

A Descriptive Study to Assess the Knowledge and Practice Regarding Menstrual Hygiene among Adolescent Girls in a Government School in Birbhum District, West Bengal

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ABSTRACT

Background: Adolescent girls constitute about one-fifth of the total female population in the world. They require special attention as it is marked with onset of menarche. Menstruation is a phenomenon unique to all females. It is still considered something unclean or dirty in Indian society. Many girls residing in rural areas are unaware of what actually happens during menstrual cycle.

Objective: This study intended to evaluate the knowledge and practices related to menstrual hygiene among school-going adolescent girls in a rural area of West Bengal.

Methods: This was a cross-sectional observational study conducted in 2018 at a Government Secondary school in West Bengal, among adolescent girls with the help of a pre-designed, semi-structured questionnaire.

Results: Most (70.5%) of the study participants belonged to the early adolescent age group. The mean age for attaining menarche was 12.5 years. The source of information was from the mothers (47.6%). Majority (77.5%) had incorrect knowledge about the reason for menstruation. Only 5.8% knew about the source of bleeding. 53.6% of the study participants were following unsatisfactory menstrual practices. Most common restriction practiced during menstruation was attending religious occasions (30.4%). There was association seen between age ($p=0.000$), caste ($p=0.012$) and their menstrual hygiene practices.

Conclusions: Mothers should break inhibitions and discuss with their daughters regarding menstruation. Health education and menstrual hygienic practices should be included into the

school curriculum. The various myths regarding menstruation should be addressed in an acceptable fashion by parents, teachers and health workers.

Keywords: Menstrual hygiene, Knowledge, Practices, Adolescent girls, School, Rural, West Bengal

INTRODUCTION

Adolescence has been defined by WHO as the period of life between 10-19 years. ⁽¹⁾ There is transition from childhood to adulthood in this period. Adolescent girls constitute about one-fifth of the total female population in the world. ⁽²⁾ Adolescence in girls requires specific and special attention as it is marked with onset of menarche. Adolescence has been classified by UNICEF into early adolescence comprising of children belonging to the age group of 10-14 years and late adolescence including those aged 15-19 years. ⁽³⁾

Menstruation is a phenomenon unique to all females. However, it is considered unclean or dirty in our society. ⁽⁴⁾ Menstrual practices are influenced by myths and cultural beliefs, leading to ignorance of adolescent groups about the scientific facts which is necessary for maintaining good reproductive health. Menstruation is engulfed in psychological and religious barriers due to lack of knowledge about the process of menstruation. Many girls residing in rural areas are unaware of what actually

happens during menstrual cycle. Although menstruation is a natural process, it is linked with several perceptions and practices within the community, which sometimes may result in adverse health outcomes. ⁽⁵⁾

Women with adequate knowledge about menstrual hygiene and safe menstrual practices are less prone to have reproductive tract infections. Menstrual hygiene management plays an important role in women's health. Adequate menstrual hygiene management is defined by the United Nations as "women and adolescent girls using a clean menstrual management material to absorb or collect blood that can be changed in privacy as often as necessary for the duration of the menstruation period, using soap and water for washing the body as required, and having access to facilities to dispose of used menstrual management materials". ⁽⁶⁾

There is scant literature regarding the detailed aspect of the menstrual practices among the adolescent girls in rural areas. It was therefore considered relevant to investigate the menstruation related knowledge and practices among the school going adolescent girls in rural India. The data about their level of knowledge and practices which are followed by them with respect to menstruation are beneficial for planning future programmes and interventions for improving the awareness level and quality of life. Henceforth, this study was conducted in a rural area of West Bengal among adolescent school-going girls.

OBJECTIVES:

1. To assess the knowledge regarding menstrual hygiene among adolescent girls of a Government school in West Bengal.
2. To evaluate the practices during menstruation in the study participants.
3. To find association, if any, between the socio-demographic variables and menstrual hygiene practices.

