

**Title :** The knowledge and practice of menstrual hygiene among adolescent girls in one of the municipal corporation schools of Ahmednagar.

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## ABSTRACT -

**Aim :** To find out knowledge and practice of menstrual hygiene in school going girls. **Objectives :** 1) Assessing the level of knowledge regarding menstrual hygiene among school going girls. 2) To find out the status of menstrual hygiene being practiced by the school going girls. **Material & method :** A community based cross sectional study on adolescent girls carried at Municipal Corporation School, Ahmednagar. A pretested, semi structured questionnaire was used for data collection. The demographic information including family details, parent's education, occupation, housing conditions, house type, toilet facility, and water supply in the toilet were enquired and then documented. All girls present on the day of school visits were included i.e.140 out of 176 (80% coverage). The girls absent on the day of visit were interviewed in the next class visit. The data analysis was done using SPSS 15 software. **Results :** It was evident that the mean age of girls was 13 years and the range was between 11 to 16 years. It was evident that only 87 (62.14%) girls were aware about menstruation before menarche. A majority of girls (70.71%) were not aware of the source of the menstrual bleeding. The study showed that 44 (31.42%) girls used sanitary Pads during menstruation, 90 (64.28%) girls used cloth pieces and 6 (4.28%) girls used both sanitary pad and cloth. The cleaning of external genitalia was satisfactory in 97 % of girls and only 3% of girls showed unsatisfactory results. **Conclusion :** It can be said that among the adolescent school girls, the knowledge on menstruation is poor and the practices are often not optimal for proper hygiene. Menstrual hygiene as an

issue needs to be addressed at all levels. It is essential to design a mechanism to address and for the access of healthy menstrual practices.

**Key words :** Menstrual Hygiene, adolescent girls, knowledge, practice.

**Introduction :** Menstruation, though a natural process, has often been dealt with secrecy in many parts of the World. Hence, knowledge and information about reproductive functioning and reproductive health problems amongst the adolescents is poor. A study on Indian women shows that young girls are generally told nothing about menstruation until their first experience. adolescence in girls has been recognized as a special period which signifies the transition from girlhood to womanhood. Menstruation is generally considered as unclean in the Indian society. Isolation of the menstruating girls and restrictions being imposed on them in the family, have reinforced a negative attitude towards this phenomenon. Several studies have reported restrictions during the daily activities. Apart from these, they believe in specified taboos at menarche and menstruation. Social prohibitions and the negative attitude of parents in discussing the related issues openly have blocked the access of adolescent girls to the right kind of information, especially in the rural and tribal communities. Many studies have revealed that most of the adolescent girls had incomplete and inaccurate information about the menstrual physiology and hygiene. It also revealed that mothers, television, friends, teachers and relatives were the main sources which provided information on menstruation to the adolescent girls. Several traditional norms and beliefs, socio-economic conditions and physical infrastructure can and do influence the practices related to menstruation. Menstrual hygiene and management is yet to be integrated effectively in overall hygiene promotional interventions. Good menstrual hygiene is crucial for the health, education, and dignity of girls and women. A key priority for women and girls is to have the necessary knowledge, facilities and the cultural environment to manage menstruation hygienically and with dignity. Very few studies have included the detailed aspects of the menstrual practices among adolescent girls. This is an important

sanitation issue which has long been in the closet and still there is a long standing need to openly discuss it. Evidences from the field are imperative to emphasize the issues. Hence this small scale descriptive cross-sectional study was taken with the aims & objectives given below.<sup>[1,2]</sup>

**Aim :** To find out knowledge and practices used for menstrual hygiene in school going girls.

**Objectives :** 1) Assessing the level of knowledge regarding menstrual hygiene among school going girls. 2) To find out the status of menstrual hygiene being practiced by the school going girls.

