A study to assess the awareness regarding management of dysmenorrhea among females in the age group 18-46 years residing in the selected rural areas of east khasi hills, Meghalaya

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Abstract

Introduction: Dysmenorrhea also known as painful menstruation or menstrual cramp is pain during menstruation; the pain is usually in pelvis or lower abdomen. This pain most times affects their normal daily activity and quality of life depending on its duration and severity. Every female deals differently with dysmenorrhea. It is frequently associated with sickness absenteeism, decrease in academic performance, and decrease in physical and social activities.

Methods: A non-experimental cross-sectional study was conducted using self-administered questionnaire among females in the age group 18-46 years with 195 participants using purposive sampling technique.

Results: The study revealed that out of 195 participants, 133 (68.20%) had average awareness regarding manage Ment of dysmenorrhea while 20 (10.26%) and 42 (21.54%) had good and poor awareness respectively.

The study also revealed that there is an association between the educational status of participants and awareness regarding management of dysmenorrhea.

The study also showed that 37.95% of the population adopts home remedy for management of dysmenorrhea.

Conclusion: The study concluded that, majority of the participants are aware of the management of dysmenor rhea.

Keywords: Awareness, Management, Dysmenor rhea, Females.

Introduction

Dysmenorrhea is a condition describing the painful cramps that women feel before or during the menstrual period [1].

Most women experience some pain during menstruation. This pain most times affects their normal daily activity and quality of life depending on its duration and severity. There are various strategies used in menstrual pain management which differ with individuals [2]. Dysmenor rhea is one of the most common gyneco logical condition s, regardless of age or race [3]. The prevalence of dysmeno rrhea is difficult to determine because of different definitions of the condition, the estimates varying from 45% to 95% [4].

Menstrual symptoms are a broad and wide collection of affective concerns and constant worries about potential illness that occur around the time of menses, therefore managing the problem is important.

Need of the study

Dysmenorrrhea is frequently associated with sickness absenteeism, decrease in academic performance, and decrease in physical and social activities [5].

Evidence suggests that dysmenor rhea may also be a risk factor for other chronic pain conditions. Limited research has examined women's experience with dysmenorrhea using qualitative data [6]. Research is warranted to address the needs and issues that are important from women's own perspectives.

Such information from women's perspectives is found ational for the assessment of dysmenorrhea and the development of person-centered interventions to support dysmenorrhea management. Since the effect and importance of dysmenorrhea is very wide, therefore this study is undertaken to assess the awareness regarding management of dysmenorrhea among females in the reproductive age group, as managing the problem is very important to improve their quality of life.

Objectives

- Primary objective: To assess the awareness regarding management of dysmenorrhea among females in the age group 18-46 years residing in selected rural areas of East Khasi Hills, Meghalaya.

- Secondary objective: To find out the association of awareness regarding management of dysmenorrhea with their selected demographic variables.

Assumption

Females of age group 18-46 years may be aware of management regarding dysmenorrhea.

Methodology

Research approach

In this study, a quantitative research approach was finalized to assess the awareness regarding management of dysmenorrhea among females of age group of 18-46 years.

Research design

A research design is a detailed plan of action or the blue print for the collection, measurement and analysis of

data. It is the conceptual structure within which research is conducted.[14] In our study, self-administered question naire method was used to assess the awareness regarding management of dysmenorrhea among females of age group 18-46 years.

Variables in the study

Variables are characteristics, events or responses that represent the elements of research question in a manner that is easily recognizable.[14]

Research variables

Awareness regarding management of dysmenorrhea.

Study settings

A pilot study was conducted among females of the age group of 18-46 years in Pdengshnong, Mawlai, East Khasi Hills. A final study was conducted among females of the age group 18-46 years in Umsaw, Mawlai, East Khasi Hills.

