



MENSTRUAL HYGIENE: A STUDY AMONG RURAL ADOLESCENT GIRLS IN KATI HAR.

Community Medicine

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ABSTRACT

BACKGROUND: Menstruation is an important milestone event in a girl's life with the beginning of reproductive life. Still, menstruation and menstrual practices are clouded by taboos and socio-cultural restrictions, particularly in rural areas leading to ignorance of adolescent girls regarding menstrual hygiene practices and its scientific facts.

AIMS AND OBJECTIVES: 1. To find out status of menstrual hygiene practices among adolescent girls. 2. To find out association between different socio-demographic factors and menstrual hygiene.

MATERIAL AND METHOD: A cross sectional study was conducted between March 2017 to September 2017 among 400 adolescent girls (10-19 years) of rural area of Katihar. Data were collected from 273 girls, who have achieved menarche, on a pre tested and pre designed questionnaire after taking parental consent and was analysed using MS Excel and Epi info 7.

RESULT: Menarche was found to be achieved by the girls in age group 10-16 years, mostly in the age group 12-13 years (69.59%). Among 273 respondents, 82(30.04%) girls were aware about menstruation prior to menarche and the source of information was mostly sister (54.95%) followed by friends (19.05%) and mothers (15.75%). In my study, only 31 (11.36%) girls used sanitary pads during menstruation. Majority of them (95.24%) were using soap and water to clean external genitalia while more than half of girls (69.60%) did not possess a covered toilet. Menstrual hygiene was taken care mostly by those girls, whose mothers were literate (77.42%). Around 260 (95.23%) of the participants followed one or the other cultural restrictions and majority (76.15%) were avoiding religious functions.

CONCLUSION: In our study, hygiene during menstruation is not satisfactory hence there is a need to educate the adolescent girls about healthy and hygienic practices during menstruation to prevent the reproductive tract infections.

KEYWORDS

Menstrual Hygiene, Menarche, Adolescent Girls, Literacy status

BACKGROUND

Menarche is an important biological milestone in a woman's life as it marks the onset of the reproductive phase of her life. The average age at menarche is mostly consistent across the populations that is, between 12 and 13 years of age^{1,2}. Unfortunately, due to lack of knowledge on menstruation preparedness and management or due to shyness and embarrassment the situation becomes worse for girls³. Menstruation is a natural process but it is still a taboo in Indian society as it is considered unclean and dirty⁴.

Unhealthy menstrual practices are not washing genitalia regularly, using unclean cloth, etc. Learning about menstrual hygiene forms a vital aspect of health education among menstruating women to avoid future long-term ill effects of poor menstrual hygiene practices leading to premature births, stillbirths, miscarriages, infertility problems, toxic shock syndrome, and carcinoma cervix as a complication of recurrent reproductive tract infections.⁵

Adolescent girls constitute a vulnerable group, particularly in India where female child is neglected one. Menstruation is still regarded as something unclean or dirty in Indian society. The manner in which a girl learns about menstruation and its associated changes may have an impact process; it is linked with several misconceptions and inadequate practices, which Sometimes result into adverse health outcomes.

Good hygienic practices like use of sanitary pads and adequate washing of the genital area are essential during menstruation. Women and girls of the reproductive age need access to clean and soft, absorbent sanitary pads which can protect their health.⁶

With this background the present study was conducted to assess the knowledge, beliefs, and source of information regarding menstruation among the young girls and also to identify the status of menstrual hygiene among them.

Methods

Study design

A community based cross-sectional study was carried out amongst the young girls of 10-19 years age from rural area of Katihar district.

Study period

The present study was carried out during the period March 2017 to September 2017.

Sample size and sampling technique

Based on the study done by Wagh RV et al,⁷ in the year 2018, which recorded the proportion of females who use sanitary pads as 50 %, the sample size of was calculated at 95% confidence interval using the formula $4pq/25$ where p is 50, q is 50, and 25 is 10 % allowable error.⁸ The sample size was calculated to be minimum 400. Out of total 400 adolescent girls (10-19 years) data were collected from 273 girls, who have achieved menarche, on a pre tested and pre designed questionnaire after taking parental consent.

Systematic random sampling was used to identify the study participants. Sampling interval was calculated as follows: total number of household, N= 12,000, sample size, n= 400, sampling interval is $N/n=12,000/400=30$. Thus every 30th household from the first randomly visited household was selected for identifying an eligible study subject. If there was no eligible respondent in the selected household, the next house with the eligible study subject was selected. From that house, the next 30th household was selected. This procedure was followed till the desired sample size was reached.

INCLUSION CRITERIA

All 10-19 years girls irrespective of their educational and marital status. Those who gave their consent were interviewed.

Exclusion criteria

If there are two girls of the same age group (15-19 years) in a household, only one is selected by lottery method. Physically or mentally handicapped adolescent girls were also excluded from the analyses. Girls who were willing but unable to provide important information about menstruation and practices also excluded from the study.

Observations

Table-1. Information about menarche (n=273)

Age of Menarche	No	Percent.
10	2	0.73
11	10	3.66

12	80	29.30
13	110	40.29
14	50	18.32
15	18	6.59
16	3	1.10
Total	273	100.00
Awareness about Menarche	No	Percent
Yes	82	30.04
No	191	69.96
Total	273	100.00
Source Of information about Menarche	No	Percent
Sister	150	54.95
Friend	52	19.05
Mother	43	15.75
Relatives	25	9.16
Teacher	3	1.10
Total	273	100.00

Among the 273 girls Menarche was found to be achieved by the girls in age group 10-16 years, mostly in the age group 12-13 years (69.59%). Among 273 respondents, 82(30.04%) girls were aware about menstruation prior to menarche and the source of information was mostly sister (54.95%) followed by friends (19.05%) and mothers (15.75%).

