



MENSTRUAL HYGIENE- A HIDDEN AND NEGLECTED ISSUE: A CROSS SECTIONAL STUDY AMONG SCHOOL GOING ADOLESCENT GIRLS OF BHOPAL, MADHYA PRADESH

Community Medicine

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ABSTRACT

Introduction - The need of the hour for girls is to have the information, education and an enabling environment to deal with menstruation related issues. Present study was to assess the current knowledge, attitude and practice of school adolescents on menstrual hygiene in government school of Bhopal.

Methodology- Current study was a cross-sectional study carried out from July to October 2015 at a government school in urban locality among 10th and 11th class girl students of Bhopal.

Result- A total of 215 study students were enrolled for the study. Around 18.1% of the participants were having good level of knowledge, 52.1% have positive attitude and 57.6% participants had positive practice.

Discussion and conclusion- The overall knowledge was inadequate but attitude and practice were satisfactory, so we need to increase the knowledge level. This study tries to give an insight to the hidden and unsolved issue of adolescent girls.

KEYWORDS

menstrual hygiene, adolescents, bhopal

Introduction-

Adolescence is a period of transition from childhood to adulthood and as per WHO the term 'adolescents' refers to young people between the ages of 10 and 19 years and it is a period of rapid physical, emotional and psychological development and also a period of adjustment with family and society (WHO, 2018).

Menstruation is a physiological process in female adolescents which usually starts at the age of 9–12 years and Issue related to “Menstrual Hygiene” is begins with initiation of menstruation.

Menstrual hygiene is a hygienic practice during menstruation and good menstrual hygiene such as adequate cleaning of the external genitalia, the use of sanitary pad and frequently changed pad can prevent women from the infection in reproductive and urinary tract. (Hall, 2012) (Shanbhag et al., 2012) (Sudeeshna & Aparajita, 2012)

Menstruation and menstrual practices are still shadowed by taboos and socio-cultural restrictions and economic factors. It is linked with several misconceptions and false practices, which sometimes result into adverse health outcomes. (Dasgupta & Sarkar, 2008) (Shubhangi Nayak, Neelam Anupama Toppo, Shashi Prabha Tomar, Pradeep Kumar Kasar, 2016)

Adolescent girls have less knowledge regarding reproductive health including menstruation hygiene which can be due to different socio-cultural barriers in which they grow up. Unhygienic practices during menstruation increase the risk of infection or gynaecological problems among adolescent girls. (Shanbhag et al., 2012) the prevalence of reproductive tract infections are 3 times higher among girls who have poor menstrual hygiene. (Sudeeshna & Aparajita, 2012) The knowledge, attitude, and practices regarding menstruation develop at adolescent age, and are usually followed throughout their lifetime and also passed on to their subsequent generations.

The need of the hour for girls is to have the information, education and an enabling environment to deal with menstruation related issues. Lack of knowledge regarding menstruation and menstrual hygiene leads to poor attitude and practice therefore for better planning of educational intervention we need to assess the base line knowledge of

adolescent girl on menstrual hygiene. With this back ground the objective of the present study was to assess the current knowledge, attitude and practice of school adolescents on menstrual hygiene in government school of Bhopal.

Methodology -

Current study was a cross-sectional study carried out from July to October 2015 at a government school in urban locality of Bhopal. This study was done among 10th and 11th class girl students of government higher secondary school of Bhopal. We included all the girls of both classes who gave their consent for the study. Self-administered structured pre-designed pretested questionnaire was used to obtain information from school students.

The questionnaires consisted of four different sections –

1. Demographic characteristics
2. Knowledge of menstruation and hygiene,
3. Attitude Regarding Menstruation hygiene
4. Practice towards menstrual hygiene.

There were seven questions pertaining to demography, eight questions for knowledge, five questions for attitude and eight questions for practice.

Knowledge was then scored by assigning one point for each correct response (total score=8). We considered a score of 6–8 'Good Knowledge'; a score of 4–6 'Moderate Knowledge' and 0–3 'Poor Knowledge'. Attitudes were elicited using Likert scales with 0 = disagree, 1 = neutral, 2 = agree. Students' responses were summarized and a score of 0–4 was considered 'Negative Attitude' and a score of 5–8 is a 'Positive Attitude'. Each question in the practice part belongs 1 point for correct practice and 0 point in case of incorrect practice. Where a score of 0–4 was considered 'Negative Practice' while a score of 5–8 was considered 'Positive Practice'

After taking Permission from the concerned authority of school, we distributed the consent form to the participants. Out of the total students 215 consented for the study. Questionnaires were distributed to the study subjects in Hindi language.

