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Efficacy of Health Interventions and Awareness Programs Related to the Pre-Menopausal Phase and The Impact on Quality of Life

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Abstract: ***The pre - menopausal phase brings several hormonals, physical, and psychological changes that can significantly affect a woman's quality of life. Common symptoms during this period include mood swings, anxiety, sleep disturbances, and reduced concentration. These changes are largely due to a decline in estrogen and progesterone levels. Yoga and meditation have shown positive effects in managing such psychological symptoms by promoting relaxation and mental well - being. This study was conducted to evaluate the effectiveness of yoga and meditation in improving knowledge and psychological health among pre - menopausal women in rural areas of Jamnagar, Gujarat. A one - group pre - test post - test design was used. In the pre - test, 68.33% of participants had poor knowledge about yoga and meditation's benefits, while only 10% had good knowledge. After providing a self - instructional module, post - test results showed significant improvement, with 31.67% attaining good knowledge. Statistical analysis ($t = - 13.41$, $p < 0.05$) confirmed the effectiveness of the intervention. Among demographic variables, a significant association was found only with prior knowledge. The study concludes that structured educational tools like yoga and meditation modules can play a crucial role in enhancing awareness and managing psychological symptoms in pre - menopausal women.***

Keywords: Self - instructional module, Premenopausal phase, elderly women, knowledge, efficacy

1. Introduction

Women's health undergoes various changes throughout their life, especially during the transition from reproductive to non - reproductive phases. One such significant phase is the pre - menopausal period, which typically occurs between the ages of 35 to 50. This period is marked by hormonal imbalances due to a gradual decline in estrogen and progesterone levels, leading to both physical and psychological symptoms. Common psychological challenges include mood swings, irritability, anxiety, sleep disturbances, memory issues, and reduced concentration. If unmanaged, these symptoms can affect the overall quality of life of women. In rural areas, awareness about this natural transition and ways to manage it remains limited. Among the available interventions, yoga and meditation have gained attention for their potential to reduce stress, enhance emotional balance, and promote overall mental well - being. These practices are safe, non - invasive, and culturally acceptable in Indian settings. The present study aims to assess the effectiveness of yoga and meditation therapy in managing psychological changes during the pre - menopausal phase. The study was conducted among elderly women in selected rural areas of Jamnagar, Gujarat, with the goal of improving their knowledge and psychological health through a structured self - instructional module.

2. Background of the Problem

Menopause is a significant physiological milestone in a woman's life that marks the end of reproductive ability, typically occurring between the ages of 45 and 55. The transitional period leading up to menopause, known as the perimenopausal phase, is often accompanied by a range of physical and psychological symptoms. These include hot flashes, sleep disturbances, irritability, mood swings, anxiety, and depression. These symptoms can vary in intensity and duration, significantly affecting the daily functioning and quality of life of women. In rural areas, especially in places like Jamnagar, Gujarat, awareness about menopause and its psychological implications remains limited. Many women endure these symptoms silently, without access to proper guidance or therapeutic support. While hormone therapy and medications are available, their side effects have prompted many to explore non - pharmacological alternatives**.** Among these, yoga and meditation have emerged as effective mind - body interventions. These practices enhance emotional stability, reduce stress, and promote mental clarity. Scientific studies increasingly support their role in managing menopausal symptoms naturally. Considering the rising need for accessible and safe therapies, this study explores the effectiveness of yoga and meditation in improving the psychological well - being of elderly pre - menopausal women in rural Jamnagar.

2.1 Statement of the Problem

"This study aims to evaluate the effectiveness of a self - instructional module on yoga and meditation therapy in enhancing knowledge and alleviating psychological symptoms among pre - menopausal women in selected rural areas of Jamnagar, Gujarat."

2.2 Objective of the Study

1) To assess the pre - test level of knowledge regarding yoga and meditation therapy on psychological changes during the premenopausal phase among elderly women in selected rural areas of Jamnagar, Gujarat.
2) To assess the post - test level of knowledge regarding yoga and meditation therapy on psychological changes during the premenopausal phase among elderly women in selected rural areas of Jamnagar, Gujarat.

