International Journal of Science and Research (IJSR)
ISSN: 2319-7064
Impact Factor 2025: 7.089

Study to Assess the Knowledge regarding Dysmenorrhea among Adolescent Girls of GNM Nursing Students at BVVS Nursing College Bagalkot

Sakhubai Hosamani[1], Dr. Jayashree G Itti[2]

[1]Lecturer, Department of Obstetrics and Gynaecology Nursing, Shri B.V.V.S. Institute of Nursing Sciences, Bagalkot, Karnataka, India

[2]Principal, Department of Community Health Nursing, Shri B. V. V. S. Institute of Nursing Sciences, Bagalkot, Karnataka, India
Corresponding Author Email: *hebbalatti[at]gmail.com*

Abstract: ***Dysmenorrhea is defined as pain during menstruation. The pain is typically located in the lower abdomen and may radiate to the inner thighs and back. Dysmenorrhea is a very common gynecologic condition and can significantly impact a patient's quality of life. Providing treatment options for patients affected by dysmenorrhea can significantly reduce the associated morbidity. A variety of treatment options are available, some of which may be more or less helpful for an individual patient. Dysmenorrhea is the leading cause of recurrent short-term school absence in adolescent girls and a common problem in women of reproductive age. Risk factors for dysmenorrhea include nulliparity, heavy menstrual flow, smoking, and depression. Empiric therapy can be initiated based on a typical history of painful menses and a negative physical examination. Non- steroidal anti-inflammatory drugs are the initial therapy of choice in patients with presumptive primary dysmenorrhea1. Primary dysmenorrhea is the most common women's health issue, affecting 90% of adolescent girls and more than 50% of menstruating women. In general, and particularly in the study area, there is a paucity of documented information on the prevalence and associated factors of primary dysmenorrhea among female medical students. As a result, the purpose of this study was to identify the prevalence and risk factors for primary dysmenorrhea. Institutional based cross-sectional study was conducted among 503 female medical students. Background: Dysmenorrhoea is a very common gynaecological condition affecting anywhere from 45 to 95% of women with one in five cases being severe. Dysmenorrhoea is a medical condition characterised by severe uterine pain during menstruation manifesting as cyclical lower abdominal or pelvic pain, which may also radiate to the back and thighs. The term dysmenorrhoea is derived from the Greek words 'dys' meaning difficult, painful or abnormal, 'meno' meaning month and 'rrhea' meaning flow. Methods: The dates of the descriptive study were April 21, 2026 to May, 2026. Using the stratified random sample procedure, 120 study participants were chosen. The research was carried out BVVS nursing college Bagalkot. The study involving 120 adolescent girls. Data were collected with a structured questionnaire and variables including socio demographic characteristics, knowledge of dysmenorrhea.***

Keywords: Knowledge, Dysmenorrhea, and Adolescentgirls

1. Introduction

Dysmenorrhea is defined as painful menstrual cramps of uterine origin, and considered as one of the most common gynecological disorders among females of childbearing age [1]. Although it is a common condition, it is usually under diagnosed, since most females do not seek medical attention [2, 3]. In accordance with its pathophysiology, it is classified as either primary or secondary dysmenorrhea.

Primary dysmenorrhea defined as spasmodic and painful cramps in the lower abdomen that begin shortly before or at the onset of menses in the absence of any pelvic pathology- is one of the most common complaints in both young and adult females [4]. Its onset occurs mainly during adolescence, within 6 to 24 months after menarche. Dysmenorrheic pain has a clear and cyclic pattern, which is typically severe during the first day of menses and lasts up to 72 hours [5]. Despite its high prevalence and impact on daily activities, it is often inadequately treated and even disregarded, given that, many young females prefer to suffer silently, without seeking medical advice. Females consider PD an embarrassment and a taboo, and also perceive the pain as an inevitable response to menstruation, that should be tolerated [1,6]. Primary healthcare providers commonly encounter females with dysmenorrheic complaints [7] and thus play a substantial role in diagnosing, educating, reassuring, and providing them with the therapy required for optimizing the overall treatment outcomes of PD [7-9]. This review focuses on the high prevalence and negative influence of PD on young females' quality of life (QOL), and aims to provide primary health care providers, with an updated evidence-based perspective on the diagnosis and recommended treatment modalities for managing PD. Table 1 summarizes relevant information about this disorder[3].

Objectives

1) To assess the knowledge regarding dysmenorrheal among adolescent girl's
2) To find out association between the knowledge regarding dysmenorrheal with their selected socio demographic variables.

