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MENSTRUAL HYGIENE AWARENESS AND PRACTICES AMONG SCHOOL GOING GIRLS AND RELATED FACILITIES AVAILABLE IN GOVERNMENT SCHOOLS OF RURAL ROHTAK HARYANA

ABSTRACT Introduction: 335 million girls in 2016 went to primary and secondary schools without water and soap available for washing their hands when changing sanitary pads or clothes. In Swachh Bharat Swachh Vidyalaya Mission, special attention and guidelines have been given to improve menstrual hygiene among girls. Basic sanitation facilities available in schools can help girls manage menstrual hygiene thus helping reduce school absenteeism. Present study was planned to see the status of menstrual hygiene awareness and practices among school going girls and the facilities provided by the schools for improving menstrual hygiene.
Material \& Methods: A descriptive cross-sectional study was carried out among 116 girls of class $6^{\text {th }}$ to $12^{\text {th }}$, who attained their menarche from 11 government schools of block Lakhan Majra, district Rohtak, Haryana. Data were analyzed and results were presented in form of proportion and percentages.
Results: Gender segregated toilet was available in all schools. 6 ( $54.5 \%$ ) schools were not having water supply in pad changing area. Pad disposal facility was not present in 2 ( $18.1 \%$ ) schools. 9 ( $81.9 \%$ ) schools were organizing menstruation preparedness class at regular intervals. $42.2 \%$ of the students reported that they were unaware of menstruation before their menarche. 78 (67.2\%) girls were missing schools during menstruation.
Conclusion: Awareness and facility regarding menstruation hygiene were inadequate. School teachers can get training for providing menstrual hygiene education. Schools should take help from local health facilities for providing menstrual hygiene education, identification of girls with menstrual problems \& their management.

KEYWORDS : menstruation, school, facility, awareness, practice

## INTRODUCTION

Hygiene refers to the conditions and practices that help to maintain health and prevent the spread of diseases. Sanitation is described as having access to facilities for the safe disposal of human waste (faeces and urine), as well as having the ability to maintain hygienic conditions. ${ }^{1}$

Access to all three elements of WASH i.e. water, sanitation and hygiene is necessary for adequate menstrual hygiene management (MHM). The Girls attending schools with functional single-sex toilets that provide a private place to wash and change and a reliable supply of water and soap are much more likely to be able to manage their periods with confidence and dignity. It is the adolescent girls who stand to gain most from ongoing efforts to achieve universal access to WASH in schools. In 2016, it was estimated that 335 million girls went to primary and secondary schools without water and soap available for washing their hands when changing sanitary pads or clothes. ${ }^{2}$

In the latest hygiene related program started by government of India - Swachh Bharat Swachh Vidyalaya Mission, special attention and guidelines have been given to improve menstrual hygiene among girls. This mission directs schools to provide proper pad disposal facility along with gender segregated toilets with hand washing station having water and soap. There is proposal for having incinerator in school. The program also lays guidelines for provision of pads and extra school dress and space for changing clothes in case the uniform gets spoiled due to stains. It also recommends menstrual hygiene preparedness class at regular intervals. ${ }^{3}$

The report of a 2014 study on women in 49 cities showed that 62 per cent women who were interviewed had no knowledge of menstruation before their first period; more than half (52 per cent) preferred to stay at home and one-third of the families (35 per cent) treated daughters as impure during periods.

Availability of basic sanitation facilities in schools can help girls manage menstrual hygiene thus helping reduce absenteeism. ${ }^{4}$

Present study was planned to see the status of menstrual hygiene awareness and practices among school going girls and the facilities provided by the schools for improving menstrual hygiene.

## MATERIAL AND METHODS

Study area: The study was carried out in all government schools except primary and boy's schools of Lakhan Majra block which is a rural field practice area attached to the department of Community Medicine PGIMS Rohtak. This block had a population of $1,06,770$. The block is served by Community Health Centre located at village Chiri \& and three Primary Health Centres one each located at village Chiri, Lakhan Majra \& Samargopalpur. The PHC at Lakhan Majra has been upgraded to CHC during the course of present study.

Study design: Descriptive cross-sectional study.
Study period: The study was conducted over a period of six months from July to December 2018.

Study population: There were total 38 government schools in the block. Out of these, 20 were primary, 2 middle, 4 high and 12 senior secondary schools. Primary and exclusively boys (7) schools were excluded from the study. Thus 11 schools (2 middle, 2 high and 7 senior secondary schools) were included. Total girls students in all 11 schools studying in class $6^{\text {st }}$ to $12^{\text {th }}$ formed the study population.

Sample size: All 11 schools were included for facility assessment and ten percent of the total enrolled girl students in all 11 government girls and co educational schools who attained menarche were selected for assessing the
knowledge and practices regarding menstrual hygiene and sanitation. 116 students were selected and studied

Sampling technique: Universal sampling for facility assessment and simple random sampling technique was used for selecting students from each class using their class roll numbers.

