

An Assessment of Menstrual Hygiene Practices amongst Adolescent Females at Kheda District of Gujarat State, India

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Abstract:

Introduction : In the developing country like India, females are facing many menstruation related health problems, which are significant causes of morbidity, hampering daily life. Improper menstrual hygiene practices predispose the females towards many communicable diseases. The knowledge, attitudes and practices regarding menstrual hygiene, which establish at adolescent age, are usually followed by them throughout life and also passed on to the next generation. **Objectives :** 1. To detect the menstrual health problems 2. To assess menstrual hygiene practices 3. To assess the restrictions in daily activities considered appropriate by the adolescents. **Method :** Current cross sectional study was conducted at Kheda district of Gujarat State, India. The sampling was done using multi stage sampling technique. The sample included 400 adolescent girls of 14 to 17 years of age. Considering the dropout rate, 30% sample was constituted by non school going subjects and 70 % by school going subjects. **Results :** 76(19%) participants had irregularity in menstruation. 103 (25.8%) participants had problem in doing daily activities whereas 112 (28%) participants had problem in doing specific activities like playing, exercise etc. 244 (61%) participants have used cloth while 156 (39%) used sanitary pad during last menstruation. **Conclusion :** As revealed by the study, the adolescent girls are facing various menstrual health problems like abdominal pain, menorrhagia, polymenorrhoea etc. They are unaware of proper disposal techniques of sanitary pad or other material used as absorbent.

Key words : Menstrual Problems, Menstrual Hygiene Practices

Introduction :

"Menstruation" is a physiological process that occurs throughout the reproductive years of every woman.^[1,2] In many instances, this phenomenon is associated with various mental as well as physical morbidities like premenstrual syndrome. Menstruation can also predispose women to life threatening RTI (Reproductive Tract Infection), if hygiene is not maintained throughout menstruation.

Especially in Indian scenario where joint families are common in the society, the issues of menstrual hygiene practices are needed to be tackled at early age, as adolescence. The knowledge, attitudes and practices regarding menstrual hygiene, which establish at this age, are usually followed by them throughout life and also passed on to the next generation. Therefore faulty practices pertaining to menstruation will affect health of large number of women in reproductive age group. Usually adolescents are guided by their mother or other

female family members regarding menstrual hygiene practices. It is necessary to assess the practices of mother as well as other female family members regarding the menstrual hygiene. Menstrual hygiene practices also vary in rural and urban areas. In Indian culture, talking about reproductive function of body is considered taboo. Young females have poor knowledge and lack of awareness about physical and physiological changes associated with adolescence. They hardly get any chance to learn about menstruation. Various myths and social beliefs are also prevailing related to menstruation. Most girls are unaware about proper menstrual practices at the age of menarche.^[3] Use of unhygienic cloths may lead to development of infection of reproductive tract which may seriously hamper the reproductive capacity or even life of female.

Several research studies have revealed gap between facts and beliefs of adolescent girls and showed that there is low level of awareness about

menstruation among girls when they first experience it.^[4] Therefore there is a need for implementation of appropriate public health measures at various levels of prevention.

Following identification of need in this area, Government of Gujarat has started "Menstrual hygiene promotion scheme" under the umbrella of NRHM (National Rural Health Mission) as a pilot project. Sanitary napkins are provided at subsidized rates in the pilot areas. Kheda district is one of the areas where this scheme is started. Current study intends to provide details on menstrual hygiene practices prevalent in these areas and menstrual problems faced by adolescent girls.

Objectives:

- To detect the menstrual health problems
- To assess menstrual hygiene practices
- To assess the restrictions in daily activities considered appropriate by the adolescents.

