



Study on Quality of Life and Productivity in Post Menopausal Women.

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KEYWORDS

Productivity, Post Menopausal Women.

ABSTRACT:

Background:

The overall health and well-being of middle-aged women have become a significant public health concern worldwide. More than 80% of women experience physical or psychological symptoms in the years when they approach menopause, with various distresses and disturbances in their lives, leading to a decrease in the quality of life.

Materials and methods:

It is a prospective Observational Questionnaire-based study, conducted at the Department of Obstetrics and Gynecology, SVIMS-SPMC (W), Tirupati. The data collected included knowledge, assessment, and perception questionnaires about menopausal symptoms, which were given to each participant who enrolled in the study. They were all instructed to complete the questionnaires.

Results:

For somatic difficulties, 32.7% reported moderate symptoms, 19.7% reported psychological symptoms, and 22.75% indicated urogenital problems. 26.5% of people's quality of life and 24.25% of people's productivity were affected by this degree of severity. The prevalence of severe symptoms was lower, with 6.5% reporting severe urogenital problems, 10.3% expressing severe somatic symptoms, and 4.57% reporting severe psychological symptoms.

At this level, 5.33% reported a major reduction in quality of life, while 3.25% experienced a considerable fall in productivity.

Conclusion:

Post-menopausal women had a significant prevalence of menopausal symptoms, according to the study, which highlights the need for proactive care and more awareness.

Introduction;

Because primordial ovarian follicles gradually deteriorate with age, menopause is a normal process that all women go through. The majority of women have post-menopause symptoms for over one-third of their lives [1]. Age, race, ethnicity, and smoking are examples of lifestyle characteristics that might affect how long a woman experiences menopause. 12-month amenorrhea following the last menstrual cycle without any other contributing factors is

considered to be the permanent cessation of menstruation [2–3].

Globally, middle-aged women's general health and well-being have emerged as a significant public health problem. In the years leading up to menopause, over 80% of women have physical or psychological symptoms, along with a variety of daily disruptions and distresses that lower their quality of life [4-5].

Few studies have examined quality of life at different phases of hormones, and whether



lifestyle, demographics, and menopausal symptoms affect quality of life. Even though menopause has a big influence on women's lives, research on it is still lacking, especially in low- and middle-income nations [6].

The goal of this study was to investigate how a woman's quality of life changes after menopause and whether these changes are related to symptoms, demographics, and/or lifestyle variables.

Materials and methods:

It is a prospective Observational Questionnaire-based study, conducted at the Department of Obstetrics and Gynecology, SVIMS-SPMC (W), Tirupati. The Institutional Ethics Committee (IEC) approval was obtained for the study. It was conducted over a 6-month duration. Women aged between 40 and 65 years and experiencing menopausal symptoms such as hot flashes, night sweats, sleep disturbances, and mood changes were included. Women with a history of severe mental illness, such as schizophrenia or bipolar disorder, chronic medical conditions that may impact quality of life or productivity, such as cancer, HIV/AIDS. Women who have undergone a hysterectomy or oophorectomy were excluded from the study. A total of 100 women were recruited for the study.

The data collected included knowledge, assessment, and perception questionnaires about menopausal symptoms, which were given to each participant who enrolled in the study. They were all instructed to complete the questionnaires. From the data, we assessed the quality of life and productivity in the menopausal women.

Statistical analysis :

Data on continuous variables was summarized as mean & standard deviation. Comparison of means was made by Student's test. Categorical data was presented as pie charts and bar graphs.

A value of $p < 0.05$ was considered statistically significant.

Results:

The age-wise distribution of postmenopausal women enrolled in the study demonstrated that no participants were under the age of 45 years. The highest proportion of 33 subjects belonged to the 45-49 years age group, followed by 29 subjects in the 50-54 years age group and 28 subjects in the 55-59 years age group. A marked decrease in the number of participants was observed in the older age groups, with 8 individuals in the 60-64 years category and only 2 individuals above the age of 65 years.

In our study majority of participants were married, accounting for 87 individuals. In contrast, a smaller proportion of the subjects were 11 widowed, while only 2 participants were unmarried.

In our study, a significant proportion of the subjects were illiterate, accounting for 35 individuals. Among those with formal education, 13 participants had completed primary schooling, while 16 had attained secondary school certification (SSC). Furthermore, 28 women held undergraduate (UG) degrees, and a smaller group of 8 participants had completed postgraduate (PG) education

. Early menarche was reported in 50 participants, representing the most common menstrual history among the subjects. Polycystic ovarian disease (PCOD) was documented in 13 women. Additionally, 28 participants had a history of late pregnancy, while 9 women were nulliparity.