3) To evaluate the effectiveness of the self - instructional module on yoga and meditation therapy in improving knowledge about psychological changes during the premenopausal phase among elderly women in selected rural areas of Jamnagar, Gujarat.
4) To determine the association between post - test knowledge levels and selected demographic variables of elderly women in selected rural areas of Jamnagar, Gujarat.

2.3 Hypothesis of the Study

H1: There will be a significant difference between the pre - test and post - test levels of knowledge regarding yoga and meditation therapy on psychological changes during the premenopausal phase among elderly women in selected rural areas of Jamnagar, Gujarat.

H2: There will be a significant association between the post - test knowledge levels and selected demographic variables of elderly women in selected rural areas of Jamnagar, Gujarat

3. Method

3.1 Design and Setting

Pre - experimental research design the study was conducted in rural areas of Jamnagar, Gujarat.

3.2 Sample Size and Sampling Technique

The study comprised 60 elderly women students who were selected through a convenience sampling technique. These participants were chosen based on their availability and willingness to participate

3.3 Assessment tools

The most critical part of any research is gathering appropriate information that effectively addresses the study's objectives. For the present study, a carefully constructed tool was selected to collect relevant data.

Structured Knowledge Questionnaire
Considering the study setting and characteristics of the participants, the investigator developed a self - administered structured knowledge questionnaire. This tool was designed to assess elderly women's knowledge regarding the effects of yoga and meditation on psychological changes during the premenopausal phase.

Scoring Procedure
The questionnaire was divided into three sections to systematically assess the participants' knowledge:

- **Section I:** Personal information of respondents including age, religion, education, marital status, family type, and previous knowledge about the subject.
- **Section II:** Knowledge items regarding yoga and meditation's impact on psychological changes during the premenopausal phase. This section contained 30 questions, each carrying one mark for a correct answer and zero for a wrong answer, with a maximum possible score of 30.

The questions addressed various content areas and cognitive levels (Knowledge, Comprehension, and Application), divided into six subcategories:

- Menopause (Q1 - 6)
- Causes, symptoms, and complications (Q7 - 15)
- Yoga and meditation (Q16 - 22)
- Diet (Q23 - 28)
- Non - pharmacological management (Q29)
- World Menopause Day (Q30)

Knowledge Level Classification:

- Good Knowledge: 21–30 marks
- Average Knowledge: 11–20 marks
- Poor Knowledge: 0–10 mark

3.4 Validity and reliability

Content validation ensures that the items in a tool adequately represent the construct being measured. It is essential for both affective and cognitive assessments. The structured knowledge questionnaire, along with the study's objectives and statements, was submitted to a panel of five experts holding a Master of Nursing degree specializing in Obstetrics and Gynaecological Nursing. The tool was developed under the guidance of the research guide and co - guide to ensure clarity and ease of understanding for the respondents. The initial draft of the questionnaire consisted of 30 knowledge - based items. The investigator requested the experts to evaluate the tool for relevance, objectivity, and appropriateness of the content areas. Expert feedback and suggestions were incorporated, resulting in modifications and rearrangement of items to enhance the tool's validity.

Reliability measures the consistency, accuracy, and adequacy of a tool. To ensure the reliability of the structured knowledge questionnaire, it was tested before and after the pilot study. The tool was administered to a sample of 20 women. The internal consistency of the questionnaire was assessed using the split - half method and Spearman - Brown prophecy formula. The reliability coefficient obtained was 0.8, indicating good reliability and internal consistency of the tool

3.5 Data Collection Procedure

Data collection is a vital process in research, involving the systematic gathering of information to address the identified research problem. In the present study, a validated structured knowledge questionnaire was utilized to collect data on the effects of yoga and meditation on psychological changes experienced during the premenopausal phase. Prior to data collection, the researcher clearly explained the objectives and significance of the study to all participants. Emphasis was placed on the importance of responding to the questionnaire with accuracy and honesty. Informed written consent was obtained from each participant, ensuring ethical adherence and voluntary participation. The structured questionnaire was then distributed to the participants and collected upon completion. Daily verification of collected data was carried out to ensure completeness and accuracy. In instances where data were incomplete or missing, the researcher revisited the participants the following day to rectify any discrepancies, thereby maintaining the reliability and validity of the dataset.

