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Perception of Menstruation and Practices among Adolescents in Urban Field Practice Area, Bangalore: A Cross Sectional Study

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ABSTRACT

Context: World health organisation has defined Adolescence as the period between 10-19 years of life. Good hygienic practices such as the use of sanitary napkins and adequate washing of the genital area are essential during menstruation. Assessing the hygienic practices among adolescents can be used as a baseline tool for formulating health education strategies. The Objectives of this study was to assess the knowledge, Attitude and Practices regarding Menstruation among the adolescent school girls.

Methods and Material: A Cross Sectional Study was conducted among 400 adolescent girls by probability proportionate sampling. Data was collected by using a pretested, semi-structured questionnaire. Results are presented in terms of frequency and percentages.

Results: Mean age of study participants was 14.16yrs $\pm$ 0.9SD. Around 66.25% of students had heard about menstruation before attending menarche. Mothers were the main source of information. 80% of girls strongly believed that menstruation is a bothersome event. Majority used sanitary napkins as absorbent.

Conclusion: The study revealed that 33.75% of adolescents were not aware about menstruation prior to menarche. 7.75% females were not allowed to go to school during menstruation. Thus the present study perceives the need to dispel misconceptions regarding menstruation to improvise and promote good menstrual hygiene practices.

Keywords: Menstruation, Adolescents, Restrictions, Hygiene.

INTRODUCTION

World health organisation has defined Adolescence as the period between 10-19 years of life[1]. Adolescence is a changeover period from child to adult life during which pubescent development take place[2]. 'MENARCHE' is an indicator of developmental growth in women which determines the switch from being a child to being a youth[3]. Menstruation is shedding of the endometrium, under the influence of hormones[4].

Menstrual hygiene management has been defined as: 'Women and adolescent girls using a clean material to absorb or collect blood, using soap and water for washing the body, and having access to facilities to safely dispose the used menstrual management materials [5]. However, menstrual hygiene is not just about the management of the menstrual period but also essential to state the communal attitudes and taboos adjoining the problem. various humanities view menstruation in a changed way. communal inhibitions and deleterious insolence of parents in discussing the related issues willingly has obstructed the access of adolescent girls to appropriate information [6]. Adolescents in educational institute may have their own approach toward menstrual phase. Lack of knowledge as well as poor way of thinking, combined with poor sanitary product access affects girl's school attendance. It leads not only to school dropouts, there may be in-

crease chances of child marriage and teenage pregnancy and in turn leading to increase in maternal mortality. Sustainable development goal 3 strive to ensure health and well-being for all, at every phase of life. To achieve this goal, they must have repeated reinforcement of knowledge especially regarding menstruation, gained at a younger age persist for longer and in turn leading to reduction in reproductive tract infection and achieving the goal of reducing maternal mortality rate.

Knowledge can be progressed by the school educators in an approachable way and so do help adolescents to apprehend the transformations in their development. Also, male teachers and students often show unfriendliness towards menstruation [7].

Menstrual hygiene information is also a fundamental aspect of health education. It is known that attitudes to menstruation and menstrual practices developed at menarche may persist throughout life. Assessing the knowledge regarding menstruation, attitude towards understanding menstruation and hygienic methods practiced during menstruation by the adolescents can be used as a baseline tool for formulating health education strategies relevant for this crucial period in reproductive life. Hence with this perspective the present study was undertaken to assess the perception and practices towards menstruation among adolescents.

OBJECTIVES

The study was conducted to assess the knowledge, Attitude and Practices regarding Menstrual hygiene among the adolescent school girls.

METHODOLOGY

A Cross Sectional Study was conducted among adolescent school girls from August to October 2015. Sample size was calculated based on the study conducted by Madhusudan M, in which the knowledge that the menstruation is a physiological process was known by 43.9% of subjects [8]. Based on P as 43.9% and with absolute precision of 5%, the sample size required was 394. Sample size was rounded off to 400. After obtaining ethical clearance, the study was conducted in schools of urban field practice area of BMCRI. It has a total of 11 schools, in which 5 schools were selected randomly, and 80 students from each school were selected proportionately making a total of 400 students. A sampling frame was prepared by enlisting the student's names using attendance registers of all sections in VIII-X standard classes, and from them 80 students were selected by simple random sampling technique. Data collection was started after obtaining consent from parents and school authorities. The information was collected by using a pre-tested semi structured questionnaire. Questionnaire consisted of Socio demographic profile of study participants and the knowledge about menstruation was assessed based on yes or no questions. There were 6 questions and 1 mark was given to correct response. The median score was considered to categorise as good and poor knowledge. Attitude was assessed by Likert scale using Menstruation attitude questionnaire (MAQ) that was developed by Brooks and Ruble, 1980 [9]. Relevant questions pertaining to self-reported practices were assessed. In-depth interview was done for students with poor practices. Science teachers were interviewed regarding health education of menstruation. Data was entered in excel and analysis was done by using SPSS software.

