Evaluation of Knowledge, Attitude, and Practices Regarding Menopausal Symptoms among Women in Rural Areas of Bagalkot District

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ABSTRACT

Background: Menopause is a natural part of the aging process, marked by the end of ovarian follicle function and the cessation of menstrual periods. This stage introduces numerous challenges for women, affecting them on physical, emotional, and social levels. **Aim:** The main aim of this study to assess and evaluate the knowledge, attitudes, and practices regarding menopausal symptoms among women living in the rural areas of Bagalkot District. **Methodology: Study design:** Observational study. **Study location:** This study will be carried out in rural areas of Bagalkot like Shirur. **Study criteria:** Inclusion criteria consist of women aged 40 to 60 experiencing postmenopausal syndrome, women who have not had a menstrual cycle for over a year, and women currently in the perimenopausal phase. Exclusion criteria include women who are unwilling to participate in the study and women under 40 or over 60 years of age. **Study duration:** Period of 6 months **Study population:** Study includes 114 participants **Source of data:** Written pre-tested structured data collection form. **Results:** The majority of the participants were between 56 and 60 years old. After the health intervention, there was a notable increase in the participants' knowledge, attitudes, and practices. The educational intervention and patient counselling proved effective, leading to significant improvements in these areas among the participants. **Conclusion:** The KAP study serves as an evaluation tool designed to measure the knowledge, attitudes, and practices related to a particular subject within a community. It allows for an effective assessment that aids in tailoring interventions to meet societal needs. The recent study revealed an initial assessment showing insufficient knowledge, positive attitudes, and appropriate practices concerning menopause and its related symptoms within the community.

INTRODUCTION:

Menopause is a natural aging process characterized by the cessation of ovarian follicle activity and menstruation [1]. This phase presents various challenges in a woman's life, impacting her physically, emotionally, and socially. How she navigates these changes, influenced by biological, psychological, cultural, and economic factors, can significantly shape her overall well-being and outlook on menopausal events like the transition and aging. Sociocultural beliefs and individual backgrounds play a pivotal role in shaping attitudes and practices toward menopause, influencing symptom experiences and quality of life [2-5]. Symptoms during this period encompass a range of somatic, urogenital, and psychological issues, highlighting the diverse experiences women may encounter during this life stage [6].

Understanding menopause and its impact on women's lives is crucial, especially considering the projected increase in postmenopausal women globally. By 2025, this population is estimated to reach 1.1 billion [7]. Menopause is not a uniform experience; it varies widely among women due to various factors like psychosocial, cultural, clinical, and environmental influences. Providing appropriate care and support is essential to enhance the quality of life for this group [8]. Studies have shown that being aware of perimenopausal symptoms beforehand can positively shape women's attitudes during this phase [9]. Existing research predominantly centers on symptoms and experiences during menopause, with a growing interest in studying associated disorders such as osteoporosis, metabolic syndrome, and prehypertension in places like the Democratic Republic of the Congo (DRC) [10-11]. The main aim of this study to assess and evaluate the knowledge, attitudes, and practices regarding menopausal symptoms among women living in the rural areas of Bagalkot District.

OBJECTIVES:

Investigate the existing knowledge, attitudes, and practices concerning menopausal symptoms among women residing in rural areas of Bagalkot. To develop and implement health education programs aimed at raising awareness about menopausal symptoms and promoting effective practices to alleviate suffering among these women. Evaluate the prevalence and severity of menopausal symptoms and identify the associated factors among women in the rural regions of Bagalkot.

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METHODOLOGY:

Study design: Observational study.

Study location: This study will be carried out in rural areas of Bagalkot like Shirur.

Study criteria: Inclusion criteria consist of women aged 40 to 60 experiencing postmenopausal syndrome, women who have not had a menstrual cycle for over a year, and women currently in the perimenopausal phase. Exclusion criteria include women who are unwilling to participate in the study and women under 40 or over 60 years of age.

Study duration: Period of 6 months

Study population: Study includes 114 participants.

Source of data: Written pre-tested structured data collection form.