Inclusion criteria: Students submitting the consent form for being a part of the study.

Exclusion criteria: Students who were absent from the school on the days of visits till the investigator worked in the school.

Consent: Prior permission was sought from the Principals of the schools for conducting the study. Written valid assent and consent was taken from the study participants and their parents/guardians respectively.

Study tool: Predesigned, pretested, semi structured interview schedule was used to know about the menstrual hygiene related facilities provided by the school and to study the knowledge and practices regarding menstrual hygiene among school girls.

The permission of Institutional Ethical Committee (IEC) was obtained before the commencement of the study.

## METHODOLOGY:

The investigator met the Principals of the schools and explained the purpose of the study. Their permission was sought along with their co-operation.

Facility assessment for 11 schools was done by investigator. Selection of students was such that $10 \%$ of the girl students from each class ( $6^{\text {th }}$ to $12^{\text {th }}$ ) were included. Simple random sampling technique was used for selecting the students from each class using their class roll numbers. The selected students were asked to assemble in a separate class room and the purpose of the study was explained after making rapport with these students and assured them the confidentiality of the process. The students who were willing to participate, a written consent was sought from their parents. Next day after collecting the written consent, the students were called turn wise and their responses were recorded according to the interview schedule by investigator, in the absence of school personnel in order to avoid reporting bias. For any nonresponse regarding consent, additional children were identified and included.

## Data analysis:

The data were entered in the MS EXCEL spread sheet, coded appropriately and was cleansed for any possible typographical error and then were subjected to statistical tests using SPSS V 20.0 (Statistical Package for Social Sciences). Results were presented in form of frequency and proportions.

## RESULTS

11 schools were covered out of which 8 were co educational and 3 were girl's school. 116 students were asked in detail about the menstrual hygiene related questions.

Table 1: Menstrual hygiene related facilities provided by the school ( $\mathrm{n}=11$ )

|  | Yes <br> No. (\%) | No <br> No. (\%) |
| :--- | :--- | :--- |
| Gender segregated toilet available | $11(100)$ | - |
| Hand washing area in toilet | $8(72)$ | $3(28)$ |
| Soap availability in toilet | $4(36.4)$ | $7(63.6)$ |
| Adequate space provided for changing <br> pads in toilets | $10(90.9)$ | $1(9.1)$ |


| Water availability in changing area | $5(45.5)$ | $6(54.5)$ |
| :--- | :--- | :--- |
| Availability of pad disposal facility | $9(81.9)$ | $2(18.1)$ |
| Availability of incinerator | - | $11(100)$ |
| Pad provided by schools | - | $11(100)$ |
| Space for changing clothes in case of <br> spoiling with stain | $1(9.1)$ | $10(90.9)$ |
| Does school provide extra dress in case <br> of staining | - | $11(100)$ |
| Menstruation preparedness class in <br> School | $9(81.9)$ | $2(18.1)$ |

Table 1 shows the menstrual hygiene related facilities provided to them by the school. Gender segregated toilet was present in all schools. Hand washing area in toilet was present in 8 ( $72 \%$ ) schools but only 4 (36.4\%) schools had soap availability for hand washing in that area. 10 (90.9\%) schools had adequate space for changing pads but water availability in changing area was present in only 5 (45.5\%) schools. Pad disposal facility was unavailable in 2 ( $18.1 \%$ ) schools. None of the schools were having incinerator for final pad disposal. None of the school was providing pad or extra dress in case of spoiling it by stain. Only one school (9.1\%) had space for changing dress in case of staining. 9 (81.9\%) schools were conducting menstrual hygiene preparedness class on regular interval.

Table 2: Menstrual hygiene awareness and practice ( $\mathrm{n}=116$ )

| Menstrual hygiene awareness and <br> practice | Yes <br> No. (\%) | No <br> No. (\%) |
| :--- | :---: | :---: |
| Aware of menstruation before menarche | $67(57.8)$ | $49(42.2)$ |
| Aware of absorbents to be used | $116(100)$ | - |
| Aware of minimum frequency of <br> changing absorbents | 76 (65.5) | $40(34.5)$ |
| Aware of any social groups providing <br> pads | - | $116(100)$ |
| Using hygienic absorbents (pads) | $114(98.3)$ | $2(1.7)$ |
| Using unhygienic absorbents (cloth) | $2(1.7)$ | $114(98.7)$ |
| Missing school during menstruation | $78(67.2)$ | $38(32.8)$ |
| Using schools toilets during <br> menstruation | $81(69.8)$ | $35(30.2)$ |

Table 2 shows that Out of 116 girls, 49 (42.2\%) were unaware of menstruation before menarche. All of the students were aware of absorbents to be used during menstruation but out of them 114 (98.3\%) were using hygienic absorbents in form of sanitary napkins (pads) and 2 (l.7) were using cloth as absorbent. 40 ( $34.5 \%$ ) girls were not aware of minimum frequency of changing absorbent (i.e. 3/day). None of the students were of any social groups providing sanitary napkins. Around two third (67.2\%) students were missing school during menstruation and 35 (30.2\%) girls were not using school toilets during menstruation.