Statistical analysis

Data were entered into Microsoft Excel 2007 and analyzed using Epi

Info™ language en-US version 7.2.1.0. Descriptive statistics were applied to find frequency and chi square test was applied to determine the association and P value < 0.05 was taken as statistically significant.

Results

A total of 215 study students were enrolled for the study. Among them, 45.1% were from 10th class and 54.9% from 11th class. Most of the participants (72.6%) were of age group of 15 to 17 years of age. A higher proportion of the subjects (75.8%) belonged to Hindu religion. Most of the fathers were skilled and semiskilled workers (30.2%) whereas most of the mothers were unemployed (61.5%). Education of parents were satisfactory as half of the students fathers were educated up to middle or high school (45.6%) and only 6% were illiterate and among mother's most of them had middle or high school level of education and about 15.9% of them were illiterate. Details of other socio-demographic variable shown in table no. 1.

Table No 1 Socio-demographic profile of study participants

S.No	Variables	N(%)
1	Age	
	<15	31(14.4)
	15-17	156(72.6)
	>17	28(13.0)
2	Class	
	10th	97(45.1)
	11th	118(54.9)
3	Religion	
	Hindu	163(75.8)
	Muslims	34(15.8)
	Others	18(8.4)
4	Fathers occupation	
	Professional / Semi-Professional	32(14.9)
	Clerical, Shop Owner, Farmer	49(22.8)
	Skilled/Semiskilled Worker	65(30.2)
	Unskilled Worker	54(25.1)
	Unemployed	15(7)
5	Mother occupation	
	Professional / Semi-Professional	12(5.6)
	Clerical, Shop Owner, Farmer	8(3.6)
	Skilled/Semiskilled Worker	24(11.2)
	Unskilled Worker	41(19.1)
	Unemployed	130(61.5)
5	Education Father	
	Profession / Graduate/ postgraduate/ post high school diploma	62(28.9)
	Middle and High school certificate	98(45.6)
	Primary school certificate	42(19.5)
	Illiterate	13(6)
	Education Mother	
	Profession / Graduate/ postgraduate/ post high school diploma	23(10.7)
	Middle and High school certificate	96(44.7)
	Primary school certificate	62(28.7)
	Illiterate	34(15.9)
6	Annual Income Family	
	<20000	29(13.5)
	20000-50000	89(41.4)
	>50000	97(45.1)
7	Locality	
	Urban	18(86%)
	Rural	30(14%)

We assessed the knowledge, attitude and practice of study participant with the help of pretested questionnaire and after that grading was done as per response score of the participants.

Knowledge assessment-

Knowledge was measured using 8 main questions related to basic information regarding menstruation. Around 18.1% of the participants scored 6 or more out of total score of 8, and were categorised as having good level of knowledge, 22.3% of participants scored less than 3 (poor knowledge) and 59.6% scored 3 or 4 (moderate knowledge)(Table no.2).

Table No.2 Knowledge, Attitude & Practices score grading regarding menstrual hygiene

Knowledge, Attitude & Practices grading	Study subjects, n (%)
Knowledge (Score)	
Good knowledge (6-8)	39(18.1)
Moderate knowledge(4-5)	128(59.6)
Poor knowledge(0-3)	48(22.3)
Altitude	
Positive altitude(5-8)	112(52.1)
Negative altitude(0-4)	103(47.9)
Practice	
Positive(5-8)	124(57.6)
Negative(0-4)	91(42.4)

Detailed question wise response of knowledge related to menstruation is shown in figure no1 Out of the total students only 43.7% knew that menstruation is physiological process and 44% knew about the organ from which menstrual blood came and its cause to be due to hormonal changes. Most of the students were aware about the duration (63%) and frequency (69%) of menstruation cycle but had less knowledge about the complication related to reuse of pad/cloth (23%) and poor genital hygiene (19.5%). Whereas only 35.3% of the girls knew about the Ideal absorbent material to be used during menstruation.

Only 35.3% of the girls knew about the Ideal absorbent material to be used during menstruation and 44% correctly answered about the Organ from which menstrual blood came. Out of the total only 43.7% knew that menstruation is physiological process and 44% knew about the cause to be due to hormonal changes.

Knowledge score were further analysed to see the association with other variables (Table no.4). Majority (88%) of students with a moderate / good knowledge score were more than 15 years of age. Also more than half of the students who belonged to 11th class had a moderate/ good knowledge score. However the association between age, class and knowledge score was found to be insignificant. About two-third (61%) of the students whose mother had an educational level of middle school and above had moderate / good knowledge score, the association being statistically significant. No significant difference was observed between knowledge score and mother's occupation or locality.

