

## Menstrual Hygiene Awareness and Management: Still a Challenge for Indian Adolescent Girls

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## ABSTRACT

**Background and objective:** Menstruation is still considered as something to be ashamed of and to hide, and is consequently ignored in families, schools and community. In order to explore more in this area, present study was envisioned to identify the challenges of menstruation faced by adolescent girls of Vadodara city, Gujarat.

**Materials and method:** Prospective study was conducted in 150 adolescent girls (13-19 yrs.), from rural area, urban area and medical students. Focus Group Discussion (FGD) was conducted regarding menstrual hygiene practices, management and other hindering factors of menstruation. **Results:** 82% of the rural girls were using cloth and 56% were reusing the same cloth, only 60% girls knew the proper method of disposal. Even 50% rural girls knew the proper method of maintaining genital hygiene. Major restriction for them was not allowing in temple and Kitchen. 3 girls from rural area were forced to leave the school after menarche. School absenteeism was also significantly more in rural girls. While in urban and medical girls 88% girls were using Pad and were 92% were disposing the pad properly. Surprisingly 62% medical girls were cleaning the genitalia with plain water and 12% didn't knew the cause and origin of menarche. **Conclusion:** A lot is done to educate rural adolescent girls through MHM program regarding menstrual hygiene, but still more efforts are needed to improve the menstrual hygiene practices. Author also suggests the awareness programs for better menstrual hygiene should to be the part of school curriculum with strict monitoring.

**Keywords:** Adolescent girls, Menstrual Hygiene, Menstrual disorders, Sanitation

**How to cite this article:**Himani P, Geetanjali P, Vijeta NK (2020): Menstrual hygiene awareness and management: Still a challenge for Indian adolescent girls, Ann Trop Med & Public Health; 23(S23): SP2323149. DOI: <http://doi.org/10.36295/ASRO.2020.2323149>

## INTRODUCTION:

“Swachh Bharat Mission” places a special emphasis on addressing a sanitation need of women recognizing their role in building “Swachh Bharat”. Menstruation is still a taboo in India and it is common for people across society to feel uncomfortable about the subject.<sup>[1]</sup> Coupled with it, there is lack of information about the process of menstruation and requirements for menstruation hygiene management.<sup>[1]</sup>Menstrual hygiene management (MHM)has been largely ignored or misunderstood which prevents girls and women from articulating their needs and problems related with menstruation. Appropriate menstrual hygiene is required for women health, education, and dignity.<sup>[1]</sup>In order to ensure that adolescent girls and women have the necessary support and facilities, it is important that the wider society, communities and families must challenge the status quo and

break the silence around menstruation.<sup>[1]</sup> There is a need to change family and community norms and beliefs in this regard. Not being able to talk about their experience and having limited information means that menstruation becomes something to be ashamed of and to hide, and is consequently ignored in families, schools. Communities need to be aware about the barriers to effective MHM; adolescent girls are facing in school as well as enabling girls to manage menses in school and home.<sup>[1]</sup> WASH i.e. poor water, sanitation and hygiene facilities in schools, lack of hygienic and lack of awareness about the puberty education make menstruation as shameful and uncomfortable.<sup>[2, 3]</sup>

Qualitative studies report that girls had a fear and humiliation from leaking of blood and body odor, and lead menstruating girls to absent themselves from school<sup>[4]</sup> with little quantitative data confirming this. Cultural taboos add to girls' difficulties for MHM<sup>[5,6]</sup> and impose restrictions on their diet and activities when menstruating. Moreover, insufficient MHM results in associated health problems as urinary and genital tracts infections.<sup>[6]</sup> With this back drop, present study was intended to study the challenges and issues of menstruation in adolescent girls and to compare the menstrual hygiene in the rural, urban girls (non-medical) and medical adolescent girls of Vadodara.