High blood pressure (hypertension) was seen in 21 women, and 15 women had diabetes. Another 21 women were found to have both high blood pressure and Diabetes Mellitus [DM]. 3 participants had hypothyroidism, while 2 women had both high blood pressure



and hypothyroidism, and another 2 had both DM and hypothyroidism. Interestingly, 36 women did not have any of these health problems.

The occupational status of the postmenopausal women enrolled in the study indicated that the majority, 58, were housewives. A total of 28 participants were engaged in daily wage labor, reflecting a significant proportion involved in physically demanding or informal work. 13 women were employed in white-collar professions, while only 1 participant reported working in the information technology (IT) sector.

A majority of the participants, 80, had a history of multi-gravida, 9 participants had experienced primigravida, while 11 women were nulliparity.

Various somatic symptoms were assessed, hot flashes or night sweats, fatigue or lack of energy, heart discomforts such as palpitations, joint or muscle pain, skin dryness or itchiness, headaches, and sleep disturbances.

The most commonly reported symptom severity was Mild (1), making up 40.43% of the responses. In this group, the highest frequencies were observed in fatigue (56 patients), hot flashes (52 patients), and heart discomfort (47 patients), indicating these are the most commonly experienced symptoms at a mild level.

Following this, Moderate (2) severity symptoms accounted for 32.7% of the responses. Interestingly, joint or muscle pain (36 patients) and headaches (56 patients) were particularly prevalent in this group, suggesting a notable proportion of patients experience these symptoms with moderate intensity. No symptoms (None - 0) were reported by 16% of the patients on average, with the most symptom-free cases being in joint or muscle pain and skin dryness, suggesting fewer issues in these areas for some individuals. Severe (3)

symptoms were reported by 10.3% of patients on average. Notably, joint or muscle pain was the most severe symptom in this category, affecting 42 patients, a significantly higher count compared to other symptoms. Finally, Very Severe (4) symptoms were quite rare, constituting only 0.57% of the total, with a minimal number of patients reporting extreme levels of fatigue, heart discomfort, and joint pain.

The distribution of psychological symptoms is shown in Table 1 and Fig. 1. According to the psychological data, more severe psychological discomfort is not common, even if a significant percentage of patients have minor symptoms, especially in areas like mood instability, anxiety, and feeling overwhelmed.

The distribution and severity of urogenital symptoms are shown in Table 2. Urinary urgency and vaginal dryness were the most prevalent urogenital symptoms, with the majority of patients reporting minor symptoms overall.

IMPACT ON QUALITY OF LIFE:

The information demonstrates how menopausal symptoms affect patients' quality of life in six important areas: disruptions in relationships, changes in routine due to discomfort, interference with daily activities, diminished enjoyment of leisure, overall quality of life, and fatigue affecting productivity. 42.33% of replies were from patients who reported modest effects. The most commonly impacted areas in this group were interference with daily tasks and decreased leisure enjoyment (both including 50 patients), suggesting that even if symptoms may not be severe, they nonetheless have a noticeable impact on day-to-day living. It is shown in Table 3.

On average, 26.5% of patients experienced a moderate impact. Relationship



interference (28 patients) and general quality of life (33 patients) had the highest counts in this category, indicating that for some women, menopausal symptoms begin to impact their emotional and social well-being more significantly than just minor discomfort. About 25.84% of patients said their quality of life was unaltered, with productivity (28 patients) and relationships (29 patients) reporting the least disruption. This suggests that some people are either unaffected or successfully managing their symptoms. Only 5.33% of patients experienced significant impacts, and none of them reported severe impacts in any category. Even at this decreased frequency, though, several people encountered significant disruptions to their daily routines, relationships, and functions.

The impact on productivity is shown in Table 4. This analysis shows that even though a sizable portion of people only have mild to moderate symptoms, they might nevertheless have a big impact on day-to-day activities and productivity at work. The information emphasizes how crucial health services and workplace assistance are in assisting in the management of the difficulties brought on by menopausal symptoms.