2. Materials and Methods

For the study, a descriptive survey design was adopted. In bvvs nursing college, Bagalkot, India. 120 Adolescent girls provided samples using a straight forward random approach. A conventional, Multiple- choice questionnaire was used to gather information about Knowledge of dysmenorrhea. Both

descriptive and inferential statistics were analyses the gathered data.

Source of data-The present study collected data from Adolescent girls.

Research Approach-. The descriptive research methods are developed when the purpose of the research is to describe the knowledge of the phenomenon or to estimate the phenomenon's value to society. The main objective of this study is to evaluate the Knowledge of dys menorrhea Among Adolescent girls Studying in BVVS nursing college of GNM at Bagalkot.

Research Design- All plans designed by a researcher to answer research questions or test research findings are called research design. A descriptive design means the study involved a one-time data analysis on Adolescent girls. The research design represents the population, sample size, variables, data collection tools and methods, and data analysis plan.

Variables

Dependent Variable -Knowledge about dysmenorrheal among adolescent girls.

Socio-Demographic Variables- Adolescent Girls socio demographic traits are among the socio demographic variables. Age at menarche, education, Residence, Religion, family monthly income, menstrual regularity, duration of menstrual flow, Diet, type of family, No. of pads changes per day, have you received any information about dysmenorrhea from anywhere, sources of information, Family history of dysmenorrheal diseases, and its preventive measures.

Setting of Study- Setting is the environment in which information is gathered. The current investigation was carried out at BVVS nursing college of Bagalkot. The convenience of the investigator and the availability of Adolescent girls were taken into consideration when choosing the study setting.

Population

Target Population-This study refers to a group of Adolescent girls of GNM students at BVVS college Bagalkot

Accessible Population- This study refers to girls, who are in the state of Adolescent and members of GNM students at BVVS nursing college Bagalkot, India.

Sample and Sample Size- Subjects drawn from units that make up the study's population constitute a sample. The sample size for this investigation is (n=120). Sample including Adolescent girls of GNM students at bv vs nursing college of Bagalkot, India.

Sample Technique- The sampling technique is the researcher's procedure to select the study samples. The sample for the present study is 120 Adolescent girls who are members of BVVS nursing college GNM students at Bagalkot, India. The stratified sampling technique was used to select samples for the present study. The Adolescent girls were selected through stratified sampling method according to duration and who met both the in-sampling technique and the procedure that the researcher adopted in selecting the inclusion and exclusion criteria of the study.

Data Collection Tool- The methods or equipment the researcher employs to measure or observe the important variables in the research problem are known as data collection tools. The data for this study were gathered using a common Knowledge instrument.

Statistical analysis- The methodical arrangement and synthesis of research data, as well as the application of the data to test research hypotheses, constitute statistical analysis. Both descriptive and inferential statistics were used in the analysis of the data. Distributions of percentages and frequencies were used to assess the demographic data. The Adolescent had their scores evaluated using the mean and standard deviation. Adolescent girls Knowledge levels were compared to a set of chosen sociodemographic characteristics using a chi- square test.

3. Results

Description of socio- demographic characteristic of sample

- Percentagewise distribution of adolescent girls according to their age in years that out of 120 adolescent girls, highest percentage (45%) of adolescent girls are in the age of 15 to 18 years (38%) of adolescent girls are in the age o f19 to 22 years (37%) of 23 to 26 years.
- Percentage wise distribution of adolescent girls according to their education shows that out 120 adolescent girls, highest percentage (40%) of adolescent girls are GNM1ST year, (45%) of adolescent girls are GNM 2nd years, (35%) of adolescent girls are GNM3rd years.
- Percentage wise distribution of adolescent girls according to their residences shows out 120 adolescent girls, highest percentage (69%) of adolescent girls are Rural, (38%) of adolescent girls are Urbon.
- Percentage wise distribution of adolescent girls according to their family monthly income of adolescent girls out of 120 adolescent girls, RS10000-20000(88%) higher st of adsolescentgirl's20000-30000 and (17%) more than 30000.

