

Evaluation of the Understanding of Home Remedies for Managing Dysmenorrhea Among Adolescent Girls in Selected School of Vaniyamkulam Panchayat

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Abstract

Background: India possesses a significant adolescent population critical to its future development. Addressing the health needs of this group is imperative for progress. Dysmenorrhea, characterized by painful menstrual cramps, is prevalent among adolescent girls, and home remedies are commonly used for management. This study aimed to evaluate the knowledge of home remedies for dysmenorrhea among girls at TRK Higher Secondary School in Vaniyamkulam. **Objectives:** The research had two main objectives: (1) to assess the understanding of home remedies for dysmenorrhea among adolescent girls, and (2) to examine the relationship between their knowledge and specific socio-demographic factors. **Methodology:** The study included 50 adolescent girls aged 15 to 18 from TRK Higher Secondary School, selected via simple random sampling. Data collection utilized a structured knowledge questionnaire. Statistical analysis comprised frequency analysis and chi-square tests. **Results:** With a total score of 20, the mean knowledge score was 13.2, representing 66%. Knowledge level distribution indicated 24% of participants had excellent knowledge, 60% had good knowledge, and 16% had average knowledge; none had poor knowledge. The chi-square test yielded a 't' value of 5.99, significant at the 0.05 level, leading to the retention of the null hypothesis, signifying no significant relationship between knowledge of home remedies for dysmenorrhea and the selected socio-demographic variables. **Conclusion:** The study concluded that while the knowledge level about home remedies for dysmenorrhea is generally good among the adolescent girls studied, this knowledge does not significantly correlate with the demographic variables considered. This suggests that other factors may influence knowledge levels on this topic among adolescents.

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INTRODUCTION

Adolescence is a period of transition from childhood to adulthood characterized by a rise in growth in the physical, hormonal, emotional, and mental topics as well as a shift from complete depending to a level of relative independence. The health of adolescent girls not only impacts their own well-being but also influences the health of future generations, as they are the direct progenitors of the population to come. Dysmenorrhea is a health problem that leads to painful abdominal pain during

menstruation. It was discovered that 79.67% of teenage girls had dysmenorrhea. A total of 37.96% of them reported having severe dysmenorrhea on a regular basis. The three most typical symptoms, which were fatigue and lethargy on the day before and the first day of menstruation, were depression on the second day and difficulty focusing while working on the third day [1].

Home remedies for dysmenorrhea include hot application techniques, physical activity, food, medicines, and relaxation and sleep. Short-term school absenteeism is primarily caused by dysmenorrhea. Many female adolescents' social, academic, and athletic activities are linked to unfavorable effects from dysmenorrhea.

Based on the review of literature, it is well known that the most commonly used home remedies for treating dysmenorrhea are fenugreek and ginger. Fenugreek is most commonly used for relief from the pain. Fenugreek treats dysmenorrhea by relaxing the muscles. It acts as an anti-inflammatory agent during menstruation. Fenugreek has the same action as nonsteroidal anti-inflammatory drugs (NSAIDs). Ginger might offer protection against heightened inflammation by inhibiting the body's production of prostaglandins, which are pro-inflammatory chemicals responsible for inducing the muscular contractions that facilitate the shedding of the uterine lining. Because of the clear relations between the onset of menstrual cramps and a high level of prostaglandins, taking supplements or drinking tea made from ginger may help relax the pain related to menstruation.

NEED AND SIGNIFICANCE OF STUDY

Dysmenorrhea is a commonly encountered gynecological issue that can have adverse effects on a woman's well-being. It often leads to substantial negative impacts on emotional, psychological, and functional health. Symptoms of dysmenorrhea encompass gastrointestinal discomforts like nausea, bloating, diarrhea, constipation, vomiting, and indigestion, along with irritability, headaches, and lower back pain frequently observed in women with primary dysmenorrhea. It is estimated that approximately 16% to 29% of women experience significant declines in their quality of life due to dysmenorrhea. Additionally, about 12% of monthly school and work activities may be missed due to absenteeism resulting from dysmenorrhea. It also limits women's participation in sports and social events. There are associated emotional stress [1].

OBJECTIVES OF THE STUDY

- To evaluate the understanding of adolescent girls concerning home remedies for managing dysmenorrhea.
- To examine the correlation between knowledge regarding home remedies for dysmenorrhea treatment and specific socio-demographic factors.