The distribution of symptom severity in the urogenital, psychological, and somatic categories demonstrates differing degrees of influence on productivity and quality of life, as shown in Table 5. Merely 16% of respondents said they had no somatic problems, 32.6% said they had no psychological symptoms, and 22.25% said they had no urogenital symptoms. Of those in this group, 26.25% reported no impact on productivity, and 25.84% reported no impact on happiness.

In the somatic category, 40.43% of people reported mild symptoms, whereas in the psychological category, 48% reported mild symptoms. In line with this, 46% reported a

slight impact on their productivity, and 42.33% had a mild impact on their quality of life.

For somatic difficulties, 32.7% reported moderate symptoms, 19.7% reported psychological symptoms, and 22.75% indicated urogenital problems. 26.5% of people's quality of life and 24.25% of people's productivity were affected by this degree of severity. The prevalence of severe symptoms was lower, with 6.5% reporting severe urogenital problems, 10.3% expressing severe somatic symptoms, and 4.57% reporting severe psychological symptoms.

At this level, 5.33% reported a major reduction in quality of life, while 3.25% experienced a considerable fall in productivity.

Very severe symptoms were the least recorded, accounting for less than 1% across all categories: 0.57% somatic, 0.43% psychological, and 0.5% urogenital. None of the people in this group had a significant influence on their quality of life, and only 0.25% reported a similar effect on their productivity.

ASSESSMENT OF QUALITY OF LIFE AND PRODUCTIVITY IN POST MENOPAUSAL WOMEN:-

The study analyzed the degree of urogenital, psychological, and somatic symptoms as well as their effects on productivity and quality of life. A statistically significant P value of 0.000389 was found for somatic symptoms, with 16% of participants reporting no symptoms, 40.43% reporting light symptoms, 32.7% reporting moderate symptoms, 10.3% reporting severe symptoms, and 0.57% reporting extremely severe symptoms. With a P value of 0.032, which indicates significance, psychological symptoms were missing in 32.6% of individuals, mild in 42.7%, moderate in 19.7%, severe in 4.57%, and extremely severe in



0.43%. With a statistically significant P value of 0.000361, urogenital symptoms were absent in 22.5% of individuals, mild in 48%, moderate in 22.75%, severe in 6.5%, and extremely severe in 0.5%. A very significant P value of 0.000677 indicates that, about the influence on quality of life, 25.84% of respondents indicated no impact, 42.33% reported mild impact, 26.5% reported moderate impact, 5.33% reported severe impact, and none reported very severe impact. Additionally, with a P value of 0.000204, indicating a significant connection, the influence on productivity was missing for 26.25% of participants, mild for 46%, moderate for 24.25%, severe for 3.25%, and extremely severe for 0.25%.

Discussion:

Assessing risk factors and knowledge, attitude, and perception was the main goal of this study. The study focused on several factors that affect postmenopausal women, with a notable decline in older age groups, and a majority of participants aged 45-49. The majority were married, whereas the percentage of widowed or single people was lower. Many were illiterate, while others had finished elementary or secondary school, and some had college or graduate degrees on their resumes. Menstrual and reproductive histories varied among the individuals, and prevalent co-morbidities included hypothyroidism, diabetes, and high blood pressure. The majority of women worked as housewives; however, some did physically demanding jobs. Obstetric histories varied; some reported no pregnancies or abortions, while the majority had several pregnancies.

In addition to psychological symptoms, including mood swings, anxiety, and sadness, somatic symptoms like hot flashes, exhaustion, joint pain, and sleep difficulties were prevalent. Urinary problems and vaginal dryness were common urogenital symptoms. Relationships, day-to-day activities, and both personal and professional productivity were all negatively

impacted, which had a substantial effect on quality of life. These results highlight how menopause affects women's health and well-being in a variety of ways.

According to Pronob K. Dalal and Manu Agarwal [7], the article mentions a study that examined data from over 90,000 married women aged 15 to 49 in 26 Indian states. According to this study, 3.1% of women were in menopause by the age of 30-34, with the frequency increasing to 8% by the age of 35-39. Furthermore, the report cites a study that involved 30 married women aged 39 to 52 from a moderate socioeconomic category. According to the findings of this study, 89% of women had hot flashes after menopause, as well as backache, weariness, and sleep difficulties[8-14].

The age distribution of postmenopausal women recruited in our study revealed that the majority of participants, 33, were between the ages of 45 and 49. Hot flashes were the most commonly reported symptom, accounting for 40.43% of total responses. Fatigue (56 patients), hot flashes (52 patients), and heart discomfort (47 patients) were the most often reported symptoms at a mild level.