Socio- Demographic Variables	Frequency	Percentage (%)
1. Age		
• 15-18years	45	37.5%
• 19-22 years	38	31.6%
• 23-26years	37	30,83
2. Education		
• GNM1st	40	33.3%
• GNM2nd	45	37.5%
• GNM3rd	35	29.16%
3. Residence		
• Urban	38	31.6%
• Rural	82	69.1%
4.Religions		

• Hindu	88	73.33%
• Muslim	32	26.6%
• Cristian	0	0
• Extended	0	0
5. Family monthly income		
• 10000-20000	88	73.3%
• 20000-30000	15	12.5%
• 30000above	17	14.16%
6. Menstrul Regularity		
• Regular	85	70.83%
• Irregular	35	29.16%
7. Duration of menstrual flow		
• 5 days	102	85%
• 7 days	12	10%
• 8 days	06	06%
8. Diet		
• Veg	05	4.1%
• Non veg	22	16,6%
• Mixed	95	79.16%
9. Type op family		
• Nuclear family	82	68.3%
• Joint family	38	31.6%
• Extended family	0	0
10. No of pads changes per day		
• 2-3 pads	35	29.1%
• 3-5 pads	73	60.8%
• 5 and above	12	10%

Percentage wise frequency distribution.
Adolescent girls mean percentage of Knowledge score, mean and SD, show that the overall mean percentage of knowledge score was 15.5with mean and SD of Knowledge 0.411197, which are 15.5±0.411197.

Table 2: Area-wise mean, SD, and mean percentage of Knowledge score

Area	Maximum score	Mean	SD	Mean (%)
Knowledge	1868	15.5	0.411197	77.8%

The results of the study on the relationship between Adolescent girls Knowledge. they chose to analyses indicate that there is a significant association between Adolescent girls Knowledge and socio demographic variables about dysmenorrhea and age ($\chi2=0$; $p=1$), Education ($\chi2=0.02$;$p=0.88$), Residence ($\chi2=0.57$;$p=0.450$, Religion ($\chi2=0$p=1,) family monthly income ($\chi2=0.03$ $p=0.862$), menstrual regularity ($\chi2=11$,0$p=0.0009$),duration of menstrual flow ($\chi2=0$,94 $p=0.332$), Diet ($\chi2=1.16$ $p=0.3032$) type of family ($\chi2=0.23$p=0.6315)number of pads changes per day($\chi2=0.09$p=0.764.)

Table 3: Association of Knowledge of girls with their selected socio-demographic variables

S. No	Socio-demographic variable	Chi Square	Df	P
1	Age at menarche	0	1	1
	15-18years			
	19-22years			
	23-26 years			
2	Education	0.02	1	0.88
	GNM1st			
	GNM			
	2nd			
	GNM3rd			
3	Residence	0.57	1	0.45
	Urban			
	Rural			
4	Religion	0	10	
	Hindu			
	Muslim			
	Christian			
5	Family monthly income	0.03	1	0.862
	10000-20000			
	20000-30000			
	30000ab0ve			
6	Menstrual regularity	11.03	1	0.0009
	Regular			
	Irregularity			
7	**Duration of menstrual flow**	0.94	1	0.332
	5days			
	7days			
	8days			
8	**Diet**	1.06	1	0.3032
	Veg			
	Nonveg			
	Mixed			
9	**Type of family**	0.23	1	0.6315
	Nuclear family			
	Joint family			
	Extended family			
10	**N0 of pads changes per day**	0,09	1	0.764
	2-3			
	3-5			
	5and above			

The results pertaining to the correlation between adolescent girls Practice and the chosen socio demographic variables indicate that there is a noteworthy relationship between Adolescent girls menstrual hygiene and age ($\chi2=1.07$; $p=0.3009$), Religion ($\chi2=0.38$; $p=0.9443$), Family monthly income ($\chi2=0.3$; $p=0.8607$), year of Study ($\chi2=7.05$; $p=0.0295$)

In this study association in all the socio demographic is < 10 poor knowledge ,11-20 Good knowledge. as

Age wise 15-18age groups are 14 is poor knowledge, and 23 is good knowledge, 19-22 age- group are 9 is poor knowledge and19 is good knowledge .and 23-26 age group 20 are good knowledge and above 35adolescents have good knowledge.

Education: Gnm1st 21 poor and GNM2nd 18 poor and GNM 3rd 29 poor, good knowledge Gnm1st 10, good knowledge of Gnm2nd 20, good knowledge of GNM 3rd 32 having good knowledge

Type of family<10 Poor nuclear family 10, and joint family 38,.and 11-20 Good nuclear family having good knowledge 19 is joint family has 53.

Religion: Hindu having poor knowledge 35, and good knowledge 45, and Muslim having poor knowledge 18, good knowledge 22 and Christian 0 and others 0

Diet: poor knowledge of vegtarian2, good know38ledge3 and poor knowledge of non vegitarian7, good knowledge13, and poor knowledge of mixed diet, good knowledge 57.

