



ADOLESCENT MENSTRUAL HEALTH: PROFOUNDNESS OF THE PROBLEM AND THE RATIONALE BEHIND DENIAL OF TREATMENT

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ABSTRACT

Introduction: Menstrual health problems among adolescent girls is one of the major adolescent health issues and is also associated with anxiety. Discussing about such issues is considered to be taboo even among the family members which further aggravates the problem as they do not take treatment for the same. Hence to determine the prevalence of menstrual health problems among adolescent girls and to determine the help seeking practices and socio-demographic factors influencing the same this study was undertaken.

Methods: Cross-sectional study was conducted among adolescent girl of 16 – 19 years. Data was collected by administering questionnaire to the sample of 700 adolescents. Proportions, Chi – square analysis, Independent test and Binary logistic regression using SPSS V.22 was done.

Results: 72% of the adolescent girls had one or other symptoms of menstrual problems. Of them 60.2% sought help for their problems with majority consulting family members, followed by Doctors. Among those who did not seek help, perceiving that the problem to be less severe was the commonest reason given.

Conclusion: Age, presence of siblings, birth order and type of family were significant independent predictors of help seeking behavior.

Key words: Adolescent girls, menstrual problems, help seeking behavior

INTRODUCTION

According to census 2011 adolescents constitute 21% of India's population.¹ The UN department of economic and social welfare reported that there were 583.9 million girls in the world aged 10-19 years in 2011, comprising 8.5% of the global population, of which more than 70% of them belong to developing countries.² Menstrual health problems among adolescent girls being one of the major health problems is associated with anxiety. Further discussing about menstrual health is considered a taboo, which even aggravates the problem as they

do not take treatment for their menstrual health issues. Some adolescent girls may seek medical attention for cycle variations that actually fall within the normal range or may be unaware that their bleeding patterns are abnormal and may be attributable to significant underlying medical issues with the potential for long-term health consequences.³ Knowing the magnitude of health problems related to menstruation among adolescents, their help seeking behavior and the knowledge of socio-demographic variables and reasons influencing them to deny treatment seeking would help us to understand the severity of the problem. It also

helps us to plan interventions and provide enabling environment which persuades them to seek help either in the form of advice or treatment when required which would in turn would improve their quality of life. With the above objective in mind this study was conducted.

METHODOLOGY

It is a cross-sectional study conducted from June 2013 to November 2013 in Mysore city for a period of one year. Sample size was estimated using the formula zpq/l^2 , with $z=1.96$, p (prevalence)= 20% from previous study, q (100-p)= 80% and l = relative precision was taken as 15% of p i.e 3. Sample size was estimated to be 683 which was rounded to 700. In first stage a Pre University and degree college was selected in Mysore city by lottery method. In the second stage in the selected college three sections at each level i.e 1st year, 2nd year PU and Degree were selected again by lottery method. Efforts were made to select the samples equally from every age group between 16 – 19 years. In third stage all students in the selected sections were included in the study.

Data regarding menstrual problem was collected using a pre-structured, pre-tested questionnaire. Questionnaire also included information on various socio-demographic variables - age, subject which they were perusing, whether they belonged to urban or rural background, their present place of residence (Hostelite/Localite), presence of siblings, birth order, socio-economic status, type of family and literacy status of their father and mother were collected. Age was recorded in completed years. Socio- economic status of family was categorized according to Modified B.G Prasad classification, which was standardized to the time of study using the then Consumer Price Index (Ministry of statistics & program implementation, Govt of India).⁴

For assessment of **Menstrual Health** the following operational definitions were used:

Regarding the length of the cycle - menstrual flow between 20 – 35 days was considered as normal, metrorrhagia was defined as uterine bleeding at irregular intervals, particularly between the expected menstrual periods, oligomenorrhagia was defined as menstrual periods occurring at intervals of greater than 35 days. Irregular menstruation was defined as a situation where the duration between cycles were inconsistent. Menorrhagia was defined as abnormal heavy and prolonged menstrual period at regular intervals. Dysmenorrhea was defined as pain during menstruation that interferes with daily activities, Pre-menstrual symptoms included Bloating, Breast tenderness, Weight gain,

Aggression, Trouble concentrating, Headaches/backaches, Food cravings/overeating, Fatigue, Tearfulness, Irritability, Anxiety, Mood swings and/or depression

Ethical consideration: Confidentiality and voluntariness were the guiding principles of the study. Informed consent was obtained from each of the study participant. The study was approved by the Ethics Committee of JSS Medical College, Mysore.

