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## **Menstrual Practices and Hygiene among Adolescent: A Cross- sectional study in urban area of Garhwal, Uttarakhand**

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### **Abstract**

The onset of menstruation is one of the most important changes occurring among the girls during the adolescent years. In adolescent girls remaining ignorant of the scientific facts and hygienic health practices, which sometimes result into adverse health outcomes. This study was conducted to find out the status of menstrual hygiene among adolescent girls. It also assessed the knowledge and source of information on menstrual health. A cross-sectional study was carried out among the adolescent girls of Mohalaa under the catchment area of urban health center of Community Medicine Department of VCSGGMS and RI Srinagar. Total 400 consecutive households were included and one respondent from each household was interviewed using a pre-structured questionnaire. Data were analyzed using SPSS software. Results showed that, friends were the first informant only in case of 196 (46.75%) girls and it is followed by Mother (26.8%). 51.4% girls used sanitary pads during menstruation, 21.8% girls used old cloth pieces and 26.7% girls used new cloth pieces. Only 27.3% girls believed it as a physiological process. It may be concluded that menstrual hygiene, a very important risk factor for reproductive tract infections, is a vital aspect of health education for adolescent girls. There is an urgent need for intensifying effective strategies to persuade the adolescent girls to adopt healthy menstrual practices.

**Key words :** Adolescent girls, sanitary pads, reproductive tract infection, menstrual practices

### **Introduction**

The first menstrual period of life is a milestone in female puberty that signifies the maturation of reproductive potential and physiological growth. It generally occurs approximately 2-3 years after the initiation of puberty, between the ages of 11 and 14 years in 95% of girls depending on race, ethnicity, socioeconomic and nutritional status.<sup>1</sup> Menarche typically occurs within 2 to

3 years after thelarche (breast budding), at Tanner stage IV breast development, and is rare before Tanner stage III development.<sup>2</sup> Menarche correlates with age at onset of puberty and breast development. In girls with early onset of breast development, the interval to menarche is longer (3 years or more) than in girls with later onset.<sup>3-5</sup> By 15 years of age, 98% of females will have had menarche.<sup>6, 7</sup> Anuradha<sup>8</sup> (2008) found that there is a significant association between menstrual hygiene maintenance and education, socioeconomic status, knowledge prior to menarche, type of protection of, accessibility to water, bathroom facilities and menstrual disorders. Lena<sup>9</sup> (2008) in an interventional study, reported that part of the students had a good knowledge and the other part do not possess knowledge. From the light of foregoing literature it has been planned to conduct a descriptive study on the knowledge on menstrual health among the adolescents focusing on

thehygienic practices during menstruation, prevalence of existing beliefs and taboos, food practices and activities carried on during the menstrual period and, the

Problems among the school and college adolescents (13 – 19 years) at urban mohllaa, of Srinagar.

## Methodology

This community-based cross-sectional study was conducted by the Urban Health Center, Department of Community Medicine ,VCSGGMS & RI (Srinagar Pauri Garhwal) to know the Hygiene and knowledge about menstruation in urban area of hilly Garhwal. No data could be found out from past literature about proportion of illiterate and literate having about menstruationhygiene. To determine sample size, P was taken as 0.5, considering the theory of probability 50% (which gives the maximum sample size), thus sample comprised 385 adolescent, considering 95% confidence interval and allowing 5% error. Three mohallaswere selected by simple random sampling method, out of 14 mohallasunder the catchment area of UHTC, Srinagar. After proper training and orientation, Interns conducted door to door survey in the mohalls during their Community Medicine posting (1st august 014- 15th se 014). Consecutive 385 households (exclusion criteria: door locked and no consent) were covered. A pre-tested semi-structured questionnaire was used to interview 385 respondents aged 13- 19 years (one female adolescent from each household). Before interview, villagers were informed about the purpose of the study and consent was taken.

## Results

This study shows that the age of menstruating girls ranged from 12 to 17 years, maximum (76.25%) number of girls being between 13 and 15 years of age group. Among 385 respondents in the present study, 95% were Hindus, whereas only eight (5%) girls were Muslims. Fathers of most of the girls were businessmen (50%), service holders (10%) and daily wage labourers (40%). Mothers of most of the respondents were housewives (93.75%).

**Table 1** shows that Among 385 respondents, friends were the first informant only in case of 196 (46.75%) girls and it is followed by Mother(26.8%). Other sources of information were T.V.(15.58%) and relatives (5.7%) . In the present study, the mean age of menarche of the respondents was 12.5 years.

**Table 1 : Information regarding menstruation(n=385)**

Category	Number of Responses	Percentage
Age of menarche (year)		
10	25	6.4
11	24	6.2
12	108	28
13	196	50
14	20	5.9
15	12	3
Source of Information About Menstruation		
T.V.	60	15.58
Mothers	103	26.8
Friends	180	46.75
Literature (Magazines)	20	5
Relatives	22	5.7

**Table 2 : Practice of Menstrual hygiene (n=385)**

<b>Use of material during menstruation</b>	Responses	Percentage	
sanitarypads	198	51.4	
New cloth piseses	103	26.7	
Old cloth piseses	84	21.8	
<b>How often do you change clothes in a day?</b>			
Two times a day	180	46.7	
Three times a day	155	40.2	
Four times a day	50	12.9	
<b>Perineum Care</b>			
Morning & Evening	110	28.5	
After every urination & defecation	150	38.9	
While taking bath alone	50	12.9	
Whenever feel discomfort / necessary	75	19.4	
<b>Article used to clean perineum</b>			
Soap & Water	150	38.9	
water alone	190	49.3	
Medicated soap	45	11.6	

**Table 2** depicting the practices during menstruation shows that 198 (51.4%) girls used sanitary pads during menstruation, 84 (21.8%) girls used old cloth pieces and 103 (26.7%) girls used new cloth pieces. 46.7% of respondent found to be changing their menstrual pads two time in a days.

less than one fourth 28.5% of the girls has thehabit of cleaning their perineum in morning and evening. 38.9% of them use to caretheir perineum after every urination and defecation.1 2.9% of the respondents caretheir perineum while taking bath alone, whereas, 19.4% of them clean only on thenecessity basis and discomfort. With respect to the use of toilet article 38.9% of the use bathing soap, 11.6% of the girls use medicated water, while, 49.3% of them useonly water .