Statistics: Results are presented in terms of frequencies and percentages. Chi square was applied to find the association between variables and knowledge and practice. P value < 0.05 is considered significant. Charts, tables and graphs are added wherever necessary.

RESULTS

400 adolescent girls were taken for the study. Mean age of the study participants was 14.16$\pm$ 0.9 years. Majority of participants, i.e. 52.5% belonged to Muslim by religion, followed by 39% were Hindu. 78.75% were of below poverty line (BPL card holders) with per capita income less than Rs.17000. According to Modified Kuppuswamy socio economic scale (2016), 62% of study subjects belonged to upper lower class. The mean age of menarche was 12.76 $\pm$ 0.7184 years as shown in table 1.

Table-1: Socio- demographic details of study participants (n= 400)

Socio- demographic profile	Frequency (%)
Age group	
13	115 (28.75)
14	115 (28.75)
15	160 (40)
16	10 (2.5)
Religion	
Hindu	156 (39)
Muslim	210 (52.5)
Others	34 (8.5)
Type of family	
Joint	80 (20)
Nuclear	272 (68)
III Generation Family	48 (12)
Economic	
APL	85 (21.25)
BPL	315 (78.75)
Mean age of menarche – 12.76 + 0.7184 years	

Table 2: Association between knowledge and religion, Type of family and Poverty

	Knowledge		Total	p value
	Poor (n=127)(%)	Good (n=273)(%)		
Religion				
Hindu	64 (41)	92 (59)	156	**<0.001**
Muslim	41 (19.5)	169 (80.5)	210	
Others	22 (64.7)	12 (35.3)	34	
Type of family				
Nuclear	88 (32.5)	183 (67.5)	271	**>0.05**
Joint	22 (26.8)	60 (73.2)	82	
III Generation family	17 (36.2)	30 (63.8)	47	
Poverty	(0)	(0)		
APL	38 (42.2)	52 (57.8)	90	**0.015**
BPL	89 (28.7)	221 (71.3)	310	

Knowledge: The mean score of knowledge was 3.5±1.23. Median score was 3. Students who scored more than 3 had good knowledge and less than 3 had poor knowledge. 68.2% had good knowledge and about 31.8% had poor knowledge. Out of 380, 265 girls (66.25%) had heard about menstruation before menarche. Main source of information was by mother (46.25%), followed by sister (9%), friends (5%), teacher (4.5%) as shown in Table 4. 37.75% of girls knew that menstruation is a physiological process, 9.75% of the study subjects believed that it was curse of god. 69.75% knew the age for attaining menarche and 89.5% knew normal duration of menstruation (table-3).

Attitude: 81.25% attributed menstruation to be a debilitating event, 80% agreed that menstruation is a bothersome event and 88.75% thought of it is a natural event. Only 28.25% of study subjects agreed that the menstruation resulted in no negative effect on women's performances (table-3).

Practices: When enquired about the Self-reported menstrual practices of the study subjects. It was observed that 93.5% of girls use sanitary napkins as an absorbent material, 39 % of girls change sanitary pads every 4th hourly. 82.75% take bath daily and about 69.5 % individuals wash their external genitalia during menstrual periods. 292 of 400 individuals practice safe method of disposal i.e. throw in dustbin and about 16.75% adolescent practice other methods such as flushing in toilet. 6.5% of girls use cloth as absorbent material and among them they used to dry the cloth inside the house. When interviewed the reason for not using pad is the misconception of fear of infection as told by the elders. Certain cultural practices such as not allowed to go to school, not allowed to play outside are still being practiced. 31 students were not allowed to go to school, when in-depth interview was done with the students, 51.45% told that parents did not allow them to attend school, 29.03% did not attend the school because of improper water supply and about 16.3%

Table-3: Knowledge, attitude and practices related to menstruation among adolescents.

