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ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS PREMENSTRUAL SYNDROME OF FEMALES RESIDING IN RURAL AREAS OF BAGALKOTE DISTRICT: AN INTERVENTIONAL STUDY

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ABSTRACT

Background: A common disorder affecting women who are fertile, premenstrual syndrome (PMS) is characterized by a range of behavioral, emotional, and physical symptoms. Even with its effects, PMS is still underdiagnosed and inadequately treated, especially in rural areas where stigmas, cultural norms, and limited access to healthcare facilities can make treatment and awareness difficult. The purpose of this study is to examine the knowledge, attitude, and practices (KAP) of women living in rural Karnataka's Bagalkote district regarding PMS and to determine how well an interventional method works to improve these elements. **Methods:** A locally situated In rural Bagalkote, an interventional study was carried out with women who were of reproductive age. standardized questionnaire was used to gather KAP data both before and after the intervention. To improve knowledge and management of PMS, the intervention included group discussions, educational workshops, and the provision of relevant materials. **Results:** A substantial lack of awareness on PMS was evident from the baseline assessment, as many individuals were unable to distinguish PMS from other menstrual illnesses or name prevalent symptoms. There were a lot of negative sentiments, with most women viewing PMS as a necessary but natural aspect of menstruation. Low rates of using effective medications and physician consultations were indicative of insufficient PMS management practices. Following the intervention, knowledge significantly improved, with a greater understanding of symptoms and available treatments. Positive attitudes changed, and an increase in women sought medical guidance and adopted better lifestyle habits to manage PMS. **Conclusion:** The study emphasizes how important it is to implement focused educational initiatives in rural regions in order to raise KAP toward PMS. The knowledge, attitudes, and practices of the participants regarding PMS were considerably enhanced by the intervention in the Bagalkote district. These results highlight the significance of continued education initiatives aimed at enabling rural women to better understand and manage PMS and, in turn, improve their quality of life.

KEYWORDS: Premenstrual Syndrome, Knowledge, Attitude, Practice, Rural Areas, Bagalkote, Educational Intervention.

INTRODUCTION

Premenstrual syndrome, or PMS, is a prevalent but sometimes misdiagnosed illness that impacts a large percentage of women who are fertile. PMS can have a major negative influence on a woman's quality of life and is characterized by a variety of behavioral, emotional, and physical symptoms. It usually occurs during the luteal phase of the menstrual cycle. While PMS is well known in cities with greater access to healthcare and public awareness, women in rural regions frequently struggle to identify, diagnose, and treat this ailment. In areas such as the Bagalkote district, when customs and medical resources are scarce, many women may experience needless pain and a diminished quality of life due to inadequate knowledge and treatment of PMS.[1,2,3]

Cultural norms, stigmas, and poor access to healthcare can seriously impede PMS knowledge and management in rural places such as Bagalkote. These women might not be aware of the true nature of PMS or might misunderstand its symptoms as an essential aspect of menstruation, which could result in poor treatment and needless suffering. Furthermore, there is a substantial knowledge and comprehension gap in these communities

as a result of the absence of educational programs addressing menstruation health.

In order to identify specific regions where women in rural Bagalkote may be ignorant of or have misunderstandings about PMS, it is imperative to evaluate the present KAP surrounding the disease. The results of this assessment can be used to guide the creation of focused interventions that enhance understanding, modify attitudes, and encourage improved PMS management techniques. An interventional study is especially useful since it evaluates the gaps that currently exist and measures the efficacy of educational initiatives and other tactics to close these gaps.[4,5,6]

The purpose of this study is to evaluate the knowledge, attitude, and practices (KAP) of females living in the rural parts of the Bagalkote district regarding PMS. The project uses an interventional strategy in an effort to better understand and manage PMS in this group, which will ultimately improve the health and well-being of women living in these areas.[7,8,9]

This study addresses a crucial need to improve menstruation health education and care in underserved communities by concentrating on rural women in the Bagalkote district. Future public health initiatives can be built upon the results of this study, which can help close the gap between healthcare access in urban and rural areas and guarantee that women everywhere have access to the information and tools necessary to effectively manage PMS.[10,11,12]

AIM
To assess and evaluate Knowledge, Attitude and Practice towards premenstrual syndrome of females residing in rural areas of Bagalkote District.