Table 2. Perception about menstruation (N=273)

Perception Of Menstruation	No	Percent.
Physiological Process	237	86.81
Curse of God	20	7.32
Caused by Sin	10	3.66
Caused by disease	6	2.21
Total	273	100

In the present study, out of 273 girls, 237 (86.81%) girls knew the cause of menstruation as physiological. 36 (13.19%) girls believes that menstruation is curse of god, caused by sin or caused by disease.

Table 3- Practice of menstrual hygiene (N=273)

Use of Material during Menstruation	No	Percent
Sanitary Pads	31	11.36
New Cloth pieces	42	15.38
Old cloth pieces	120	43.96
None Of the above	80	29.30
Total	273	100.00
Cleaning Method of external genitalia	No	Percent
Water and Soap	13	4.76
Only Water	260	95.24
Total	273	100.00
Maintenance of Privacy	No	Percent
Yes	83	30.40
No	190	69.60
Total	273	100.00
Methods of disposal	No	Percent
Cloth pieces reused	148	54.21
Sanitary Pad/ Cloth pieces disposed	165	60.44

In the present study, 11.36 % girls use sanitary pads during menstruation. 43.96 % girls used old cloth while 15.38 % girls used new cloth during menstruation as adsorbent material. Regarding personal hygiene, about 95.24 % reported use of soap and water for cleansing the external genitalia, whereas only 4.76 % mentioned use of plain water. In the present study, 60.44% girls dispose pads or used cloth in dustbin.

Table 4- Association between Education status of mother and menstrual hygiene practice

Educational status of Mother	Hygiene Maintained		Hygiene Not Maintained	
	No	Percent.	No	Percent.
Illiterate	7	22.58	216	89.25
literate	24	77.42	26	10.75
Total	31	100	242	100

$\chi^2 = 77.26, df=1, p<0.0001$

Respondents whose mothers were literate (77.42%) were maintaining

more hygienic practices in comparison to those whose mothers were illiterate (22.58%) and the difference was found to be statistically significant.

Table 5 Association between Caste and menstrual hygiene practice

Caste	Hygiene Maintained		Hygiene Not Maintained	
	No	Percent.	No	Percent.
General (23)	15	65.21	8	34.79
OBC(150)	10	6.66	140	93.33
SC/ST(100)	6	6	94	94

$\chi^2 = 72.41, df=4, p<0.0001$

Respondents who were belonging to general caste (60%) were following more hygienic practices in comparison to their counterparts and the difference was found to be statistically significant.

Table 6: Cultural restrictions during menstruation(Multiple response)

Cultural Restrictions : Yes (260), No(13)			
If Yes(260)*	Avoiding religious activities	198	76.15
	To remain separate	154	59.23
	To go to school	128	49.23
	To Work, Play Outside	140	53.85
	To touch Foods	189	72.69
	To sleep on routine Bed	120	46.15

Around 260 (95.23%) of the participants followed one or the other cultural restrictions and majority (76.15%) were avoiding religious functions followed by to remain separate (59.23%). Around 49.23 % were remaining absent to school during menstruation and 72.69% to touch food.

DISCUSSION-

In the present study the age of menarche was found to be 12-13 years which is similar to other studies as reported by Salve SB et al, Khanna et al, and it is 12.8 years as reported by Dasgupta A et al.^{8,9}

Ray Sudeshna et al found that 42% of the girls had knowledge about menstruation before their onset of menarche, the main source of knowledge being mother and sister (45%), similar to our study.¹⁰

Ray Sudeshna et al., found that 1/3 of the population did not have the correct knowledge of the cause of menstruation and only 17.9% of the adolescent girls knew that uterus was the source of blood in menstruation.

However, in our study, sisters (54.95%) played the key role and only 15.75% were mothers, which was similar to the findings of ICMR study.⁹

Dasgupta A et al found that Out of 160 respondents, 108 (67.5%) girls were aware about menstruation prior to menarche. Mother was the first informant regarding menstruation in 60 (37.5%) girls. 138 (86.25%) girls believed it as a physiological process.⁴

In our study around 46.06% preferred old cloth pieces rather than sanitary pads as menstrual absorbent which is similar to studies reported by Ud giri R et al, Khanna et al, Dasgupta A et al, Subhash B et al.^{4,9,11,12}

Dipanwita Pandit et al found that correct knowledge was found among 370(85.05%) girls, while 15.04% associated it to disease or a curse of God, which is similar to our study.⁶

Cleaning of external genitalia was unsatisfactory among 95.24 % of girls in our study which is more as compared to Subhash B et al¹², who reported 79.45%. Mudey AB et al, reported 66.15% of the adolescent girls were unsatisfactorily cleaning their external genitalia.¹³ Majority of them used only water for cleaning external genitalia which is similar to the study by Shubash B et al.¹² Lack of knowledge and privacy in rural set up could be a reason for unsatisfactory cleaning of external genitalia.

Majority of the girls followed one or the other restrictions during menstruation among which avoiding holy places and not to work/play outside was more. A number of studies Khanna A et al, Mudey AB et al, Salve SB et al, reported different restrictions during menstruation.^{8,9,13}

various taboos and misconceptions might be a reason for various restrictions practiced during menstruation.

CONCLUSION

In our study hygiene during menstruation is not satisfactory hence there is a need to educate the adolescent girls about healthy and hygienic practices during menstruation and to prevent the reproductive tract infections. Teacher's parents should educate the girls prior to attaining menarche and proper hygienic practices should be followed. Menstruation should not be treated as dirty and it should not be a hindrance to daily activities. Sanitary pads should be made available at affordable price and it should be easily available. Clean toilet facilities, water facilities and facilities to dispose sanitary pads should be made available at schools.

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