

Menopausal Symptoms Affecting Productivity and Occupational Needs of Peri-Menopausal Women in a Private University, Philippines

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Abstract

Objective

This study aimed to explore the respondents' reproductive health profiles, examining the physiological and psychosocial perimenopausal symptoms affecting productivity, and identifying occupational needs. It also determined the relationship between menopausal symptoms and the productivity and occupational needs of peri-menopausal women.

Methodology

A descriptive cross-sectional design was used, surveying 50 women over 40 years old with a validated four-point Likert scale instrument. The instrument undergone content validation, reliability test, and ethical approval. Survey was administered personally and online using purposive sampling. Statistical treatments included weighted mean, F-test, T-test, Pearson r correlation, and ranking.

Key results

The majority of participants had their first menstruation between 11 to 15 years old and experienced regular menstrual cycles. Most had one child, with an equal number of cesarean and normal deliveries, and reported no pregnancy complications. The study found that participants seldom experienced physiological and psychosocial menopausal symptoms. They agreed on the occupational needs during the perimenopausal period. It was found that physiological symptoms were influenced by factors such as early menarche, cesarean delivery, and pregnancy complications. Additionally, psychosocial symptoms varied based on menstrual status, the number of children, and pregnancy complications, with those experiencing earlier menstruation or complications reporting more intense symptoms. The study revealed a significant relationship between both physiological and psychosocial perimenopausal symptoms, which negatively impacted productivity and increased occupational needs. Women with higher menopausal symptoms expressed a greater need for workplace policies that support perimenopausal women, highlighting the need for tailored workplace interventions for this demographic.

Future Direction

The study recommends including pap smears and mammograms in annual exams for peri-menopausal women, offering awareness seminars on managing perimenopausal symptoms to reduce workplace disruptions, and suggests future research exploring additional variables affecting perimenopausal women's health and productivity

Introduction

Menopause is characterized by reduced ovarian function and declining estrogen levels, typically occurring between the mid-30s and mid-50s. A woman is considered to be in menopause after not having her period for 12 consecutive months [1]. Factors such as reproductive history, lifestyle, and environment significantly influence a woman's health during the perimenopausal phase. Perimenopausal and post-menopausal symptoms can disrupt both personal and professional lives, affecting overall well-being and quality of life. These multi-year changes can influence physical, emotional, mental, and social health [2].

Reproductive health includes both the physical and emotional adjustments during this transition [3]. Perimenopausal women often face numerous medical and psychological challenges, with some experiencing debilitating symptoms that negatively affect their work performance and productivity [4]. Studies have shown that women with severe menopausal symptoms tend to take more sick leave, face decreased motivation, and may consider changing careers, reducing work hours, or quitting [5,6]. These symptoms, including hot flashes and fatigue, call for workplace adjustments to support women during this transition [7]. Research also suggests that workplace modifications—such as improved ventilation, temperature control, rest areas, and ergonomic considerations—are crucial for creating menopause-friendly environments [8]. According to Kalhan (2020), 87.7% of women report experiencing menopausal symptoms, with anxiety, fatigue, sleep disturbances, and irritability being the most common. Additionally, 51.4% of women in menopause report a low quality of life [9]. To improve these women's well-being, understanding and addressing factors impacting their quality of life is vital.

While extensive research has been conducted on menopause, gaps in knowledge remain, especially in the Philippines. The relationship between menopausal symptoms, workplace productivity, and occupational needs has yet to be thoroughly explored. This study aims to fill this gap by investigating the reproductive health profiles of perimenopausal women, the impact of their symptoms on productivity, and their perceived occupational needs.

The research objectives include understanding the respondents' reproductive health profiles, examining the physiological and psychosocial perimenopausal symptoms affecting productivity, and identifying occupational needs. It also seeks to determine if there are significant differences in these symptoms and needs based on reproductive health factors, as well as the relationship between symptoms, productivity, and occupational needs.

This study benefits perimenopausal women by increasing awareness of how menopause impacts their workplace performance. It also provides valuable insights for school administrators and human resources departments to implement policies and practices that support middle-aged women during this transitional phase. Raising awareness and implementing workplace accommodations can help enhance the productivity and well-being of perimenopausal women in various professional environments.

