

## ORIGINAL RESEARCH ARTICLE

# Factors Influencing Menstrual Hygiene Practice Among Late Adolescent Girls in an Urban Area of Belgaum

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**Abstract:**

**Background:** Menstrual hygiene is an issue that is insufficiently acknowledged. Menstrual practices are still shrouded by taboos and socio-cultural restrictions. Thus adolescent girls remain ignorant of the scientific facts and hygiene practices which sometimes result into adverse health consequences. **Objective:** To study the factors influencing menstrual hygiene practices among late adolescent girls. **Materials and methods:** A community based cross sectional study was undertaken over a period of one year, in Ashoknagar which is an urban field practice area of J. N. Medical College, Belagavi. A total of 625 late adolescent girls between 16 - 19 years were studied. After obtaining the ethical clearance, pilot study was conducted. Written informed consent was obtained from every participant. Data was collected by house to house visit using a predesigned questionnaire. **Result:** The mean age ( $\pm$ SD) of the study participants was  $17.4\pm 1.09$  years and mean age ( $\pm$ SD) at menarche was  $12.8\pm 1.73$  years. Less than half, 43.4% of the adolescent girls used sanitary pads and around 52.8% of the girls practiced cleaning of external genitalia during menstruation. Factors like age, religion, socio-economic status and mothers' literacy were significantly associated both with the use of sanitary pads and practice of perineal hygiene. **Conclusion:** Appropriate health education programmes and social marketing of sanitary pads may lead to better menstrual hygiene practices among adolescents.

**Keywords:** *Menstual hygiene, Adolescent girls, Urban area.*

## INTRODUCTION

Adolescent girls constitute a vulnerable group not only with respect to their social status but also in relation to health. Menstruation is a natural phenomenon among matured females who experience shedding of blood for 1-7 days every month from the age of maturity until menopause.<sup>1</sup> Though menstruation is a normal physiological process, it is often not discussed openly in our society, considering menstruation to be inconvenient or embarrassing topic to discuss. Menstrual practices are still

shrouded by taboos and socio-cultural restrictions. Various aspects such as physiology, pathology and psychology of menstruation have been found to associated with health and wellbeing of women; hence it is an important issue concerning morbidity and mortality of female population. On the other hand, hygiene-related practices during menstruation are of considerable importance for reproductive health, poor practices increase vulnerability to reproductive tract infections.<sup>2</sup> Good hygiene, such as use of sanitary pads and adequate

washing of the genital area, is essential during menstruation. Primarily poor personal hygiene and unsafe sanitary conditions result in gynecological problems.<sup>3</sup> Repeated use of unclean napkins or the improperly dried cloth napkins before its reuse results in harboring of micro-organisms causing vaginal infections. Infections due to lack of hygiene during menstruation are often not reported.<sup>4</sup> Therefore this study was conducted to study the factors

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influencing menstrual hygiene practices among late adolescent girls

## MATERIALS AND METHODS

A community based cross-sectional study was conducted over a period of one year from 1<sup>st</sup> January to 31<sup>st</sup> December 2014 among late adolescent girls (16-19 years) in an urban field practice area of J.N.M.C, Belagavi. A total of 625 adolescent girls were interviewed by house to house visit. The study was approved from Institutional Ethics Committee for Human Subject's Research, Jawaharlal Nehru Medical College, Belagavi, Letter No. MDC/DOME/92. A detailed questionnaire was prepared and was pretested and validated during the pilot study. It included information on socio-demographic variables, age of menarche and menstrual hygiene and practices among late adolescent girls. Data was entered in Excel sheet after coding. SPSS (Trial version) 21.0 software was used for analysis of the data. Numerical variables were analysed as means and standard deviations. Categorical data were summarized using percentages. Chi-square test was used to test the association between various study variables.

## RESULT

In the present study, out of 625 respondents 170 (27.2%) girls were aged 18 years followed by 166 (26.6%) aged 16 years, 159 (25.4%) aged 17 years and 130 (20.8%) aged 19 years. The mean age ( $\pm$ SD) of the respondents was 17.4 $\pm$ 1.09 years and median was 17.5 years. Of

**Table No. 1: Association between age and religion of late adolescent girls and use of sanitary pad**

Variable	Use sanitary pad		P value
	Yes	No	
<b>Age (in years)</b>			
16	52 (31.3%)	114 (68.7%)	$\chi^2 = 17.2$ df = 3 p = 0.001
17	82 (51.6%)	77 (48.4%)	
18	71 (41.8%)	99 (58.2%)	
19	66 (50.8%)	64 (49.2%)	
<b>Religion</b>			
Hindu	216 (51.1%)	207 (48.9%)	$\chi^2 = 1.2$ df = 2 p < 0.001
Muslim	21 (12.5%)	147 (87.5%)	
Other	34 (100.0%)	0 (0.0%)	

