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MENSTRUAL PATTERNS AMONG SCHOOL GOING ADOLESCENT GIRLS IN CHANDIGARH AND RURAL AREAS OF HIMACHAL PRADESH, NORTH INDIA

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ABSTRACT

Background: Menstrual disorders are common among adolescent girls and they are lacking scientific knowledge regarding menstruation and puberty making them more vulnerable. This study was conducted to determine patterns of menstrual cycles among young girls and menstrual problems.

Material and Methods: Cross–sectional survey was conducted among adolescent school going girls in four schools: two in Chandigarh and two in Himachal Pradesh (Districts Mandi and Hamirpur) selected by stratified multi-stage random sampling design.. Only those respondents whose parents gave consent and they were also willing to take part in the study were included. Information was collected on socio-demographic characteristics and menstruation related information.

Results: About 80% girls who attained menarche had prior information regarding menstruation and among them 45(51.1%) reported mother as main source of information.. There were 77(69.3%) girls having problems/ complaints related with menstruation. Excessive flow during menstruation was reported by 17(15.3%) girls. There were 22 (19.8%) girls having reportedly irregular periods. Only 19(24.7%) girls reporting menstrual problems approached somewhere for problems related with menstruation.

Conclusions: Present study concludes that menstrual problems are highly prevalent among girls in the studied population and they have lot of misconceptions regarding menstruation.

Keywords: Menstrual disorders, cross-sectional study

INTRODUCTION

Menstrual disorders are common among adolescent girls as they are closely associated to the processes involved in the pubertal development of females. The menstrual cycle is an important indicator of a women's reproductive health and of her endocrine functions. Menstruation is characterized by variability in regularity, volume and pattern. A recent survey reported about 64% girls having at least one problem related to menstruation[1].

It is common observation that every woman does experience one or other type of menstrual problems in her lifetime. Menstruation is still regarded as something unclean or dirty in the Indian society.

Because of various myths, misconceptions and restrictions practiced during menstruation, the adolescent girls often develop negative attitudes towards this natural physiological phenomenon. Majority of the girls lack scientific knowledge about menstruation and puberty. Adolescent girls are usually hesitant and reluctant to discuss this topic with their parents and often hesitate to seek help regarding their menstrual problems. A number of studies are available on several aspects of menstruation among girls.[2-5].

Menstrual problems among adolescent girls have always been a subject of reproductive health importance as reproductive health is influenced by menstrual pattern. Awareness regarding the aspects influencing menstrual symptoms is important in order to manage it efficiently and help women make up the days less troublesome and tolerable. Menstrual patterns among girls may have regional and cultural variations existing in rural and urban areas.

Very few studies are available from India discussing menstrual pattern. Therefore, present study was conducted to determine patterns of menstrual cycles among young girls and menstrual problems in urban and rural settings of Chandigarh and Himachal Pradesh. The study would help in inferring the extent of awareness and sources of information regarding menstruation by adolescent girls to plan health educational packages.

MATERIAL AND METHODS

Cross–sectional survey was conducted during December 2012 to March 2013. For the sake of feasibility and under time and cost constraints only four schools: two in Chandigarh (urban area) and two in Himachal Pradesh in Districts Mandi and Hamirpur (rural area) were randomly selected by stratified multistage random sampling design.

There were two strata rural Himachal Pradesh and Urban Chandigarh. Within each stratum, two schools were randomly selected as primary stage units and adolescent students within selected schools were selected as second stage units. Since strata were formed purposively just for convenience to make study feasible and these two strata were not comparable, results were not compared. For the purpose of studying problems of adolescent students, a total of among 247 adolescent students were surveyed. Present study is confined only to 111 adolescent girls who already attained menarche prior to conducting survey excluding all boys and other girls who had not yet attained menarche.

Respondents were made comfortable and clarified about details of survey. They were briefed about the questionnaire and forms were given to students to take home for taking their parental consents. Only those respondents whose parents gave consent and they themselves were also willing to take part in the study were included.

Information was collected on socio-demographic characteristics like age, gender, literacy status of respondents as well as of parents, religion, type of family, family environment, occupation of parents, socio-economic status etc. Adolescent girls were also interviewed for equal time regarding menstruation related information like knowledge, reactions, restrictions imposed; regularity of menses, and complaints during menstruation cycle etc. Confidentiality of responses was maintained.

Table-1: Information Regarding Menstruation

Menstrual Information	Girls (%)
Had prior knowledge of menarche (N=111)	
Yes	88 (79.3)
No	20 (18)
No response	3 (2.7)
Source of Information (N=88)*	
Mother	45 (51.1)
Elder Sister	15 (17)
Friends	27 (30.7)
Female Relative	6 (6.8)
Teacher	3 (2.7)
Any other	18 (20.4)
First reaction at start of menarche(N=111)*	
Scared	47 (42.3)
Discomfort	41 (37)
Felt guilty	12 (10.8)
Shyness	9 (8.1)
Indifferent	18 (16.2)
Any other (Specify)	2 (1.8)
Type of napkins used during menstruation (N=111)	
Branded napkins	89 (80.2)
Homemade new/clean cloth	10 (9)
Homemade dirty/old cloth	5 (4.5)
Cotton roll	4 (3.6)
Others	3 (2.7)
Problem/complaint related with menstruation (N=111)	
Yes	77 (69.3)
No	34 (30.4)
Flow during menstruation (N=111)	
Normal	92 (82.8)
Excessive	17 (15.3)
Scanty	2 (1.8)
Whether your periods regular or irregular(N=111)	
Regular	85 (76.6)
Irregular	22 (19.8)
No response	4 (3.6)
Approach for treatment for menstrual problems (N=77)	
Yes	19 (24.7)
No	58 (75.3)