Methodology

This study which aims to correlate the perimenopausal symptoms and the occupational needs of women from teaching and non-teaching personnel in a selected private university in the Philippines. It utilized

descriptive cross-sectional design. The sources of data are the respondents to whom the questionnaire was given and the secondary sources from which related literature and studies came from published journals, articles, books and other internet sources.

The total population of women above 40 years old (perimenopausal age) was 119. Fifty (50) respondents participated in the survey. According to Fraenkel and Wallen (2010), the minimum respondents needed for descriptive correlation is at least 50 respondents. Purposive sampling was used using the following criteria: women should be 40 -60 years old, not yet menopause and belong to the teaching and non-teaching personnel of the selected university.

The researcher developed a 3-part questionnaire consisting of Part 1, profile of the respondents, Part 2 consists of the physiological and psychosocial perimenopausal symptoms experienced by the respondents and Part 3 consists of the occupational needs of the respondents. A four-point Likert scale instrument was used by the researcher to measure the given variables. The research instrument undergone content validation by experts in research, statistics and nutrition. Cronbach's alpha was also calculated to ensure reliability of the questionnaire, an alpha value of 0.841 for physiological symptoms indicators; 0.863 for psychosocial symptoms indicators and 0.907 for occupational needs with the interpretation of excellent. Floating of questionnaires was done in two ways: personal and using Google forms. A statement in regards to the informed consent of participants was incorporated in the survey questionnaire.

Results and Discussion

The following tables were arranged based on the objectives of the study mentioned in the Introduction.

Table 1 shows the profile of the respondents in terms of their gynecological and obstetrical profile. Majority of the respondents' menarche is 11-to 15 years old with a frequency of 39 or 78 percent and 50% with regular menstruation while 43% have irregular menstruation. In terms of obstetrical performance, majority have only 1 child with equal number or 44 percent caesarian and normal delivery. Majority or 52 percent also did not pose any complications during their pregnancy period while 14% experienced hypertension, 12% were anemic and 8 percent eclampsia.

Table 2 shows the physiological symptoms of menopause that may affect the productivity of the respondents. The physiological symptoms got an average weighted mean of 2.23 interpreted as Seldom. This means that the respondents seldom feel physiological symptoms of menopause except aching muscles and joints and feeling tired than usual.

According to Sharma et al. (2021), the majority of postmenopausal women experienced moderate menopausal symptoms, which is consistent with findings from earlier national studies conducted in Nepal. This, however, ran counter to the findings of the study by Choijamts et al. (2022), which shown that perimenopausal women were more likely than postmenopausal women to experience health issues such as weight increase, cardiovascular symptoms, and vasomotor symptoms. As people aged, genitourinary health issues became more common.

Table 3 shows the psychosocial symptoms of menopause which may affect the productivity of the respondents. The physiological symptoms got an average weighted mean of 1.92 interpreted as Seldom. This means that the respondents seldom feel psychosocial symptoms of menopause.

In contrast, the study by Ali et al. (2020) found that psychological discomfort is common among women going through menopause and is linked to vasomotor symptoms, exhaustion, and changes in body composition (obesity). A significant correlation between negative views toward menopause and psy-

Table 1. The Reproductive Health Profile of the Respondents

Reproductive Health Profile		Frequency	Percentage
Menarche	< 11	4	8.00
	11-15	39	78.00
	> 15	7	14.00
Current menstrual status	Regular	25	50.00
	Irregular	2	4.00
	Menopause	23	46.00
Number of children	0-1	37	74.00
	2-3	13	26.00
Type of delivery	Normal	22	44.00
	Ceasarian	22	44.00
	NA	6	12.00
Pregnancy complications	Anemia	6	12.00
	Eclampsia	4	8.00
	Hypertension	7	14.00
	None	26	52.00
	NA	7	14.00
Total Number of Respondents: 50			

Table 2. The Peri-menopausal Symptoms Affecting the Respondents' Level of Productivity in the Workplace: Physiological Aspect

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. I have hot flashes.	2.37	Seldom	3
2. I have difficulty getting to sleep.	2.33	Seldom	4
3. I have difficulty staying asleep.	2.16	Seldom	7.5
4. I get heart palpitations or a sensation of butterflies in my stomach.	1.88	Seldom	10
5. I feel more tired than usual.	2.37	Seldom	2
6. I have difficulty concentrating.	2.16	Seldom	7.5
7. My memory is poor.	1.96	Seldom	9
8. I have headaches.	2.27	Seldom	6
9. Aching muscles and joints.	2.55	Often	1
10. Decreased strength and stamina.	2.31	Seldom	5
Average	2.23	Seldom	