**Table No. 2: Association between socio-economic and mothers' literacy status of late adolescent girls and use of sanitary pad**

Variable	Use sanitary pad		P value
	Yes	No	
<b>Socio-economic status</b>			
Class I	51 (78.5%)	14 (21.5%)	$\chi^2 = 209.1$ df = 4 p < 0.001 $\chi^2$ for trends = 178.2 df = 1 p < 0.001
Class II	85 (68.5%)	39 (31.5%)	
Class III	109 (61.9%)	67 (38.1%)	
Class IV	23 (12.9%)	155 (87.1%)	
Class V	3 (3.7%)	79 (96.3%)	
<b>Mothers' literacy status</b>			
Illiterate	31 (22.0%)	110 (78.0%)	$\chi^2 = 151.9$ df = 5 p < 0.001 $\chi^2$ for trends = 101.9 df = 1 p < 0.001
Primary school	6 (6.2%)	90 (93.8%)	
High school	115 (51.1%)	110 (48.9%)	
PUC/Diploma	60 (83.3%)	12 (16.7%)	
Graduation	48 (61.5%)	30 (38.5%)	
Post graduation	11 (84.6%)	2 (15.4%)	

the total 625 girls studied, majority 433 (69.3%) adolescent girls were Hindus, followed by Muslims 188 (30.1%) and 4 (0.6%) belonged to Christian and Jain religion. In our study, majority 530 (84.8%) of the adolescent girls were studying and 95 (15.2%) of them had stopped studying at the time of our study. Our study revealed that 141 (22.6%) mothers of late adolescent girls were illiterates. Among the literate mothers, 96

(15.4%) were educated up to primary school, 225 (36.0%) up to high school, 72 (11.5%) had studied beyond SSLC, 78 (12.5%) were graduates and 13 (2.0%) had perused post graduation. According to the modified B.G. Prasad classification maximum 178 (28.5%) of study participants were from families of socioeconomic class IV and 176 (28.2%) were from class III, 124 (19.8%) from class II, 82 (13.1%) and 65 (10.4%)

**Table No. 3: Association between age and religion of late adolescent girls and practice of perineal hygiene during menstruation**

Variable	Practice of perineal hygiene during menstruation		P value
	Yes	No	
<b>Age (in years)</b>			
16	57 (34.3%)	109 (65.7%)	$\chi^2 = 47.9$ $df = 3$ $p < 0.001$
17	100 (62.9%)	59 (37.1%)	
18	81 (47.6%)	89 (52.4%)	
19	92 (70.8%)	38 (29.2%)	
<b>Religion</b>			
Hindu	264 (62.4%)	159 (37.6%)	$\chi^2 = 122.9$ $df = 2$ $p < 0.001$
Muslim	32 (19.0%)	136 (81.0%)	
Other	34 (100.0%)	0 (0.0%)	

**Table No. 4: Association between socio-economic and mothers' literacy status of late adolescent girls and practice of perineal hygiene during menstruation**

Variable	Practice of perineal hygiene during menstruation		P value
	Yes	No	
<b>Socio-economic status</b>			
Class I	65 (100.0%)	0 (0.0%)	$\chi^2 = 171.2$ $df = 4$ $p < 0.001$
Class II	74 (59.7%)	50 (40.3%)	
Class III	126 (71.6%)	50 (28.4%)	
Class IV	36 (20.2%)	142 (79.8%)	
Class V	29 (35.4%)	53 (64.6%)	
<b>Mothers' literacy status</b>			
Illiterate	47 (33.3%)	94 (66.7%)	$\chi^2 = 156.1$ $df = 5$ $p < 0.001$
Primary school	22 (22.9%)	74 (77.1%)	
High school	112 (49.8%)	113 (50.2%)	
PUC/Diploma	69 (95.8%)	3 (4.2%)	
Graduation	67 (85.9%)	11 (14.1%)	
Post graduation	13 (100.0%)	0 (0.0%)	

from classes V and I respectively.