MATERIALS AND METHODS

Study design:

A cross-sectional observational study was conducted from October 2018 to December 2018, at a Government Secondary school, Bolpur, Birbhum, West Bengal. Prior permission for the study was obtained from appropriate school authorities and the Institutional Ethics Committee of Calcutta National Medical College.

Sample size and sampling technique:

The list of schools in Birbhum district was obtained from the District Public Instructor. Bergram Government Secondary school was selected randomly among them. The study participants were adolescent girls who studied from class V to X in that school. A total of 156 school-going adolescent girls were selected by complete enumeration, satisfying the inclusion and exclusion criteria of the study, and interviewed over the next 3 months.

Inclusion criteria:

- Participants belonging to the age group of 10-19 years
- Participants studying from class V to X
- Study subjects who were present on the day of data collection
- Participants whose parents/ legal guardians consented to the study

Exclusion criteria:

- Students with any gross learning disability or unable to comprehend the study procedure
- Students who were ill at the time of the study
- Participants who were not willing to participate in the study

Study tools and study procedure:

The District Public Instructor, Headmaster and class teachers were explained about the objectives of the study, and permission was obtained from them. A good rapport was established with the students and their parents. Before the commencement of the study, they were

explained about the purpose and nature of the study.

A pre-designed, pre-tested, pre-validated, semi-structured, self-administered questionnaire in the local language was used. Adequate time was given to the students for registering their responses. They were asked to fill up the questionnaire according to their knowledge and practices, if applicable, regarding menstrual hygiene. A pre-validated composite scoring system was developed based on the practices of the students.

| | Score |
|--------------------|-------|
| Correct practice | 1 |
| Incorrect practice | 0 |

Lowest attainable score was 0, and the highest attainable score was 6. Students with a score of 3 or more were considered to have satisfactory menstrual practices.

After collection of questionnaires from the students, education was imparted regarding menstruation and healthy practices. All their queries in this regard were also answered. They were assured complete confidentiality and anonymity of their responses.

Modified B.G. Prasad's scale, January 2017 (7) was used to assess the socio-economic status.

Analysis:

Data obtained was collated and analysis was done using IBM SPSS Statistics for Windows, Version 20.0. Descriptive statistics were used to measure proportions and Chi-square test was done to establish associations, if any, between the variables. A p value of 0.05 was considered significant throughout the study.

RESULTS

The mean age of the study participants was 13.78 years (\pm 0.122 years) with a range of 10-19 years. The socio-demographic characteristics of the study participants are shown in Table 1.

Table 1: Socio-Demographic profile of study population (n=156)

| Socio-demographic characteristics | Number | Percentage |
|-----------------------------------|--------|------------|
| AGE (years) | | |
| 10-14 (Early adolescence) | 110 | 70.5 |
| 15-19 (Late adolescence) | 46 | 29.5 |
| SOCIO-ECONOMIC STATUS | | |
| Upper class | 32 | 20.5 |
| Upper middle class | 61 | 39.1 |
| Middle class | 30 | 19.2 |
| Lower middle class | 27 | 17.3 |
| Lower class | 6 | 3.9 |
| EDUCATION OF MOTHER | | |
| Illiterate | 46 | 29.5 |
| Primary | 41 | 26.3 |
| Middle school | 17 | 10.9 |
| Secondary | 38 | 24.3 |
| Higher secondary | 8 | 5.1 |
| Graduate and above | 6 | 3.9 |
| TYPE OF FAMILY | | |
| Joint | 55 | 35.3 |
| Nuclear | 101 | 64.7 |
| AGE OF MENARCHE | | |
| 10-13 years | 122 | 97.6 |
| 14-16 years | 3 | 2.4 |

Most (70.5%) of the study participants belonged to the early adolescent age group. Majority (39.1%) of the students belonged to upper middle class, according to Modified B.G. Prasad's scale 2017. Nearly one-third (29.5%) of the mothers of the students were illiterate. Almost two-thirds (64.7%) of the study participants belonged to nuclear families. Around four-fifth (80.13%) of the study participants had attained menarche. Hence, menstrual hygiene practices were seen among 125 participants.