Materials used in the study:

1. Data collection Form

2. Leaflets

3. Pictograms

4. Participants informed consent Form

Study approval:

Got approval of institutional Ethics committee of H.S.K College of pharmacy, Bagalkot.

Study procedure:

A questionnaire-based study will be conducted to assess the knowledge, attitudes, and practices (KAP) related to postmenopausal symptoms among women in rural areas of Bagalkot district. The questionnaire, designed specifically for this study, will be distributed to eligible women aged 40 to 60 residing in these areas. Participants will be encouraged to complete the questionnaire, which includes both question-and-answer and multiple-choice formats.

The study team synthesized, scaled, and thoroughly reviewed the questionnaire, which is divided into five sections.

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➢ Demographic data including, name, age, occupation and educational status

➢ The questions included in the knowledge section is designed to test the knowledge of respondents on postmenopausal symptoms.

➢ Question covers the following topics:

a) Epidemiology

b) Symptoms

c) Diagnosis

d) Risk factors

e) Treatment options

➢ Questions included in the attitude section are designed to gauge the prevailing attitudes, beliefs and misconceptions in the population about this disease.

➢ Question include in the practice section is designed to assess the practices of the population with regard to these symptoms.

Data collection:

Data will be collected using a pretested, structured written questionnaire. Women aged 40 to 80 will be randomly selected from rural areas of Bagalkot. The questionnaire is divided into five sections to evaluate women's knowledge, attitudes, and practices regarding postmenopausal symptoms. It also gathers sociodemographic information such as name, age, and occupation.

Measures and scores:

For each questions scoring will be given and for each right answers higher score have to be given, followed by low score for appropriate answer and no score for wrong answers.

Knowledge question score:

• 6 items of questions will be used to assess the knowledge.

• For each correct answer the score given was 2 and for wrong answer the score given was 0. For every neutral answer the score given was 1.

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• Response scores were summed up (range 0 – 12).

• Scores 0-4 are considered as poor knowledge, 5-8 as average knowledge and 9-12 as good knowledge.

Attitude question score:

• 6 items of questions will be used to assess the attitude.

• For each positive attitude, the score given was 1 and for each negative attitude, the score given was 0.

• Response scores were summed up (range 0-6).

• Scores 0-3 are considered as negative attitude and 4-6 are considered as positive attitude.

Practice question score:

• 6 items of questions will be used to assess the practice.

• For each good practice the score given was 2 and for each average practice, the score given 1. For each poor practice the score given was 0.

• Response score were summed up (range 0-12).

• Scores 0-4 are considered as poor practice, 5-8 as average practice and 9-12 as good practice.

Phase of analysis:

Data was entered into a computerized Excel (Microsoft Excel 2016) spread sheet and subsequently it was analysed using SPSS (Trial version 20) and open Epi software (version 3). Descriptive statistics (means and percentages) wherever necessary were employed. P value of <0.05 was considered statistically significant and <0.001 as highly significant. Paired t-test was used to compare means.

Statistical analysis:

Data will be compiled and tabulated by using MS EXCEL, appropriate tests like Student paired t-test and Chi square test and to arrive at a conclusion for finding the significant differences. Data will be presented in forms of tables, graphs, figures.

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RESULTS:

Table 1 shows that out of the 114 participants, the majority were aged between 56-60 years (38.60%), followed by those aged 51-55 years (26.32%), 46-50 years (27.19%), and the least were in the 40-45 years age group (7.89%).

Table 1: Age based distribution of participants

Age	Number of participants	% of participants
40-45	9	7.89
46-50	31	27.19
51-55	30	26.32
56-60	44	38.60
Total	114	100

Table 2 reveals that, at baseline, none of the 114 participants had good knowledge about menopause and its related symptoms, 8.77% had average knowledge, and 91.22% had poor knowledge. Tables 3 and 4 illustrate the impact of health education intervention, with the proportion of subjects having good knowledge increasing from 0% to 49.12%, while those with poor knowledge decreased from 91.22% to 0%.