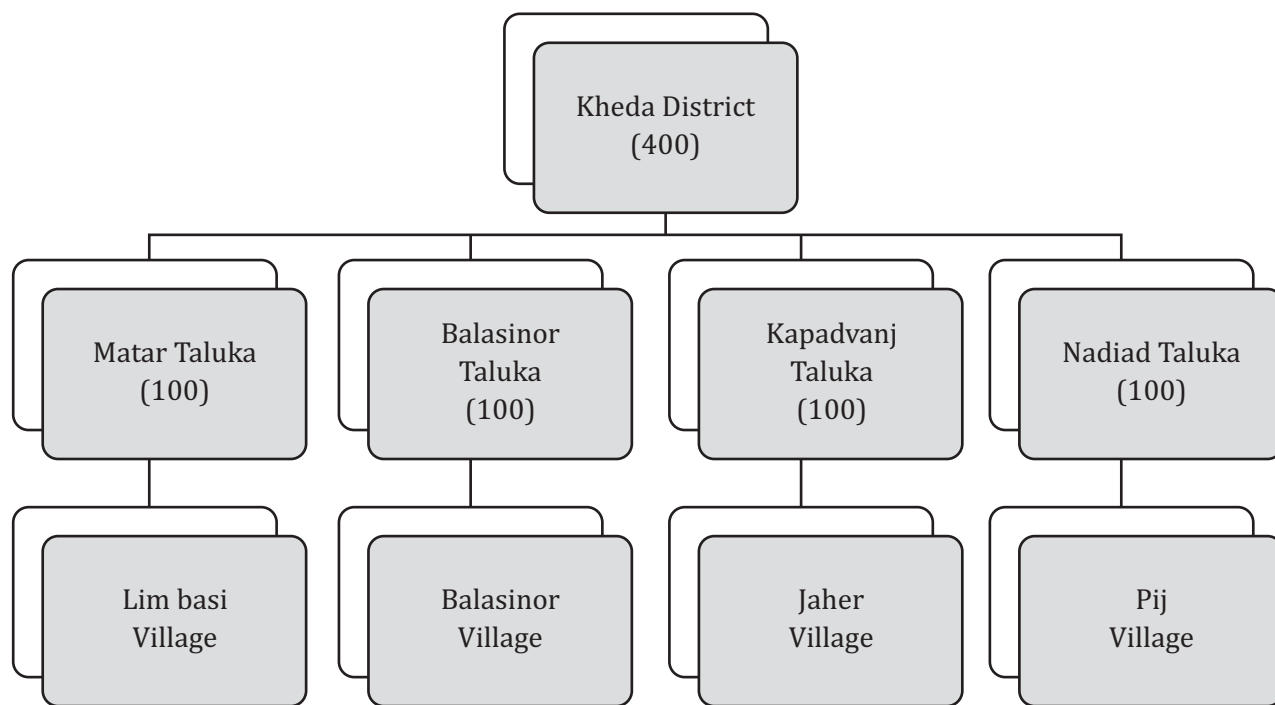
Method:

Current cross sectional research study was conducted by Community Medicine Department, GCS Medical College, Ahmedabad, at the Kheda district of Gujarat State, India. The sampling was done using multi stage sampling technique.

First Stage : Random selection of 4 Talukas of Kheda District. (Matar, Balasinor, Kapadvanj and Nadiad Talukas were selected)

Second Stage : Random selection of single village and a school located in the same area, from each Taluka (Limbasi village from Matar Taluka, Balasinor village from Balasinor Taluka, Jaher village of Kapadvanj and Pij village of Nadiad Taluka were selected)

Third Stage : Random selection of 70 girls from secondary and higher secondary classes of the selected school and 30 non school going girls from the community of sampled village from each taluka.



The sample size was decided as 400 by convenience. The sample included 400 adolescent girls of 14 to 17 years of age. Considering the dropout rate, 30% sample was constituted by non school going subjects and 70 % by school going subjects. Only those girls whose menstruation had already

started were included in the study.

Ethical approval was received from institutional ethical committee before commencement of the study. Interview method was used for data collection. A pre formed and pre tested questionnaire was used for the interview following

informed consent of parents/teachers of the subjects. The data entry and data analysis was done using Epi info 7.

Results :

As shown in table 1, the study included school going (280) and non school going females (120) of 14-17 years age group. Mean age of participants was 15.05±1.14 years. Majority 171(61%) girls were in 9th standard. "Hinduism" was the most followed religion in the study area, followed by Muslim (42.5%). Majority of participants (60%) belonged to Nuclear family.