Table 3. The Peri-menopausal Symptoms Affecting the Respondents' Level of Productivity in the Workplace: Psychosocial Aspect

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. I have crying spells.	1.51	Never	8
2. I am more irritable than usual.	2.18	Seldom	1
3. I feel more anxious and nervous than usual.	1.92	Seldom	4
4. I accomplish less than I used to.	2.12	Seldom	2
5. I am having mood swings.	2.04	Seldom	3
6. I feel dissatisfied with my personal life.	1.82	Seldom	7
7. I am being impatient with other people.	1.88	Seldom	6
8. Feeling wanting to be alone	1.90	Seldom	5
Average	1.92	Seldom	

Table 4. The Occupational Needs of Women in Peri-menopausal Age as Perceived by the Respondents

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. Workplace temperature and ventilation affects my teaching performance.	3.24	Agree	4
2. I need flexible working hours (not too early and not too late schedules) to maintain my performance in the workplace.	2.96	Agree	7
3. I need easy access to wash room facilities and toilets, including when travelling or working in temporary locations.	3.22	Agree	5
4. I need flexibility in uniform that might include the use of thermally comfortable fabrics and optional layers like blazers.	2.84	Agree	9
5. Where work requires constant standing or prolonged sitting, having access to a rest room (e.g. to sit during work breaks) would be helpful.	3.08	Agree	6
6. I need an elevator or access to ground floor rooms to manage my aching muscles and joints.	2.59	Agree	10
7. Training should be provided for employees and managers to raise awareness and convey that the menopause can present difficulties for some women at work.	3.33	Strongly Agree	3
8. I need access to cold drinking water in all work situations, including off site venues.	2.94	Agree	8
9. Some test for women such as pap smear and mammogram should be included as part of the annual physical exam.	3.67	Strongly Agree	2
10. Cervical vaccine and the likes should be provided for peri-menopausal women.	3.76	Strongly Agree	1
Average	3.16	Agree	

chological symptoms as well as vasomotor symptoms is evident. Therefore, menopausal women's mental health may be improved and dealing with the midlife transition may be encouraged by interventional treatments that address psychological suffering. Additionally, Afridi (2017) states that screening is necessary for a number of mental health disorders, including anxiety, depression, and premenstrual dysphoric syndrome, which are associated with the premenopausal period. To prevent problems, psychosocial interventions, particularly lifestyle changes, must be delivered prior to starting pharmacological treatment. Coadjuvant therapy is one sort of treatment that has been shown to be beneficial and should be used to help women with these issues live better lives. Therefore, a preventative and multidisciplinary approach may be crucial [10]. Table 4 shows the Occupational needs of women in peri-menopausal age as perceived by the respondents. The respondents agree on the stated indicators about

Table 5. Difference on the Respondents' Peri-menopausal Symptoms in terms of Physiological Aspect Affecting the Level of Productivity when grouped according to Reproductive Health Profile

Reproductive Health Profile		Mean	Test statistic	Interpretation
Menarche	< 11	3.00	F=3.840 p=0.029*	Significant (between < 11 & 11-15)
	11-15	2.18		
	> 15	2.43		
Current menstrual status	Regular	2.50	F=3.159 p=0.052	Not Significant
	Irregular	2.00		
	Menopause	2.09		
Number of children	0-1	2.22	t=-1.409 p=0.165	Not Significant
	2-3	2.50		
Type of delivery	Normal	2.18	t=-3.612 p=0.001*	Significant
	CS	2.67		
	NA			
Pregnancy complications	(1) Anemia	2.00	F=12.390 p=0.000*	Significant (between 1&2, 1&3, 2&4, 3&4)
	(2) Eclampsia	3.00		
	(3) Hypertension	3.00		
	(4) None	2.27		
	NA			

*Significant @ 0.05

their occupational needs during perimenopausal age based on the average weighted mean of 3.16 interpreted as Agree. First on the rank is indicator 10 which states that Cervical vaccine and the likes should be provided for peri-menopausal women. Ranking second is indicator 9 which states that some test for women such as pap smear and mammogram should be included as part of the annual physical exam. Ranking 3rd is indicator which states that training should be provided for employees and managers to raise awareness and convey that the menopause can present difficulties for some women at work.