Attitudes assessment and Practices assessment

Attitude was assessed with 4 questions and participants who got 5 or more marks were considered as having positive attitudes. Out of the total participants 52.1% have positive attitude and 47.9% had negative attitude (0-4 score). The overall attitude towards menstrual hygiene was satisfactory. 74.4% students agree that during menstruation, bathing is not injurious to health. More than half agree that during menstruation one needs to change the absorbent cloth/pad regularly (68.8%) and sanitary pad is the ideal absorbent material used during menstruation (62.4%). But the attitude towards personal hygiene were not satisfactory as only 40% agree that during menstruation one need to clean external genitalia regularly.

Practices were assessed using eight practice related questions on menstruation. Out of the total participants 57.6% participants had positive practice (5-8 score) and 42.4% participant have negative practices (0-4 score). Most the students maintained their menstruation date record (87%) and use sanitary pads as a best absorbent during menstruation (86.9%). Practice related to changing frequency of pads/cloth during menstruation, disposal of used pad/cloth, bathing during menstruation were satisfactory but practice related to genital hygiene were poor(20.9%).

Detail question wise response regarding attitude and practice assessment is shown in figure no 2 and table no 3.

Table No.3 Practices related to menstrual hygiene

S.No	Variables	N (%)
1	Do you record the dates of the periods?	
	Yes	187(87)
	No	28(13)
2	What absorbent do you commonly use during menstruation?	
	Pads	187(86.9)
	Cloth piece	18(8.4)
	Both	10(4.7)

3	If you use ever cloth piece, how do you clean it to reuse? Water Soap Not clean	46(21.4) 169(78.6) 0(0)
4	On average how often do you change your pad/cloth piece per day? <2 2-4 >4	68(31.6) 87(40.5) 60(28.9)
5	Do you change your pad/cloth during school when it is dirty? Yes No	182(84.7) 33(15.3)
6	How do you dispose the pad/cloth piece after use? Dustbin Flush Others	156(72.6) 23(10.6) 36(16.8)
7	Do you take bath regularly during menstruation? Yes No	210(97.7) 5(2.3)
8	How frequently do you clean external genitalia during menstruation? <2 times/day >2 times/day	170(79.1) 45(20.9)

Table No4 Association between knowledge score and demographic variables

S. No	Variables	Knowledge		P value
		Knowledge score 4-8(Moderate/good) (n=167)	Knowledge score 0-3 (Poor) (n=48)	
1	Age <15 years(31) >15 years(184)	20(12%) 147(88%)	11(22.9%) 37(77.1%)	0.06
2	Class 10th (97) 11th (118)	77(46.1%) 90(53.9%)	20(41.7%) 28(58.3%)	0.62
3	Mother education >Middle school level(119) < Middle school level(96)	102(61%) 65(39%)	17(35.4%) 31(64.6%)	0.02
4	Mother occupation Employed(85) Unemployed(130)	63(37.8%) 104(62.2%)	22(45.8%) 26(54.2%)	0.32
5	Locality Urban(185) Rural(30)	145(86.8%) 22(13.2%)	40(83.3%) 8(16.7%)	0.63

Figure No.1 Knowledge related to menstrual hygiene

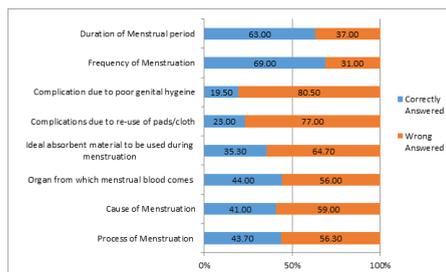
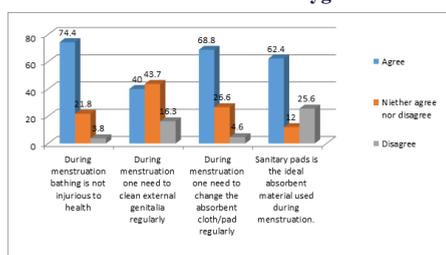


Figure no.2 Attitude towards menstrual hygiene



Thus, the overall assessment on the basis of scoring of knowledge attitude and practices reveals that most of the students were found to have moderate knowledge, satisfactory attitude and positive practices toward menstrual hygiene.