Ethical consideration

In our study prior permission was obtained from

1. Research committee, College of Nursing, NEIGRIHMS

2. NEIGRIHMS Scientific Advisory Committee (NSAC).

3. Permission from Institutional Ethics Committee (IEC)

4. Principal, College of Nursing, NEIGRIHMS

5. Permission from Directorate of Health Services (DHS)

6. Medical officer of Primary Health Centre (PHC)

7. Headman

8. Informed consent from participants.

Study population

In the pilot study, the population comprised of 20 females of the age group 18-46 years residing in Pdengs hnong, Mawlai, East Khasi Hills. In the final study, the population comprised of 195 females of the age group 18-46 years residing in Umsaw, Mawlai, East Khasi Hills.

Sampling design

In our study, sampling design is cross-sectional study design.

Sample size

Sample size is the number of subjects, events, behavior or situations that examined the study. It was calculated using the following formula: $N = Z^2 \times p(1-p)/d^2$

Were,

N = Sample size calculation

Z1-α/2 = critical value of the normal distribution at α/2

Z1-β = critical value of the normal distribution at β

α = Population

d = Margin of error

The sample size calculation for the pilot study was 20 and for the final study was 195.

Sampling technique

In our study, purposive sampling technique was used.

Criteria for sample selection

• Inclusion criteria: Females of age group 18-46 years, who were willing to participate in the study.

• Exclusion criteria: Females who are not willing to give consent to participate in the study.

Development of data tool

The following steps were adopted prior to the develop Ment of the tool:

• An extensive review of literature from books, research journals, online resources, books related to the research subjects.

• Suggestions from experts.

• Personal experience of the investigators, discussion with the colleagues.

Description of data collection and techniques

The tools used for our research study to collect the data are.

Table 1:

1st Step	:	It includes consent form for participating in answering the question.
2nd Step	:	It includes questionnaire to collect the demographic variables like age, gender, income, marital status and education.
3rd Step	:	It includes instructions regarding answering the questionnaire.
4th Step	:	It includes semi-structured awareness-based questionnaire regarding management of dysmenorrhea covering all aspects. This section consists of 24 questions.
5th Step	:	Correct response was scored 1(one) and wrong response was coded 0 (zero).

Content validity

The validation of data collection tool for consent was by the experts of different specialists: - Obstetrics and gynecology, General Medicine, Community Medicine, Obstetrics and Gynecology, Faculty of College of Nursing, NEIGRIHMS. The experts were requested to judge the items for clarity, relevance, appropriateness and meaningfulness for the purpose of study.

Pilot study

A pilot study was conducted from 28th February to 4th March, 2022 after obtaining formal permission from the concerned authority. Consent was taken from the partici pants for participating in the study.

The sample of the study was 20 females of the age group 18-46 years.

The entire data collection for each partici pant took approxima tely 10-15 minutes. At the end of our pilot study, it was found that the tool was understand able to the participants and provided reliable data which enabled us to carry out the main study as proposed.

Data collection procedure

The final data collection was done from 23rd May to 4th June in Umsaw, Mawlai, East Khasi Hills. Permission was obtained from the principal of College of Nursing, NEIGRIHMS.

After obtaining permission, the study was conducted. Prior to the data collection, informed consent was taken from the participants to explain the procedure and the purpose of the study which also stated the confidentiality and anonymity of the results.

Thereafter, the participants were allowed to proceed with the semi-structured questionnaire and were given approx. imately 10-15 minutes to complete it.

Plan for data analysis

The data analysis was developed and adopted after expert's opinion to use Descriptive and Inferential statistics in the following ways:

• To compute distribution of the respondents according to the socio-demographic data.

• To compute the awareness score of the participants regarding management of dysmenorhea.

• To compute for finding the association of awareness regarding management of dysmenor rhea with the selected demographic variables.

Table 2: scoring of the tool

Section-I	:	It consists of demographic characteristics and was not scored.
Section-II	:	It consists of two parts, where part-A contains questions related to information regarding participant's

		menstrual cycle and part- B contains questions related to participant's information regarding dysmenorrhea.
Section-III	**:**	It consists of the awareness-based questionnaire to assess the level of awareness. It consists of 19 items given in such a way that for each correct response 1 mark is given. There is no negative marking for a negative response. The maximum score is 19 and the minimum score is 0.

