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A STUDY ON MENSTRUAL PROBLEM AND HEALTH SEEKING BEHAVIOR IN ADOLESCENT GIRLS OF DISTRICT BARABANKI.

Dr Zainab khan[1*], Dr Neeti verma[2], Dr Bhupesh kumar kori[3], Dr Nirpal kaur Shukla[4], Dr M.P.Singh[5], Dr Ankur Shrivastava[6], Mr. Shahnoor Alam[7]

[1*]Assistant professor , Department of community medicine, Hind institute of medical sciences Safedabad Barabanki
[2]Associate professor, Department of community medicine, Hind institute of medical sciences Safedabad Barabanki
[3]Associate professor, Department of community medicine, Hind institute of medical sciences Safedabad Barabanki
[4]Associate professor, Department of community medicine, Hind institute of medical sciences Safedabad Barabanki
[5]HOD & Professor, Department of community medicine, Hind institute of medical sciences Safedabad Barabanki
[6]Professor, Department of community medicine, Hind institute of medical sciences Safedabad Barabanki
[7]Statistician, Department of community medicine, Hind institute of medical sciences Safedabad Barabanki

***Corresponding author:** Dr Zainab khan
*Assistant professor , Department of community medicine, Hind institute of medical sciences Safedabad Barabanki

Abstract

Background: The most important physiological event of female puberty is the onset of menstruation which plays a key role in woman's reproduction. Menstrual disorders are common in adolescence, adolescent girls are reported to have menstrual dysfunction and is known to affect the normal daily chores.

Method: Descriptive cross-sectional study was carried among 640 adolescent school going girls of 10 to 19 years of age in district Barabanki of Uttar Pradesh.

Results: Prevalence of menstrual disorders in school going adolescent girls, majority (73.8%) of girls reported dysmenorrhoea. Majority preferred to discuss with mothers 225 (76.5%) followed by sister (12.2%) and friends (5.8%) only 7 (2.4%) took doctor's advice/ health care professional.

Conclusion: Health seeking behaviour was high among girls having literate mothers and premenstrual syndrome adversely affect school attendance of adolescent girls.

Key Words: Adolescent, Menstrual, Dysmenorrhoea, Premenstrual syndrome

Introduction

Adolescence in girls has been recognized as a special period which signifies the transition from girlhood to womanhood. The most important physiological event of female puberty is the onset of menstruation which plays a key role in a woman's reproductive life.[2] Menstruation is a normal physiological phenomenon for females indicating their capability for procreation and abnormalities of menstruation are a major gynaecological problem in adolescence. Menstrual cycle is characterized by variability in volume, pattern and regularity. Menstrual disorders are common in adolescence because they are closely related to the processes involved in the pubertal development of females. 75% of adolescent girls are reported to have menstrual dysfunction and is known to affect the normal daily chores. Delayed, irregular, painful, and heavy menstrual bleeding are common occurrence among younger age and are the leading reasons for physician office visited by adolescents[1].

Dysmenorrhea is yet another major cause of activity restriction and school absenteeism in adolescent girls. However, the condition is often considered as physiological pain and generally ignored[2]. Hygiene-related practices of women during menstruation are of considerable importance, as it has a health impact in terms of increased vulnerability to reproductive tract infections (RTI). Untreated RTIs are responsible for 10-15% of foetal wastage and 30-50% of prenatal infection. Increasingly, RTIs are also linked with the incidence of cervical cancer, HIV/AIDS, infertility, ectopic pregnancy, and a myriad of other symptoms[3].

For many girls menarche is as intensely experienced, highly significant and potentially traumatic event. Adolescent girls often are reluctant to discuss this topic with their parents and often hesitate to seek help regarding their menstrual problems[4]. Realizing the importance of the topic the present study was designed with the aim of collecting data on prevalence of menstrual patterns and disorders along with their health seeking behaviour among adolescent girls from Barabanki city in Uttar Pradesh, India. This study could help to develop a questionnaire regarding MDOT (menstrual disorders of teenagers) as a non-invasive screening tool to identify girls who would require further investigations and treatment for menstrual abnormalities and develop an appropriate education module about menstrual health for adolescent girls.