## **MATERIALS AND METHODS:**

### ***Type of the study & Study Site:***

This prospective Cross-sectional comparative study was conducted as a part of student community research project named EviGenCHIP (Evidence Generating Community Health Interventional Project) program. Participants recruited were adolescent girls of age 13-19 Yrs. from rural and urban area, as well as data was also collected from first year medical students of Smt. B. K. Shah Medical College and Research Centre, Sumandeep Vidyapeeth University, Vadodara, Gujarat. Study was conducted for a period of 4 months from 1<sup>st</sup> February 2018 to 1<sup>st</sup> May 2018. Ethical approval from Sumandeep Vidyapeeth Institutional Ethical committee (SVIEC) was taken prior to the initiation of the study and informed consent was obtained from each participant.

### ***Methodology***

**Study Groups:** Total 150 adolescent girls of Vadodara were incorporated in the study and were alienated in three different groups.

Group 1: 50 Adolescent girls from rural area (Piparia village)

Group 2: 50 Adolescent girls from urban area

Group 3: 50 Adolescent girls studying First year MBBS

**Interview:** The purpose of the study was explained to all the participants and verbal consent was obtained before interview which included questions regarding the knowledge, awareness, and sources of information, restrictions and practices followed to maintain menstrual hygiene.

**Focus group discussion (FGD):** FGD was conducted to elicit the issues and challenges regarding menstruation based on practice of menstrual hygiene, myths, challenges, issues and school absenteeism.

**Counseling:** We clarified all the myth and misconception regarding menstruation. We compel them to use only sanitary pads and not reused washed clothes during menstruation as well as educated them regarding morbidities associated with lack of hygiene verbally and also by displaying posters made in local language and English.

**Statistics:** Data collected in the Performa compiled in excel sheet. Percentage were calculated and shown in frequency distribution table.

## **RESULTS:**

**Table1** depicts the demographic details of the study subjects. Majority of the girls belong to age group of 18 and 19 years irrespective of the community. 87.3% of the girls were Hindu (131/150). Only 7 girls out of 50 participants were married belonging to rural area. In rural community 80% of the adolescent girl's mother was illiterate while in urban, 52% of the mother were either graduate and 44% studied till higher secondary, only 4% mother were uneducated. In medical students 68% of mother had completed her graduation. 52% of the rural girls were living in a Kuccha house and were not having sanitary latrine facility.

Table2 demonstrates the difference in the Menstrual Hygiene Practices in all the three categories of adolescent girls

- A. Menstrual hygiene practices in Rural girls:** 82% of the girls were using cloth (41/50) and 56% of the girls were reusing the cloth and out of them majority were (89%) washing it with soap and water. Only half of them were drying the cloth under Sun (50%). 60% girls knew the proper method of disposal of sanitary pad i.e. they wrapped the pad with newspaper and threw in dustbin, while the rest dispose it by landfill, sanitary latrine, nearest pond or throw it in open area without wrap. Half of the girls were aware that cleaning of genitalia should be done with soap and water while few girls were cleaning it with just plain water.
- B. Menstrual hygiene practices in Urban girls:** 4% girls were using cloth, out of them 42% girls were reusing the cloth and washing it with soap and drying it outside in sun. 78% girls knew the actual method of disposal i.e. wrapping in newspaper and throwing it in dust bin. 92% girls were changing the cloth/pad

every 4-5 hours, 90% girls were cleaning the genitalia with either plain water or Luke warm water but not with soap or any antiseptic solution

- C. Menstrual hygiene practices in girls of First year MBBS:** Majority of the girls (88%) girls were using pad while 12% using both pad and cloth.66% were reusing the cloth and washing it with soap and water and drying it outside in sun.94% medical girls were throwing the pad in dustbin with newspaper wrapped. 78% girls were cleaning the genitalia with either plain/Lukewarm water but not soap or any antiseptics solution; only 18% girls were cleaning it with soap and 4% with Dettol/ Savlon soap.

**Restrictions, Myths and Misconceptions regarding menstruation in all the 3 groups (Table 3):** The most evident Restriction common to all the category was not allowing them in temple (90%), while few thinks not to pick flowers, not to eat sour food, school absenteeism, don't mix socially etc. 92% of the rural girls don't know the origin and cause of menstruation. Still few of them think that it is a curse of God, while majority of Urban and medical girls knew that the cause is Hormonal. Abdominal pain was the main reason for school absenteeism. Myths like not allowing in Kitchen during menstruation is also followed in Urban and medical girls.