4. Result

4.1.1 Demographic Value/Age Group (N=60)

Table 4.1.1: Showing age group of elderly women

S. No.	Age Group	Frequency	Percentage (%)
1.	36 to 40 years	29	48.33
2.	41 to 45 years	29	48.33
3.	46 to 50 years	2	3.33
TOTAL		60	100 %

Regarding age group of 36 to 40 years 29 (48.33%), 41 to 45 years 29 (48.33%), 46 to 50 years 2 (3.33%). Majority of elderly women comes under 36 to 45 years and minority of premenopausal women comes under 46 to 50 years.

4.1.2 Demographic Variable / Religion (N=60)

Table 4.1.2: Showing Demographic Variable / Religion

SR. NO.	Religion	Frequency	Percentage (%)
1.	Hindu	60	100
2.	Muslim	-	-
3.	Christian	-	-
4.	Other	-	-
TOTAL		60	100%

Regarding the religion all of elderly women Hindu 60 (100%). Muslim, Christian and others are no including any elderly women. Majority elderly women come under the Hindu.

4.1.3 Demographic Variable/ Educational Status (N=60)

Table 4.1.3: Showing educational status of the elderly women

Sr. No.	Educational Status	Frequency	Percentage (%)
1.	Studied below 10^{th}	10	16.66
2.	10^{th} pass	27	45.00
3.	12^{th} pass	23	38.33
4.	Illiterate	-	-
TOTAL		60	100%

Regarding the educational status of elderly women, studied below 10^{th} 10 (16.66%), 10th pass 27 (45.00%), 12th pass 23 (38.33%) and illiterate 0 (0.00%). Majority of elderly women comes under 10th pass educational status and minority of elderly women comes under studied below 10^{th} educational status.

4.1.4 Demographic Variable/Marital Status (N=60)

Table 4.1.4: Showing marital status of elderly women

S. No.	Marital Status	Frequency	Percentage (%)
1.	Married	40	66.66
2.	Unmarried	12	20.00
3.	Widow	6	10.00
4.	Divorce	2	3.33
TOTAL		60	100%

Regarding the marital status of elderly women, married 40 (66.66%), unmarried 12 (20.00%), widow 6 (10.00%), divorce 2 (3.33%). Majority of women marital status married and minority of women marital status divorce.

4.1.5 Demographic Variable/Types of Family (N=60)

Table 4.1.5: Showing types of family of elderly women

Sr. No.	Types of Family	Frequency	Percentage
1.	Nuclear	50	83.33
2.	Joint	10	16.66
TOTAL		60	100%

Regarding the elderly women`s type of family. Nuclear 50 (83.33%), Joint 10 (16.66%). Majority of elderly women are nuclear type of family and minority of elderly women are joint type of family.

4.1.6 Demographic Variable/Previous Knowledge (N=60)

Table 4.1.6: Showing previous knowledge of elderly women

Sr. No.	Previous Knowledge	Frequency	Percentage
1.	Yes	8	13.33
2.	No	52	86.66
TOTAL		60	100%

Regarding the elderly women's previous knowledge. Yes 52 (86.66%). No 8 (13.33%). Majority of the elderly women have No previous knowledge and minority have previous knowledge.

Section 4.2: Assess Pre - Test and Post - Test Level of Score of Samples Knowledge Regarding Effectiveness of Yoga and Meditation. (N=60)

4.2.1 Pre - Test Level of Knowledge Regarding Effectiveness of Yoga and Meditation

Table 4.2.1: Pre - test level of knowledge regarding effectiveness of yoga and meditation

Level of Knowledge	Score	Frequency (f)	Percentage (%)	Mean	SD
Good	21 - 30	06	10%	15.34	1.84
Average	11 - 20	13	21.66%		
Poor	00 - 10	41	68.33%		
TOTAL		60	100%		

In pre - test knowledge majority of elderly women had poor knowledge 41 (68.34%). A very few of the sample had average knowledge 13 (21.67%) where the level knowledge in good range 06 (10%). In this present study the mean and standard deviation in pre - test assessment score was 9.32 (SD=2.26),