Interpretation of score

Table 3: awareness level

Category	Range of score
Good	≥15
Average	10-14
Poor	0-9

Maximum awareness score is 19

Results

Findings related to the demo graphic data of the partici pants.

Table 4: Frequency and percentage distribution of the participants according to demographic data. (N=195)

Variables	Frequency(f)	Percentage (%)
Age (in years)		
18-30	123	63.08%
31-46	72	36.92%
Educational status		
Illiterate	11	5.64%
≤10	133	68.21%
11-12	26	13.33%
Degree and above	25	12.82%
Marital status		
Married	126	64.62%
Unmarried	69	35.38%
Family income		
≤5000	144	73.85%
6000-10000	39	20%
>10000	12	6.15%

Table 4 shows that majority of the participants belong to the age group of 18-30 years, 123(63.08%). Majority of the participants are having educational status of ≤10, 133 (68.21%). Greater part of the participants is married, 126

(64.62%). Majority of the participants have family income of ≤5000, 144 (73.85%).

Table 5: Frequency and percentage distribution of the partici pants information regarding menstruation. (N= 19 5).

Variables	Frequency(f)	Percentage (%)
Age of menarche (in years)		
10-12	38	19.48%
13-15	131	67.18%
16-18	26	13.34%
Duration of menstrual bleeding (in days)		
≤2	11	5.64%
3-5	162	83.08%
≥6	22	11.28%
Menstrual cycle		
Regular	137	70.26%
Irregular	58	29.74%

Table 5 shows that majority of the participants attained menarche at 13-15 years, 131(67.18%). Majority of the participant's menstrual bleeding duration is 3-5 days, 162 (83.08%). Majority of the participants have regular cycle, 137 (70.26%).

Table 6: Frequency and percentage distribution of the participants information regarding menstrual cramp. (N=195)

Variables	Frequency(f)	Percentage (%)
Menstrual cramp		
Present	139	71.28%
Absent	56	28.72%
Treatment preferred		

Allopathic	31	15.89%
Homeopathic/Ayurvedic	6	3.08%
Home remedy	74	37.95%
None	84	43.08%

Table 6 shows that menstrual cramp is present in majority of the participants, 139 (71.28%). Majority of the partici pants do not prefer any treatment for menstrual cramp, 84 (43.08%).

Table 7: Percentage distribution of the participants as per domains of level of awareness regarding management of dysmenorrhea. (N=195)

Domain	Level of awareness (in percentage)
Concept	81.19%
Sign and symptoms	83.59%
Risk Factor	41.65%
Management	57.16%

Findings related to the awareness score of partici pants regarding management of dysmenor rhea according to the demographic data.

Fig 1: A bar diagram showing the percentage distribution of level of awareness of management regardingdysmenor rhea of participants.
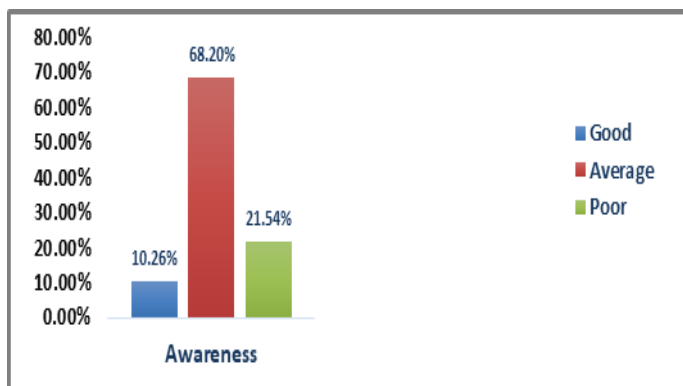

Figure1 reveals that out of 195 participants, 133 (68.20%) had average awareness regarding management of dysmenorrhea while 20 (10.26%) and 42(21.54%) had good and poor awareness respectively.