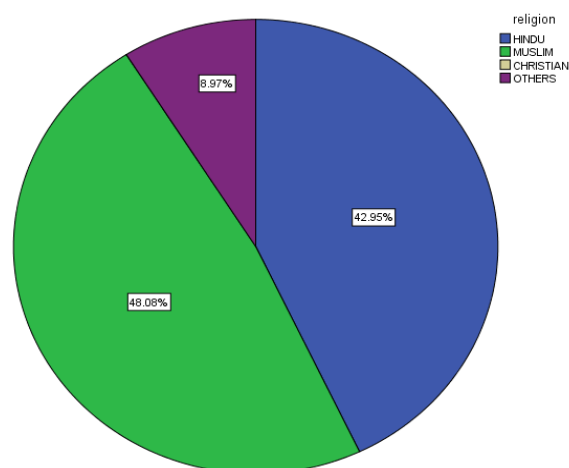


Figure 1: Pie diagram showing distribution of study participants according to Religion (n=156)

Around half (48.1%) of the study participants were Muslim.

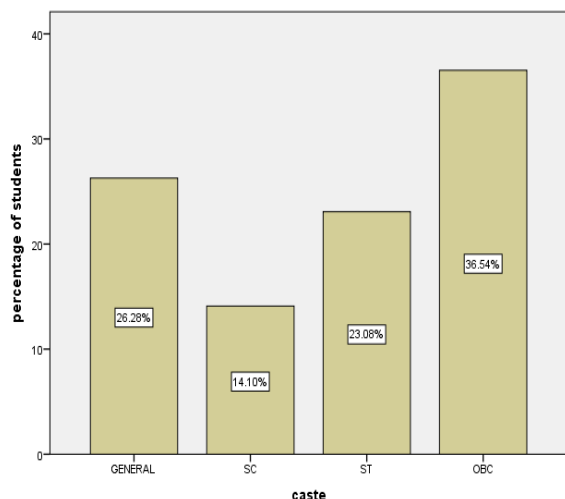


Figure 2: Bar diagram showing distribution of study participants according to their caste (n=156)

Majority of the study participants belonged to Other Backward Class category (36.5%) followed by General caste (26.3%) and Scheduled Tribe (23.1%).

Table 2: Menstrual pattern in adolescent girls (n=125)

| Menstrual Pattern | Number | Percentage |
|---------------------------------------|--------|------------|
| AGE AT WHICH MENARCHE ATTAINED | | |
| 10-14 years | 122 | 97.6 |
| 14-16 years | 3 | 2.4 |
| DURATION OF BLOOD FLOW IN DAYS | | |
| < 2 | 46 | 29.5 |
| 3-5 | 45 | 28.8 |
| > 5 | 51 | 32.7 |
| MENSTRUAL CYCLE PATTERN | | |
| Regular | 82 | 65.6 |
| Irregular | 43 | 34.4 |
| LENGTH OF CYCLE IN DAYS | | |
| < 28 days | 36 | 28.8 |
| 28-32 days | 48 | 38.4 |
| > 32 days | 41 | 32.8 |

Table 4: Knowledge about menstrual hygiene among study population (n=156)

| Knowledge about menstruation | Correct knowledge | Incorrect knowledge |
|--|-------------------|---------------------|
| Average age for menarche | 148 (94.2%) | 8 (5.8%) |
| Average no of days for menstruation | 107 (68.0%) | 49 (32.0%) |
| Presence of foul smell if hygiene is not maintained properly | 119 (76.3%) | 37 (23.7%) |
| Occurrence of disease if hygiene is not maintained during menstruation | 84 (53.8%) | 72 (46.2%) |

Although three-fourth (76.3%) of the study participants knew that if hygiene is not maintained properly during menstruation, there will be foul smell, however almost half (46.2%) of them did not know that disease will occur if proper menstrual hygiene is not maintained.

Most (97.6%) of the students had menarche in early adolescence. Mean age of attainment of menarche was 12.5 years. Duration of blood flow was normal in one-fourth (28.8 %) of the study participants. Menstrual cycle pattern was regular in 65.6 % of the participants. Length of menstrual cycle was normal in two-fifths (38.4%) of the participants.