Table 3: Practice regarding menstrual hygiene

| Informant about menstruation before <br> menarche (n=67) | No. | Percentage |
| :--- | :---: | :---: |
| Teacher | 26 | 38.8 |
| Mother | 25 | 37.3 |
| Sister | 10 | 14.9 |
| Friends | 5 | 7.5 |
| Others | 1 | 1.5 |
| Total | 67 | 100 |
| Reason mentioned for missing school <br> during menses (n=78) |  |  |
| Dysmenorrhoea | 67 | 85.9 |
| Fear of staining clothes | 13 | 16.7 |
| Others | 7 | 8.9 |
| Total | 78 | 100 |


| Reasons mentioned for not using school <br> toilets during menstruation (n=35) <br> (multiple responses) |  |  |
| :--- | :---: | :---: |
| Water unavailability in toilets | 22 | 62.3 |
| No pad disposal facility | 9 | 25.7 |
| Unclean toilets | 35 | 100 |
| Method of pad/cloth disposal at school <br> (n=116) |  |  |
| Dustbin | 100 | 86.2 |
| Throw in open | 1 | 0.9 |
| Don't change pad in school | 15 | 12.9 |
| Total | 116 | 100 |

Table 3 shows that out of 67 girls, majority ( $38.8 \%$ ) of the girls reported the informant about menstruation to be teachers, followed by mother (37.3\%), sister (14.9\%), friends (7.5\%) and other family member or neighbours ( $1.5 \%$ ). Out of 78 girls who had ever missed school during menstruation, 67 (85.9\%) girls were missing school because of dysmenorrhoea, 13 (16.7\%) girls were having fear of staining school dress as reason for missing school, rest 7 (8.9\%) girls gave other reasons like feeling lethargic, fatigue for not coming to school during menses. Out of 35 ( $30.2 \%$ ) girls, who were not using school toilets during menstruation, all girls reported unclean toilets as one of the reason for not using them during menses. Unavailability of water in toilets was also reported as one of the reason by 22 ( $62.3 \%$ ) girls for not using school toilets. 9 (25.7\%) girls told that there was no pad disposal facility in toilet because of which they don't use them during menses. About the pad disposal at schools 15 ( $12.9 \%$ ) girls said they were not changing pad in the school. Majority (86.2\%) of the girls were disposing it in dustbin provided by the school while one girl reported that she throws it in open area behind school toilet.

## DISCUSSION

In the present study, $67.2 \%$ girls reported that they missed school during menstruation on some occasions and the main reason was dysmenorrhoea ( $85.9 \%$ ) followed by fear of staining ( $16.7 \%$ ). Similar results were reported by Chauhan et $\mathrm{al}^{5}$ where 87.7\% girls gave pain, discomfort or tiredness as the reason for school absenteeism. However, the percentage of girls missing school due to menstruation varied from $32.7 \%$ as reported by Chauhan et al ${ }^{\text {s }}$ to $44.54 \%$ as reported by Tundia et $\mathrm{al}^{6}$. The reason for the difference in results could be due to differently framed questions. Their studies asked if the girl regularly missed school due to menstruation while the question in the present study was whether the girl had ever missed school during menstruation.

In the present study, $30.2 \%$ girls were not using school toilets during menstruation and the reasons given were unclean toilets ( $100 \%$ ), unavailability of water in toilets ( $62.3 \%$ ) and lack of pad disposal facility in toilets (25.7\%). $86.2 \%$ of the girls were using schools' dustbins for disposing used pads. Similar results were reported in the study conducted by Kandpal et al ${ }^{7}$ where $34.4 \%$ girls changed their pads in school.

In the present study, $57.8 \%$ girls were aware and $43.2 \%$ girls were unaware of menstruation before menarche. Teachers ( $38.8 \%$ ) and mothers ( $37.3 \%$ ) were main informants of menstruation before menarche, followed by sister (14.9\%).

## Conclusion \& recommendation

Soap availability in toilet was reported by $11 \%$ students which is inadequate. Every school should make one teacher or student cabinet member in-charge, who will look for its availability and in case of non availability report the concerned person who manages the school funds so that it can be made available.
menstruation because of its being unhygienic, so school administrators should periodically supervise the work of sweepers who are to maintain hygiene and sanitation in the schools.

Around $40 \%$ students were unaware of menarche before menstruation. School can appoint teachers to provide menstrual hygiene preparedness class on regular basis so that every girl gets awareness about it.

Large proportion (67\%) of girls was missing school during menstruation and maximum were missing it because of dysmenorrhoea, which is an easily manageable condition with least intervention. Schools should maintain a link with local health facility for educating and examining such girls on regular basis. Class teacher can identify and refer such girls to health centre to seek medical advice.

## Conflict of interest: Nil

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