Fig 2: A bar diagram showing the distribution of level of awareness regarding management of dysmenor rhea of the participants according to age.
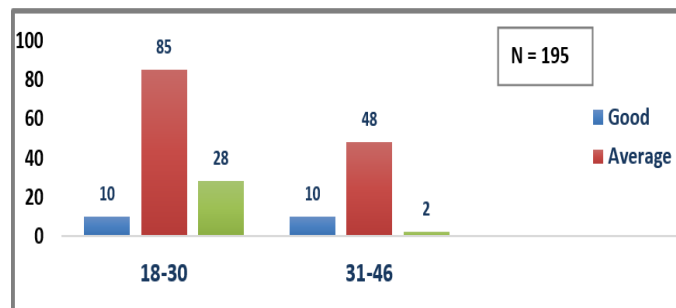

Figure 2 reveals that out of 123 participants who are in the age group of 18-30 years, 85 had average awareness regarding management of dysmenorrhea while 10 and 28 had good and poor awareness respectively and out of 72 participants who are in the age group of 31-46 years, 48 had average awareness regarding management of dysmenorrhea while 10 and 14 had good and poor awareness respectively.

Fig 3: A bar diagram showing the distribution of level of awareness regarding management of dysmenorrhea of the participants according to educational status.
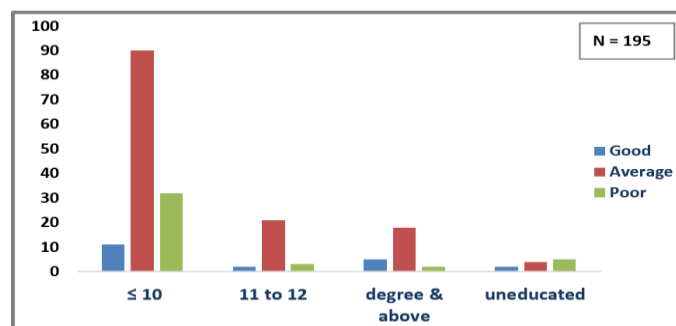

Figure 3 reveals that out of 133 participants whose educational status is ≤10, 90 participants had average awareness regarding management of dysmenor rhea while 11 and 32 partici pants had good and poor awareness respectively, out of 26 partici pants whose educational status is between 11 to 12 passed, 18 participants had average awareness regarding manage Ment of dysmenor rhea while 2 and 3 partici pants had good and poor awareness respectively, out of 25 partici

pants whose educational status is degree and above, 18 partici pants had average awareness regarding dysmenor rhea while 5 and 2 partici pants had good and poor awareness respectively, and out of 11 partici pants whose educational status is uneducated, 4 partici pants had average awareness regarding management of dysmenor rhea while 2 and 5 participants had good and poor awareness respectively.

Fig 4: A bar diagram showing the distribution of level of awareness regarding management of dysmenorrhea of the participants according to marital status
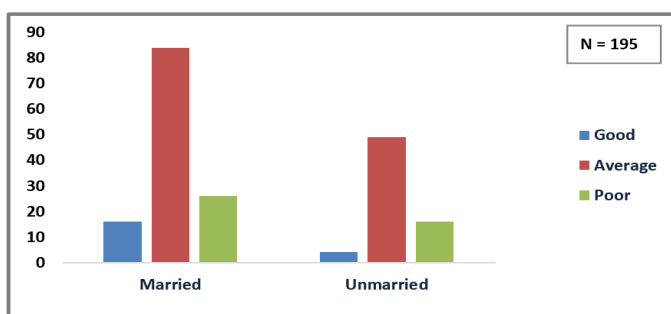

Figure 4 reveals that out of 126 participants who are married, 84 participants had average awareness regarding management of dysmenorrhea while 16 and 26 partici pants had good and poor awareness respectively, and out of 69 participants who are unmarried, 49 participants had average awareness regarding management of dysmenor rhea while 4 and 16 participants had good and poor awareness respectively