The review by Schneider and Birkhäuser highlights[1] that menopausal symptoms—especially vasomotor, psychological, and urogenital—can significantly impact women's quality of life, even at mild or moderate levels. It emphasizes the role of factors like age, education, and social support, and recommends individualized treatment and psychosocial care.

Most women were aged 45–59, married, and had low education levels. Mild to moderate somatic symptoms (fatigue, joint pain, headaches) and psychological symptoms (mood swings, anxiety) were common. Urogenital issues like vaginal dryness and urinary urgency were also frequent. These symptoms, though not often severe, still disrupted daily life, relationships, and productivity, with 46% reporting reduced work performance and



increased stress.

Finally, both sources agree that even non-severe menopausal symptoms can notably affect quality of life, underlining the need for targeted support and intervention.

Behboodi Moghadam et al[15] observed that PCOS has a significant detrimental impact on several aspects of health-related quality of life (HRQoL), including psychological well-being, physical health, and sexual function. When compared to current data on postmenopausal women, including those with a history of PCOD, similar trends emerge. A significant proportion of these women reported mild to moderate psychological and somatic symptoms, consistent with previous research indicating that PCOS and related reproductive abnormalities might cause long-term psychological and physical health issues. The existence of comorbidities like hypertension and diabetes complicates their health picture, implying a cumulative influence on quality of life. Although severe symptoms were less common, a large proportion of participants reported modest effects on productivity and happiness. This emphasizes PCOS's long-term consequences and the need for personalized treatment models that address both the direct and indirect effects of reproductive health concerns on women's general well-being, including after menopause.

Conclusion:

Post-menopausal women had a significant prevalence of menopausal symptoms, according to the study, which highlights the need for proactive care and more awareness. Of women, 40.43% report mild somatic symptoms such as fatigue, hot flashes, and joint pain, while 32.7% report significant ones. Psychological problems like anxiety and mood swings affect 42.7% of women mildly and 19.7% moderately. With 48% reporting mild symptoms and 22.75% reporting moderate symptoms, urogenital problems such as vaginal dryness and urgency also impact a significant percentage of people. Among women, 42.33% had slight effects and

26.5% experienced moderate disruptions to their quality of life, highlighting the fact that menopausal symptoms are not only common but also have a major influence on everyday functioning, emotional well-being, and productivity.

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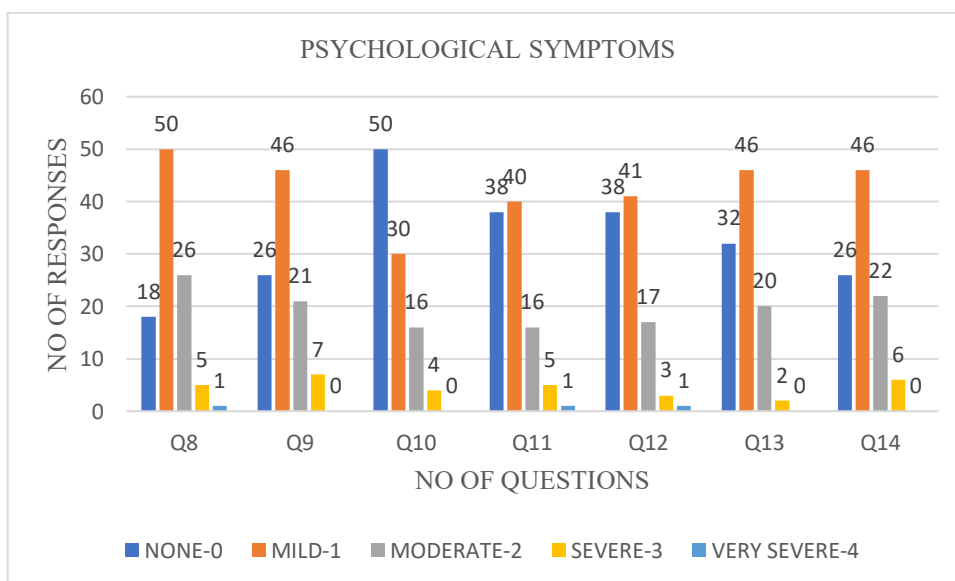


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Table 1: Severity of Psychological Symptoms Among Women in the Study