Nearly three-fifth (59.6%) of the study population had knowledge about menstruation prior to their menarche. The source of information about menstruation were mainly from the mothers of the participants (47.6%), followed by friends (26.9%).

Table 3: Knowledge among study participants about physiology of menstruation (n=156)

| Knowledge | Number of students | Percentage |
|-------------------------------------|--------------------|------------|
| REASON FOR MENSTRUATION | | |
| Hormonal changes | 35 | 22.5 |
| Curse of God | 18 | 11.5 |
| Due to any disease | 14 | 8.9 |
| Don't know | 89 | 57.1 |
| SOURCE OF MENSTRUAL BLEEDING | | |
| Stomach | 6 | 3.8 |
| Uterus | 9 | 5.8 |
| Toxic substances of blood | 22 | 14.1 |
| Urinary tract | 27 | 17.3 |
| Don't know | 92 | 59.0 |

Most (77.5%) of the study participants either had incorrect knowledge or did not know about the reason for menstruation. More than half (59.0%) of the participants had no knowledge regarding the source of menstrual bleeding.

Table 5: Knowledge about availability of sanitary pads among study population (n=156)

| Availability of sanitary pads | Number of students | Percentage |
|-------------------------------|--------------------|------------|
| Medical shops | 108 | 69.2% |
| Hospitals | 21 | 13.5% |
| ASHA/Health Workers | 36 | 23.1% |
| Don't know | 5 | 3.2% |

*multiple response table

Most (69.2%) of the participants knew about the availability of sanitary pads from medical shops.

Table 6: Menstrual hygiene practices among study population

| Menstrual hygiene practices | Number | Percentage |
|--|--------|------------|
| ABSORBENT USED DURING MENSTRUATION (N= 125) | | |
| Sanitary pad | 54 | 43.2 |
| New cloth | 8 | 6.4 |
| Old cloth | 10 | 8 |
| Both cloth and sanitary pad | 53 | 42.4 |
| REUSES SAME CLOTH (N=71) | | |
| Yes | 63 | 88.7 |
| No | 8 | 11.3 |
| WASHES CLOTH WITH (N= 63) | | |
| Water | 8 | 12.7 |
| Soap and water | 50 | 79.4 |
| Water and antiseptic | 5 | 7.9 |
| DRIES CLOTH IN (N= 63) | | |
| Under sunlight | 22 | 30.9 |
| Inside home | 49 | 69.1 |
| NUMBER OF CLOTHS OR PADS CHANGED PER DAY (N= 125) | | |
| Less than 3 | 71 | 57.0 |
| 3 or more | 54 | 43.0 |
| STORAGE PLACE OF UNUSED PAD/CLOTH (N= 125) | | |
| Clean dry place | 69 | 55.2 |
| Others | 56 | 44.8 |
| GENITAL HYGIENE (N= 125) | | |
| Only water | 47 | 37.6 |
| Soap and water | 54 | 43.2 |
| Water and antiseptic | 24 | 19.2 |
| TAKES BATH DAILY (N= 125) | | |
| Yes | 103 | 82.4 |
| No | 22 | 17.6 |
| MODE OF DISPOSAL OF CLOTH/PAD (N=125) | | |
| Dustbin | 41 | 32.8 |
| Open field | 5 | 4.0 |
| Pond or pit | 64 | 51.2 |
| Latrine | 7 | 5.6 |
| Incineration | 8 | 6.4 |

Almost half (43.2%) of study participants used sanitary pads during menstruation.

In our study, we found that 54 (43.2%) girls used sanitary pads during menstruation, 10 (8.0%) girls used old cloth pieces. 53 (42.4%) girls used both cloth pieces and sanitary pads during menstruation.

Among those girls who used cloth, the practice of reusing the same cloth was present among most (88.7%) of them. Four-fifth (79.4%) of the participants washed the cloth using soap water. Washed clothes were mostly (69.1%) dried inside homes.