OPERATIONAL DEFINITIONS

- *Knowledge*: It refers to the awareness that adolescents have regarding home remedies to treat dysmenorrhea.
- *Home remedies*: It refers to a treatment used to try and cure dysmenorrhea that uses common household items.
- *Dysmenorrhea*: It refers to cramps and pelvic pain with menstruation.
- *Adolescents*: The term refers to individuals in the age group of 14 to 18 years.

REVIEW OF LITERATURE

A quantitative descriptive research study conducted at Kadambathur, Tamil Nadu about home remedies to treat dysmenorrhea. Dysmenorrhea causes pain in the lower abdomen and around the pubic bone during menstruation. The majority of home treatments for menstrual cramps focus on relaxing the muscles and widening the blood vessels. A total of 60 teenage girls who fit the inclusion criteria were chosen for the study. The findings of the research indicate that merely one girl (3.33%) possessed

sufficient knowledge, while the majority, comprising 38 individuals (63.33%), demonstrated moderate knowledge, and 20 participants (33.33%) exhibited inadequate knowledge [2].

A study conducted about the effectiveness of home remedies for dysmenorrhea shows that 20% to 90% women in the world suffers from dysmenorrhea. A sample size of 50 participants was selected through a simple random sampling method at Tamaka Kolar. Utilizing a pre-experimental single group design without a control group, data collection was conducted using a structured questionnaire. The post-test was administered 15 days after the pre-test. The results revealed that initially, all 50 participants (100%) exhibited inadequate knowledge regarding home remedies for dysmenorrhea. However, in the post-test, the majority, constituting 29 individuals (58%), demonstrated moderate knowledge, while 11 participants (22%) showed adequate knowledge. The paired 't' test value (10.30) indicated a significant change in knowledge level following the planned teaching program. Additionally, there was no discernible association between knowledge level and selected demographic variables [3].

A research study was conducted to evaluate the understanding of home remedies for dysmenorrhea among adolescent girls at SRM College of Nursing. Employing a non-experimental descriptive research design, the study involved 52 adolescent girls. Data collection consisted of administering a structured questionnaire aimed at assessing knowledge about home remedies for treating dysmenorrhea. Participants were selected using a non-probability convenient sampling technique. Descriptive and inferential statistics were employed to analyze the data. The findings revealed that 82.7% of participants possessed moderately adequate knowledge, 17.3% exhibited inadequate knowledge, and none demonstrated adequate knowledge. The study report shows that in India the prevalence rate was 81%, therefore health education is essential for the improvement of knowledge related to dysmenorrhea [4].

METHODOLOGY

Research Approach

The quantitative research approach was used to study the “the knowledge regarding home remedies to treat dysmenorrhea among adolescent girls in a selected school of Vaniyamkulam Panchayat.

Research Design

The study employed a descriptive research design.

Setting of the Study

The study was conducted in TRK Higher Secondary School at Vaniyamkulam.

Population

The population of the study consists of adolescent girls who are in the age group of 14 to 18 years studying in TRK Higher Secondary School at Vaniyamkulam.

Sample and Sampling Technique

The sample for this study includes the adolescent girls studying in TRK Higher Secondary School at Vaniyamkulam. The sample size is 50.

Sampling Technique: Convenient Sampling

Inclusion Criteria

The study includes the adolescent girls who are

- Students of age group 14 to 18 years studying in TRK Higher Secondary School at Vaniyamkulam.
- Available at the time of data collection.
- Willing to participate in the study.

Exclusion Criteria

The study excludes the adolescent girls who are not

- The students of age group more than 19 years studying in TRK Higher Secondary School at Vaniyamkulam.
- Available at the time of data collection.
- Not willing to participate in the study.

Tools for the Study

Data collection constitutes the procedure or instruments used by the researcher to observe or measure the key variable in the research problem. A structured knowledge questionnaire was used to collect the data. The tool was prepared on the basis of objectives of the study.

Description of Tool

The tool consists of two sections:

- Part A: Demographic pro forma
- Part B: Structured knowledge questionnaire regarding home remedies to treat dysmenorrhea.

Data Collection Procedure

The formal permission was obtained from the TRK Higher Secondary School at Vaniyamkulam, and the study was carried out on December 11, 2023. The sample of 50 higher secondary students were selected on the basis of inclusion criteria simple random sampling technique. Informed consent was obtained from the participants prior to the study.

Plan for Data Analysis

In order to achieve the stated objectives of the study the data obtained from the subject was coded numerically and tabulated. After tabulation and coding was entered to a spread sheet. The collected data were analyzed using descriptive and inferential statistics.