Variables	Frequency (n=400) (%)
Knowledge Parameters	
Heard about menstruation before attending menarche	265 (66.25)
Knew correctly that menstruation is a physiological process	151 (37.75)
Knew correctly uterus is the source of menstrual blood	63 (15.75)
Knew that the normal age for menstruation to begin is 12-13 years	279 (69.75)
Knew that the normal duration of menstruation is 3-7 days	358 (89.5)
Knew that sanitary napkins should ideally be used during menstruation	374 (93.5)
Attitude	
Believed menstruation as a debilitating event	325 (81.25)
Believed menstruation as a bothersome event	320 (80)
Believed menstruation is a natural event	355 (88.75)
Believed that onset of menstruation can be anticipated and predicted	362 (90.5)
Believed menstruation has no negative effect on women's performance	113 (28.25)
Practices	
Use sanitary napkins as absorbent	374 (93.5)
Change pads once in 4hrs	156 (39)
Take bath during menstruation	331 (82.75)
Cleans external genitalia with soap and water during menstruation	278 (69.5)
Safe method of disposal practiced	292 (73)
Restrictions practiced during menstruation	278 (69.5)
Restrictions Practiced*	
Not allowed to attend religious function	352 (88)
Not allowed to do routine house work	214 (53.5)
Not allowed to play outside	93 (23.25)
Not allowed to go to school	31 (7.75)
Certain type of food restrictions	29 (7.25)

*Multiple Responses

Table4: Source of information

Source of information	Frequency (%) (n_1= 265)
Mother	185 (46.25)
Teacher	18 (4.50)
Sister	36 (9)
Friend	20 (5)
Magazine	2 (0.50)
Television	3 (0.75)
Others	1 (0.25)

were had hesitance to change the napkin in the school, hence couldn't attend the school at the time of menstruation. Details of practicing methods have been shown in table- 3.

When interviewed the science teachers of all the 5 schools, 2 were male and 3 were female teachers, 4 out of 5 teachers reported insensitivity to educate the adolescents regarding menstruation and its management.

Observed the textbooks, no priority is given regarding the changes in adolescent and about hygiene.

There was a significant association between Religion, poverty and Knowledge.

DISCUSSION

In the present study, only 66.25% had heard about menstruation before menarche and the main source of information was by mother. Majority (81.25%) of the adolescents strongly agreed that menstruation is a debilitating event and most of them felt that it is a bothersome event. About7.75% of females were not allowed to go to school during menstruation. Whereas a study conducted by Keerti Jogdand et al[10] shows that only 36.19% adolescent girls were aware about menstruation before attainment of menarche and 61.29% girls reported mother as a first source of information. 34.63% girls reported use of old cloth for protection during menstruation. 78.99% girls were restricted to attend religious occasions during menstruation. In a similar study conducted in wardha district showed that majority of the girls received the information regarding menstruation from their mothers (41%). A study by Sharmistha Bhattacherjee et al [11]conducted in slum dwelling shows that only 23.4% (187 out of 798) knew about menstruation before menarche. 66% used cloth. 37% girls do not disclose about their menstruation. Cleanliness of external genitalia was unsatisfactory[9].A study done by Madhusudan et al states that 43.9% of subjects knew that menstruation is a physiological process, 86.7% girls were using sanitary pads and 4.2% cloth [8].A study by Samiha Suhail Jarrah[12] found that menstrual attitude and practices were positively correlated. Poor attitude toward menstruation and low menstrual practices were significantly associated with inadequate premenstrual preparation. Similar results were noted in study conducted in north India, where 35.2% did not have prior knowledge and who had knowledge main source was mother. 86.36% were using sanitary napkins and about 34% were practicing certain restrictions[13]. A study conducted in tumkur also shows that 34.1% had perception about menstruation, majority used sanitary napkins and about 11% had restrictions[14]. Whereas in a study by Karthik Ramachandra et al, 6% of the adolescents were using cloth as an absorbent and were dried inside home[15]. As per Anushree et al study, 46.7% had good knowledge and there was a significant association between knowledge and religion and mother's education[16]. A similar finding was also noted in a study conducted in Gujarat[17]. A study conducted by Dipanwita Pandit et al also reported that menstrual information was obtained by their mother's, followed by teachers. 47.83% of girls used cloth as an absorbent and among them majority dried inside the house, 17.93% were not allowed to go to school[18]. Similar findings were noted in a study conducted by Kamath R et al[19]. Whereas in a study by Channawar Kanchan et al, information regarding menstruation was provided by grandmother and about 17% of girls were not allowed to sleep on routine bed[20].

CONCLUSION

The present study shows that majority of the students have misconception regarding menstruation and various practices and also teachers hesitate to educate the students. School curriculum also lack topic pertaining to adolescent growth and about hygienic practices. These issues have to be addressed to bring about a change in misconceptions, restrictions, traditional taboos and myths regarding menstruation, so as to further improve and promote the menstrual hygiene practices. Education should be focused towards boys as well as girls, to foster more understanding attitudes. Health education strategies have to be framed up for better health of women.

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