More than half (57.0%) of the students had incorrect practice regarding number of pads or cloths used per day. Around half (55.2%) of the students had correct practice regarding storage of unused

pads/cloths. Most of the participants (82.4%) took bath daily during menstruation. Majority (51.2%) of the participants throws the used pads/cloths in ponds or pits.

Menstrual hygiene Practice

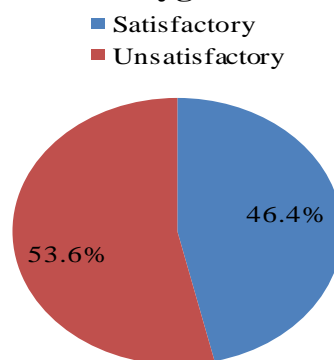


Figure 3: Pie diagram showing distribution of population according to satisfactory and unsatisfactory practices (n=125)

More than half (53.6%) of the study participants had unsatisfactory practices for maintaining menstrual hygiene.

Table 7: Restrictions practiced during menstruation among study population (n=125)

| Restrictions practiced | Number of students | Percentage |
|-------------------------|--------------------|------------|
| Religious occasions | 38 | 30.4 |
| Routine household works | 19 | 15.2 |
| Playing | 22 | 17.6 |
| Attending school | 22 | 17.6 |
| Sleeping in bed | 14 | 11.2 |
| No restrictions | 17 | 13.6 |

*multiple-response table

Most common restriction practiced during menstruation among study participants was attending any religious occasions (30.4%), followed by playing (17.6%) and going to school (17.6%).

Among the study participants, 111 students faced physical problems such as abdominal pain, low back pain, muscle pain, nausea vomiting during menstruation.

Table 8: Remedies followed for the problems faced among study population (n=111)

| Remedies | Number of students | Percentage |
|-----------------|--------------------|------------|
| Taking medicine | 30 | 27.0 |
| Hot compression | 12 | 10.8 |
| Doctors' advice | 23 | 20.7 |
| Does nothing | 13 | 11.7 |
| Others | 33 | 29.8 |

Almost half (47.7 %) of the students took medicines and followed doctor's advice for the physical problems faced during

menstruation. Other remedies followed were taking bed rest and drinking plenty of water and food.

Table 9: Association of socio-demographic profile and menstrual hygiene practices among study population (n=125)

| Socio-demographic variables | | Menstrual hygiene practices | | | p value |
|-----------------------------|------------------------|-----------------------------|--------------------|-------------|---------|
| | | Satisfactory (%) | Unsatisfactory (%) | Total (%) | |
| Age of participants | Early adolescence | 27(24.6) | 83 (75.4) | 110 (100.0) | 0.000 |
| | Late adolescence | 31 (67.4) | 15 (32.6) | 46 (100.0) | |
| Caste of participants | General | 23 (63.9) | 13 (36.1) | 36(100.0) | 0.012 |
| | Others | 35 (39.3) | 54 (60.7) | 89(100.0) | |
| Education of mother | Below primary | 46 (41.0) | 32 (59.0) | 78(100.0) | 0.305 |
| | Primary and above | 21 (55.3) | 26 (44.7) | 47(100.0) | |
| Socio-economic status | Below middle class | 43 (42.7) | 32 (57.3) | 75 (100.0) | 0.121 |
| | Middle class and above | 24 (52.0) | 26 (48.0) | 50 (100.0) | |

There was significant association seen between age of the study participants and their menstrual hygiene practices ($p=0.000$). It was seen that participants who belonged to the late adolescent age group had more satisfactory practices as compared to those in the early adolescent age group.

Among General Caste, more than half (63.9%) of the study participants followed satisfactory menstrual hygienic practices. There is an association between caste and menstrual hygiene practices which is statistically significant ($p=0.012$).

Though with higher education of mothers the menstrual hygiene practices increased from 41% to 55.3 % but no significant association was found.

Menstrual hygiene practices were better among middle class and above population (52%) than those who were below middle class (42.7%), but it was not statistically significant.

