

Menstrual Hygiene among School Going Adolescent Girls: A Comparative Study among Government and Private Schools

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Abstract

Context: Effect of menstrual hygiene on health of women is still not given sufficient attention in developing countries. Adolescent girls are vulnerable if they do not have awareness and good menstrual hygiene practices. *Aims:* To study menstrual hygiene practices and factors affecting it among school going adolescent girls *Settings and Design:* A school based cross sectional comparative study. *Methods and Material:* Present study was conducted at selected government and private schools among 171 adolescent girls (74 from government school) and (97 from private school) belonging to class 8th to class 10th. *Statistical Analysis:* The data were analyzed by Chi-Square test and p value less than or equal to 0.05 was taken as statistically significant. *Results:* 90.8% of the girls belonging to government school used sanitary napkins compared to 98.9% of the girls belonging to private school and this difference was statistically significant. There was no significant difference between the girls of two schools relating to sanitary disposal method. Myths related to menstruation were also found to be similar among girls of both the schools. It was found that mother was the main source of information related to menstruation in 74.7% of the cases. 51.9% of the girls were found to be aware about the government scheme of free distribution of sanitary napkins. It was found that majority (72.5%) received the sanitary napkin under government scheme among those who were aware about the scheme. Except mother's education, other factors like father's occupation, mother's occupation, father's education, and type of school were not significantly associated with good menstrual hygiene practices. *Conclusion:* Mother's education level played a significant role in good menstrual hygiene of the daughter. Health education programs should target the awareness of the mothers in the community.

Keywords: Menstrual Hygiene; Adolescent Girl; Mother's Education.

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Introduction

Adolescents constitute about 20% of India's population. As per the estimates of UNICEF, adolescent population in India is around 243 million.

Among this 10-19 years of adolescents, 15-19 years adolescents comprise about 10%. Even today, majority of these adolescents are rural dwellers [1].

With menarche comes the marked change in the life of adolescent girls. These changes are all round i.e. only physical but also psychological as well as physiological. In the Indian culture, menarche is considered as the maturity of the girl and it is thought that the girl is ready to get married as well as it is thought that she is also ready for the sexual activity. The people think that menstruation is something which is dirty. So during this period, they are no more sacred and hence they should not touch God or others. Likewise there are numerous customs and taboos related to menstruation and these vary from one place to other [2].

Effect of menstrual hygiene on health of women is still not given sufficient attention in developing countries. Studies have shown that the incidence of reproductive tract infections (RTIs) is more among those women or girls who do not have hygienic menstrual practice [3].

Menarche is usually seen occurring from 11-15 years of age. On an average in India, it occurs at 13 years of age. In countries like India, where the girl child is neglected, these girls are vulnerable to various reproductive tract infections (RTIs) and other health problems. Better the knowledge and awareness about the menstruation, smoother will be reaction of mother and other family members. This aspect is very important as family reaction to menarche may have effect on the psychological reaction of the adolescent girl. There is a relationship between social class, level of menstrual hygiene and occurrence of reproductive tract infections. Upper social class and good menstrual hygiene practices are associated with less incidence of reproductive tract infections [4,5].

Hence present study was conducted with the objective to study menstrual hygiene practices and factors affecting it among school going adolescent girls.

Materials and Methods

Type of Study

Cross sectional comparative study

Place of Study

The present study was conducted at selected government and private schools in Suraram, Hyderabad, Telangana.

Sample Size

During the study period it was possible to study 74 adolescent girls from government school and 97 adolescent girls from private school. Thus a total of 171 adolescent girls were studied

Sampling Technique

Considering the feasibility and accessibility, nearest schools from Department of Community Medicine, Malla Reddy Institute of Medical Sciences, Suraram, Hyderabad, Telangana were selected.

Study Population

Adolescent girls from selected schools belonging to class 8th to class 10th formed the study population for the present study.

Inclusion Criteria: (for schools)

1. Nearest one government and one private school giving permission to carry out the study and having classes 8th to 10th.

Inclusion Criteria (for adolescent girls):

1. Adolescent girls belonging to class 8th to 10th in the selected schools
2. Adolescent girls who were able to understand the questions and were able to answer.

Exclusion Criteria (for adolescent girls)

1. Adolescent girls absent on the day of visit to the school
2. Adolescent girls not able to understand the nature of the study and not able to answer the study questions.

