



SOCIO-DEMOGRAPHIC ASPECTS OF SELECTED MENSTRUAL HYGIENIC PRACTICES AMONG ADOLESCENT SCHOOL GIRLS IN PONDICHERRY

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ABSTRACT

Background: The menstrual hygiene is one of the important aspects in adolescent health which is influenced by different socio-demographic factors.

Objective: To study the socio-demographic aspects of selected menstrual hygienic practices among adolescent school girls in Pondicherry.

Material & methods: The present cross sectional study was carried out among 371 adolescent girls from four selected schools who attained menarche. They were interviewed after obtaining written informed consent from their parents. To study the effect of socio-demographic characteristics on critical menstrual hygienic practices, Odds ratios (ORs) were calculated.

Results: Use of sanitary pad is not associated with mother's education & occupation as well as caste and religion. Girls from rural school (OR: 0.50; 95% CI: 0.29-0.88) were found to use less sanitary pads than their counterparts. The girls of illiterate mothers & backward castes were more likely to wash their genitalia with soap and water than girls with literate mothers and from forward castes.

Conclusion: The place of residence has emerged as a significant factor for adolescent school girls to practice selected menstrual hygienic practices such as usage of sanitary pads during menstruation.

Key words: adolescent girls, menstrual hygienic practices, menstruation, Menstrual Hygiene Products

INTRODUCTION

The reproductive tract infections (RTIs) and its complications are causing sufferings to millions of women which are closely interrelated with poor menstrual hygiene.¹ Thus, menstrual hygiene has become very important issue in health education for adolescent girls.²

Nigerian study has shown that majority of the girls had acceptable knowledge about menstruation but could not follow hygienic practices.³ Every girl must be taught about the various aspects of menstruation so that she knows its importance before expecting any positive behavioral change in her menstrual hygiene practices.⁴

Peer group discussion is an important platform for school girls to get most of the information about pubertal changes during adolescence. Targeting school girls at this time is an appropriate strategy as this is most receptive age because of curiosity.⁵

Adolescent girls have to obey lot of rituals and restrictions which keeps them away from the scientific facts. This may compromise their hygienic practices and results in to adverse health outcomes.^{6,7} The proactive role of health care provider (HCPs) will definitely help address the issue of menstrual health.⁸

In National Rural Health Mission (NRHM) has mentioned Adolescent Reproductive and Sexual Health (ARSH) as a component of Reproductive and Child Health phase II (RCH II).⁹ As a result of which Government of India has launched menstrual hygiene scheme in 2011.¹⁰ The menstrual hygiene is important aspect of adolescent health. There are many studies on this issue from India and abroad but very few studies are from Pondicherry. Thus, it was felt to study the socio-demographic aspects of selected menstrual hygienic practices among adolescent school girls.

MATERIAL AND METHODS

Study settings: The current school based cross sectional study is a part of one of the Indian Council of Medical Research funded Short term Student project.^{11, 12} It was carried out among adolescent school girls (11-18 years) during June to August 2010. The methodology has been explained in detail in previously published studies.^{11,12} Two schools out of six schools approached were dropped from the study because of non co-operation of school authority, peak admission time and or packed academic schedule of school during study duration. Thus four schools which gave written permission and were feasible according to time and distance were chosen for the study purpose. Study approval was obtained from Institutional Ethical Committee of Pondicherry Institute of Medical Sciences, Pondicherry while Indian Council of Medical Research, New Delhi funded the current study under ICMR-STs project 2010.

Adolescent girls were contacted in these four schools. The purpose of the current study was told in detail to only those who had attained menarche. Later on, girls were enrolled in the study only after obtaining written informed consent from their parents. Finally, 371 (72.60%) of total 511 eligible adolescent school girls participated in the current study.

The data was collected by trained medical undergraduate students, post graduates and interns

posted in the department. The adolescent school girls were interviewed by using a pre-designed and pre-tested questionnaire under supervision of faculty from Department of Community Medicine.

The information on socio-demographic characteristics and critical menstrual hygienic practices were collected. For study purpose, ANM/MPWs/Staff nurse or doctors were considered as Health care providers (HCPs). Socio-economic classification was done as per ration card available in the family. Families of open castes were considered as forward castes while rests of all castes were as included in backward castes.