Table 2: Knowledge based assessment among participants before intervention

	Question	BASELINE ASSESSMENT					
		Frequency of correct answer	%	Frequency intermittent answer	%	Frequency of wrong answer	%
1	Do you know what is menopause	33	28.94	8	7.01	73	64
2	Do you know menopause increases risk of cardiovascular disease	0	0	11	9.64	103	90.35
3	Do you know menopause increase the risk of osteoporosis	1	0.84	17	14.91	96	84.21
4	Do you know what is perimenopause	1	0.84	7	6.14	106	92.98
5	Do you know menopause increase the risk of breast cancer	2	1.75	12	10.52	100	87.71
6	Do you think postmenopausal bleeding is abnormal	6	5.26	21	18.42	87	76.31

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Table 3: Knowledge based assessment among participants after intervention

	QUESTION	POST-INTERVENTIONAL ASSESSMENT					
		FREQUENCY OF CORRECT ANSWER	%	FREQUENCY OF INTERMITTENT ANSWER	%	FREQUENCY OF WRONG ANSWER	%
1	Do you know what is menopause	112	98.24	1	0.87	1	0.87
2	Do you know menopause increases risk of cardiovascular disease	29	25.43	85	74.56	0	0
3	Do you know menopause increase the risk of osteoporosis	31	27.19	80	70.17	3	2.63
4	Do you know what is perimenopause	96	84.21	18	15.78	0	0
5	Do you know menopause increase the risk of breast cancer	33	28.94	80	70.17	1	0.87
6	Do you think postmenopausal bleeding is abnormal	51	44.73	61	53.50	2	1.75

Table 4: Comparison of knowledge level before and after intervention

KNOWLEDGE LEVEL	SCORE	BASELINE ASSESSMENT		POST INTERVENTION ASSESSMENT	
		FREQUENCY	%	FREQUENCY	%
Good knowledge	9-12	0	0	56	49.12
Average knowledge	5-8	10	8.77	58	50.87
Poor knowledge	0-4	104	91.22	0	0
TOTAL		114	100	114	100

Table 5 indicates that at baseline, 14.91% of participants had a positive attitude toward menopause and its related symptoms, whereas 85.08% had a negative attitude. After the educational intervention, as shown in Tables 6 and 7, the positive attitude increased from 14.91% to 96.61%, and the negative attitude decreased from 85.08% to 4.38%.

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Table 5: Attitude based assessment among participants before intervention

	QUESTION	BASELINE ASSESSMENT			
		AGREE	%	DON'T AGREE	%
1	Necessity of consulting doctor after menopause	28	24.56	86	75.43
2	Menopause means loss of fertility	45	39.47	69	60.52
3	Do you agree with self-medication practice after menopause	59	51.75	55	48.24
4	Do you think it is important to tell your doctor about your past medical history	41	35.96	73	64.03
5	Do you think menopause cause vaginal dryness and painful sexual intercourse	16	14.03	98	85.96
6	Do you think women's menopause decreases husband's sexuality	70	61.40	42	36.84

Table 6: Attitude based assessment among participants after intervention

	QUESTION	POST-INTERVENTIONAL ASSESSMENT			
		AGREE	%	DON'T AGREE	%
1	Necessity of consulting doctor after menopause	109	95.61	5	4.38
2	Menopause means loss of fertility	105	92.10	9	7.89
3	Do you agree with self-medication practice after menopause	110	96.49	4	3.50
4	Do you think it is important to tell your doctor about your past medical history	102	89.47	12	10.52
5	Do you think menopause cause vaginal dryness and painful sexual intercourse	72	63.15	42	36.84
6	Do you think women's menopause decreases husband's sexuality	105	92.10	9	7.89

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Table 7: Comparison of attitude level before and after intervention

ATTITUDE LEVEL	SCORE	BASELINE ASSESSMENT		POST-INTERVENTION ASSESSMENT	
		FREQUENCY	%	FREQUENCY	%
Positive	4-6	17	14.91	109	95.61
Negative	0-3	97	85.08	5	4.38
TOTAL		**114**	**100**	**114**	**100**

Table 8 shows that initially, 8.77% of the 114 subjects were practicing good habits, 78.94% were practicing average habits, and 12.28% were practicing poor habits. Tables 9 and 10 indicate that after the educational intervention, the proportion of subjects practicing good habits rose from 8.77% to 89.47%, and those with poor practices declined to 0.87%.