**Figure-1:** shows the prevalence of menstrual disorder, where generalized weakness was very common in rural girls, followed by backache, abdominal cramps and white discharge, in urban girls' abdominal cramps was the foremost symptom, followed by backache and weakness. In medical girls' general weakness was the most common sign, followed by heavy

**Table1: Demographic Characteristics of the Study population (n=150)**

Variables	Rural (n=50)	Urban (n=50)	Medical (n=50)
<b>Age Group (yrs.)</b>			
14-15 Yrs.	13(26%)	5(10%)	-
16-17 Yrs.	22(44%)	25(50%)	-
18-19 Yrs.	15(30%)	20(40%)	50(100%)
<b>Religion</b>			
Hindu	44(88%)	38(76%)	49(98%)
Muslim	6(12%)	12(24%)	1(2%)
<b>Marital status</b>			
Married	7(14%)	-	-

Unmarried	43(86%)	50(100%)	50(100%)
<b>Mother's education</b>			
Primary	4(8%)	-	-
Secondary	5(10%)	22(44%)	16(32%)
Graduate	1(2%)	26(52%)	34(68%)
Illiterate	40(80%)	2(4%)	-
<b>Housing</b>			
Kuccha	26(52%)	--	
Pakka	24(48%)	50(100%)	50(100%)
<b>Sanitary Latrine available</b>			
Yes	26(52%)	50(100%)	50(100%)
No	24(48%)	-	--

**Table2: Distribution of study population according to menstrual hygiene practices**

Variables		Rural	Urban	Medical
<b>Uses of absorbent</b>	Pad(n=89)	2(4%)	43(86%)	44(88%)
	Cloth(n=43)	41(82%)	2(4%)	-
	Both(n=18)	7(14%)	5(10%)	6(12%)
<b>Disposal method</b>	Ponds(n=2)	2(4%)	-	-
	Landfills(n=15)	12(24%)	3(6%)	
	Wrap and throw it in dustbin(n=116)	30(60%)	39(78%)	47(94%)
	Without wrap and throw it in bin(n=3)	2(4%)	-	1(2%)
	Latrine(n=13)	3(6%)	8(16%)	2(4%)
	Throw in open area wrapped with newspaper(n=1)	1(2%)	-	-
<b>Reuse of cloth</b>	Yes(n=34)	27(56%)	3(42%)	4(67%)
	No(n=5)	1(2%)	2(14%)	2(33%)
	Sometimes(n=22)	20(42%)	2(14%)	-