Fig 5: A bar diagram showing the distribution of level of awareness regarding management of dysmenorrhea of the participants according to family income
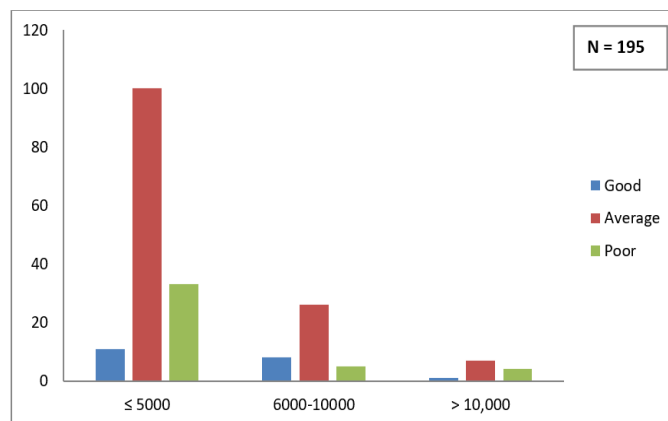

Figure 5 reveals that out of 144 participants whose family income is ≤5000, 100 participants had average awareness regarding management of dysmenorrhea while 11 and 33 participants had good and poor awareness respectively, out of 39 participants whose family income is in between 6000-10,000,

26 participants had average awareness regarding management of dysmenorrhea while 8 and 5 participants had good and poor awareness respectively, and out of 12 participants whose family income is >10,000,

7 participants had average awareness regarding manage Ment of dysmenorrhea while 1 and 4 participants had good and poor awareness respectively.

Findings related to association of the awareness of the participants with the selected demographic variables.

Table 8: Chi-square value showing association between level of awareness and selected demographic variables.

Demographic variables	Good	Average	Poor	Degree of freedom (df)	Calculated value*	Tabulated value
Education						
≤10	11	90	32			
11-12	2	21	3	6	12.61	12.59
Degree and above	5	18	2			
Illeterate	2	4	5			
Age						
18-30	10	85	28	2	1.74	5.99
31-46	10	48	14			

Marital Status						
Married	16	84	26	1	2.33	3.84
Unmarried	4	49	16			
Family Income						
≤5000	11	100	33	4	3.52	9.49
6000-10000	8	26	5			
>10000	1	7	4			

P<0.05*Significance

Table 8 Depicts the association between educational status and awareness regarding management of dysmenor rhea, the calculated value was found to be 12.61 which is greater than the tabulated value 12.59 at a degree of freedom 6 with p<0.05 level of significance. Hence there is association between educational status of participants and awareness regarding management of dysmenorrhea.

The association between the age of participants (in years) and the awareness regarding management of dysmenor rhea where the calculated value was found to be 1.74 which is less than the tabulated value 5.99 at a degree of freedom 2 with p<0.05 level of significance. Hence there is no association between age of participants and awareness regarding management of dysmenorrhea.

The table also depicts the association between the marital status of participants and the awareness regarding management of dysmenor rhea where the calculated value was found to be 2.33 which is lesser than the tabulated value 3.84 at a degree of freedom 2 with p<0.05 level of significance. Hence there is no association between marital status of participants and awareness regarding management of dysmenorrhea.

In the association between the family income and the awareness regarding management of dysmenor rhea where the calculated value was found to be 3.52 which is lesser than the tabulated value 9.49 at a degree of freedom 4 with p <0.05 level of significance. Hence there is no association between the income of family of participants and awareness regarding management of dysmenorrhea.

Discussion

In the present study, it was found that among 195 participants 74 (37.95%) adopted home remedy for management of dysmenor rhea. A similar study was conducted by Gebeyehu M B, Mekuria A B, Tefera Y G, And arge D A, Debay Y B, Bejiga G S, Gebresillassie B M on "Prevalence, impact, and management practice of dysmenorrhea among university of Gondar students, North-Western Ethopia: A cross sectional study". The result revealed that out of 400 participants more than 2/3rd (63.8%) of the respondents use home remedies as a primary management for dysmenorrhea.

Conclusion

From this study, it has been found that respondents have average awareness regarding management of dysmenor rhea. In addition, participants from the age group of 18-30 have a better awareness compared to other age groups. The awareness of the partici pants regarding management of dysmenor rhea is statistically associated with educati onal status of the participants.

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