Statistical analysis: Data thus obtained was analyzed using SPSS V.22. Descriptive statistics, Independent t test, chi square test and binary logistic regression were used for analysis. The difference in proportion was considered statistically significant whenever $P \leq 0.05$ and variables included in binary logistic regression analysis were those with the p -value < 0.25 in univariate analysis.

RESULTS

Out of the 700 adolescent girls included in the study, 56 questionnaires had missing data and hence were not considered for analysis. Out of the remaining 664, 3 had not attained menarche hence the data of the remaining 661 was considered for analysis.

In the present study among 664 adolescents, 266(40.8%) were 16years, 155(23.3%) were 17 year, 110(16.5%) and 130(19.5%) were 19 years of age. Mean age was found to be 17.6 ± 1.154 . Among the study subjects 334(50.4%) belonged to arts subject. 393 (59%) were localites and 395(59.4%) belonged to urban areas. 427(64.3%) belonged to nuclear families. Majority 219(32.9%) belonged to class III Socio-economic status. 530 (79.8%) had siblings. 265(39.3%) belonged to first birth order. Since 134 adolescent girls were single daughters information of birth order was collected for the rest 530. Majority i.e 200(30.1%) and 294(44.2%) of fathers and mothers had not completed High school respectively. The mean age of menarche was 12.7 ± 2.3

Table 1: Distribution of menstrual health problems among the study subjects

Menstrual health problem	Frequency (N=661) (%)	95% CI
Oligomenorrhea	53 (8)	5.9 – 10.1
Polymenorrhea	42 (6.3)	4.5 – 8.1
Hypomenorrhea	22 (3.3)	2 – 4.6
Menorrhagia	16 (2.4)	1.3 – 3.5
Dysmenorrhea	248 (37.5)	33.8 – 41.2
Irregular	216 (32.6)	29 – 36.2
Premenstrual syndrome	189 (28.9)	25.4 – 32.4
Discharge	38 (5.7)	3.9 – 7.5

Table 2: Association of socio-demographic variables with health seeking behavior of adolescent girls who had menstrual problems

Variable	Yes(n=287)	No(n=191)	N = 478	p- value*
Age (Years)				
16	120(41.8)	95(49.7)	211(44.1)	0.001
17	54(18.8)	52(27.2)	106(22.1)	
18	51(17.7)	27(14.1)	78(16.3)	
19	62(21.6)	17(8.9)	79(16.5)	
Subject				
Arts	115(40)	64(33.5)	179(37.4)	0.169
Science	173(60.2)	127(66.5)	300(62.7)	
Background				
Urban	176(61.3)	110(57.5)	286(59.8)	0.772
Rural	111(38.6)	79(41.3)	199(41.6)	
Place of residence				
Localite	110(38.3)	76(42.4)	186(38.9)	0.681
Host elite	177(61.6)	115(60.2)	192(40.1)	
Siblings				
Yes	235(81.8)	129(67.5)	364(76.1)	0.01
No	52(18.1)	62(32.4)	114(23.8)	
Type of family				
Nuclear	157(54.7)	154(80.6)	320(66.9)	0.001
Joint	58(20.2)	24(12.5)	72(15)	
Three generation	62(21.6)	13(6.8)	85(17.7)	
Birth order	n = 245	n = 114	N = 359	
First	109(37.9)	82(42.9)	191(39.9)	0.001
Second	101(35.1)	50(26.1)	151(31.5)	
Third	33(11.4)	12(6.2)	45(9.4)	
Fourth	2(0.6)	0	2(0.4)	
Socio-economic status				
Class I	39(13.5)	18(9.4)	57(11.9)	0.247
Class II	72(25)	63(32.9)	135(28.2)	
Class III	96(33.4)	60(31.4)	156(32.6)	
Class IV	65(22.6)	40(20.9)	105(21.9)	
Class V	15(5.2)	9(4.7)	24(5)	
Literacy status of Father				
Illiterate	59(20.5)	34(17.8)	93(19.4)	0.906
Literate	228(79.4)	157(82.2)	384(80.6)	
Literacy status of Mother				
Illiterate	61(21.2)	47(24.6)	105(21.9)	0.779
Literate	226(78.7)	126(65.4)	373(78.1)	