Table 8: Practice based assessment among participants before intervention

QUESTION		BASELINE ASSESSMENT					
		FREQUENCY OF CORRECT ANSWER	%	FREQUENCY OF INTERMITTENT ANSWER	%	FREQUENCY OF WRONG ANSWER	%
1	When you visit your physicians, will you bring all medications you are currently taking	35	30.70	35	30.70	44	38.59
2	Do you alter the dose of medications based on your symptoms without asking your doctor	27	23.69	57	50	30	26.31
3	Do you complete the full duration of treatment course (if taken)	25	21.92	52	45.61	37	32.45
4	Will you combine traditional medicine when you take allopathic medicine	41	35.96	55	48.24	18	15.78
5	Will you practice spiritual methods instead of medications, if you have symptoms	70	61.40	28	24.56	16	14.03

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Table 9: Practice based assessment among participants after intervention

QUESTION	POST-INTERVENTIONAL ASSESSMENT					
	FREQUENCY OF CORRECT ANSWER	%	FREQUENCY OF INTERMITTENT ANSWER	%	FREQUENCY OF WRONG ANSWER	%
1 When you visit your physicians, will you bring all medications you are currently taking	84	73.68	30	26.3	0	0
2 Do you alter the dose of medications based on your symptoms without asking your doctor	93	81.57	20	17.54	1	0.87
3 Do you complete the full duration of treatment course (if taken)	84	73.68	27	23.68	32	2.63
4 Will you combine traditional medicine when you take allopathic medicine	90	78.94	23	20.17	1	0.87
5 Will you practice spiritual methods instead of medications, if you have symptoms	103	90.35	10	8.77	1	0.87

Table 10: Comparison of practice level before and after intervention

PRACTICE LEVEL	SCORE	BASELINE ASSESSMENT		POST INTERVENTION ASSESSMENT	
		FREQUENCY	%	FREQUENCY	%
Good	8-10	10	8.77	102	89.47
Average	4-7	90	78.94	11	9.64
Poor	0-3	14	12.28	1	0.87
TOTAL		114	100	114	100

Table 11 presents the mean Knowledge, Attitude, and Practice (KAP) scores at baseline, which were 1.44 ± 0.179 for knowledge, 2.25 ± 0.0115 for attitude, and 5.50 ± 0.196 for practice. Following effective educational intervention and patient counseling, there was a significant improvement in these scores, with mean KAP scores increasing to 9.01 ± 0.152

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for knowledge, 5.30 ± 0.081 for attitude, and 8.95 ± 0.100 for practice.

Table 11: Mean score of Baseline and Post-interventional KAP

	Baseline knowledge score	Post intervention knowledge score	Baseline attitude score	Post intervention attitude score	Baseline practice score	Post intervention practice score
MEAN ±S.D	±1.44 ± 0.179	9.01±0.152	2.25±0.115	5.30±0.081	5.50±0.196	8.95±0.100
T value	-39.977		-22.264		-16.742	
P value	<0.0001***		<0.0001***		<0.0001***	

DISCUSSION:

In our study, involving 114 subjects, the highest proportion of participants fell within the 56-60 age range, accounting for 38.6%. Conversely, the smallest proportion was observed in the 40-45 age range, comprising only 7.9%. Similarly, a study conducted in Lucknow with 300 respondents found that the majority of participants were in the 50-54 age range, representing 33.3% of the sample [12].