OBJECTIVES
1. To analyze baseline Knowledge, Attitude and Practice (KAP) towards.
2. Premenstrual symptoms among Bagalkote female residing in rural areas.
3. To create awareness about practices, which might help reducing the suffering through health education.
4. To assess the premenstrual symptoms and its associated factors among female residing in rural areas of Bagalkote.

METHODOLOGY
Study site: The present study was undertaken for a period of six months from April 2022 to September 2022 in the areas under Rural Health Training Centre (RHTC), department of community medicine, S.Nijalingappa Medical College Bagalkot, Karnataka state. It is situated bagalkote city. This Rural Health Training Centre (RHTC) is providing preventive, promotive, curative and rehabilitative health services. There are totally 14

Anganwadi centres and 4 sub centres under this RHTC. The population of this RHTC was 19420 and there are 3636 population of children (0-6) years. The male: female ratio of Shirur RHTC is 1.12 as per data obtained from RHTC survey registers as on May 2021.

Study duration: The study was conducted over a period of 6 months.
- Initial collection of details of population from 13-20 years of age - 1 week.
- Preparation and development of data collection form -2 weeks.
- Pilot study – 1 week.
- Baseline data collection- 1 month.
- Educational intervention- 1 month.
- Post intervention data collection- 1 month
- Data analyses, typing and printing – 2 months.

Study design: This is a community based Interventional study

Sample size: According to a study done by Kavita Konapur, Chitra Nagaraj in rural areas of Bangalore, India during 2014, Dysmenorrhoea and Premenstural Syndrome: Frequency and effect on daily activities of adolescent girls.
So desired sample size was calculated using formula
Sample size **(n)= [DEFF*Np(1-p)/ [(d2/ Z2 1-α/2*(N-1) +p*(1-p)]**
P (Based on the participants had adequate knowledge) = 52.3 %
Absolute precision = 8%
Confidence level= 95%
By using Open Epi version 2 software, we got n= 150
A total of 150 study subjects were included in the study

Study method
The data was collected using the written pretested structured data collection form by females. Females of age between 13-20 was randomly chosen from rural areas of Bagalkote. The data collection form was divided into five parts to assess female's knowledge, attitude and practice towards premenstrual related symptoms. The data collection form includes sociodemographic information like name, age, ration card,and educational status.

Study criteria
Inclusion criteria
1. All females of age between 13-20 years having PMS and PMDD.

Exclusion criteria
1. Females who were not willing to participate in this study.
2. Females of age below 13 years and above 20 years

Statistical 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 the means.

RESULTS

1. Subject characteristics

Subject characteristics		Frequency (N)	Percentage (%)
Age in years	13-16	67	44.7
	17-20	83	55.3
Education	High School	44	29.3
	PUC	26	17.3
	Diploma	80	53.3
Ration card	Apl	25	16.7
	Bpl	125	83.3
Duration of menstrual cycle	Regular	102	68
	Irregular	48	32
Duration of cycle	3-5 Days	135	90
	>5days	15	10

Out of 150 participants, majority of the study participants belonging to 17-20 years (55.3%) followed by 13-16 years (44.7%) age group. In my study out of 150 subjects, half of the subjects were diploma (53.3%) followed by (29.3%) high school and PUC (17.3%). Out of 150 participants, majority of the study participants were BPL 83.3%, followed by APL 16.7%. Majority of the participants were having regular menstrual cycles (68%) followed by irregular (32%). Majority of the population were 3-5 days (duration of menstrual cycle) followed by > 5 days 10%.