According to the findings of a study by D'Angelo (2022), around one-third of women said that menopausal symptoms caused them to have moderate to severe difficulties managing at work. Financial hardship, lower self-rated health, depression, and unfavorable psychosocial occupational characteristics—but not physical demands—were risk factors for having trouble coping at work. Employers in all industries need to be more conscious, but women who are struggling financially and who work in professions where they feel unappreciated, insecure, or unsatisfied are most at danger.

Table 5 shows the difference on the respondents' peri-menopausal symptoms in terms of physiological aspect affecting the level of productivity when grouped according to reproductive health profile. There was a significant difference on the physiological symptoms in terms of menarche or the age when first menstruation occur (p=0.029), type of delivery (p=0.001) and the complications experienced (p=0.000) by the respondents during their pregnancy period. This means that the physiological symptoms experienced by the respondents are dependent on this profile variables. Those with an early menarche or the first onset of menstruation (<11yo), those who had caesarian delivery and those who experienced pregnancy complications also experienced physiological perimenopausal symptoms early. According to Gynecol (2015), nulliparity has also been linked to early menopause, and an early menarche has also

been linked to early menopause. Conversely, the median age at menopause was nearly 51 years, and age at menopause was nearly independent of age at menarche in a large population study of 336 788 women in Norway. Accordingly, the reproductive period was often several years longer for women who menarched early than for those who did so later [11].

Table 6 shows the difference on the respondents' peri-menopausal symptoms in terms of psychosocial aspect which may affects the level of productivity when grouped according to reproductive health profile. There is a significant difference on the psychosocial symptoms when respondents are grouped according to menstrual status ($p=0.000$), number of children ($p=0.026$) and pregnancy complications ($p=0.003$). This means that the psychosocial symptoms experienced by the respondents are dependent on these profile variables. Those who have irregular menstruation, those who have more children and those who experience complications during their pregnancy period are more likely to experienced peri-menopausal symptoms.

Similarly, a study by Saharami (2022) found a strong correlation between reproductive traits and the physical, psychological, and urogenital menopausal symptoms. Higher somatic symptoms ($\beta = 0.212$, $p = 0.005$) were more common in women with a history of abortion ($\beta = 0.119$, $p = 0.009$), psychological ($\beta = 0.230$, $p = 0.002$), and having more children than in those without.

Table 7 shows the Difference on the Respondents' Perceived Occupational Needs when grouped according to Reproductive Health Profile. There is no significant difference on the occupational needs of the respondents when they are grouped according to profile variables. This means that the occupational needs of the respondents are the same when they are grouped according to their profile variables.

This contradicts to a research by D'Angelo (2022), which found that almost one-third of women had moderate to severe menopausal symptoms that made it difficult for them to cope at work. Financial hardship, lower self-rated health, depression, and un favourable psychosocial occupational characteristics—but not physical demands—were risk factors for having trouble coping at work. Employers in all industries need to be more conscious, but women who are struggling financially and who work in professions where they feel unappreciated, insecure, or unsatisfied are most at danger.

Table 8 shows the relationship between the respondents' perimenopausal symptoms affecting the level of productivity and occupational needs. This shows that there is a significant relationship between the respondents' perimenopausal symptoms both physiological and psychosocial symptoms which affects their level of productivity and their occupational needs. Respondents who experienced greater perimenopausal symptoms have higher occupational needs. There is a greater need for policy implementation in the workplace that would benefit perimenopausal women.

Future workforce policy needs to be focused on supporting women who are doing the poorest paid jobs and have the greatest risk of poor health because of their deprived circumstances [12].

Summary of findings

Based on the findings of this study, the following conclusions were drawn:

- Majority of the respondents' menarche is 11-to 15 years old and with regular menstruation. In terms of obstetrical performance, majority have only 1 child with equal number of caesarian and normal delivery. Majority did not pose any complications during their pregnancy period.
- The respondents seldom feel physiological and psychosocial symptoms of menopause.