4.2.2 Post - Test Level of Knowledge Regarding Effectiveness of Yoga and Meditation. (N=60)

Table 4.2.2: Post - test level of knowledge regarding effectiveness of yoga and meditation

Level of Knowledge	Score	Frequency (f)	Percentage (%)	Mean	SD
Good	21 - 30	19	31.67	15.34	1.84
Average	11 - 20	22	36.67		
Poor	00 - 10	19	31.67		
TOTAL		60	100%		

In post - test knowledge majority of elderly women had good knowledge 19 (31.67%) a very few of the sample had average knowledge 22 (36.67%) where the level of knowledge in poor range 19 (31.67%). In this present study the mean and

standard deviation in post - test assessment score was 15.34 (SD=1.84).

Section 4.3 The Effectiveness of Structured Teaching Programme among Elderly Women on Psychological Changes during Pre - Menopausal Phase Knowledge by Comparing the Pre - Test and Post - Test Assessment Score. (N=60)

Table 4.3.1: The effectiveness of structured teaching programme among elderly women on psychological changes during pre - menopausal phase knowledge by comparing the pre - test and post - test assessment score.

Knowledge Score	Mean	SD	t' Value	DF
Pre - test	9.32	2.26	13.41	59
Post - test	15.34	1.84		

Calculated value is t = (-13.41) The P value is (0.05) which is less than P = 2.00 so there is a significant between pre - test and post - test knowledge among elderly women on psychological changes during pre - menopausal phase at 59 degrees of freedom. Consequently, the true hypothesis (HI) is accepted

Section 4.4 Association between the Post Test Level of Knowledge of Elderly Women on Psychological Changes During Pre - Menopausal Phase with Selected Demographic Variables.

4.4.1. Association between post - test knowledge and age group of the sample.

S. No	Age	Level of knowledge			Total	Chi Square (X2)	df	Significance
		Good	Average	Poor				
1	36 - 40	10	15	6	31	8.25	4	9.49^{NS}
2	41 - 45	9	7	10	27			
3	56 - 50	0	0	2	2			
Total		19	22	18	60			

The table 4.4.1 shows the age group distributions among elderly women, the calculated chi - square value is 8.25 & the df is 4. The tabulated chi - square value for df 4 is 9.49. so, the calculated chi - square value is lower than the tabulated chi - square. There is no signification between age group & elderly women on psychological changes during pre - menopausal phase

4.4.2 Association between post - test knowledge and religion of the sample

S. No	Religion	Level of knowledge			Total	Chi Square (X2)	df	Significance
		Good	Average	Poor				
1	Hindu	19	22	19	60	0	0	0NS
2	Muslim	00	00	00	00			
3	Chiristian	00	00	00	00			
4	Other	00	00	00	00			
TOTAL		**19**	**22**	**18**	**60**			

The table 4.4.2 shows the religion distributions among elderly women, the calculated chi - square value is 00 & the df is 0. The tabulated chi - square value for df is 0. so, the calculated chi - square value is lower than the tabulated chi - square. There is no signification association between religion & elderly women on psychological changes during pre - menopausal phase.

4.4.3 Association between post - test knowledge and Education status of the sample

S. No.	Education Status	Level of knowledge			Total	Chi Square (X2)	df	Significance
		Good	Average	Poor				
1	Under 10^{th} std	0	3	7	10	20.51	4	43.06^{NS}
2	10^{th} pass	5	11	11	27			
3	12^{th} pass	13	9	1	23			
TOTAL		18	23	19	60			

The table 4.4.3 shows the age group distributions among elderly women, the calculated chi - square value is 20.51 & the df is 4. The tabulated chi - square value for df 4 is 43.06. so, the calculated chi - square value is lower than the tabulated chi - square. There is no signification association between education status & elderly women on psychological changes during pre - menopausal phase.

4.4.4 Association between post - test knowledge and Marital status of the sample

The table 4.4.4 There is **no significant association** between marital status and level of knowledge ($\chi^2 = 6.71$, df = 6, $p > 0.05$).