The data was entered & analyzed using software package Epi_info (version 6.04) program. To study the effect of demographic characteristics on critical menstrual hygienic practices, Odds ratios (ORs) were calculated. The independent variable included mother's education & occupation, caste, religion, family type, and socio-economic status. The dependent variables were use of sanitary pads or new and clean dried cloth, washing genitalia with soap & water.

RESULTS

Majority of the respondent adolescent girls (54.45%) were in the age group of 13-14 years and 86.25% were Hindu. Among study population, only 18 (4.86%) were from forward castes while majority were from socially backward castes. 181 (48.79%) girls were residing in urban area and 190 (51.21%) in rural area. 318 (85.71%) girls were from families belonging to above poverty line (APL). Majority (89.49%) mothers of these adolescent girls were literate. 280 (75.47%) mothers of study subjects were housewives while rest were working.¹¹

Table 1: Distribution of selected menstrual practices among adolescent girls during menstruation (N=371)

Menstrual hygiene	Number (%)
Type of pad used	
Old cloth	11 (2.96)
New cloth	9 (2.43)
Sanitary pads	286 (77.09)
Mixed	65 (17.52)
Bath during menstruation	
Daily	371 (100.00)
No	0 (0.00)
Washing genitalia daily	
Yes	371 (100.00)
No	0 (0.00)
Genitalia washed by	
Water	210 (56.60)
Soap and water	161 (43.40)

The use of sanitary pads was observed in majority (77.09%) of adolescent and only 2.43% girls reported use of new cloth during menses, while 2.96% girls reported use of old cloth. Nearly one fifth (17.52%) girls had adapted to the availability of cloth or sanitary pads. When enquired about personal hygiene, all the girls reported regular bathing and used to wash genitalia during men-

struation. Washing genitalia with soap and water was practiced by less than half (43.40%) of the girls. (Table 1) Mothers of study subjects were found to have taught menstrual hygiene to their daughters in majority cases (91.64%) followed by sisters (12.40%). 15 (4.04%) and 17 (4.58%) girls reported they learnt about menstrual hygiene from their friend and teachers respectively.

Table 2: Association of Socio-demographic factors for selected menstrual hygienic practices among adolescent school girls

Characteristics	Use of sanitary pads/new cloth pads			Washing genitals with soap and water during menses		
	Yes (N=295)	No (N=76)	OR (95% CI)	Yes (N=161)	No (N=210)	OR (95% CI)
Mother education						
Literate	268 (80.72)	64 (19.28)	1	143 (43.07)	189 (59.93)	1
Illiterate	27 (69.23)	12 (30.77)	0.54 (0.25-1.19)	18 (46.15)	21 (53.85)	1.13 (0.55-2.31)
Mother occupation						
Working mothers	66 (72.53)	25 (27.47)	1	43 (47.25)	48 (52.75)	1
Housewife/unemployed	229 (81.79)	51 (18.21)	1.70 (0.94-3.06)	118 (42.14)	162 (57.86)	0.81 (0.49-1.34)
Caste						
Forward castes	14 (77.78)	4 (22.22)	1	6 (33.33)	12 (66.67)	1
Backward castes	281 (79.60)	72 (20.40)	1.12 (0.30-3.77)	155 (43.91)	198 (56.09)	1.57 (0.53-4.80)
Religion						
Hindu	253 (79.06)	67 (20.94)	1	135 (42.19)	185 (57.81)	1
Muslim	24 (85.71)	4 (14.29)	1.59 (0.50-5.61)	14 (50.00)	14 (50.00)	1.37 (0.59-3.16)
Christian	18 (78.26)	5 (21.74)	0.95 (0.32-3.05)	12 (52.17)	11 (47.83)	1.49 (0.60-3.76)
Residence						
Urban	154 (85.08)	27 (14.92)	1	71 (39.23)	110 (60.77)	1
Rural	141 (74.21)	49 (25.79)	0.50 (0.29-0.88)	90 (47.37)	100 (52.63)	1.39 (0.90-2.15)
Ration card						
APL	254 (79.87)	64 (20.13)	1	105 (41.34)	149 (58.66)	1
BPL	41 (77.36)	12 (22.64)	0.86 (0.41-1.84)	56 (47.86)	61 (52.14)	1.30 (0.82-2.07)

Figures in parenthesis indicate percentages

Use of sanitary pad is not associated with mother's education & occupation as well as caste and religion, though it is not statistically significant. There was not much difference between forward caste and backward caste girls regarding use of pads during menstruation (OR: 1.12; 95% CI: 0.30-3.77). Girls from rural school were found to use sanitary pads less as compared to girls studying in urban schools (OR: 0.50; 95% CI: 0.29-0.88), which was statistically significant.