Methodology

After extensive review of literature, a pre designed, semi structured questionnaire was formed. Adolescent age group was defined as a girl belonging to 10-19 years of age as per WHO [5].

Menstrual hygiene was graded based on the practice questions. There were three practice questions. If the answer to all three questions was yes then that girls menstrual hygiene was considered as good. If the answer to any one of the question was

negative i.e. insanitary practice, then that girls menstrual hygiene was considered was not a good practice. Accordingly they were classified. This was compared between the type of school, with father occupation, mother occupation, father education, mother education, type of family.

At the end of history taking each girl was assessed for nutritional status and her practices towards menstrual hygiene. Accordingly she was given health education.

Statistical Analysis

The data was entered in Microsoft Excel worksheet. Proportions were used to describe the data. Chi square test with Yates correction was used. P value of less than 0.05 was considered as statistica

Results

Table 1 shows menstrual hygiene practices and myths among adolescent girls and the type of school. 90.8% of the girls belonging to government school

used sanitary napkins compared to 98.9% of the girls belonging to private school and this difference was found to be statistically significant. There was only one girl who re used the material and she belonged to government school. Sanitary disposal method was better practiced by government school girls but it was statistically not significant. Regarding myths related to menstruation and its practice it was found that this aspect was equally practiced irrespective of type of school.

Table 2 shows source of information regarding menstruation. It was found that mother was the main source of information related to menstruation in 74.7% of the cases.

Table 3 shows awareness about Government scheme on distribution of sanitary napkin. 51.9% of the girls were found to be aware about the government scheme of free distribution of sanitary napkins.

Table 4 shows distribution as per received sanitary napkins under Government scheme among those who were aware about the scheme. It was found that majority (72.5%) received the sanitary napkin under government scheme among those who were aware about the scheme.

Table 1: Menstrual hygiene practices and myths among adolescent girls and the type of school

Practices	Government school		Private school		Chi square	p value	
	Number	Percentage	Number	Percentage			
Material used	Sanitary napkin	59	90.8	88	98.9	3.975	0.02309
	Other	06	9.2	01	1.1		
Re use of material	Yes	01	1.53	00	00	-	-
	No	64	98.47	89	100		
Disposal method	Sanitary	57	87.7	76	85.4	0.02989	0.4314
	Un hygienic	08	12.3	13	14.6		
Myths	Yes	49	75.4	68	76.4	0.001	0.4822
	No	16	24.6	21	23.6		

Table 2: Source of information regarding menstruation

Source of information	Number	Percentage
Mother	118	74.7
Sister	08	5.2
Friends	10	6.5
Relatives	11	7.1
Other	10	6.5
Total	154	100

Table 3: Awareness about Government scheme on distribution of sanitary napkin

Awareness about scheme	Number	Percentage
Yes	80	51.9
No	74	48.1
Total	154	100

Table 5 shows association of father occupation with good menstrual hygiene practices. It was seen that the fathers occupation was not related to good menstrual hygiene practices.

Table 6 shows association of mother occupation with good menstrual hygiene practices. It was seen that the mothers occupation was not related to good menstrual hygiene practices.

Table 7 shows association of father education with good menstrual hygiene practices. It was seen that

the fathers education was not related to good menstrual hygiene practices.

Table 8 shows association of mother education with good menstrual hygiene practices. It was seen that the mother’s education was significantly associated with good menstrual hygiene practices.

Table 9 shows association of type of school with good menstrual hygiene practices. The type of school was not related to the good menstrual hygiene practices.

Table 4: Distribution as per received sanitary napkins under Government scheme among those who were aware about the scheme

Received sanitary napkins	Number	Percentage
Yes	58	72.5
No	12	27.5
Total	80	100

Table 5: Association of father occupation with good menstrual hygiene practices

Good menstrual hygiene practices	Father occupation				Total		Chi square	P value
	Professional, skilled, clerical, business	Unskilled, laborer	Number	%	Number	%		
Yes	77	39	71.9	82.9	116	75.3	1.581	0.1045
No	30	47	28.1	30.5	38	24.7		
Total	107	47	69.5	30.5	154	100		

Table 6: Association of mother occupation with good menstrual hygiene practices

Good menstrual hygiene practices	Mother occupation				Total		Chi square	P value
	Professional, skilled, clerical, business	Unskilled, laborer	Number	%	Number	%		
Yes	33	83	80.5	71.5	116	75.3	0.4675	0.2471
No	8	30	19.5	28.5	154	100		
Total	41	113	26.6	73.4	154	100		