**Material & method:**

- Study Design : Cross sectional study.
- Study area : Municipal corporation school, Ahmednagar.
- Study Setting : The present study was undertaken among the adolescent school going girls in the Municipal Corporation School, Vadgaon Gupta, Ahmednagar. The school was 20 km away from the institutional medical college and 5 km away from the Shirdi Manmad highway. As the adolescent girls belonged to this school, hence was purposely selected for the study.
- **Study population :** Girls of 8th to 10th class. Total 176 girls were applicable for the study.
- **Inclusion criteria :** Girls those who have attained menarche.
- **Study Tools & Technique :** A pre-designed, pretested and semi-structured questionnaire was used in the study.
- **Methodology :** After taking permission from the school authorities, the class teachers of 8th, 9th, and 10th standards were explained the purpose of the study and verbal consent was obtained. The purpose of study was explained and the mode of questions was also explained to them. The predesigned, pretested, semi structured questionnaire included topics which were related to the awareness about menstruation, source of information, personal hygiene, method of disposal, taboos, related customs, etc. The demographic information including family details, parent's

education, occupation, housing conditions, house type, toilet facility, and water supply in the toilet were enquired and then documented. All girls present on the day of school visits were included i.e.140 out of 176 (80% coverage). There were 2 sections of each class. Total 6 classes were interviewed. Time was adjusted with each class teacher and the off period was taken so as to avoid interruption in the routine curriculum. Boys were sent out for playing while the girls were interviewed in the class respecting their privacy so as to make them comfortable and answer the questions at ease. The girls absent on the day of visit were interviewed in the next class visit.

- **Duration :** September 2012 to December 2012.
- Data analysis done by using SPSS 15

**Results : Table 1:** Demographic characteristics of study subjects(n=140)

Characteristics	Number	Percentage
<b>Age in years:</b>		
12	8	5.71%
13	21	15%
14	54	38.57%
15	47	33.57%
>16	10	7.14%
<b>Residence :</b>		
Rural	89	63.57%
Urban	51	36.42%
<b>Economic status:</b>		
APL	48	34.28%
BPL	92	65.71%
<b>Education of mother : Literate</b>		
Illiterate	132	94.28%
	08	5.71%

Table no. 1 presents the demographic details of the study subjects

It was evident that mean age of study subjects who were studied was 13 years and range was between 11 to 16 years. It was seen that majority of respondents belongs to rural residency. The percentage of girls who are above the poverty line (APL) was 34.28% and those below poverty line (BPL) was 65.71%. A majority of mother were literate 94.28% and 5.71% mothers were illiterate

**Table 2 :** Information about menarche and perception about menstruation (n=140).

Variables	Number	Percentage
<b>Age of menarche (years)</b>		
<11	02	1.42%
12	28	20.02 %
13	71	50.71%
14	33	23.57%
>15	06	4.28%
<b>Total</b>	<b>140</b>	<b>100%</b>
<b>Awareness about menstruation before menarche.</b>	<b>Number</b>	<b>Percentage</b>
Yes	87	62.14%
No	53	37.86%
<b>Total</b>	<b>140</b>	<b>100%</b>
<b>Source of information before menarche</b>	<b>Number</b>	<b>Percentage</b>
Mother	63	45.01%
Sister	4	2.85%
Others	20	14.28%
No information	53	37.86%
<b>Total</b>	<b>140</b>	<b>100%</b>
<b>What is the cause of menstruation?</b>		
Physiological process	115	82.14%
Disease	1	0.71%
Curse of god	6	4.21%
Punishment	18	12.85%
<b>Total</b>	<b>140</b>	<b>100%</b>

From which organ the menstrual blood comes?	Number	Percentage
Don't know	99	70.72%
Uterus	38	27.14%
Vagina	3	2.14%
<b>Total</b>	<b>140</b>	<b>100%</b>
From which organ the menstrual blood comes?	Number	Percentage
Don't know	99	70.72%
Uterus	38	27.14%
Vagina	3	2.14%
<b>Total</b>	<b>140</b>	<b>100%</b>
Absorbent used	Number	Percentage
Sanitary pad	44	31.42%
Cloth	90	64.30%
Both	6	4.28%
<b>Total</b>	<b>140</b>	<b>100%</b>

Table no 2 shows the information about menarche and perception about menstruation.