The girls belonging to below poverty line (BPL) family were less likely to use sanitary pads during menses as compared to girls from APL families (OR: 0.86; 95% CI: 0.41-1.84). Adolescent girls of illiterate mothers, girls from backward castes and girls belonging to Muslim and Christian families, girls from BPL families were more likely to wash their genitalia with soap and water than their counterparts. The girls from rural schools were found to wash genitalia with soap and water more as compared to girls of urban schools (OR: 1.39; 95% CI: 0.90-2.15), though these all differences are not statistically significant. (Table 2)

DISCUSSION

As menstruation is of immense importance to all females, hygiene during menstruation must be taught from beginning. Study done by Adhikari P et al revealed that 98% of girls used old cloth pads and only 4% of girls took bath everyday during menses.¹³ Shah SP et al reported 90% of girls used old cloth in tribal area of south Gujarat, while Thakre S et al from Nagpur, Maharashtra found about 46% of the girls were using old cloth during menses.^{14,15} In our study three-fourth of girls (77%) used sanitary pads and 100% of girls took bath daily. Study conducted in Mansoura, Egypt where researchers observed poor personal hygiene.² Study conducted by Dasgupta A et al revealed that usage of sanitary pad was only 11% among study subjects.¹ Narayana KA et al from Pondicherry showed that only 5.2% of adolescent girls were using sanitary pads where as Juyal et al from Dehradun, Uttarakhand reported its use only by 38% girls, while study by Omidvar S et al revealed use of sanitary pads in 68% where as it is about 77% in our study.^{16,17,18} A study from Andhra Pradesh revealed that only 4.6% adolescent girls used water

and soap to clean their genitalia, which was around 11% in study conducted in Haryana compared to 43% in the present study.^{4,7} High proportion of girls using sanitary pads during menstruation, daily bathing and washing genitalia during menses in present study population might be attributed to many factors like high proportion of girls were from APL families besides high literacy rate of mothers, in study area.

The majority of girls received information regarding menstrual hygiene from mothers in current study followed by sisters. The mothers were found to be the main source of information in studies like study conducted in Rajasthan by Khanna et al, Swenson I et al from North Carolina, USA, Jogdand K et al from Guntur, Andhra Pradesh and Thakre S et al from Nagpur.^{19,20,21,15} Another study conducted by Deo *et al* documented that urban girls received more information from mothers, whereas teachers acted as source of information in rural area, while other sources were friends, relatives and books.²² In a study conducted in Mansoura by El-Gilany *et al*, mass media played major role in dissemination of information on menstrual hygiene, followed by mothers.³

Thus, promotion of menstrual hygienic practices can be dealt with caution in suitable way at different level such as group level meeting with parents and other stake holders in the community while cultural misbeliefs can be removed without hurting religious sentiments of the community. Further, regular provision of sanitary pads free of cost or at subsidized rate through public distribution system can be another useful approach towards attaining good menstrual health by adolescent girls.

Daughters of from poor family background and residing in rural areas were found to use less sanitary pads than their counterparts. This might be due to less accessibility and affordability for sanitary pads. The study by Omidvar S et al also revealed that socio-economic status of the family is associated with use of sanitary pads during menses. The author Ray S et al from Hoogly, West Bengal found mother's education is associated with menstrual hygiene.²³ The girls belonging to backward castes, rural areas and BPL families were washing their genitalia with soap and water more frequently than their counterparts. This might be the alternate option that these girls have adopted due to non-availability and/or problem of accessibility of sanitary pads.

Current study indicates need of strong awareness campaigns regularly. The health educational activities among adolescent girls, their parents and teachers must be planned for improving menstrual hygiene. Intensive efforts needed to reach to par-

ents of each adolescent girl to make them aware of healthy menstrual practices. However, results of the present study cannot be generalized as it was conducted only in selected schools. It needs to be tested at a larger scale to confirm the findings keeping in mind sharing of information bias.

CONCLUSION

Place of residence has emerged as a significant factor for adolescent school girls to practice selected menstrual hygienic practices such as usage of sanitary pads during menstruation which demands for some efficient system to distribute sanitary either free of cost or at subsidized rate among all adolescent girls.

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