PSYCHOLOGICAL SYMPTOMS	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Average	Percentage
NONE-0	18	26	50	38	38	32	26	32.57	32.6%
MILD-1	50	46	30	40	41	46	46	42.7	42.7%
MODERATE-2	26	21	16	16	17	20	22	19.7	19.7%
SEVERE-3	5	7	4	5	3	2	6	4.57	4.57%
VERY SEVERE-4	1	0	0	1	1	0	0	0.43	0.43%

Figure 1: Distribution of questions and responses on Psychological Symptoms



- Q8: Intensity of mood swings Q9: Feeling anxious or experiencing panic attacks
- Q10: Ability to concentrate seem impaired Q11: Feelings of sadness
- Q12: Confidence been affected Q13: Feel socially withdrawn
- Q14: Feel overwhelmed

**Table 2: Severity of Urogenital Symptoms Among Women in the Study**

UROGENITAL SYMPTOMS	Q15	Q16	Q17	Q18	AVERAGE	PERCENTAGE
NONE-0	18	21	28	22	22.25	22.25%
MILD-1	55	50	43	44	48	48%
MODERATE-2	20	24	21	26	22.75	22.75%
SEVERE-3	7	5	7	7	6.5	6.5%
VERY SEVERE-4	0	0	1	1	0.5	0.5%

Q15: Severity of vaginal dryness or discomfort

Q16: Experiencing increased urinary frequency or urgency

Q17: Experiencing urinary incontinence

Q18: Painful or uncomfortable in urination

Table 3:- Impact of Menopausal Symptoms on Quality of Life

IMPACT ON QUALITY OF LIFE	Q19	Q20	Q21	Q22	Q23	Q24	AVERAGE	PERCENTAGE
NONE	23	22	27	28	29	26	25.84	25.84%
MILD	50	50	35	44	36	39	42.33	42.33%
MODERATE	24	24	33	22	28	28	26.5	26.5%
SEVERE	3	4	5	6	7	7	5.33	5.33%
VERY SEVERE	0	0	0	0	0	0	0	0

Q19- Interfering with their daily activities

Q20 -Enjoyment of leisure activities is reduced due to menopausal symptoms.

Q21 -The Severity of the overall quality of life has been impacted

Q22 -Tiredness reduces their productivity at work or home.

Q23 - The Significance of menopausal symptoms interfered with their relationships with others.

Q24 - Adjustment of routine due to menopausal discomfort.

Table 4: Impact of Menopausal Symptoms on Productivity

IMPACT ON PRODUCTIVITY	Q25	Q26	Q27	Q28	AVERAGE	PERCENTAGE
NONE	24	23	29	29	26.25	26.25%
MILD	46	57	41	40	46	46%
MODERATE	25	17	28	27	24.25	24.25%
SEVERE	5	2	2	4	3.25	3.25%
VERY SEVERE	0	1	0	0	0.25	0.25%

Q25- Menopausal symptoms affected their ability to meet work and deadlines

Q26-Felt less efficient or productive at work or home due to menopause

Q27- Work or activity they missed each month due to menopause-related symptoms

Q28- Menopausal symptoms increased stress at work or in daily life



Table 5:- Intensity of Somatic, Psychological, and Urogenital Symptoms on Quality of Life and

	SOMATIC SYMPTOMS	PSYCHOLOGICAL SYMPTOMS	UROGENITAL SYMPTOMS	IMPACT ON QUALITY OF LIFE	IMPACT ON PRODUCTIVITY
NONE	16%	32.6%	22.25%	25.84%	26.25%
MILD	40.43%	42.7%	48%	42.33%	46%
MODERATE	32.7%	19.7%	22.75%	26.5%	24.25%
SEVERE	10.3%	4.57%	6.5%	5.33%	3.25%
VERY SEVERE	0.57%	0.43%	0.5%	0	0.25%

Productivity

Table 6:-Distribution of Assessment of Quality of Life and Productivity in Post Menopausal Women

Symptoms	None	mild	moderate	severe	Very severe	P value
Somatic Symptoms	16%	40.43%	32.7%	10.3%	0.57%	0.000389
Psychological Symptoms	32.6%	42.7%	19.7%	4.57%	0.43%	0.032
Urogenital Symptoms	22.5%	48%	22.75%	6.5%	0.5%	0.000361
Impact On Quality Of Life	25.84%	42.33%	26.5%	5.33%	0	0.000677
Impact On Productivity	26.25%	46%	24.25%	3.25%	0.25%	0.000204