OBJECTIVES

To study the menstrual related health problems and health seeking behaviour among adolescent girls.

METHODOLOGY

Study design and setting

This descriptive cross-sectional study was carried among 640 adolescent school going girls of 10 to 19 years of age, in district Barabanki of Uttar Pradesh.

Sample strategy and Sample size

Assuming the prevalence of dysmenorrhoea(p) to be 72.7% based on the finding of the preliminary study[5], with an allowable error(d) of 5%, and design effect of 2, the total sample size calculated was 634 and it was rounded to 640. Formula used: size (N) = δ [z^2 p (1-p)/d^2 ; where N= sample size, *z* = value of standard normal deviate = 1.96 at 95% confidence interval (CI).

Multistage sampling technique was used. Convenient Sampling was used for selecting the Block in District Barabanki. Out of 15 Blocks of District Barabanki, 2 Blocks Harak and Banki were chosen being in vicinity of Rural Health and Training Centre.

Next Stratified Random Sample was used for selecting the schools. A list of private schools in the selected Blocks was prepared and randomly one school was chosen. The total number of enrolled students in the required classes 6^{th} to 12^{th} in this private school was 1311. A list of government schools was also prepared since the number of students enrolled in each government school was less, two schools were selected randomly so as to achieve the total number of students at par with the private school. The number of students enrolled in these two government schools in the required classes 6^{th} to 12^{th} was 730 and 385. Hence the total number of students enrolled in the government schools in the required classes 6^{th} to 12^{th} was 1115.

To achieve the desired sample size Probability Proportionate to Size (PPS) Method was adopted by obtaining the list of students in each school, from class 6 to class 12. Further, number of adolescent girls to be enrolled in the study from each class was also achieved by the PPS method. Simple Random Sample Method was used to select the required number of girls from each class. Randomization of students was done for each class, employing simple random sampling, taking class attendance register as the reference on the day of the visit, to select the students from each class. Thus, a sample size of 640 students were selected for the study.

Data collection

The principals of the concerned schools as well as parents of girls were explained about the purpose of study and were reassured about the confidentiality of the data. Informed consent was obtained from each participant and their parents in case of minors prior to interview. School girls who had attained menarche and were present in school during the days of survey were included in study. Data was collected using a pre-designed and pre-tested questionnaire. Data regarding family income, educational status of parent's and social category was collected from school records. Socioeconomic class was assessed by Modified BG Prasad Classification, January, 2017[6].

Statistical analysis

Data collected was directly entered, after data cleaning and rechecking, into Epi Info software. The data was displayed in form of tables, percentages and figures. Statistical tests of significance i.e. Binary Logistic Regression Analysis was used to predict the association between the independent and dependent variables. $P \leq 0.05$ was considered statistically significant.

Ethical considerations

Ethical clearance for this study was obtained from the institutional ethics committee.

RESULTS

TABLE 1: Distribution of Adolescent School Girls on the basis of Pre Menstrual Symptoms (N=640). *Multiple Responses.

Pre Menstrual Symptoms		Frequency	Percentage
Premenstrual Syndrome (N = 640)	Present	395	61.7
	Absent	245	38.3
Symptoms of PMS* (n = 395)	Abdominal pain / bloating	185	46.8
	Irritability	165	41.8
	Headache	126	31.9
	Breast discomfort	97	24.5
	Poor concentration	53	13.4

Figure 1: Distribution of Adolescent School Girls according to prevalence of Menstrual Disorders (N =640). Multiple Responses.