RESULTS

Information regarding menstruation among girls is presented in Table-1. Among 111girls who have already attained menarche, 88 (79.3%) girls had prior information regarding menstruation. Among girls having prior knowledge of menarche, 45(51.1%) reported mother as main source of information followed by friends reported by 27 (30.7%). At the start of menarche, first reaction was reported to be scared by 47(42.3%) girls followed by discomfort reported by 41(37.0%) girls. During menstruation, 89(80.2%) girls reported to use branded napkin. There were 77(69.3%) girls having problems/ complaints related with menstruation. Excessive flow during menstruation was reported by 17(15.3%) girls. There were 22 (19.8%) girls having reportedly irregular periods. Only 19(24.7%) girls reporting menstrual problems approached somewhere for problems related with menstruation.

DISCUSSION

In our study 79.3% of the girls had prior knowledge regarding menstruation. This falls within the range reported earlier. A study conducted by Sheetu et al in Miraj, Maharashtra showed that 63.4% girls had knowledge about menstruation, while another study by Verma et al. in Gujarat indicated that 88.1% girls had information regarding menstruation[6,7].Major source of information in the present study was mother reported by 51.1% followed by friends reported by 30.7% of those aware before attaining menarche. In the study by Sheetu et al the main source of information was mother (45.5%) followed by elder sister (27.2%), friends (28.4%) [6].

Menstruation hygiene in the present study was found to be satisfactory as 80.2% of respondents were using branded napkins during menstruation. However, different studies conducted across India show a wide variation in the usage and type of napkin. In a study by Dongre et al (2007)[8], it was shown that the ready-made pad users increased significantly, from 5.2% to 24.9%. Conversely, cloth users declined from 94.8% to 72.7% as impact of health education. Studies by Dasgupta and Sarkar (2008)[9] and Kushwaha (2004)[10] showed the usage of sanitary pads to be 40% and 32.2% respectively. In an another interventional study, reusing of cloth declined from 84.8% to 57.1% and among the reusers of cloth, the practices of washing it with soap and water and sun drying increased from 86.2% to 94.2% and 78.4% to 90.0% respectively[11]. In the present study conducted in Chandigarh and in two cities in Himachal Pradesh, a urban and semi-urban setting the usage of homemade cloth as napkin was minimal (4.5%). Practice of using old cloth during menstruation among Rajasthani girls was about 75% as reported by Khanna et al(2005)[12].

Problems related to menstruation were seen in 69.3% of respondents. Flow during mensuration was scanty in 1.8% whereas 15.3% of respondents had complaint of excessive flow. Periods were irregular among 19.8 % of respondents. Studies from South India indicate t shorter cycles (<21 days) and 12% of women had longer cycles (>35 days)[13]. The most common menstrual problem encountered was excessive flow among 20% and irregularity of menses among 20.1% of women. Further studies have also found the irregular and excessive flow as the two most common menstrual disorder[14,15]. Similarly, studies have indicated differences in duration of flow, the mean duration being 5.3 ± 1.32 days and stretched to more than 7 days for Indians. Long duration of flow has been reported ranging from 1 to 4 % of women[16]. Studies indicated large variations in menstrual blood loss (excessive flow) among women population, 23.5% women from West Bengal;8 to 9% women from India and neighboring countries were reported to encounter heavy discharge[17, 18].Our study findings are comparable to other reports form India with around 15% of the participants to have experienced excessive discharge. Menarcheal age influenced menstrual problems and regularity of cycle also, though casual relationship was not attempted [19].

In the present study treatment for menstrual problems/complaints was sought by only 24.7 % of participants having at least one menstrual problem. According to Kushwaha (2004) treatment for menstrual problems was opted by 10% of respondents which is in agreement with our findings[10]. But treatment was reportedly taken by around 23% in an earlier study in Allahabad [20]which is in agreement with our study findings. In study conducted by Sharma et al., (2008)[21] about 15% girls having some menstrual problems opted for allopathic treatment, and about 32.75% subjects never took a treatment in spite of having problems related with menstruation. Also, most of respondents were scared and reported discomfort but shyness/hesitation and reliance on home remedies were the major reasons of not approaching for treatment.

Dropout from schools/colleges, decrease in appetite, increase in resting hours, physical discomfort etc were among some consequences of menstrual problems in the present study which could not be investigated in depth. Rural and urban differentials could also not be studied in this study of small sample size due to time and financial constraints. Several difficulties were faced while conducting the present study. In spite of all necessary measures to tackle non-responses, respondents were reluctant to

give answer to some specific questions concerning menstrual cycle.

CONCLUSIONS AND SUGGESTIONS

Present study concludes that menstrual problems are highly prevalent among girls in the studied population and they have lot of misconceptions regarding menstruation. Lack of proper information and not seeking treatment for menstrual problems can lead to several adverse reproductive health outcomes on the prospective lives of adolescent girls. Adolescent girls should be offered options where they may seek help and treatment for menstrual problems faced. There is an urgent need of imparting health education to girls in order to reduce menstrual problems and to attain other desired outcomes. Screening programs for menstrual related problems should be started at school level under School Health Programme. Proper hygiene practices and selection of disposable sanitary menstrual absorbents should be discussed in health education programmes. Some adolescent- friendly health programs focusing on menstrual problems should also be initiated.

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