DISCUSSION

In the present study, majority of the study participants attained menarche between 10-14 years and mean age was 12.5 years. It is consistent with the findings of other studies. (1, 8-10). In our study, 59.6 % of the respondents were aware of menarche before its onset which is similar to study conducted by Dasgupta et al. (4) However, Kansal et al, (1) Thakre et al, (8) Jogdand et al, (11) and Bobhate et al (12) reported a lower percentage.

Mothers were the first informant in almost half of the study participants which

was coherent with the findings of Thakre et al (8) and Khanna et al. (9) However, in studies conducted by Kansal et al, (1) sisters (55%) played the key role and only 15.5% were mothers.

In our study, 53.6% of the study participants were following unsatisfactory menstrual practices. In a similar study conducted by Kansal et al, (1) three-fourth of the respondents was not following hygienic practices.

Our study revealed that, almost half (43.2%) of study participants used sanitary napkins during menstruation which is similar with the findings of Dasgupta et al, (4) Jogdand et al (11) and Bobhate et al. (12) In others studies conducted by Kansal et al, (1) Khanna et al, (9) and in the findings of ICMR study, (13) reported lower use of sanitary pads.

In present study, almost half (56.8%) of the respondents used clothes as absorbent, 8.0% girls used old cloth pieces and 42.4% girls used both cloth pieces and sanitary pads during menstruation. This in accordance to the investigations of Kapoor et al (14) in which 59.09% of the girls used sanitary pads only where as 40.91% used either cloth (new or old) alone or in combination with sanitary pads. However, in studies conducted by Bhattacharyya et al (15) in which 81.73% of the girls used sanitary pads only where as 18.27% used either cloth (new or old) alone or in combination with sanitary pads, by Dasgupta et al, (4) in which 88.75% girls used cloths during menstruation, 42.5%

girls used old cloth pieces and 40% girls used both cloth pieces and sanitary pads during menstruation, by Khanna et al, ⁽⁹⁾ where three-fourths of the girls used old cloth during their periods and by Kansal et al, ⁽¹⁾ two-third of the respondents used cloths during menstruation.

It was observed in this study that 77.5 % which is consistent with the studies conducted by Dasgupta et al ⁽⁴⁾ where 86.25% girls believed it to be a physiological process. But in a study by Khanna et al ⁽⁹⁾ in Rajasthan, nearly 70% believed that menstruation was not a natural process.

In this study, among those girls who used cloth, the practice of reusing the same cloth was present among most (88.7%) of them which is similar to the findings of study conducted by Dasgupta et al ⁽⁴⁾ where 73.75% reused cloth pieces.

Regarding the method of disposal of the used material, 32.8% girls disposed the used pad/cloth in dustbins. In a similar study by Priya et al, ⁽¹⁶⁾ 29% girls disposed the used pad/cloth in dustbins and by Dasgupta et al, ⁽⁴⁾ 42.5% girls did not dispose properly the used material.

In our study, majority (77.5%) of the study participants either have incorrect knowledge or don't know about the reason for menstruation. This is in accordance to the studies conducted by Barathalakshmi et al, ⁽¹⁷⁾ in which 65.9% did not know the cause of the menstrual bleeding and by Dasgupta et al, ⁽⁴⁾ in which 97.5% girls did not know about the source of menstrual bleeding.

Regarding source of bleeding, only 5.8% knew that source of bleeding was uterus. In a similar study conducted by Thakre et al, ⁽⁸⁾ only 2.5% of the study girls stated that menstrual bleeding came from the uterus.

In our study, regarding different types of restrictions practiced during menstruation, 30.4% followed restrictions for religious occasions followed by playing i.e. 17.6%. In a similar study by Jogdand et al, ⁽¹¹⁾ restrictions for religious occasion was

78.99% followed by playing 20.62%. In a study by Dasgupta et al, ⁽⁴⁾ 70.59% girls did not attend any religious occasion, and 42.65% girls did not play. Also, in a study conducted by Kansal et al, ⁽¹⁾ about one-third of the total respondents faced restrictions during menstruation like performing religious activities, entering into the kitchen, and attending schools.