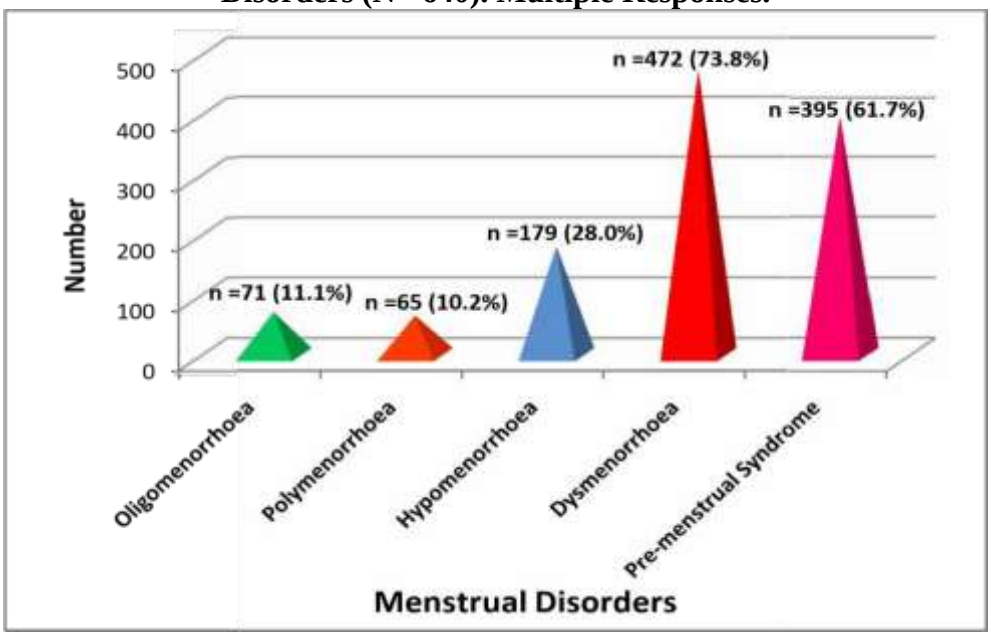

Table 2: Distribution of adolescent girls on the basis of health seeking behaviour(N=640) and source of information(n=294).

Health Seeking Behaviour		**Frequency**	**Percentage**
Health seeking Tendency (N = 640)	Present	294	46.0
	Absent	178	27.7
	Not applicable	168	26.3
Primary source of Advice (n= 294)	Mother	225	76.5
	Sister	36	12.2
	Friend	17	5.8
	Teacher	9	3.1
	Doctor/ Health Care Professionals	7	2.4

Table 3: Association between mother's education and health seeking behaviour.

Mother's education	Health seeking behaviour		Odds ratio (95% CI) p value
	Present n (%)	Absent n (%)	
Literate	245	128	2.11 (1.50-2.91) p < 0.001
Illiterate	127	140	

Table 4:Distribution of Adolescent School Girls on the basis of School Absenteeism in past two months due to menstruation related problems.

School Absenteeism		**Frequency**	**Percentage**
School Attendance (N = 640)	Present	105	16.4
	Absent	535	83.6
Reason for Missing School (n=105)	Stomach ache	68	64.7
	Poor concentration and restlessness		
	Lower back pain	23	11.3
	Breast discomfort	2	1.9

Table 5: Association between school absenteeism and premenstrual syndrome .

School absenteeism	Pre-menstrual syndrome		Odds ratio (95% CI) p value
	Present	Absent	15.16 (4.74-48.46) p < 0.001
Present	102	3	
Absent	370	165	

Table 1 shows premenstrual syndrome was reported in 395 (61.7%) of the girls. The most common symptom was abdominal pain among 185 (46.8%), followed by irritability in 165 (41.8%). Less common symptoms were headache, breast discomfort and poor concentration which were reported in 31.9%, 24.5% and 13.4% of candidates respectively. Figure 1 shows prevalence of menstrual disorders in school going adolescent girls, where majority(73.8%) of girls reported dysmenorrhoea. Table 2 shows distribution of adolescent school girls according to their health seeking behaviour. Amongst, those facing menstrual health problems, 294 (46%) girls consulted for them, while 27.7% of girls were reluctant to discuss their menstrual problem. Majority preferred to discuss with their mothers 225(76.5%) followed by sisters (12.2%) and friends (5.8%). Only 7 (2.4%) took doctor's/health care professional advice for their menstrual related disorder. Statistically significant association between mother's education and health seeking behaviour(OR = 2.1) of these girls is shown by table 3. Distribution of girls on the basis of school absenteeism is shown in table 4, where 105(16.4%) girls were absent in school in past two month due to pre - menstrual problems. Table 5 shows statistically significant relationship between school absenteeism and presence of pre - menstrual syndrome(OR = 15.1).