The table reveals that the mean age of menarche in the study subject was 13.1 years. It was evident that only 87 (62.14%) girls were aware about menstruation before menarche. It was seen that majority of the girls got the information from mothers, followed by others which included teachers, books, media etc. It was observed that about 82.14% girls were aware that the menstruation was a physiological process, 12.85% girls thought that it was a punishment given to them, 4.2% believed it as a curse of God and 1% believed that it was a kind of disease.

A majority of girls (70.72%) were not aware of the source of the menstrual bleeding. Only 27% of girls were aware that the source of the menstrual bleeding was the uterus. A majority 64.30% of the respondents were using cloth as a absorbent, 31.42% of the respondents used sanitary pads.

Table 3: Practices used for menstrual hygiene. (n=140)

Menstrual hygiene practices	Number	Percentage
<b>Use of material during menstruation</b>		
Sanitary pad	44	31.42%
Cloth	90	64.28%
Both	6	4.28%
<b>Cleaning of External Genitalia</b>		
Yes	137	97.85%
No	3	2.14%
<b>Material used for cleaning external genitalis</b>		
Only water	7	5%
Soap and water	89	63.57%
Water and antiseptic	44	31.42%
<b>Material used for cleaning of cloth</b>		
Water	7	7.77%
Water and soap	80	88.88%
No washing	3	2.14%
<b>Method of disposal</b>		
Burn it	112	80%
Throw in routine waste	23	16.42%
Others	5	3.57%
<b>Place of drying the cloth (n=90)</b>		
Bathroom (no sunlight)	40	44.44%
In Sunlight	50	55.55%
<b>Change of absorbent in a day</b>		
Yes	133	95%
No	7	5%
<b>Number of absorbent used during last period</b>		
1 to 3	129	92.14%
>3	11	7.85%
<b>Average No of absorbent used.</b>	2.02	

Table no.3 shows the menstrual hygiene practices practiced during the menstrual period. Table reveals that the study on the practices during menstruation showed that 44 (31.42%) of girls used sanitary pads during menstruation, 90 (64.28%) of girls used cloth pieces and 6 (4.28%) girls used both i.e. sanitary pads and cloth. The cleaning of external genitalia was satisfactory in 97% of girls and only 3% girls showed unsatisfactory result. For the cleaning purpose, maximum girls 89(63%) used soap and water, 44 (31%) used water and antiseptic (Dettol), 7(5%) used water. In 112 (80%) of the girls the method of disposal of the used absorbent was found to be burning. 23(16%) were throwing it with the routine waste. In the cases of reused cloths, places of its drying which was observed, was outside the house in the sunlight in 50(55%) subjects, 40(44%) dried them inside the house. A majority of study subjects 133(95%) changed the absorbent in a day, whereas 5% of them did not change the absorbent once in a day. The range of the total number of absorbents which were used during the last menstrual period was 1 to 3 and the average number of the absorbents which were used by each subject was 3+/\_2 pads.

Table 4: Restrictions practiced during menstruation. (n=140)

Restrictions	Percent of girls
Practiced	94%
Attend religious functions	90%
Household work	78%
Separated	48%
Play outside	40%
Not allowed to go to school	36%

Table no 4 depicts the different types of restrictions which were practiced during menstruation. 94% of girls practiced different restrictions during menstruation. among them 90% of girls did not attend any religious functions or visit temples, 78% girls were not allowed to do the household work, 48% of girls were separated and not allowed to sleep on routine bed and were not allowed to touch anybody in the house. 40% of girls

were not allowed to play outside with other girls. 36% of girls were not allowed to attend their schools during menstruation. As one or more than one restrictions were practiced by each girl, hence the total exceeds 100%.