In our study, more than half (57.0%) of students had incorrect practice regarding number of pads or clothes used per day. In a study conducted by Narayan et al, ⁽¹⁸⁾ it was found that 42% girls had changed their pads 2 times per day which is incorrect.

Four-fifth (79.4%) of the participants in our study washed the cloth using soap water. Washed clothes were mostly dried inside homes. 44.8% of the students had unsatisfactory practice regarding storage of unused pads/cloths. In a similar study by Dasgupta et al, ⁽⁴⁾ the usual practice among girls was to wash the cloth with soap and water after use. Cloths are mostly stored in unhygienic places. Similar Finding was seen by Narayan et al, ⁽¹⁸⁾ where 58% of participants had dried it inside homes and 45.6% had stored it in the bathroom. However unlike our study, a study conducted by El-Gilany et al, ⁽¹⁰⁾ in Egypt, the different aspects of personal hygiene were generally found to be poor, such as not changing pads regularly or at night.

Most of the participants (82.4%) took bath daily during menstruation which is similar to the study by Kapoor et al, ⁽¹⁴⁾ in which 93.18% girls took daily bath during menstruation and a study by Bhattacharyya et al, ⁽¹⁵⁾ in which 86.08% girls took daily bath.

In our study, participants followed regular cleaning of external genitalia out of which only 43.2% used soap and water for cleaning. Studies by Kapoor et al, ⁽¹⁴⁾ Bhattacharyya et al, ⁽¹⁵⁾ and Thakre et al ⁽⁸⁾ showed 66.67%, 64.78% and 56.16% girls used soap and water for cleaning of external genitalia respectively whereas study by Dasgupta et al, ⁽⁴⁾ reported that 97.5% rural

adolescent girls used soap and water for cleaning of external genitalia.

In our study, majority (69.2%) of the participants knew about the availability of sanitary pads from medical shops. In a similar study by Kansal et al, (1) majority were not aware of the services for them.

In our study, we found that with increasing age, more participants had satisfactory menstrual hygiene practices and this was found to be statistically significant ($p=0.000$). Although a study by Kansal et al (1) had findings in accordance to our study, they could not establish any association between the age of the study participants and their menstrual hygiene practices.

In this study, among General Caste, more than half (63.9%) of the study participants followed satisfactory menstrual hygienic practices than other castes which is statistically significant ($p=0.012$). It may be due to different customs, beliefs and practices among backward class of population. Similarly, in a study conducted by Kansal et al, (1) respondents who belonged to general caste (60%) were following more hygienic practices in comparison to their counterparts and the difference was found to be statistically significant.

Though with higher education of mothers the menstrual hygiene practices increased from 41% to 55.3 % but no significant association was found between the two which is consistent to the findings of a similar study by Kansal et al, (1) where respondents whose mothers were literate (62%) were maintaining more hygienic practices in comparison to those whose mothers were illiterate (13%). Thus, education of mothers plays a crucial role in acquiring knowledge and maintaining proper hygienic practices among children.

CONCLUSION AND RECOMMENDATIONS

This study reveals that menstrual hygiene is still not satisfactory among adolescent girls of rural areas. In this study, mothers of adolescent girls were reluctant

about discussing with their daughters about menstruation. The mothers should be encouraged to break these inhibitions.

Reproductive health and menstrual hygiene should be inculcated into the children with the help of school curriculum. Girls should be educated about proper hygienic practices and to break different traditional beliefs, misconceptions and restrictions regarding menstruation. They should be made aware that sanitary pads are now distributed by ASHA workers and health centers at a very minimum affordable price. The various restrictions that were practiced by the adolescent girls maybe due to their false perceptions about menstruation. Hence, these myths should be addressed in an acceptable fashion by parents, family members, teachers and health workers.

LIMITATIONS:

The limitations of the study are inherent to the cross-sectional design. There may be recall bias among the study participants. Despite our sincere efforts to maintain privacy and confidentiality, there may be concealing of sensitive issues among the study participants.

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Conflicts of Interest: None

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