Table 7: Association of father education with good menstrual hygiene practices

Good menstrual hygiene practices	Father education				Total		Chi square	P value
	Illiterate	Literate	Number	%	Number	%		
Yes	37	79	72.5	76.7	116	75.3	0.1322	0.2471
No	14	24	27.5	23.3	38	24.7		
Total	51	103	33.1	66.9	154	100		

Table 8: Association of mother education with good menstrual hygiene practices*

Good menstrual hygiene practices	Mother education				Total		Chi square	P value
	Illiterate	Literate	Number	%	Number	%		
Yes	55	61	68.8	82.4	116	75.3	3.171	0.03749
No	25	13	31.2	17.6	38	24.7		
Total	80	74	51.9	48.1	154	100		

Table 9: Association of type of school with good menstrual hygiene practices

Good menstrual hygiene practices	Type of school				Total		Chi square	P value
	Government Number	%	Private Number	%	Number	%		
Yes	47	72.3	69	77.5	116	75.3	0.3057	0.2902
No	14	27.5	24	23.3	38	24.7		
Total	51	33.1	103	66.9	154	100		

Discussion

90.8% of the girls belonging to government school used sanitary napkins compared to 98.9% of the girls belonging to private school and this difference was statistically significant. There was no significant difference between the girls of two schools relating to sanitary disposal method. Myths related to menstruation were also found to be similar among girls of both the schools.

It was found that mother was the main source of information related to menstruation in 74.7% of the cases. 51.9% of the girls were found to be aware about the government scheme of free distribution of sanitary napkins. It was found that majority (72.5%) received the sanitary napkin under government scheme among those who were aware about the scheme. Except mother's education, other factors like father's occupation, mother's occupation, father's education, and type of school were not significantly associated with good menstrual hygiene practices.

Paria B et al. [6] compared awareness level of menstrual hygiene among urban and rural areas. Use of home made sanitary pad was more among rural girls compared to urban girls.

Shanta G et al. [7] found that among 37.6% of the girls heard about menstruation from their mothers. This finding is similar to the finding of the present study. But in our study, mother was the source of information in 74.7% of the adolescent girls. Whereas Kamalam JK et al. [8] noted that majority of the adolescent girls heard about menstruation from media followed by their mothers.

Khanna A et al. [3] observed that more than 90% of the adolescent girls were not aware about menstruation both in urban as well as rural areas. Shockingly author revealed that 2/3rd of the girls considered menstruation as abnormal. The author found that 80% of the girls followed the myths related to menstruation which is similar to the findings of the present study.

Reddy PJ et al. [9] also found that in 61.2% of the adolescent girls, mother was the main source of information and this finding supports the observation in the present study. The authors observed that due to lack of water supply in the school, the girls were unable to change the pads. But in the present study, we found that both the Government as well as private schools were having separate washroom for the girls and there was adequate water supply.

Deo DS et al. [10] also noted as we noted in the present study, that the leading source of information related to menstruation was mother in urban areas. The author found that in rural areas, teacher of the school who was the leading source of information related to menstruation.

Jothy K et al. [11] found that majority girls were aware about menstruation before its onset. The author observed that the myths were highly rampant in their study population which is similar to the finding of the present study.

Sapkota D et al. [12] also found that mother was the main information source related to menstruation. This is in accordance with the finding of the present study. The author reported that use of sanitary napkins was more than 50%. This use was far less than the use of sanitary napkins in the present study. We reported that it was more than 90% in Government school girls and almost 98% among girls from private school. Similar to the finding of the present study the authors also reported the prevalent nature of cultural restrictions among the adolescent girls.

Dasgupta A et al. [4] also reported similar to the findings of the present study that the first informant was mother for her daughter regarding menstruation. In their study 48.75% of the adolescent girls used sanitary napkins. Again similar to the findings of the present study majority followed cultural myths.

Kendre VV et al. [13] found that the use of sanitary pads was more among adolescent girls from non slum areas compared to girls from slum areas.

Shanbhag D et al. [14] reported a very low prevalence of use of sanitary pads i.e. 44.1% compared to the present study.

Conclusion

We also observed that use of sanitary napkins was significantly more among girls belonging to private schools than those belonging to government school. We noted that mother's education played an important role in having good menstrual hygiene practices among their daughters.

Key Messages

Health education programs should target the awareness of the mothers in the community.

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