RESULT ANALYSIS AND INTERPRETATION

The findings based on the descriptive and inferential statistical analysis tabulated as follows:

- *Section A:* Distribution of adolescent girls as per demographic variables.
- *Section B:* Description of knowledge score.
- *Section C:* Association between knowledge score and selected demographic variables.

Section A: Distribution of Adolescent Girls as per Demographic Variables

Table 1 shows the frequency and percentage distribution of samples according to their demographic variables like age in years, type of family, monthly income, source of health information, and mother's education.

Percentage-wise Distribution of Samples According to Their Age

Distribution of adolescent girls according to their age shows that majority, 32 (64%), were in the age group of 16 to 18 years, 12 (24%) were in the age group of 14 to 16 years, and 6 (12%) were in the age group more than 18 years (Figure 1).

Percentage-wise Distribution of Samples According to Their Type of Family

Distribution of adolescent girls according to their type of family shows that majority, 29 (58%), belonged to nuclear family, 14 (28%) belonged to joint family, and 7 (14%) belonged extended family (Figure 2).

Percentage-wise Distribution of Samples According to Their Monthly Income

Distribution of adolescent girls according to their monthly income shows that majority, 24 (48%), were in the category of INR 10,000, 18 (36%) were in the category of INR 20,000, and 8 (16%) were in the category of more than INR 20000 (Figure 3).

Table 1. Frequency and percentage distribution of samples according to their demographic variables ($N = 50$).

S.N.	Demographic variables	Frequency	Percentage
1	Age in years		
	• 14–16	12	24%
	• 16–18	32	64%
	• >18	6	12%
2	Type of family		
	• Nuclear	29	58%
	• Joint	14	28%
	• Extended	7	14%
3	Monthly income in INR		
	• 10,000	24	48%
	• 20,000	18	36%
	• >20,000	8	16%
4	Source of health information		
	• Family	26	52%
	• Media	10	20%
	• Health personnel	14	28%
5	Mother's education		
	• Up to 12th standard	28	56%
	• Up to graduation	16	32%
	• More than graduation	6	12%

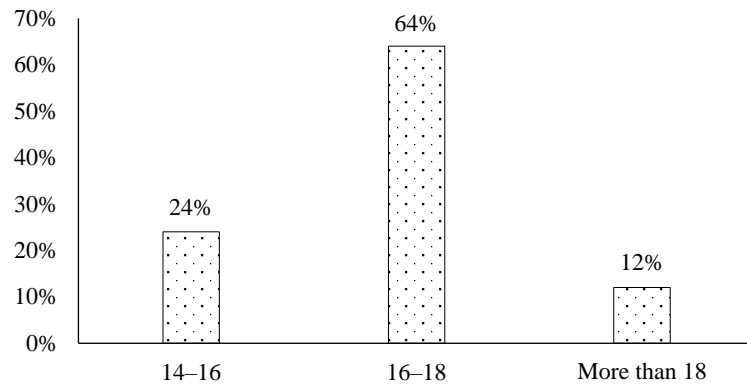


Figure 1. Bar diagram showing the distribution of adolescent girls according to their age.

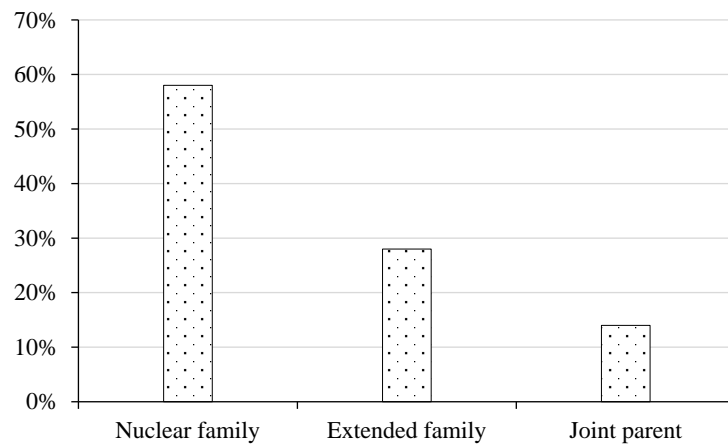


Figure 2. Bar diagram showing the distribution of adolescent girls according to their type of family.