2. Knowledge assessment of study subjects

Questions	Baseline assessment						Post intervention assessment					
	Extremely	%	A little	%	Don't know	%	Extremely	%	A little	%	Don't know	%
Do you know what is PMS.	2	1.3	15	10	133	88.7	146	97.3	4	2.7	0	0
Do you know what is PMDD.	1	0.7	3	2	146	97.3	132	88	18	12	0	0
Do you feel anxiety or tension.	4	2.7	51	34	95	63.3	4	2.7	51	34	95	63.3
Do you experience depressed mood or hopelessness.	2	1.3	25	16.7	123	82	2	1.3	25	16.7	123	82
Do you experience breast tenderness.	2	1.3	20	13.3	128	85.3	2	1.3	20	13.3	128	85.3
Do you feel lack of energy.	31	20.7	71	47.3	48	32	32	21.3	73	48.7	45	30

3. Assessment of attitude towards study subjects

Questions	Baseline assessment				Post intervention assessment			
	Agree	%	Don't agree	%	Agree	%	Don't agree	%
Do you agree with self-medication practice after PMS.	11	7.3	139	92.7	149	99.3	1	0.7

Necessity of consulting doctor after PMDD.	14	9.3	136	90.7	148	98.7	2	1.3
Do you believe that you have menstrual problem.	33	22	117	78	23	15.3	127	84.7
Do you think remedy is required for PMS.	64	42.7	86	57.3	61	40.7	89	59.3
Are you likely to talk to your family/ spouse about PMS.	84	55.6	66	43.7	147	98	3	2
Do you think PMS is a significant an issue to be discussed.	10	6.6	140	93.3	30	20	120	80

3. **Assessment of premenstrual syndrome practice among study subjects**

Questions	Baseline assessment						Post intervention assessment					
	Always	%	Sometimes	%	Never	%	Always	%	Sometimes	%	Never	%
Did you take any measures to reduce the pain	2	1.3	37	24.7	111	74	0	0	35	23.3	115	76
Have you shown compliance with medical advices	3	2	15	10	132	87.4	27	17.9	123	81.5	0	0
Will you combine traditional medicine when you take allopathic medicine	3	2	29	19.3	118	78.7	0	0	21	14	129	86
Have you changed your lifestyle modifications according to your symptoms	12	8	36	24	102	68	1	7	62	41.3	87	58
Do you accept the symptoms as a routine of your life.	126	84	22	14.7	2	1.3	150	99.3	0	0	0	0

4. **Classification of Knowledge, Assessment and Practice level among study subjects**

Level		Score range	Baseline assessment		Post intervention assessment	
			Frequency	Percentage	Frequency	Percentage
Knowledge Level	Good knowledge	9 to 12	0	0	42	28
	Average knowledge	5 to 8	10	6.6	99	66
	Poor knowledge	0 to 4	140	93.3	9	6
Attitude Level	Positive	4 to 6	13	8.6	147	98
	Negative	0 to 3	137	91.3	3	2
Practice Level	Good practice	8 to 10	0	0	125	83.3
	Average practice	4 to 7	17	11.3	25	16.6
	Poor practice	0-3	133	88.6	0	0

It was observed that in baseline assessment, out of 150 participants, nobody had good knowledge, 6.6% had an average knowledge and 93.3% of the study subjects were having poor knowledge towards premenstrual and its related symptoms. After the health education intervention, subjects with good knowledge was increased from 0% to 28% and subjects with poor knowledge was decreased from 93.3% to 6%.

In baseline assessment, it was observed that out of 150 participants 8% of the study subjects had a positive attitude, whereas 91.30% of study subjects had a negative attitude. Change in the attitude of the study subjects towards premenstrual and its related symptoms after educational intervention was found to be 8% to 98% in positive attitude and 91.30% to 2% in negative attitude

In my study, out of 150 subjects 0% were following good practice, 11.3% falls under the category of average practice while rest of them (88.6%) had poor practice in baseline assessment. After educational intervention, proportion of study subjects under good practice was increased from 0% to 83.3% and study subjects with poor practice was declined to 0%.