In the study involving 114 subjects, none had good knowledge about menopause, with 8.77% having average knowledge and 91.22% having poor knowledge. Only 33 respondents (28.94%) correctly understood menopause, 7.01% had average knowledge, and 64% were unaware. Regarding perimenopause, only 0.84% had good knowledge, 6.14% had intermittent knowledge, and 92.98% were unaware. Just 1.75% knew menopause increases breast cancer risk, 10.52% had average knowledge and 87.71% believed it did not. Only 5.26% knew post-menopausal bleeding is abnormal, 18.42% had average knowledge, and 76.31% thought it was normal. No respondents knew menopause increases cardiovascular disease risk, 9.64% had average knowledge, and 90.35% believed it did not. Only 0.84% was aware that menopause increases osteoporosis risk, 14.91% had intermittent knowledge, and 84.21% believed it did not.

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After the educational intervention, the percentage of subjects with good knowledge increased from 28.94% to 98.24%, while those with poor knowledge decreased from 64% to 0.87%. The baseline average knowledge score was 1.44±1.91, which rose to 9.01±1.62 post-intervention. Initially, 76.31% believed post-menopausal bleeding was normal, which dropped to 1.75%, and 87.71% thought there was no risk of breast cancer, which decreased to 0.87%. A paired t-test showed a significant improvement in knowledge (p-value < 0.0001).

In our study of 114 participants, only 14.91% had a positive attitude towards menopause and its symptoms, while 85.08% had a negative attitude. Only 24.56% believed in the necessity of consulting a doctor after menopause, compared to 75.43% who did not. Regarding medication practices, 48.28% did not use medication after menopause, and 51.75% practiced self-medication. About 39.47% acknowledged the loss of fertility post-menopause, whereas 60.52% did not. Additionally, 35.96% believed in sharing their medical history with a doctor, but 64.03% had a negative attitude towards this. Only 14.03% correctly identified the cause of vaginal dryness and painful intercourse after menopause, with 85.96% holding a negative view. Furthermore, 61.40% believed menopause decreases their husband's sexuality, while 36.84% correctly understood the impact.

The educational intervention significantly improved good practices among study subjects, increasing from 8.77% to 89.47%. Average practices declined from 78.94% to 9.64%, and poor practices decreased to 10.87%. The completion rate of the full treatment course rose from 21.92% to 73.68%. The use of combined traditional and allopathic medicines dropped from 15.78% to 0.87%. The average practice score improved from 5.50 (SD 2.08) to 8.95 (SD 1.06). The results were highly significant (p-value <0.0001) based on the Student's paired t-test.

In our study of 114 subjects, we observed that 8.77% followed good practices towards menopause and its symptoms, 78.94% had average practices, and 12.28% had poor practices. Regarding medication management, 30.70% always carried their current medications when consulting their physicians, 30.70% did so intermittently, and 38.59% had poor practice. Additionally, 26.31% of subjects always altered their medication doses based on symptoms without consulting a doctor, 50% had average practices, and 23.69% had good practices. In terms of completing the full treatment course, 21.92% always did, 45.61% had average adherence, and 32.45% had poor adherence. When it came to combining traditional and allopathic medicines, 35.96% never did, 48.24% did so intermittently, and 15.78% combined

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both. Lastly, 61.40% never used spiritual methods instead of medication for symptoms, 22.56% partially did, and 14.03% relied on spiritual methods instead of medication.

In our study, the educational intervention led to a significant improvement in good practices among participants, increasing from 8.77% to 89.47%. Those with average practices decreased from 78.94% to 9.64%, and those with poor practices declined to 10.87%. The completion rate of the full treatment course rose from 21.92% to 73.68%. The use of combined traditional and allopathic medicines dropped from 15.78% to 0.87%. The average practice score increased from 5.50 (SD 2.08) to 8.95 (SD 1.06). This improvement was statistically significant, with a p-value < 0.0001 using the Student's paired t-test.

CONCLUSION:

The KAP study functions as an evaluation tool to gauge the understanding, viewpoints, and actions regarding a specific task within a community. It facilitates effective assessment, enabling the customization of procedures according to societal requirements. The recent study uncovered a lack of knowledge, positive attitudes, and appropriate practices concerning menopause and its associated symptoms among the community, as observed in the initial assessment. Thus, there was a clear and urgent need for a health education intervention in the community to improve people's understanding, attitudes, and behaviors regarding menopause and its symptoms in a suitable, safe, and thoughtful manner.

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