Table 1 : Socio-demographic profile of study participants

Socio-demographic variables	Frequency	Percentages
Age in years		
14	191	48
15	61	15
16	87	22
17	61	15
School going		
Yes	280	70
No	120	30
School Standard (n=280)		
9	171	61
10	17	6
11	81	29
12	11	4
Religion		
Hindu	227	57
Muslim	171	42.5
Christian	2	0.5
Caste		
General	77	19.25
OBC	212	53
SC	65	16.25
SEBC	12	3
ST	34	8.5
Type of Family		
Joint	136	34
Nuclear	240	60
Three Generation	24	6
Total	400	100

As per table 2, in last three menstrual cycles, 76(19%) participants had faced irregularity in menstruation. Out of 400, 304 (76%) participants had history of regular menstruation. 54 (13.5%)

participants were suffering from poly-menorrhoea while 42(10.5%) had problem of oligo-menorrhoea. 29 (7.3%) participants experienced problem of heavy bleeding. 187 (46.8%) participants suffered from abdominal pain during menstruation and 64(34.2%) out of them, had taken treatment for it. 80% of them received allopathic medicine from mother (50%) and doctors (30%). 103 (25.8%) participants had faced problems in doing daily activities whereas 112 (28%) participants had problem in doing specific activities like playing, exercise etc., due to menstruation related health problems. 74 (26.42%) school going participants remained absent at school for duration varying from 1 to 6 days.

Table 2 : Details of problems faced during menstruations

Variables	Frequency	Percentages
Irregular menstruation (n=400)	76	19
Interval between menstruation (n=400)		
< 21 days	42	10.5
21-35 days	304	76
>35 days	54	13.5
Flow of bleeding (n=400)		
Heavy	29	7.3
Less	49	12.3
Medium	322	80.5
Suffering of abdominal pain (n=400)	187	46.8
Type of treatment taken for abdominal pain (n=64)		
Allopathic Medicine	51	79.7
Home remedy	10	15.6
Other	3	4.7
Source of treatment (n=64)		
Doctor	20	31.3
Friend	1	1.6
Mother	33	51.6
Pharmacist	2	3.1
Sister	8	12.5
Problem in doing daily routine activities (n=400)	103	25.8
School absenteeism due to menstruation (n=280)		
0	206	73.6
1-2 days	49	17.5
>2 days	25	8.9

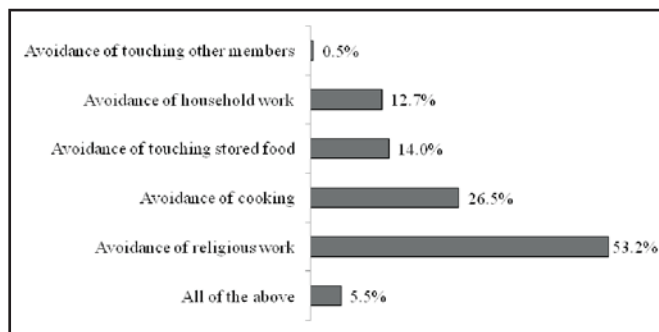
244 (61%) participants have used cloth while 156 (39%) used sanitary pad during last menstruation. (Table 3) 380 (95%) participants had practiced cleaning genitals during menstruation. 54.7% of them cleaned with the water only followed by 152 (40%) by soap water. Only 11(2.9%) participants used antiseptic for cleaning genitals. The other method mainly included wiping the genitals by a cloth.

Table 3 : Details of practices followed regarding cleanliness during last menstruation

Variables	Frequency	Percentages
Material used (n=400)		
Cloth	244	61
Sanitary pad	156	39
Cleaning genitals (n=400)	380	95
Method of cleaning genitals (n=380)		
Soap water	152	40
Water	208	54.7
Antiseptic solution	11	2.9
Other	9	2.4

As depicted in figure 1, majority (53.2%) of participants have considered avoiding religious work during menstruation as appropriate. 111(27.8%) participants were comfortable to receive health education regarding menstruation from lady doctor. 90(22.5%) participants were interested to receive education from mother. Only few were interested to receive education from sister, teacher, ASHA (Accredited Social Health Activist), AWW (Anganwadi Worker), and friends.