**Discussion :** This study reveals that the age of the menstruating girls ranged from 11 to 16 years, with maximum number of girls being between 13 to 15 years. Another researcher reported that the age of the menstruating girls ranged from 12 to 17 years, with the maximum number of girls being between 13 to 15 years of age <sup>[1]</sup>. In the present study, the mean age of menarche was found to be 13.1 years, whereas the mean age for menarche was calculated to be 12.85, 13.2, and 13.7 years, as reported by other researchers <sup>[2,3,4,5]</sup>. Prior awareness regarding menarche and menstruation among girls is generally low in most of the cultures. It was evident that only 62.14% of the participants were aware of menstruation before menarche. Menarche is an important event in girls at the threshold of adolescence and ideally, mothers should be the main informants at this tender age of the girls [Table 2]. However, mothers were the first informants for 72% of the girls. The fewer gaps may be due to the high literacy status of the mothers and small inhibitions for the mothers in talking to their daughters regarding the significance, hygienic practices and a healthy attitude towards menstruation. The latter practice will go a long way in maintaining a healthy reproductive tract for each and every girl child, who after she becomes a mother, will disseminate this healthy message to her offspring. Studies which were conducted by other researchers earlier reported that the first informant was the mother in variable range from 37.5 to 40.67% of the subjects <sup>[5]</sup>.

Other sources of information were sisters, friends and teachers for the study girls. These findings were consistent with those of other studies. It was observed in this study, that only 82% of the girls believed menstruation to be physiological process, whereas in a similar study, 86.25% believed it to be a physiological process <sup>[6]</sup>. It was very sad to observe in the present study, that most of the girls (70.71%) did not know the cause of the menstrual bleeding. Only 27.14% of the study girls stated that menstrual bleeding came from

the uterus and 70.23% were unaware of the source of the menstrual bleeding. These findings were consistent with other study. One fourth of the girls were ignorant about the use of sanitary pads during menstruation. The above observations may be due to lack of proper health education programs in the school, which focused on the menstrual health and hygiene among girls.

The hygiene related practices of women during menstruation are of considerable importance, as they affect their health by increasing their vulnerability to infections, especially infections of the urinary tract and the perineum. Studies which were reported from India and other developing countries have highlighted the common practices which have prevailed among the adolescent females. The type of absorbent material which is used is of primary concern, since reuse of the material could be a cause for infection if it is improperly cleaned and poorly stored <sup>[3]</sup>. This study revealed that most of the girls used old clothes as menstrual pads and those they reused the clothes after washing them with soap and water. They discarded the clothes by burning them or throwing them with the routine waste after using it for a few months. Very few girls from the rural areas used sanitary pads which were available in the market; possibly due to their low socioeconomic status, lesser availability of the pads at the rural areas and lack of awareness <sup>[4]</sup>.

Other researchers, in their studies, also reported that more than three fourth of the girls used cotton clothes and reused them after washing them <sup>[5]</sup>. A study from India reported that a majority of the rural school girls, who used old clothes, sanitized the materials by boiling and drying them before reuse. It was evident that such practices offered protection against the possible infections. In our study, 64% girls used cloth material as menstrual absorbents. The place of storage of the pads/ napkins is equally important for their cleanliness; especially the practice of storing them in bathrooms is disturbing, since it could give rise to the harboring of dust and insects. The proportion of the participants who used the bathroom as a storage place was 44.4% <sup>[6]</sup>. In other studies, the practice of storing the absorbents in the bath room was as low as 21.1% <sup>[7]</sup>. Literature information regarding the adverse health

effects due to the bathroom storage is meager<sup>[8]</sup>. In the present study, a small proportion of the girls changed the pads in a day (95%). The probable reason for the girls not changing the pads could be ignorance and lack of facilities. Our findings are in accordance to those of other studies which were reported from India<sup>[9]</sup>.