The mean age ( $\pm$ SD) of menarche was 12.8 $\pm$ 1.73 years. Our study showed that 271 (43.4%) of the adolescent girls used sanitary pads, 207 (33.1%) used cloth, 139 (22.2%) used both sanitary pads and cloth as per the availability and 8 (1.3%) used

tampon. Among the 346 cloth users, 218 (63.0%) were using reused cloth and 128 (37.0%) used fresh cloth every cycle. Among the 218 study participants who used reused cloth, 68 (31.2%) used it for less than 3 cycles, 96 (44.0%) used it for 3 cycles only and 54 (24.8%) used for more than 3 cycles and

later discarded the cloth. Of the 410 sanitary pad users, 284 (69.3%) of them wrapped the pad in paper and disposed it in dustbin, 46 (11.2%) flushed the pad in the toilet, 67 (16.3%) threw it indiscriminately and 13 (3.2%) of the girls burnt the pad. In our study, 330 (52.8%) of the study participants used to clean external genitalia separately while taking bath during menstruation and 295 (47.2%) of them did not. With the increase in age, the number of girls using sanitary pads increased and the difference was statistically significant ( $p=0.001$ ). Among the girls belonging to Muslim religion only 21 (12.5%) made use of sanitary pads during menstruation which was least when compared to girls belonging to other religion 34 (100.0%) and Hindus 216 (51.1%) showing significant association ( $p < 0.001$ ) between religion and use of sanitary pads [Table No.1]. Also with increase in socio-economic status there was increase in use of sanitary pads ( $p < 0.001$ ), which followed a trend ( $p < 0.001$ ) and use of sanitary pads increased as education level of mothers' increased, it was seen to follow a trend ( $p < 0.001$ ) [Table No. 2]. Regarding the perineal hygiene with increase in age practice of cleaning external genitalia increased which was statistically significant ( $p < 0.001$ ). Among the 34 girls belonging to other religion all of them were practicing cleaning external genitalia during menstruation, of 423 Hindus, 264 (62.4%) cleaned external genitalia and of the 168 Muslims only 32 (19.0%) of them practiced it during menstruation showing significant

association ( $p < 0.001$ ) between religion and practice of perineal hygiene during menstruation [Table No. 3]. Also with increase in socio-economic status there was increased practice of perineal hygiene and the maternal literacy status increased the practice of perineal hygiene by late adolescent girls also increased which was statistically significant ( $p < 0.001$ ) [Table No. 4].

## DISCUSSION

In the present study, 625 late adolescent girls aged 16 – 19 years were included; the mean age ( $\pm$ SD) at menarche was  $12.8 \pm 1.73$  years and majority of the adolescent girls, 167 (26.7%) and 144 (23.0%) were 13 and 12 years old respectively when they attained menarche. A study conducted in Belgaum<sup>5</sup> reported the mean age at menarche to be  $13.62 \pm 0.91$  years which is slightly higher than our study. Also, another study conducted in urban slum of Mumbai<sup>6</sup> revealed that majority (54.4%) of the subjects had attained menarche by the age of 13 – 14 years. Less than half, 43.4% of the adolescent girls used sanitary pads, 207 (33.1%) used cloth, 139 (22.2%) used both sanitary pads and cloth as per the availability and 8 (1.3%) used tampon. It was noted that in a study conducted in Guntur<sup>7</sup> 53.7% girls used sanitary pad for protection during menstruation which is

slightly high when compared to our study. Among cloth users, 218 (63.0%) used reused cloth and 128 (37.0%) used fresh cloth every cycle. Regarding hygiene practices during menstruation, 330 (52.8%) of the girls practiced cleaning of external genitalia during menstruation and the most common ways of disposing sanitary pads were, wrapping in paper and throwing in dustbin (69.3%) and threw it indiscriminately (16.3%). Similar observations were made in a study conducted in Mumbai<sup>6</sup>, were 54.8% disposed sanitary pads in dustbin and 14.5% of them threw them indiscriminately. Our study found that increase in age, socio-economic status, and mother's literacy status were significantly associated with the increase in use of sanitary pads among girls. Girls belonging to Muslim religion made least use of sanitary pads compared to other and Hindu religion. Similarly in a study conducted in South India<sup>8</sup>, socioeconomic status of the girls and their age influenced the use of sanitary pads. With the increase in socioeconomic status and age there was increase in use of sanitary pads among girls. Other studies have shown that lower socioeconomic status, lack of access to information about menstruation and money to buy sanitary products for menstrual hygiene are all related factors affecting

menstrual behavior<sup>9,10</sup>. Our study reported significant association between socio-demographic variables and perineal hygiene. Factors like younger age of girls, belonging to Muslim religion, lower socioeconomic status and illiteracy or low literacy status among mothers' of the adolescent girls were associated with poor practice of perineal hygiene. A study conducted in South India<sup>8</sup> found that 83.0% of the girls regardless of their age used to practice washing of genital region.

## CONCLUSION

The present community based study reports that less than half of the adolescent girls used sanitary pads and about more than half of the girls practiced perineal hygiene. The above findings reinforce the need to encourage safe and hygienic practices among the adolescent girls. Factors like age, religion, socio-economic status and mothers' literacy were found, to have made a significant impact on use of sanitary pads and practice of perineal hygiene. Therefore, community based outreach programmes and social marketing of sanitary pads may lead to better hygiene practices among adolescents.

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