Figure 1 : Types of restrictions followed by participants during menstruation (multiple responses possible)



(Table 4) 244(61%) participants used cloth and 156(39%) participants used sanitary pad during last menstruation. Those participants who used cloth,

148(60.7%) of them had changed it 12 hourly, and 34(13.9%) had changed 6 to 8 hourly. Among sanitary pad users, 82 (52.6%) had changed it 12 hourly and 61 (39%) had changed it 6 to 8 hourly. 168(68.9%) cloth users had changed it before going to sleep and 130(83.3%) sanitary pad users had changed it before going to sleep.

Table 4 : Comparison of materials used in last menstrual cycle

Require No. of material/ day	Cloth		Sanitary pad	
	Frequency	Percentages	Frequency	Percentages
1	62	25.4	13	8.3
2	148	60.7	82	52.6
3	22	9.0	30	19.2
≥4	12	4.9	31	19.9
Total	244	100	156	100.0
Changing material before sleep	168	68.9	130	83.3
Participants facing problems due to material used	85	34.8	7	4.5
The type of problem faced				
Ill-fitting	20	23.5	0	0
Itching	1	1.2	3	42.9
Rash	61	71.8	4	57.1
Staining On Clothes	3	3.6	0	0
Total Method of disposal	85	100	7	100
Burning	26	10.7	42	26.9
Dustbin	74	30.3	98	62.8
Flush in toilet	0	0	2	1.3
Other*	144	59	14	9
Total	244	100	156	100

*Others included washing and burial for clothes and sanitary pad, respectively.

85(34.8%) had problem of ill fitting, itching, rash and staining with the use of cloth. In contrast 7(4.5%) users of sanitary pad had problem of itching and rash. 144(59%) participants had practice of washing the cloth for reuse. 74 (30.3%) disposed it into dustbin. In case of participants who used sanitary pad, majority 98(62.8%) disposed it into dustbin followed by 42(26.9%) disposed it by burning. Only 2(1.3%) participants flushed it into toilet.

Discussion :

The Government of India has launched a new, innovative scheme for the promotion of menstrual hygiene among adolescent girls in rural areas of the country. The programme is targeted at adolescent girls residing in rural areas to make sure that high quality safe sanitary napkins are made available to them and they are made aware of environmentally safe disposal practices. The main focus of the scheme is to increase awareness among adolescent girls on menstrual hygiene and increase access to and use of high quality sanitary napkins by adolescent girls in rural areas.^[5]

In the current study, 19% girls reported irregularity in menstruation. This prevalence is higher than the previous study conducted in India by S. B. Salve et al (5%).^[6] However current finding is comparable to another study conducted in the same state, Gujarat by Dr. P. B. Verma et al.^[7] Present study showed that 46.8% females had menstruation associated with abdominal pain. While contradictory results (8.8%) were found by the study conducted by Shabnam Omidvar and Khyrunnisa Begum at South Indian state.^[8] Another study conducted at West Bengal state of India revealed prevalence of abdominal pain during menstruation as high as 90.9%.^[9] The age group of the sample studied in the compared study was 18 to 27 years, while present study included adolescent age group. As the medicine to relieve the abdominal pain is easily available in the rural areas through primary health centers and sub centers, 79.7% females were using medicines during menstruation for relieving the pain during menstruation. Only 15.6% were using home remedies for the same problem. 25.8% females reported that they faced problems in doing routine activities while menstruation. In a different study conducted by Shabnam Omidvar and Khyrunnisa, could reveal that 68.8% females had difficulties doing routine activities while menstruation.^[8] Menstrual problems are a major cause of school absenteeism among adolescent girls. 8.9 % females had to miss more than 2 days due to menstruation during last cycle in the current study.