**Table 3: Restriction of food habits and activities (n=385)**

	Responses	Percentage
Restrict Food	95	24.6
Restrict social Activities	290	75.4
<b>Belief and Taboos</b>		
Avoid temple visit	260	67.6
Avoid touching stored food	25	6.5
Avoid attending social occasions	100	25.9

With regard to the practice of food habits **Table 3** shows that 24.6% of thegirls would restrict the foods like papaya, chocolate, sweets, hotly, fatty and spicyfood, cool-drink, rice, egg and nuts. 75.4% of the respondents would restrict their social activities like pilgrimage, cooking and sports, and touching others inworship and social occasions .67.6% of them had taboo to avoid visit to temple ., 6.94% of the adolescent girls instructed not totouch the stored food and 25.9% of therespondents reported that they do not attend any social function

**Table 4: Perception about mensuration(n=385)**

	Responses	Percentage
Menstrual blood is impure	70	18.2
It is a normal physiology	270	70
Excessive bleeding lead to Anemia	20	5.1
It is a disease	25	6.4
<b>Menses comes from</b>		
uterus	85	22.1
Don't know	300	77.9

**Table 4** shows the different beliefs and conception about menstruation among the respondents. It was observed that 105 (27.3%) girls believed it as a physiological process. 110 (28.5%) girls believed that menstrual blood is impure. Only 15.5% had knowledge that excessive bleeding lead to Anemia. Most of the girls (77.5%) did not know about the source of menstrual bleeding.

## Discussion

In the present study, the mean age of menarche of the adolescent girls was 12.5 years. This finding is consistent with the study conducted in Singur, West Bengal, where mean age at menarche was found to be 12.8 years<sup>10</sup>.

In the present study, friends were found to be the main source of information for only 46.75% girls this was followed by the Mother (26.7%) This could be due to lack of proper communication between mother and daughter owing to traditional taboos, they feel awkward and embarrassed to discuss on this subject. Observation of our study is not supported by a study conducted by Parvathy Nair et al<sup>11</sup>, where 41 per cent of the girls received information about menstruation from their mothers, 22.4 per cent got information from their elder sisters, 21 per cent from their

friends. The knowledge regarding the organ from where menstrual blood comes was correctly reported as uterus by only 85 (22.1%) girls rest of the respondent were unaware of this fact. This finding is lower than a study conducted by SP Singh et al<sup>12</sup> among adolescent girls of Varanasi district (UP), 43.5 per cent of the girls correctly responded uterus as the organ from where the menstrual blood comes. In the study conducted by Adhikari P et al<sup>13</sup> among the rural adolescent girls of Nepal, 25.3 per cent of the girls reported uterus as the organ from where the bleeding comes. Menstrual perceptions among girls were found to be poor and practices were often incorrect. Only (18.2%) girls felt that "menstrual blood is impure." This awareness is better represented by our study whereas 73.1% girls reporting menstruation as "release of bad blood" in a study conducted by Echendu Dolly Adinma<sup>14</sup> among Nigerian secondary school girls

It was observed in this study that 70% girls believed it to be a physiological process, whereas in a similar study conducted in Rajasthan by Khanna et al.<sup>15</sup>, nearly 70% believed that menstruation was not a natural process. But this finding is approximate with the observation of A Dasgupta et al<sup>10</sup>

67.65% of adolescent girls told that they were restricted to visit temple and other spiritual places, in a recent study<sup>16</sup>, 41.5% of adolescent girls told that pooja room entry is forbidden. A study conducted by Singh A J showed similar findings<sup>17</sup>.

Since Indian society is well known for its diverse culture, the socio cultural taboos like restriction to pilgrimage is found to be the most prominent restriction that falls in line with Baridalyne and Reddiah (2004).<sup>18</sup>

This study shows that Only 51% girls used sanitary pads during menstruation rest of the respondent preferred cloth pieces rather than sanitary pads as menstrual absorbent.. Apparently, poverty, high cost of disposable sanitary pads and to some extent ignorance dissuaded the study population from using the menstrual absorbents available in the market. In a study conducted in Rajasthan by Khanna et al .<sup>15</sup>, three-fourths of the girls used old cloth during their periods and only one-fifth reported using readymade sanitary pads. Our study presents better result than the later one.

## Conclusion

-The present study has revealed unhealthy menstrual practices, low level of knowledge and various misconceptions among adolescent girls in the community of hilly region of Garhwal regarding menstruation. Taking into account the health implications and prevailing socio-cultural and economic factors, there is an urgent need for intensifying effective strategies to persuade the adolescent girls to adopt healthy menstrual practices and their mother also need to educate to help her daughter in menstrual hygiene and do not let her feel shy to talk at this issue.

A well-informed continuous, community adolescent programme like FGD among them should be imparted to the adolescent. Further, emphasis also needs to conduct a school workshops and seminar on “Adolescent menstrual Health”.

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