No of pad changes per day: having poor knowledge 2-3 no of pad changes per day are 5 and good knowledge 08 and 3-5no of pad changes per day poor knowledge34, good knowledge 53 and 5 and above no of pads changes per day poor knowledge are 9, good knowledge 11,

4. Discussion

This study aims to measure Knowledge of dysmenorrhea among Adolescent girls studying GNM nursing at BVVS nursing college of Bagalkot. The discussion highlights the main findings of this study and how those findings compare with findings from similar study conducted on the subject of dysmenorrhea.

The similar study showed that among students with dysmenorrhea, 74.7% [95%CI: (70.0–79.5%)] reported that dysmenorrhea had an impact on their academic performance. Some of its impacts were as follows: unable to study for an exam (92.1%), loss of class concentration (86.1%), inability to do homework (80.8%), loss of class participation (54.9%), class absence (27.1%), and limited sports participation (24.1%). This prevalence is in line with a previous study conducted in Gondar, Ethiopia, which was 74.1% (23). This prevalence is higher than those in previous studies conducted in Ethiopia 20–62.8% (5, 6, 21) and lower than previous studies conducted in Iraq 79.9% (22) and 88.3% in Ethiopia (10). This variation would be because of the self-reporting nature of the operational definition of academic impacts, university students' various disciplines, and the difference in socio-demographic characteristics of the students.

In this study, those students who had a moderate to severe dysmenorrhea pain intensity were found to have a significant association with the occurrence of the impact of dysmenorrhea on academic performance, which was 8.53 times more likely compared to mild dysmenorrhea pain. This is consistent with reports from other studies (15, 16, 22, 24, 25). This could be due to the following: no standard measure used for dysmenorrhea pain intensity, hormonal change in the luteal phase resulting in mood changes, and other symptoms which interfere with students' daily academic activity. Furthermore, this study showed that early menarche (≤ 12 years) was 4.89 times more likely to cause an impact of dysmenorrhea on academic performance compared to late menarche ≥15 years, which is consistent with the findings of other studies in Nigeria (26). This might be due to early menarche reflecting longer exposure to uterine prostaglandins that play a major role in dysmenorrhea through increasing uterine contractility resulting in pain,

5. Conclusion

Dysmenorrheal is a key strategy to early detection of diseases and sub sequent critical for effective treatment and cure of the disease. The findings this study have shown significant low levels of awareness dysmenorrheal among adolescent in Karnataka. region. This pattern may be similar to other rural communities across the region. The need to create awareness and to educate adolescent girls on importance of dysmenorrheal has preventive measure of dysmenorrheal diseases is permanent.

Acknowledgement: We the thankful anonymus referees for their usefull suggestion the hreat is full and words are few to express my sincerc gratitude towards those helping hands.

References

[1] Critical 1.Iacovides S, Avidon I, Baker FC. What we know about primary dysmenorrhea today: a review. Hum Reprod Update. 2015; 21: 762–78. doi: 10.1093/humupd/dmv039. [DOI] [PubMed] [Google Scholar]
[2] Chen CX, Shieh C, Draucker CB, Carpenter JS. Reasons women do not seek health care for dysmenorrhea. J Clin Nurs. 2018; 27: e301–8. doi: 10.1111/jocn.13946. [DOI] [PMC free article] [PubMed] [Google Scholar]
[3] Proctor M, Farquhar C. Diagnosis and management of dysmenorrhoea. BMJ. 2006; 332: 1134–8. doi: 10.1136/bmj.332.7550.1134. [DOI] [PMC free article] [PubMed] [Google Scholar]
[4] Sharghi M, Mansurkhani SM, Larky DA, Kooti W, Niksefat M, Firoozbakht M, et al. An update and systematic review on the treatment of primary dysmenorrhea. JBRA Assist Reprod. 2019; 23: 51–7. doi: 10.5935/1518-0557.20180083. [DOI] [PMC free article] [PubMed] [Google Scholar]
[5] Proctor ML, Farquhar CM. Dysmenorrhoea. BMJ Clin Evid. 2007; 2007: 0813. [PMC free article] [PubMed] [Google Scholar]
[6] Chen L, Tang L, Guo S, Kaminga AC, Xu H. Primary dysmenorrhea and self-care strategies among Chinese college girls: a cross-sectional study. BMJ Open. 2019;9:e026813. doi: 10.1136/bmjopen-2018-026813. [DOI] [PMC free article] [PubMed] [Google Scholar]
[7] Rafique N, Al-Sheikh MH. Prevalence of menstrual problems and their association with psychological stress in young female students studying health sciences. Saudi Med J. 2018; 39: 67–73. doi: 10.15537/smj.2018.1.21438. [DOI] [PMC free article] [PubMed]