*Proportions and Chi-square analysis

About 72% of the adolescent girls had one or other symptoms of menstrual problems. Among the various menstrual health problems dysmenorrhea was the most common accounting to 37.5%, followed by irregular menstruation (32.6%), Pre-menstrual symptoms (28.9%) and others. [Table 1]

Out of the 479 adolescents with menstrual problems, 39.8% sought for help for their problems. The remaining 60.2 of them discussed about the problem only on asking questions regarding menstrual problems for the first time and had not taken advice from anyone previously.

Age, presence of siblings, type of family and birth order had significant association with health seeking behavior of the adolescents p-value<0.05. [Table 2]

Age, presence of siblings, type of family, birth order were found to be best independent predictors of health seeking behavior. [Table 3]

Majority of those who had menstrual problems took advice from family members and “then” followed by treatment from the Doctor. [Table 4]

Majority i.e 36.4% of those who did not take treatment for menstrual problems told that they perceived the problem was not severe enough to seek medical advice followed by 28.8% who told that their parents advised that it was not necessary to take treatment or advice from the doctor. Worry about the physical examination by the doctor accounted for 21.8% of adolescent’s reason for not availing treatment or advice for their menstrual problems. [Table 5]

Table 3: Independent predictability of various socio-demographic variables with health seeking behavior of adolescents

Variable	Adjusted odds (CI)	p-value
Age	0.781 (0.611 - 0.899)	0.02
subject	1.391 (0.91 - 2.126)	0.127
siblings	0.821 (0.467 - 1.44)	0.034
Type of family	0.646 (0.365 - 0.666)	0.001
Birth order	0.493 (0.495 - 0.844)	0.001
Socio economic status	0.648 (0.795 - 1.154)	0.648

Binary logistic regression*Table 4: Distribution of adolescents according to from whom they took treatment or advice for their menstrual problems**

Health advice seeking preferences	Number (%)	95% CI
Family members	83 (43.4)	37.6 - 49.2
Friends	43 (22.5)	17.6 - 27.4
Teachers	13 (6.8)	3.9 - 9.7
Doctors	75 (39.2)	33.5 - 44.9
News paper	5 (2.6)	0.8 - 4.4
Internet	13 (6.8)	3.9 - 9.7
Radio	3 (1.5)	0.1 - 2.9
Television	9 (4.7)	2.3 - 7
Health talks	6 (3.1)	1.1 - 5.1
Multiple answers	51 (-)	

Table 5: Distribution of various factors influencing the adolescent girls having menstrual problems not to take treatment for the same

Factors influencing their health seeking behavior	Frequency (%)	95% CI
Perceived that the severity of problem was less	98 (36.4)	29.5 - 43.3
Parents advised that seeking help was not necessary	86 (28.8)	22.3 - 35.3
Doctors gender	54 (16.5)	11.2 - 21.8
Anxiety of facing embracing questions	52 (17)	11.6 - 22.4
Cost of consultancy	16 (6)	2.6 - 9.4
Worry about physical examination	64 (21.8)	15.9 - 27.7
Time constraints	12 (3.7)	1 - 6.4
Multiple answers	84	

*Proportions

DISCUSSION

In the present study menstrual irregularity was found in 32.6% of adolescents and regular menstrual cycles were reported by the remaining 67.4%. The findings are similar to Guntur, Andhra Pradesh, Nagpur, Maharashtra and Western Maharashtra studies.⁵⁻⁷ which also present similar prevalence. But the study conducted by M Kulkarni et al⁴ showed that only 11.16% had irregular menstrual cycles. This may be related to the increasing prevalence of reproductive morbidities like Poly cystic ovarian disease as the years have

passed by and due to the environmental factors such as stress which is more profound in the late adolescence as compared to the age of 10-16 yrs which was included in the Kulkarni et al study.⁸ Stress may further affect the nutritional status of these adolescents increasing their chances of menstrual problems.

