

Original Research Article

Assessment of menstrual hygiene management practices and associated socio-cultural restrictions among adolescent school girls in a rural area of North India

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Received: 29 January 2019

Accepted: 13 February 2019

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ABSTRACT

Background: There is inadequate information on menstrual hygiene management practices and socio-cultural restrictions among adolescent girls in developing countries. The objective of the present study was to assess the menstrual hygiene management practices and associated socio-cultural restrictions among adolescent school girls.

Methods: This descriptive cross-sectional study was carried out among adolescent school girls 10 to 19 years of age, who had attained menarche, in a rural area of district Barabanki. Total 640 adolescent girls were included in the study, and information was recorded on a predesigned and pretested interview schedule. Relevant statistical analysis was done and significant associations were found.

Results: 60.5% of the girls were using sanitary pads, and 71.4% took bath during their periods. 41.3% of the girls used to change pads during schools. Unsatisfactory menstrual hygiene management practices were significantly high among girls who were from lower socioeconomic class ($p < 0.001$) and had illiterate mothers ($p < 0.001$). 82.8% of the girls faced religious restriction.

Conclusions: Significant associations were found between menstrual hygiene management practices of adolescent school girls with their mother's education level and socio economic status. A proper menstrual hygiene management practice is very important for every young girl to lead a healthy life and should be achieved at the beginning of their menarche by enhanced information education and communication (IEC) programmes.

Keywords: Menstrual hygiene management practices, Socio-cultural restrictions

INTRODUCTION

Adolescents (10-19 years) constitute 21.3% i.e. nearly 1/5th of total population of India.¹ It is a transitional period which is marked with attainment of menarche and onset of menstruation, an important biological milestone.² If girls and women have to live healthy and productive lives, with dignity, menstrual health and hygiene is a priority.

Even if all circumstances are ideal, which is mostly the case in the western world, managing menstruation can be quite a challenge. According to World Health Organization (WHO), globally, some 2.3 billion people lack safely managed sanitation.³ Further, owing to high cost of sanitary pads and ignorance, women and girls often use old rags, clothes or other unhygienic materials as menstrual absorbents, which may lead to reproductive tract infections (RTIs) and many other health problems. Untreated RTIs are responsible for 10-15% of fetal wastage and 30-50% of prenatal infection. Increasingly,

RTIs are also linked with the incidence of cervical cancer, HIV/AIDS, infertility, ectopic pregnancy and a myriad of other symptoms.⁴

In India, there are some 113 million adolescent girls who are vulnerable at the onset of menarche and face significant barriers to a comfortable and dignified experience with menstrual hygiene management.⁵

In view of the above facts, this study was undertaken to assess the menstrual hygiene management practices and the associated socio-cultural restrictions faced during menstruation among adolescent school girls in a rural area of district Barabanki.

METHODS

This descriptive cross-sectional study was carried among 640 adolescent school girls of 10 to 19 years of age, in a rural area of district Barabanki. The study was carried from July 2017 to November 2018. The principals of the concerned schools as well as parents of girls were explained about the purpose of study and were reassured about the confidentiality of the data. Informed consent was obtained from each participant and their parents in case of minors prior to interview. School girls who had attained menarche, were present in school during the days of survey, and gave their consent were included in study. Ethical clearance for this study was obtained from the institutional ethics committee.

Data was collected using a pre-designed and pre-tested questionnaire. For the assessment of menstrual hygiene management practices a scoring system was adopted similar to the methodology used by Das et al, and Mahajan et al, in their respective studies.^{6,7} A score of 1 was given for correct answers, whereas, a score of 0 was given for incorrect answers/no answers each for the seven questions related to menstrual hygiene management practice. Those students who were scoring 0–3 score were considered having unsatisfactory practices, while those scoring 4–7 were considered having satisfactory practices. Further, data regarding parent's educational status and their income was obtained from school records. Modified B.G. Prasad's socio-economic classification (SES) was used to classify socio-economic status of the students.⁸

Data analysis

Analysis of data was done on computer using SPSS software version 21. Descriptive statistics was reported by frequencies and percentages. Binary logistic regression analysis was applied to calculate odds ratio and to find significant associations between socio-demographic characteristics and menstrual hygiene management practices. A $p < 0.05$ was considered as statistically significant.

RESULTS

In the present study, out of 640 girls, 387 (60.5%) were using sanitary pads, 627 (98.0%) were washing their hands after changing pads and 457 (71.4%) were regularly bathing during menstruation. However, only 146 (22.8%) were washing their genitals before changing pads. When interviewed about method of pad disposal, 586 (91.6%) were disposing used pads in concealed manner at home. Out of 264 (41.2%) girls who were changing pads in school, 193 (73.1%) were disposing them in concealed manner (Table 1).

Table 1: Distribution of adolescent school girls according to their menstrual hygiene management practices (N=640).

Menstrual hygiene management practices	Frequency	%	
Type of absorbent used	Sanitary pads	387	60.5
	Cloths	253	39.5
Practice of washing genitals before washing hands	Present	146	22.8
	Absent	494	77.2
Practice of washing hands after changing pads	Present	627	98.0
	Absent	13	2.0
Regular bathing during menstruation	Present	457	71.4
	Absent	183	28.6
Method of pad disposal at home	Concealed manner	586	91.6
	Open disposal	54	8.4
Practice of changing pads in school	Present	264	41.2
	Absent	376	58.8
*Method of pad disposal at school (n)	Concealed manner	193	73.1
	Open disposal	71	26.9

*n=264 (girls changing pads at school).