Table 6. Difference on the Respondents' Peri-menopausal Symptoms in terms of Psychosocial Aspect Affecting the Level of Productivity when grouped according to Reproductive Health Profile

Reproductive Health Profile		Mean	Test statistic	Interpretation
Menarche	< 11	2.50	F=1.957 p=0.153	Not Significant
	11-15	1.87		
	> 15	2.14		
Current menstrual status	(1) Regular	2.42	F=20.562 p=0.000*	Significant (between 1&3)
	(2) Irregular	2.00		
	(3) Menopause	1.48		
Number of children	0-1	1.84	t=-2.304 p=0.026*	Significant
	2-3	2.33		
Type of delivery	Normal	1.86	t=-1.941 p=0.059	Not Significant
	CS	2.24		
	NA			
Pregnancy complications	(1) Anemia	1.67	F=5.458 p=0.003*	Significant (between 1&2, 2&4)
	(2) Eclampsia	3.00		
	(3) Hypertension	2.33		
	(4) None	1.92		
	NA			

*Significant @ 0.05

Table 7. Difference on the Respondents' Perceived Occupational Needs when grouped according to Reproductive Health Profile

Reproductive Health Profile		Mean	Test statistic	Interpretation
Menarche	< 11	3.50	F=1.201 p=0.310	Not Significant
	11-15	3.18		
	> 15	2.86		
Current menstrual status	Regular	3.25	F=0.379 p=0.687	Not Significant
	Irregular	3.00		
	Menopause	3.09		
Number of children	0-1	3.16	t=-0.020 p=0.985	Not Significant
	2-3	3.17		
Type of delivery	Normal	3.32	t=-0.104 p=0.918	Not Significant
	CS	3.33		
	NA			
Pregnancy complications	(1) Anemia	3.33	F=0.176 p=0.912	Not Significant
	(2) Eclampsia	3.50		
	(3) Hypertension	3.33		
	(4) None	3.31		
	NA			

Significance level @ 0.05

Table 8. Relationship between the Respondents' Perimenopausal Symptoms Affecting the Level of Productivity and Occupational Needs

Perimenopausal Symptoms	Pearson r value	p-value	Interpretation
Physiological aspect	0.481** Moderate correlation	0.000	Significant
Psychosocial aspect	0.329* Low correlation	0.021	Significant
**Significant @ 0.01; *Significant @ 0.05			

- The respondents agree on the stated indicators pertaining to their occupational needs during perimenopausal period.
- The physiological symptoms experienced by the respondents are dependent on their menarche, delivery method and pregnancy complications. Those who have an early menarche or the first onset of menstruation (<11yo), those who had caesarian delivery and those who experienced pregnancy complications also experienced physiological perimenopausal symptoms.
- There is a significant difference on the psychosocial symptoms when respondents are grouped according to menstrual status, number of children and pregnancy complications. This means that the psychosocial symptoms experienced by the respondents are dependent on these profile variables. Those who have an early onset of menstruation or menarche, those with greater number of children and those who experienced pregnancy complications experienced perimenopausal symptoms.
- There is a significant relationship between the respondents' perimenopausal symptoms both physiological and psychosocial symptoms which affects their level of productivity and their occupational needs. The higher their perimenopausal symptoms, the higher their occupational needs or the higher the need for policy implementation on the workplace that would benefit the perimenopausal women.

Conclusion

Perimenopausal women face unique health challenges, including weight gain, cardiovascular issues, and vasomotor symptoms, which can impact their well-being and productivity in the workplace. As these women are more likely to experience significant health-related difficulties compared to their postmenopausal counterparts, it is crucial that employers recognize and address these challenges through supportive policies. The implementation of psychosocial interventions, such as lifestyle changes, alongside flexible work arrangements, health education, and workplace wellness programs, can help mitigate the impact of perimenopausal symptoms. By creating an inclusive and supportive work environment, employers can not only improve the well-being of these women but also foster a more resilient and diverse workforce.

Future Direction

Based on the ranks of the occupational needs preferred by the respondents, the following are suggested:

- The administrator should integrate a health and wellness policy for employees that includes specific tests for women, such as a pap smear and mammogram, as part of the annual physical exam for women of peri-menopausal age. This proactive approach will help ensure early detection of potential health issues and promote overall well-being for this demographic.

- The training department should organize awareness seminars focused on perimenopausal symptoms and strategies for managing them. These seminars can help women better understand and cope with the physical and psychosocial challenges of perimenopause, reducing disruptions in the workplace and maintaining productivity.
- Future researchers are encouraged to conduct similar studies on perimenopausal women with greater number of respondents, and exploring additional variables not covered in this study. This would broaden the understanding of the factors influencing perimenopausal symptoms and their impact on women's work and health, leading to more comprehensive strategies for supporting women in the workplace.

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