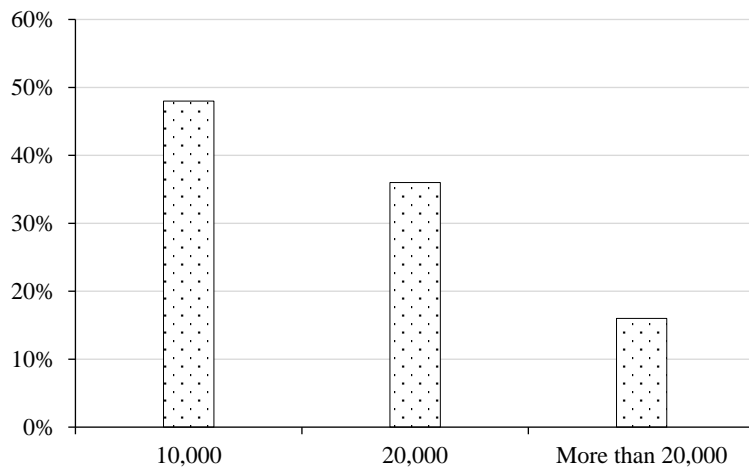


Figure 3. Bar diagram showing the distribution of adolescent girls according to their monthly income.

Percentage-wise Distribution of Samples According to Their Source of Health Information

Distribution of adolescent girls according to their source of health information shows that majority, 26 (52%), gained knowledge from family, 14 (28%) from health personnel, and 10 (20%) from mass media (Figure 4).

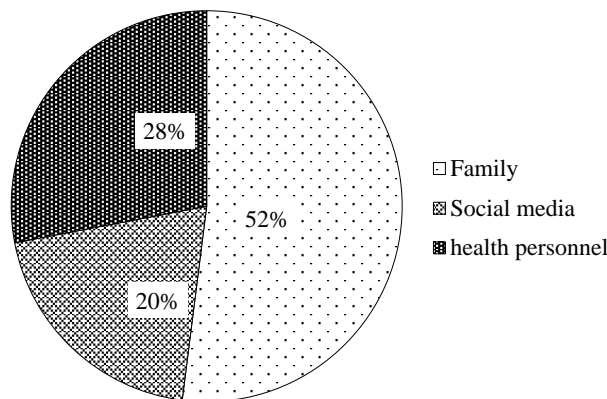


Figure 4. Pie diagram showing the distribution of adolescent girls according to their source of health information.

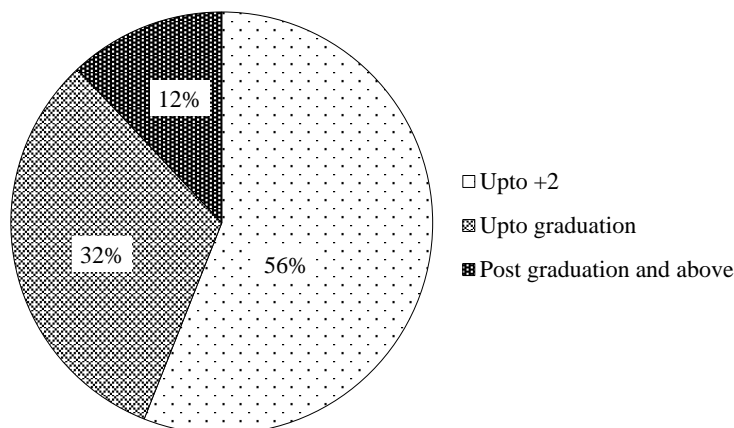


Figure 5. Pie diagram showing the distribution of adolescent girls according to their mother's education.

Percentage-wise Distribution of Samples According to Their Mother's Education

Distribution of adolescent girls according to their mother's knowledge shows that majority, 28 (56%), had education up to 12th standard, 16 (32%) had education up to graduation, and 6 (12%) had more than graduation level education (Figure 5).

Section B: Description of Knowledge Score

Table 2 data show that 12 (24%) of participants have excellent knowledge, 30 (60%) have good knowledge, 8 (16%) of them have average knowledge, and none had poor knowledge. The mean knowledge score was 13.2 out of 20. The knowledge score percentage is 66%.

Section C: Association Between Knowledge Score and Selected Demographic Variables

This section presents the association between level of knowledge about home remedies to treat dysmenorrhea among adolescent girls and selected demographic variables.