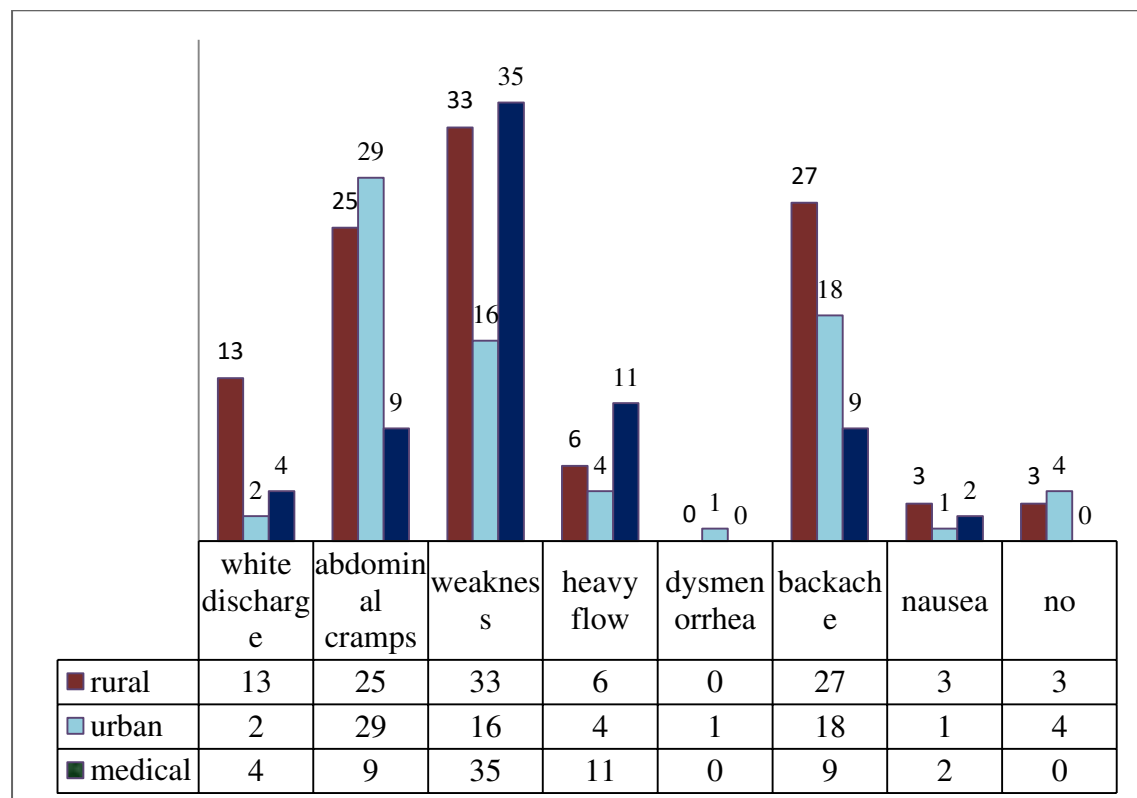
<b>Wash of reused cloth</b>	Luke warm water (n=7)	5(11%)	1(2%)	1(2%)
	Soap(n=49)	42 (89%)	3(6%)	4(8%)
<b>Methods of drying</b>	Inside the house(n=29)	28(50%)	-	1(2%)
	Outside under sunlight(n=27)	19(50%)	4(8%)	4(8%)
<b>Changing of pad/cloth</b>	3 hours	4(8%)	2(4%)	10(12%)
	4 hours	14(28%)	25(50%)	18(36%)
	5 hours	32(64%)	23(46%)	22(44%)
<b>Genital area cleaning</b>	Plain water	21(42%)	23(46%)	31(62%)
	Luke warm water	4(6%)	22(44%)	8(16%)
	Soap and water	25(50%)	5(10%)	11(22%)

**Table 3:** Restrictions, Myths and Misconceptions regarding menstruation in all the 3 groups

	Variables	Rural	Urban	Medical
<b>Restrictions</b>	Not allowed in kitchen	4(8%)	15(30%)	16(32%)
	Not allowed in temple	45(90%)	42(84%)	45(90%)
	Picking flowers	4(8%)	-	4(8%)
	Sour food	1(2%)	-	4(8%)
	Doesn't go to school	6(12%)	-	-
	Socially unavailable	5(10%)	5(10%)	-
<b>Origin</b>	Don't know	46(92%)	6(12%)	6(12%)
	Uterus	3(6%)	26(52%)	35(70%)
	Vagina	1(2%)	18(36%)	9(18%)
<b>Cause of menstruation</b>	Hormonal	2(4%)	40(80%)	48(96%)
	Curse of god	3(6%)	-	-

	Don't know	45(90%)	10(20%)	2(4%)
<b>School/college absentee</b>	Abdominal pain	15(30%)	7(14%)	2(4%)
	Grand mom restricted	1(2%)	-	-
	Fear of leakage	2(4%)	-	-
	Left school after menses	3(6%)	-	-
<b>Primary source of information</b>	Mother	10(20%)	31(62%)	32(64%)
	Elder Sister	11(22%)	-	7(14%)
	Friend	-	10(20%)	2(4%)
	Teachers	7(14%)	1(2%)	4(8%)

Figure 1: Prevalence of menstrual disorders in study population





## DISCUSSION:

UNICEF stated that 243 million adolescents comprise 20% of the total population in India which clearly shows that India is truly “YOUNG”,<sup>[7]</sup> moreover it become a big challenge as 15 to 19 years of age group constitute 10% and majority lives in rural areas. Every girl and women have to deal with menstruation hygiene and its management during monthly cycle in her life, but there is a huge gap reported for awareness.<sup>[8]</sup> Studies conducted in Indian tribal adolescent girls found lack of information on menstrual preparedness and management. This become more worse by the shyness and embarrassment with which menstruation is treated in community.<sup>[9]</sup> <sup>[10]</sup> It is worthwhile to mention that poor menstrual hygiene comes in the way of achieving the several Millennium Development Goals like universal primary education, gender equality and women empowerment, maternal health, environmental sustainability, global partnership for development, as reported in MGM 2-8.<sup>[11]</sup>