Further, the practice of using old clothes was found to be common among girls in the present group (64%). It could be because of the lack of knowledge about healthy practices in young girls. Based on his study mitra et al<sup>[10]</sup> suggested that urban girls had better awareness about menstrual hygienic practices than their rural counterparts. This study shows that 31.4% of the girls preferred sanitary pads as a menstrual absorbent [Table-3]. Other studies which were conducted by other researchers reported that, 20.25-20% of the girls used sanitary pads. Cleanliness of the external genitalia was unsatisfactory (the frequency of cleaning the external genitalia was 2 times per day) in case of 140 girls. The reasons for not cleaning the external genitalia were lack of knowledge about menstrual hygiene and privacy, the latter being an important problem. A study which was conducted by another author revealed that only 34.33% of the girls satisfactorily cleaned their genitalia. Soap and water were the commonest materials which were used by 140 girls (63%) for cleaning the external genitalia. In the present study, the commonly practiced methods of disposal of the used absorbent were, burning it followed by throwing it in routine solid waste. The same findings were reported by other studies also.<sup>[11]</sup>

Different restrictions were practiced by most of the girls in the present study, possibly due to the different rituals in their communities; the same were practiced by their mothers or other elderly female in the family, due to their ignorance and false perceptions about menstruation. This may be due to the lack of awareness in the rural areas and due to the association of more stigmas with menstruation. These findings were consistent with those of other studies<sup>[12,13,14]</sup>.

**Conclusion :** It can be said that among the adolescent school girls, the knowledge on menstruation is poor and the practices are often not optimal for proper hygiene. Menstrual hygiene is an issue needs to be

addressed at all levels. A variety of factors are known to affect menstrual behaviors, the most influential ones being economic status and literacy. Awareness regarding the need for information on healthy menstrual practices is very important. It is essential to design a mechanism to address and for the access of healthy menstrual practices.

**Recommendations :** This study has highlighted the need of adolescent girls to have accurate and adequate information about menstruation and its appropriate management. Formal as well as informal channels of communication such as mothers, sisters and friends, need to be emphasized for the delivery of such information. In view of the vital role of the mothers, it is very important that the mother be armed with the correct and appropriate information on reproductive health, so that she can give this knowledge to her growing girl child. It is also essential for the teachers, who may not have the necessary skills to impart reproductive health education, including menstrual hygiene to their students. They have to be given requisite skills – usually through training or workshops. Much more efforts are needed to curb the misbeliefs and taboos among the adolescent school girls. In India, all organizations which work on reproductive health should work adequately on the neglected issue of menstrual hygiene and management to achieve “Sanitation for dignity and health” for all women (The Delhi Declaration, SACOSAN III 2008).<sup>[15,16,17,18,19]</sup>

**Acknowledgment :** We are extremely grateful to the Principal and the Staff of the Municipal Corporation School. We are even thankful to the interns Dr Rahul Supare and Dr Nitin Jaybhaye for their valuable support. We are even thankful to the entire Department of Community Medicine, Vikhe Patil Medical College, Ahmednagar.

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#### WHITE COAT CEREMONY

At every medical school, the first symbolic act is the "White Coat Ceremony" originated by Arnold P. Gold, MD. This is the ceremonial "cloaking". a doctor-to-be as she or he embarks on a medical career. Prior to the late 19th century doctors wore not white but black garb. The white coat ceremony (WCC) is a relatively new ritual in some medical , optometry, dental, physical therapy, pharmacy, physician assistant, and veterinary medical schools that marks the student's transition from the study of preclinical to clinical health sciences (i.e. from basics to clinical sciences). Many medical schools celebrate WCC.

(source:[http://en.wikipedia.org/wiki/White\\_coat\\_ceremony](http://en.wikipedia.org/wiki/White_coat_ceremony))