Discussion-

In the present study we assessed the knowledge, attitude, and practices related to menstruation and menstrual hygiene among the school girls. Out of the total 215 students the overall knowledge was inadequate but attitude and practice were satisfactory so we need to increase the knowledge level of student to improve their attitude and practices also. Around 18.1% of the participants were categorised as having good level of knowledge, 22.3% of participants as having poor knowledge and about 59.6% as having moderate knowledge. The finding is similar to that reported in a study done by Mahajan A and Kaushal K(Anjali Mahajan, 2017) in a government School in Shimla who found that 29% had adequate knowledge about menstrual hygiene and 71% had inadequate knowledge about menstrual hygiene. The present study also found that 57.6% of the participants had a positive practice score and 47.4 % had a negative practice score which is in contrast to(Anjali Mahajan, 2017) Mahajan A and Kaushal K who reported that about 19%, 69%, 12% of the adolescent girls were found to have poor, fair and good score of practices regarding menstrual hygiene respectively.

Out of the total only 43.7% knew that menstruation is a physiological process which is consistent with the findings of the study conducted in Rajasthan by Khanna et al .(Khanna, R.S. Goyal, & Bhawsar, 2005), where nearly 30% of the girls believed that menstruation to be a natural process. The findings are quite less than a study done by Dasgupta et al (Dasgupta & Sarkar, 2008) who reported that 86.25% girls believed menstruation to be a physiological process. In contrast to the present study, Adhikari et al(Adhikari, 2007) found that only 6% of girls reported that menstruation is a normal physiological process.

The findings of the study revealed that 44% of the respondent correctly answered hormone to be the cause of menstruation, whereas in a similar study conducted by Adhikari et al(Adhikari, 2007), only 36.7% knew the cause to be hormone. This study also stated that only 44% of the girls correctly answered uterus to be the source of blood during menstruation while 56% did not know about the source of blood similar finding reported in another study.(Singh, Singh, Arora, & Sen, 2006)

Most of the students were aware about the duration (63%) and frequency (69%) of menstruation cycle but had less knowledge about the complication related to reuse of pad/cloth (23%) and poor genital hygiene (19.5%). Also practice related to changing frequency of pads/cloth during menstruation, disposal of used pad/cloth, bathing during menstruation were satisfactory but practice related to genital hygiene were poor(20.9%). The finding is similar to that reported by Shanbag et al.(Shanbhag et al., 2012) Who found that 39.8% changed sanitary pad or cloth twice a day, 29.5% three times a day and 21.7% once a day. Also in another study carried out in Mumbai it was observed that 40.96% of the girls who use sanitary pad, change pad 2 times a day.(Nemade, Anjenaya, & Gujar, 2009) This variation of regularly change pad may depend on the respondents' type of pad used, amount of blood comes out and attitude of respondent to remain clean and hygienic.(Balqis, Arya, & Ritonga, 2016) Limited knowledge can result in many unhygienic practices like reusing same cloth again and again without proper washing, ignoring health problems, trying to manage the problems faced during menstruation on their own, etc. Sultan S et al.(Sultan & Sahu, 2017)

-In accordance to the findings from this study, 19.5% students knew that proper hygiene helps to prevent infection, which is consistent with the findings from other study.(Adhikari, 2007) The practise of genital hygiene was also poor and in contrast to Shanbag et al..(Shanbhag et al., 2012) which reported that about 53.8% girls cleaned their external genitalia after voiding every time.

Mother's level of education was found to be significantly associated with moderate / good knowledge score. A similar study done in western Nigeria showed that parental education was positively associated with girls' menstrual knowledge. The above observations may be due to poor literacy level of mothers or absence of proper health education programmes in school, which should focus on menstrual hygiene among girls as educated mothers may provide information about menstruation and menstrual hygiene to their daughters. Also girls from

educated families may discuss openly about sexual and reproductive health issues including menstruation. (Dasgupta & Sarkar, 2008) (Pregnancy & Hospital, 2013)

Thus the present study projects the need for educating the adolescent girls regarding the physiology of menstruation and changes of puberty, their significance and proper personal and menstrual hygiene practices. Removing myths, misconceptions and false beliefs regarding menstruation and menstrual hygiene may reduce the chance of having reproductive tract infections and its complications.

This study tries to give an insight to the hidden and unsolved issue of adolescent girls. A further study on a large scale is recommended to elucidate the various barriers in achieving proper menstrual health and hygiene in the adolescent girls.

Conclusion and Recommendations:

The present study reports that most of the students had moderate knowledge, satisfactory attitude and positive practices towards menstruation and menstrual hygiene. These lacunae in knowledge can be bridged by conduction of IEC activities in schools related to dissemination of health information regarding menstruation and menstrual hygiene. Use of different portals of mass media in creating awareness among the adolescent girls and their mothers can be a fruitful step in the right direction. Also accessibility to low cost sanitary pads should be increased for better level of menstrual hygiene. To conclude there is a dire need to focus on this vulnerable group of adolescent girls especially in regards to menstruation and menstrual hygiene.

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