Table 2. Frequency, percentage, distribution of sample according to the knowledge level about home remedies to treat dysmenorrhea. (N=50)

S.N.	Scoring details total score = 20		Knowledge level	No. of students	Percentage
	Score	Percentage			
1	>16	80%	Excellent	12	24%
2	12–16	60–80%	Good	30	60%
3	8–12	40–60%	Average	8	16%
4	<8	<40%	Poor	0	0%

Table 3. Chi-square values showing association between knowledge scores and selected demographic variables. $N = 50$

S.N.	Sample characteristics	<Median	>Median	χ^2	Degrees of Freedom (df)	Level of Significance
1	Age in years			3.72	2	Not significant
	a. 14–16	7	7			
	b. 16–18	13	22			
	c. >18	0	1			
2.	Type of family			1.36	2	Not significant
	a. Nuclear	20	27			
	b. Joint	0	3			
	a. Extended	1	1			
3.	Monthly income in INR			2.78	2	Not significant
	a. 10,000	9	14			
	b. 20,000	3	3			
	c. >20,000	8	13			
4.	Source of health information			3.14	2	Not significant
	a. Family members	17	27			
	b. Mass media	1	3			
	c. Health professionals	1	1			
5	Mother's education			2.08	2	Not significant
	a. Up to 12th standard	12	16			
	b. Up to graduation	6	8			
	c. More than graduation	2	6			

NS, not significant, $\chi^2 = 5.99$, $P < 0.05$.

Data presented in Table 3 indicate that the chi square values in all aspects of demographic variable like age of the subjects, type of family, monthly income, source of health information, and mother's education level were less (3.72, 1.36, 2.78, 3.14, and 2.08, respectively) than that of table value at 0.05 level of significance. Consequently, the researchers embraced the null hypothesis (H0) while dismissing the research hypothesis. Therefore, it can be inferred that there was no noteworthy correlation between the knowledge score of adolescent girls and the chosen demographic variables.

DISCUSSION

Descriptive and inferential statistical methods were employed to analyze the data, aligning with the study's objectives. The mean knowledge score, computed from the data, was 13.2 out of a total of 20 points. The knowledge score percentage is 66%. In this study, hypothesis testing was done by chi square test. The chi square values in all aspects of demographic variable like age of the subjects, type of family, monthly income, source of health information, and mother's education level were less (3.72, 1.36, 2.78, 3.14, and 2.08, respectively) than that of table value at 0.05 level of significance.

As a result, the researcher affirmed the null hypothesis (H₀) and dismissed the research hypothesis. Consequently, it is inferred that there exists no noteworthy correlation between the knowledge scores of adolescent girls and the demographic variables selected for the study. This study shows that 12 (24%) of them have excellent knowledge, 30 (60%) have good knowledge, 8 (16%) of them have average knowledge, and none had poor knowledge [5–10].

Nursing Implications

The outcomes of this study hold significance for various domains within the nursing profession, including nursing education, clinical practice, administrative roles, and research in nursing.

Implication for Nursing Education

1. The study also gives priority for the continuing educational program as it upholds and maintains knowledge and thus making nurses more competent.
2. Efforts should be made to improve and expand the nursing curriculum to provide adequate management and its effectiveness.
3. Periodic conferences, seminars, and group discussions can be arranged regarding home remedies to treat dysmenorrhea.

Implication for Nursing Practice

- A gap between the existing knowledge and expected level indicates the need for a more informative program on menarche.
- Nurse can be encouraged to teach about home remedies to treat dysmenorrhea.
- Practice and awareness about home remedies to treat dysmenorrhea will improve the knowledge.

Implications for Nursing Administration

- Nursing administration should take initiatives in creating plans and programs on conducting awareness programs. They should plan for human resources, material, money, methods, and time to conduct successful education programs. Materials regarding home remedies to treat dysmenorrhea should be made available to adolescent girl students.
- Leaders in nursing are confronted with understanding the health needs of the patients. The nurse administrator ought to engage in health policy development processes to enhance patient education protocols.
- The healthcare system is responsible for providing patient education services, including high-quality and cost-effective care.

Implication for Nursing Research

- The present study is an initial investigation in the area of home remedies to treat dysmenorrhea. This is a need for extensive and intensive research in the arm of knowledge of higher secondary adolescent girl students.
- The essence of research is to build up a body of knowledge in home remedies to treat dysmenorrhea. The effectiveness of the research study can be further enhanced through replication of the study.
- The results of the study can provide a foundation for professionals and students to pursue additional research endeavors.

CONCLUSION

The overall conduct of this study was a satisfying one. There was good cooperation from the higher secondary girl students of TRK Higher Secondary School, Vaniyamkulam. The participants expressed contentment and appreciation for the information provided. The study served as a valuable learning opportunity for the researchers. The findings of this study suggest that knowledge enhancement can be achieved through participation in various educational sessions.

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