Present study found that Majority mothers (80%) of the rural girls were illiterate, which is an alarming figure and directly correlates with the findings regarding the key informant of menarche. Study found that in only 20% rural girl's mother was the key informant of menarche and menstruation knowledge. This data is less than the previous studies where in 45% and 37.5% cases mother was the key informant respectively.<sup>[12,13]</sup> This gap can be explained by the poor literacy and socioeconomic status. Mother plays an important role in discussing the menstrual matters before attainment of menarche without hesitation. Studies suggest that the next best can be the teachers for awareness on menarche, menstrual hygiene, RTI/STI with routine curriculum. Study conducted in urban school girls aged 14-18 yrs., where media was the main source of information reported for menstrual hygiene awareness, followed by family members as mothers.<sup>[13]</sup> Study found that 92% of the girls were not aware about the natural phenomenon of menstruation and majority got first information from their mothers followed by sisters and friends.<sup>[14]</sup>

Approximately 36% rural house are not having sanitary latrine facility Government of India started “Swachh Bharat Mission” which place a special emphasis on addressing a sanitation need of women recognizing their role in building the “Swachh Bharat”.<sup>[11]</sup> Approximately 82% rural girls are still using the cloth in place of sanitary napkins and most of them reuse this after washing and keeping it inside the house for next time use. Privacy for washing, changing or cleaning purpose is Necessary for proper menstrual hygiene. Study conducted in Egypt among 664 school girl's personal hygiene and its other aspects such as not changing pads regularly or at night and not bathing during menstruation were generally found to be very poor with lack of privacy.<sup>[13]</sup>

In urban and medical student group more than 80% girls were using sanitary pads. Only 4% girls in present study were using pads in rural group. Our results are in concordance with studies which reported that only 13.2% and 25% girls were using sanitary pads during menstruation respectively, stated that apparently poor socioeconomic status, high cost of disposable sanitary pads and ignorance dissuaded the girls from using the commercially available menstrual absorbents. Indian girls should be aware about menstruation time, importance of use of sanitary napkin and diseases cause due to use of unhygienic cloth, as menstruation is a significant event at the threshold of adolescence.<sup>[14,15]</sup> Present study observed that 92% (46/50) girls did not know about the source of menstrual bleeding, even urban group of adolescent girls was confused between uterine or vaginal origin of menstrual origin. Only 6% were aware about the uterine source of menstrual blood. Studies reported earlier in rural secondary school of West Bengal reported that only 17.9% girls knew that the source of blood was uterus explained that above observation might be due to poor literacy level of mothers or absence of proper health education programs in school focusing on menstrual hygiene.<sup>[15,16]</sup>

Present study reported the menstrual disorders and weakness is found to be most prevalent in all three groups followed by backaches and abdominal cramps. Approx. 30% of rural girls reported that they skip their school mainly due to abdominal pain and poor facilities at school during menstrual cycle. Menstrual restrictions were also noted and present study found that not visiting temple and kitchen is found to be more common in all three groups followed by not attending school. Similar studies found 16% school absenteeism and explained that gender unfriendly school infrastructure may play a big role.

### CONCLUSION:

Present study found poor menstrual hygiene practices among rural girls. Efforts are needed to compel the government efforts and supporting MGM programs with strict continuous monitoring. Efforts are now required to educate the girls about physiological implications of menstruation and its significance. Proper hygienic practice with selection of disposable sanitary menstrual absorbent is also need to be incorporated. If adolescent girls are made aware of menstrual hygiene and reproductive health right from the early adolescent period through compulsory sex education in school curriculum, educational television program, and knowledgeable parents, the menarche will not shock for them and they will also be better equipped to cope up with the situation and leading to healthy life to them.

**Acknowledgement:** Authors would like to express gratitude towards Sumandeep Vidyapeeth for providing opportunity to work on such an insightful yet imperative issue.

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