61% females were using cloth and 39% were using sanitary napkins as an absorbent for menstrual

blood. The material used during menstruation, varies in the different parts of the country. Similar study conducted in the West Bengal state of India, showed that 92% and 8% females were using cloth and sanitary napkins respectively during menstruation.^[9] Another study of country Lebanon showed that 100% subjects were using sanitary pad.^[10] 95% participants were cleaning the genitals following menstruation regularly. Different methods were used by the participants for cleaning the genitals.

It was observed that 61% participants used cloth and 39% participants used sanitary pad during last menstruation. Those participants who used cloth, 60.7% of them had changed it 12 hourly, and 13.9% had changed 6 to 8 hourly. Among sanitary pad users, 52.6% had changed it 12 hourly and 39% had changed it 6 to 8 hourly. In similar study by Harinder Sekhon et al, 93.53% of the study population used company made branded sanitary napkins available in market which was quite higher than present study. Majority of the girls claimed to change the used pads as and when required.^[11] In the another similar study by Anju Ade et al, 65% girls use only readymade sanitary pads during menses while 35% girls use only clothes.^[12]

In the study conducted by Dipali Nemade et al, 15.74% girls used only clothes during menstruation, 40.61% used only sanitary pads while 43.65% girls used both sanitary pads and clothes during menses.^[13] In a similar study, the median number of absorbents used during the last menstrual period was 8 (3.18) by each subject (range, 1- 18).^[14]

In another study carried out in Nagpur by Patle RA et al., similar results were observed that 43.40% in rural area were using sanitary pads. Use of old piece of cloth was higher among rural group (52.43%) with frequency of changing of the pads being 2-3 times per day.^[15] In similar study in northwestern Nigeria, Most of them used sanitary pads as absorbent during their last menses; changed menstrual dressings about 1-5 times per day.^[16] In study carried out by Adrija Datta, 45.9% rural respondents used only sanitary napkin during menstruation. Most of the respondents (90.8% in rural area) changed absorbent two to four times a day.^[9]

In study carried out by Singh AJ et al, it was observed that only 0.4% women used sanitary napkins. Reuse of cloth pad was reported by 4% respondents.^[17] The other studies in Nepal by Adhikari et al showed 94% use the pads during the period but only 11.3% dispose it^[1]. In study by Dasgupta et al it was observed that only 11.25% girls used sanitary pads during menstruation.^[19]

In similar study by GS Vidya in Bangalore, Only 44.62% were actually using sanitary napkin in practice and the rest were using cloth piece.^[20] A study conducted by Baishakhi Pariaet al showed that 36% girls in the urban and 54.88% girls in the rural area were using cloth. 27.27% girls in urban and 30.45% girls in rural area had changed the pads only once per day. 31.27% of urban girls and 71.42% of rural girls reused pads during menstruation period.^[21]

In present study 59% participants, who used cloth, had practice of washing the cloth for reuse while 30.3% disposed it into dustbin. Adolescent girls used sanitary pad, majority 62.8% disposed it into dustbin followed by disposal by burning (26.9%). Study carried out in North India showed 80.96% adolescent girls in study were disposed the used pads in dustbin followed by disposed by burning (13.74%).^[11]

Small sample size and inability to involve private school students (due to disagreement for participation by school management) can be considered as a limitation of the current study. However the study is able to justify the objectives and reveal the currently prevalent Menstrual Hygiene Practices in rural areas of Gujarat.

Conclusion :

The adolescent girls are facing various menstrual health problems like abdominal pain, menorrhagea, polymenorrhoea etc. However, very few of them seek the treatment for the same. These untreated problems are also responsible for loss of schooling days. Majority adolescent females still follow the unhygienic practices like use of cloth as an absorbent for menstrual blood. They are unaware of proper disposal techniques of sanitary pad or other material used as absorbent, resulting in wrong

practice of disposal which may promote various communicable diseases among themselves as well as in the community. Stronger efforts are needed to promote the proper menstrual hygiene practices among rural females. This can be achieved by giving them proper training and health education (by involving teachers, family members, health worker/ASHA (Acredited Social Health Activist) worker/Anganwadi worker, and media).The findings of the study can be used for planning programs, making new policies for improving the level of information especially, for rural adolescent girls.

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