Out of total 640 girls, 210 (32.8%) girls were having unsatisfactory practices, while 430 (67.2%) girls were having satisfactory practice of menstrual hygiene management (Figure 1).

The risk of having unsatisfactory menstrual hygiene management practices was found to be 3.19 times more in girls of lower and lower middle socio economic class as compared to upper, upper middle and middle socio economic class girls. Also, the risk of unsatisfactory menstrual hygiene management practices was 3.26 times more in girls whose mothers were illiterate as compared to those whose mothers were literate (Table 2).

The most common restrictions faced by menstruating girls were religious restrictions by 82.8% of girls,

followed by restrictions on food, by 45.5% of girls (Figure 2).

Table 2: Association between socio demographic characteristics and menstrual hygiene management practices among adolescent school girls (N=640).

Socio demographic characteristics		Menstrual hygiene management practices		*Odds ratio (95% CI)
		Unsatisfactory Practices (n %)	Satisfactory Practices (n %)	P value
#Socio economic status	Lower middle and lower class (n=228)	113 (49.6)	115 (50.4)	3.19 (2.25-4.50) p<0.001
	Upper, upper middle and middle class (n=412)	97 (23.5)	315 (76.5)	Reference
Mother's Education	Illiterate (n=267)	128 (47.9)	139 (52.1)	3.26 (2.31-4.60) p<0.001
	Literate (n=373)	82 (22.0)	291 (78.0)	Reference

*Binary logistic regression analysis, CI=Confidence interval, n=number, %=percentage, row percentages within square brackets (), #Modified B.G. Prasad's classification, 2017.

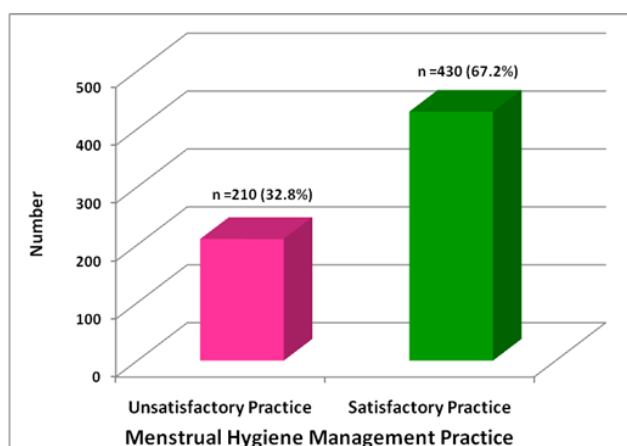


Figure 1: Distribution of adolescent school girls according to their menstrual hygiene management practices (N=640).

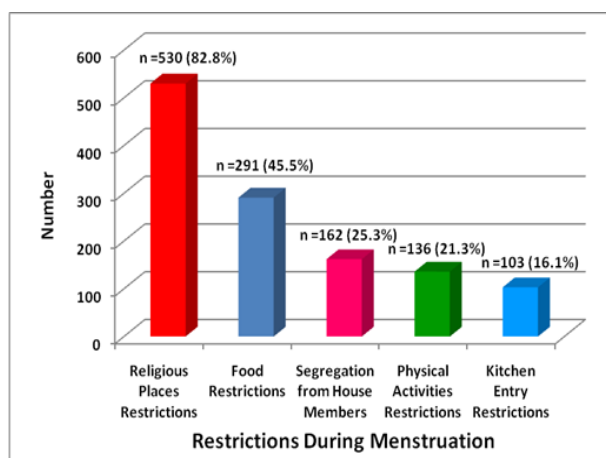


Figure 2: Distribution of adolescent school girls according to restrictions faced during menstruation (N=640), multiple responses.

DISCUSSION

The present study highlighted significant association between menstrual hygiene management practices with mother's educational status. Our this finding is corroborated by results of another study done by Bachloo et al, who found significant association between educational status of mothers of adolescent girls and absorbent material used during menstruation.⁹

Girls with better socio-economic status have used sanitary pads than cloth piece. Statistically significant association was observed between socio economic status of adolescent girls and absorbent material used during menstruation. Similarly studies done by Santana et al, 2013 and Kansal et al, reported significant association between menstrual hygiene practices with family monthly income.^{10,11}

In the present study religious restrictions were most common restrictions that were faced by 82.8% of girls during their menstruation. Our finding is in agreement with studies done by Palak et al, 2017 and Tundia et al, 2018 who have reported that religious restrictions were present in 91.59% and 88.3% of the menstruating girls respectively.^{12,13} However, in contrast to our finding a study done by Alam et al, showed that only 51% of the menstruating girls were not allowed to perform religious activities.¹⁴

CONCLUSION

In the present study significant associations were found between menstrual hygiene management practices of respondents with their mother's education level and socio economic status. The risk of having unsatisfactory menstrual hygiene management practices was higher in girls whose mothers were illiterate and in girls of low socio economic status. Religious restrictions were most common restrictions faced by menstruating girls.

Recommendations

Keeping the above facts in mind the improvement of menstrual hygiene management practices among school going adolescent girls is strongly recommended, which could be achieved by incorporation of proper menstrual education in school curriculum. Also, school health programmes should focus on menstrual related issues. Mothers of girls should also be involved in these menstrual health programmes by enhanced information education and communication (IEC) programmes.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Khan Z, Ahmad S, Singh JV, Dwivedi AD. Assessment of menstrual hygiene management practices and associated socio-cultural restrictions among adolescent school girls in a rural area of North India. *Int J Community Med Public Health* 2019;6:1021-4.