DISCUSSION

In our study Premenstrual syndrome was reported by majority(61.7%) of the girls. Among girls who reported experiencing premenstrual syndrome (PMS) the most common symptom was abdominal pain. Various other studies showed similar percentage of respondents reporting pre- menstrual syndrome. Karki et. al., (2017)[7] conducted a cross-sectional study among 171 female students of basic sciences, in Kathmandu Medical College. 67.3% were suffering from PMS. Similarly, Ameade et. al., (2016)[8] reported in their study, which was carried out in Ghana that 62.8% were experiencing pre-menstrual syndrome. A study conducted in two Ethiopian towns by Zegeye et al., (2009)[9] highlighted that Premenstrual symptoms were present in 426 girls (75.4%). The most common symptom was abdominal cramp, which was experienced by 330 (76.2%) of those with PMS.

In total of 640 respondents of the present study, 472(73.7%) were suffering from dysmenorrhoea making it the most prevalent menstrual disorder. Among 472 participants who were suffering from dysmenorrhoea 72.7% were having primary dysmenorrhoea. These findings are consensus with other studies like Sapkota et. al., (2013)[10]. In their study among adolescent girls of Nepal dysmenorrhoea was reported by majority (78.7%) of the participant. Also, Goyal et. al.,(2018)[11] in a cross sectional study conducted among 574adolescent girls of 10-19 years age group in Haldwani, reported dysmenorrhoea among 422 (73.52%) of these girls.

Out of total girls having menstrual problem, approximately half consulted them with others. Maximum number of girls preferred to discuss their problems with their mothers 225(76.5%). Least number of candidates (2.4%) took doctor's advice for their menstrual related disorder. Similar findings have been reported by Tundia et. al., (2018)[12] who carried out a study in two schools of Udaipur with 440 sample size. For relieving of abdominal pain 24.58% participants preferred to take treatment. Source of treatment were mother (59.46%) who were consulted by majority of participants, followed by school (12.16%), sister (10.81%), health worker (08.12%), doctor (05.40%), pharmacist (02.70%) and friend (01.35%). A community based study was conducted in

Tamil Nadu by Vanitha et. al., (2017) [13] with 330 high school participants. It was observed that 44.8% of women had at least one menstrual disorder. Majority did not seek care due to personal reasons, 36% did not know they had disorders and 40% did not worry about it. Similar findings was reported by Zegeye et al., (2009) in their study conducted among girls of north west Ethopian towns. Among girls who had dysmenorrhoea, only 46(11.4%) had consulted a health worker about the problem.

Furthermore, our study showed Menstrual disorder adversely affected academic performance of 16.4% of the students as they were compelled to miss school. Other studies which support the findings of the present study include Chauhan et. al., (2012)[14]. The cross-sectional study was conducted among 200 urban and 200 rural school going adolescent girls in Udaipur. Of the total school going rural girls, 15 % miss school due to moderate Dysmenorrhoea and 3 % due to severe Dysmenorrhoea. Of the total school going urban girls, 8.5 % were absent from school due to moderate and 7 % due to severe Dysmenorrhoea. Also, 11.5 % were unable to pursue their hobbies due to moderate dysmenorrhoea.

CONCLUSION

The findings of the present study showed that pre -menstrual syndrome was present in majority of girls with abdominal pain experienced as the most common symptom. Approximately half of the girls consulted for their menstrual problems. Amongst those who discussed their problems, majority preferred to discuss with their mothers. Also, it was observed that Health seeking behaviour was higher among girls having literate mothers. Further more the study highlighted that premenstrual syndrome adversely affect school attendance of adolescent girls.

RECOMMENDATIONS

It is recommended adolescent girls should be encouraged to seek health care advice by qualified health professional for the improvement of menstrual health. Not only girls but their mothers should also be involved in menstrual health programmes to make it more effective. Also, School health programmes should be focused on menstruation related issues to raise awareness and skills on this topic.

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