5. **Comparison of mean score of Baseline and Post interventional KAP of study subjects using paired t test**

Mean Values	Baseline knowledge score	Post intervention knowledge score	Baseline attitude score	Post intervention attitude score	Baseline practice score	Post intervention practice score
MEAN ± SEM	1.86±0.135	5.45±0.131	1.44±0.112	4.37±0.046	2.83±0.105	8.38±0.074
Mean change in the score	-3.58		-2.93		-5.55	
t value	-55.19		-30.9		-39.35	
p value	<0.0001***		<0.0001***		<0.0001***	

In baseline assessment, the mean KAP scores were found to be 1.86±0.135, 1.44±0.112 and 2.83±0.105 as a result of an effective educational intervention and patient counselling, there was a remarkable increase in KAP scores. The mean KAP scores were improved to 5.45±0.131, 4.37±0.046 and 8.38±0.074. Mean scores of KAP in basal and endpoint assessment were compared using student's t- test. p- value 0.0001 shows that the study was highly significant.

DISCUSSION
In my study out of 150 subjects, the maximum number of study subjects were in the age group of 13-16 years (44.7%) and the number of subjects were in the age group of 17-20 years (55.3%). A similar finding was seen in study done in West Bengal which showed that out 278 respondents, majority of the subjects belonged to age group 17-19 years (52.51%).[13]

In my study out of 150 subjects were high school (29.3%) followed by puc (17.3%) and diploma (53.3). In a study conducted in Southeast Nigeria, as regard of the educational status majority of the respondents were diploma while only 12.2% of them had been educated up to the university level or above. In another study done in West Bengal, out of 278 female's majority of the respondents were puc (52.51%) followed by High school (47.4%) subjects.[13]

In my study, out of 150 subjects, majority of the subjects were BPL (83.3%) and APL were only 16.7%. In a study done in West Bengal out of 278 subjects, 8.6% were BPL followed by 90.2 % were APL.[13] In another study done Saudi Arabia, 40.1% were BPL followed by 41.7% were APL.[14]

In the present study, out of 150 subjects, majority of the subject were menstrual cycle was regular (68%) and followed by irregular(32%).

In the present study, out of 150 subjects, 0 % were having good knowledge, 6.60% had an average knowledge and 93.3% had poor knowledge. The responds towards knowledge regarding premenstrual and its related symptoms was found unsatisfactory. Out of the 150 participants only 8.6% had a positive attitude towards the premenstrual and its related symptoms and 91.3% had a negative attitude. Out of 150 subjects 0% where following good practice towards premenstrual and its related symptoms, 11.3% falls under the category of average practice while rest of them (88.6%) had poor practice.

After the educational intervention, subjects with good knowledge were increased from 0% to 28% and subjects with poor knowledge were decreased from 93.3% to 6%. After educational intervention majority of the participants (98%) had a positive attitude towards premenstrual and its related symptoms and a proportion of study subjects with a perception of negative attitude was decreased from 91.30% in baseline assessment to 8.60%. After educational intervention, proportion of study subjects under good practice was increased from 0% to 83.30%, study subjects with average practice were

increased from 11.30% to 16.60% and study subjects with poor practice were declined to 0%.

As a result of an effective health educational intervention and patient counselling, there was a remarkable increase in KAP scores. The mean KAP scores were improved to 5.45 ± 0.131, 4.37 ± 0.046, 8.38 ± 0.074. Mean scores of KAP in basal and endpoint assessment were compared using student's paired t- test. P-value <0.0001 shows that the study was highly significant.

CONCLUSION

The present study revealed a low level of Knowledge, Attitude and Practice towards premenstrual and its related symptoms in the community from the basal assessment. Therefore there was a well evidenced and compelling need for health educational intervention in the community to enhance people's Knowledge, Attitude and Practice towards premenstrual and its related symptoms in an appropriate, safe and judicious way. As a result of an effective health educational intervention and patient counselling, there was a remarkable increase in KAP scores. The KAP study serves as an assessment to measure information, perspective and performance of any desired task of the community. It enables the efficient process of evaluation, which allows the procedure to be tailored appropriately to the needs of the society.

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