiol, while other studies indicated that interpersonal variables may be more significant than hormonal levels. Factors affecting sexual function can be classified as physical, mental, emotional, and social. In the present study, majority of them falling under age group between 45 and 50 years, that is, 50 (32.5%) patients and majority of them were belongs to rural population, that is, 83 (53.9%). Among 150 patients 72 (46.8%) of them had having natural menopause. According to MRS, majority of women have severe menopausal symptoms, that is, 48 (31.2%).

Each woman reacts differently to different symptoms. Symptoms may be minor or severe and may affect lifestyle and relationships. Regular physical activity and a good diet tend to cope better with the post-menopausal symptoms. In this study, women need counseling activities and decision aids in menopausal transition to their satisfaction and for a healthy living. Women need clarity and problem-solving solutions in reducing menopausal symptoms. Hence, women who undergo menopause have to be aware of how to reduce the symptoms so as to cope up with it.

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