Sr. No	Marital - Status	Level of Knowledge			Total	Chi Square (X2)	Df	Significance
		Good	Average	Poor				
1	Married	11	15	17	43	6.71	6	12.59^{NS}
2	Unmarried	5	3	1	9			
3	Widow	4	2	1	6			
4	Divorce	0	1	1	2			
TOTAL		20	21	20	60			

4.4.5 Association between post - test knowledge and Types of Family of the sample

S. No	Types of Family	Level of knowledge			Total	Chi Square (X2)	DF	Significance
		Good	Average	Poor				
1	Nuclear	16	21	13	50	5.42	3	7.82^{NS}
2	Joint	2	2	6	10			
Total		18	18	23	60			

The table 4.4.5 shows the age group distributions among elderly women, the calculated chi - square value is 5.42 & the df is 3. The tabulated chi - square value for df 3 is 7.82. so, the calculated chi - square value is lower than the tabulated chi - square. There is no signification association between types of family & elderly women on psychological changes during pre - menopausal phase.

4.4.6 Association between post - test knowledge and Previous knowledge of the sample

S. No	Previous – Knowledge	Level of knowledge			Total	Chi Square (X2)	DF	Significance
		Good	Average	Poor				
1	Yes	3	2	2	31	13.18	3	7.82^{NS}
2	No	15	20	18	27			
Total		18	22	20	60			

The table 4.4.6 shows the age group distributions among elderly women, the calculated chi - square value is 13.18 & the df is 3. The tabulated chi - square value for df 3 is 7.82. so, the calculated chi - square value is more than the tabulated chi - square. There is signification association between previous knowledge & elderly women on psychological changes during pre - menopausal phase.

5. Discussion

The study assessed the effectiveness of a self - instructional module (SIM) on yoga and meditation to improve knowledge about psychological changes during the pre - menopausal phase among elderly women in rural Jamnagar. Before the module, most women (68.33%) had poor knowledge. After using the SIM, knowledge improved, with 31.67% reaching a good level and only 31.67% still in the poor category. This shows that the SIM was helpful in increasing awareness and understanding. The statistical test ($t = -13.41$, $p < 0.05$) confirmed that the improvement in knowledge was significant. Among the demographic factors, only previous knowledge showed a strong link with improved scores. Age, education, religion, and marital status did not show any significant association. This indicates that self - learning materials like SIM can be effective in rural areas, especially when women are already somewhat familiar with the topic.

6. Conclusion

The study concluded that the self - instructional module was effective in improving the knowledge of elderly women about yoga and meditation and their impact on psychological changes during the pre - menopausal phase. There was a significant difference between pre - test and post - test knowledge levels. This shows that educating women through simple learning materials can help increase awareness and promote better mental and emotional health during menopause. The study also found that previous knowledge had a significant association with improved understanding, highlighting the importance of continuous education in rural areas

7. Future Scope

1) Nursing Research:
This study adds valuable information to the field of nursing research. It can serve as a reference for future studies focusing on the impact of yoga and meditation during the pre - menopausal stage. Researchers can expand the study to include a larger population for broader insights. The development and implementation of effective teaching resources based on these findings can help improve knowledge and encourage healthier practices among elderly women in rural areas.

2) Nursing Administration:
As lifestyles become more modern, the demand for better health awareness is increasing. Elderly women in rural communities should be encouraged to stay healthy, engaged, and informed. They can lead by example and help promote awareness about pre - menopausal health and wellness. Nurses can collaborate with health managers to organize community programs on yoga and meditation. These efforts

will support healthier living and empower women to take control of their well - being.

8. Utilization

1) A similar study may be conducted on a larger scale to allow for broader generalization of the results.
2) Further research can be carried out to explore beliefs and practices related to yoga and meditation therapy during the pre - menopausal phase.
3) A comparative study between rural areas of different cities may be undertaken to assess regional differences in knowledge and awareness.
4) A similar study may be conducted among different age groups to evaluate their knowledge and practices concerning yoga and meditation therapy.
5) Research can be initiated to identify effective strategies for motivating elderly women to adopt yoga and meditation practices.
6) An effectiveness study of a self - instructional program on yoga and meditation therapy for elderly women in the pre - menopausal phase can be conducted.
7) The study can be replicated using a quasi - experimental research design for stronger evidence.
8) A comparative study may be conducted to assess and compare the knowledge of elderly women in rural and urban areas regarding yoga and meditation.

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