The prevalence of dysmenorrhea was 37.5%. Kulkarni et al⁸, Western Maharashtra⁷ have reported higher prevalence. This might be attributed to the better tolerance and acceptance of symptoms in late adolescents, as they were older compared to adolescents in other studies mentioned above. Oligomenorrhea was found in 8%, Polymenorrhea in 6.3%, Hypomenorrhea in 3.3%, Menorrhagia in 2.4%, and Pre-menstrual syndrome in 28.5%. With reference to hypomenorrhea similar findings were seen in K Jogdand et al⁹ (5.3%) and with regard to oligomenorrhea the findings are similar to that of study conducted by A S Indupalli (6.8%) in Gulbarga district, Karnataka.¹⁰ However most of the studies showed higher prevalence of menstrual problems.¹¹⁻¹³ The difference may also be attributed to the comparative normalization of the menstrual cycles and its problems due to the better establishment of hypo - pituitary - gonadal axis as age progresses and also the differences in the nutrition and environmental factors and better tolerance to symptoms in later age groups. Discharge per vagina was seen in 5.7% of study subjects. S Sangeetha et al study conducted in Hubli, Karnataka¹⁴ and R Ram et al study conducted in Kolkata¹⁵ showed a very high prevalence of vaginal discharge of 32.7% and 64% respectively. It may be due to variation in educational status and menstrual hygiene practices among the study populations.

60.2% of those with menstrual problems sought for help for their problems in the present study. From various other studies conducted in India it is seen that the help seeking behavior for menstrual problems ranges between 22.1% - 43%.^{7,16-21} Higher proportion of adolescents seeking help for menstrual problems in our study may be attributed to the late adolescents included in the study. This is for the fact that as age progresses there is better decision making. Added to this are the health services provided at the college and various IEC activities conducted regularly providing them education related to menstrual health. This said it was seen that age was significantly associated with help seeking behavior. Birth order was also found to be significantly associated with treatment seeking behavior, as the birth order increased their help seeking behavior reduced. Unwanted pregnancy, gender bias, neglect of the second, economic burden after the second child is born may all be the reasons for the findings of the present study. It was

also seen that in nuclear families the treatment seeking is better. Nuclear families provide better bonding between children and parents because of which children comfortably discuss their health problems with parents and get a better guidance and also nuclear families are more economically independent. Among those who took help majority of them took advice from Family members (43.4%) followed by Doctors (39.2%) and Friends (22.5%). Similar findings were found in a study conducted by Singh et al²² on rural adolescents and a study conducted by Busari et al²³ which showed that higher proportion of adolescents preferred taking advice from parents than the Doctors. When further enquired about the reasons for not seeking for treatment from the Doctor, majority answered that they perceived that the treatment was not necessary, followed by parents advising them that taking treatment was not a necessity, followed by worry about physical examination, anxiety about embracing questions, Doctors gender, cost of examination and time constraints. In a study conducted by Jasmine et al in Tamil Nadu in the age group between 16 – 22 yrs, majority gave the reason for not seeking treatment that, there was lack of female health care provider followed by lack of privacy, distance from home, cost and perception that their symptoms were normal.²⁴ This difference may be due to the reason that the study was conducted in rural area where health care facilities were not good compared to our study conducted in urban area where health services are good. Another study conducted in Hong kong by Symphorosa et al showed that seeking medical care for menorrhagia was dependent on the opinion of a family member, and for dysmenorrhea on its severity and anxiety about embarrassing questions.²⁵

CONCLUSION

Nearly 70% of the adolescent girls experienced one or other symptom of menstrual problem. 60.2% of those with menstrual problems sought for help, majority from family members and then from Doctors. Among the study subjects who did not seek help majority quoted that they perceived that the severity of problem was less and were advised that the treatment was not a necessity.

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