

DOI: <http://dx.doi.org/10.18203/2320-1770.ijrcog20170564>

Original Research Article

Menstrual hygiene: knowledge and practice among adolescent school girls in rural settings

Gitanjali Kapoor^{1*}, Dinesh Kumar²

¹J & K Health Services, Jammu, Jammu and Kashmir, India

²Department of Obstetrics and Gynecology, SMGS Hospital, GMC, Jammu, Jammu and Kashmir, India

Received: 22 December 2016

Accepted: 31 January 2017

*Correspondence:

Dr. Gitanjali Kapoor,

E-mail: highcourtনাresh@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Menstrual hygiene is an issue that every girl and women must deal within her life, but there is lack of awareness on the process of menstruation and proper requirements for managing menstruation among adolescent girls. The objectives of present study are to assess the knowledge and the practices of menstrual hygiene among the rural school going adolescent girls and to assess the restrictions practiced by adolescent school going girls during menstruation.

Methods: It was a community based cross-sectional study. The present study was undertaken among the adolescent school going girls in the Govt. Higher Secondary School in Marh block of Jammu district. 132 girls of the 8th, 9th, 10th, 11th and 12th standard of the school was selected for the study. A predesigned, pretested and structured questionnaire was used in the study. The data collection technique was a personnel interview of the study subjects.

Results: The mean age of menarche in the study subjects was 13.43 years. It was evident that only 65 (49.24%) of the participants were aware about menstruation before menarche and the most important source of the information about menstruation for them was found to be their mothers. 59.09% girls used sanitary pads only, 27.27% used new cloth and 13.64% used old washed cloth. 98.48% of the respondents followed some restriction or taboo during menstruation. 93.18% had daily bath. Regular hand washing was present in 90.91% subjects of which 86.36% subjects used soap and water for hand washing. Regular cleaning of the external genitalia was present in 65.91% subjects only, of which 66.67% used soap and water and 33.33% used only water.

Conclusions: There is a need to educate the girls about menstruation, its importance and hygiene maintenance; to enable them to lead a healthy reproductive life in future.

Keywords: Adolescent girls, Menarche, Menstruation, Menstrual hygiene, Practices

INTRODUCTION

Menstrual hygiene is an issue that every girl and women has to deal with in her life, but there is lack of awareness on the process of menstruation and proper requirements for managing menstruation among adolescent girls. Menstruation is generally considered as unclean in the Indian society especially in rural settings. Isolation of the menstruating girls and restrictions being imposed on them in the family have reinforced a negative attitude towards this phenomenon.¹ Issues associated with

menstruation are never discussed openly and this burdens young girls by keeping them ignorant of this biological function.²⁻⁴ Even after the attainment of menarche, very little information is given to young girls about the physiological processes involved and the hygienic practices to be followed, the lack of which sometimes result into adverse health outcomes like reproductive tract infection, UTIs etc.⁵⁻⁹ Menstruation hygiene is an issue that has not received adequate attention in the reproductive health and water, sanitation and hygiene (WASH) sectors in developing countries like India and its

relationship with and impact on achieving many millennium development goals (MDGs) is rarely acknowledged.¹⁰⁻¹² Very few studies have included the detailed aspects of the menstrual practices among adolescent girls in rural areas. It was therefore considered as relevant to investigate the menstruation related knowledge and practices among the school going adolescent girls in rural India. The data about their level of knowledge and the practices which are followed by them with respect to menstruation are beneficial for planning a program for improving the awareness level with respect to their life processes and promoting their quality of life. Hence, the present cross-sectional study was carried out.

METHODS

It was a community based cross-sectional study. The present study was under taken among the adolescent school going girls in the Govt. Higher Secondary School in Marh block of Jammu district. 132 girls of the 8th, 9th, 10th, 11th and 12th standard of the school was selected for the study. A predesigned, pretested and structured questionnaire was used in the study. The data collection technique was a personnel interview of the study subjects. After taking permission from the school authorities, the students were explained the purpose of the study, a rapport was built up with girl students and their verbal consents were obtained. The purpose of the study and the nature of the information which had to be furnished by the study subjects were explained to them.

RESULTS

Table 1 (a and b) presents the demographic details of the study subjects. It was evident that the mean age of the study subjects who were studied was 15.71 ± 1.28 years, while their age range was from 12-18 years. A majority of the mothers of the study girls were illiterate (36.36%).

The Table 2 reveals that the mean age of menarche in the study subjects was $13.43 \pm .83$ years. It was evident that only 65 (49.24%) of the participants were aware about menstruation before menarche and the most important source of the information were mothers 43 (66.15%) followed by sisters 14 (21.55%), friends 4 (6.16%), Teachers 2 (3.07%) and relative 2 (3.07%).

Table 1a: Demographic characteristics of the study subject (N=132).

Characteristics	No.	Percentage
Age in years		
12	1	0.76
13	5	3.79
14	17	12.88
15	29	21.97
16	46	34.85
17	23	17.42
18	11	8.33

Table 1b: Demographic characteristics of the study subject (N=132).

Characteristics	No.	Percentage
Education of mother		
Illiterate	48	36.36
Primary	11	8.33
Middle	40	30.33
Secondary	31	23.48
Higher Secondary	02	1.51

Table 2: Information about menarche.

Variable	No.	Percentage
Age of menarche		
≤11	03	2.28
12	10	7.58
13	52	39.39
14	61	46.21
≥15	06	4.54
Awareness about menstruation before menarche		
	65	49.24
Sources of information before menarche		
Mother	43	66.15
Sister	14	21.55
Friend	04	6.16
Teacher	02	3.07
Relative	02	3.07

Table 3 reveals that the study on the practices during menstruation showed that 78 (59.09%) girls used sanitary pads only, 36 (27.27%) used new cloth and 18 (13.64%) used old washed cloth.

Table 3: Distribution of subjects according to their practice during menstruation.

Attributes	No.	Percentage
Type of absorbent (N=132)		
Sanitary Pads	78	59.09
New Cloth	09	6.82
Old Washed Cloth	10	7.58
Pad + New Cloth	27	6.06
Pad + Old Washed Cloth	08	20.45
Reasons for not using pads (N=19)		
High Cost	15	78.94
Not Available	02	10.53
Disposal Problem	02	10.53
Problems faced while using old washed cloth during washing and drawing (N=18)		
Yes	15	83.33
No	03	16.67
Type of problem faced while using old washed cloth during washing and drawing (N=15)		
Shortage of water	06	40
Scarcity of place	03	20
Lack of privacy	06	40

Out of the 18 patients who used old washed cloth during menstruation, 15 (83.33%) had problem while washing and drying of the cloth which consisted of shortage of water (40%), lack of privacy (40%) and scarcity of place (20%). 98.48% of the respondents followed some restriction or taboo during menstruation (Table 4).

Table 4: Restriction practiced during menstruation.

Restricted practiced*	No.	Percentage
Attend religious functions	67	51.54
Routine Household Work	45	34.62
Playing	13	10
Attending School	37	28.46
Certain types of food	31	23.85

*Multiple response

Table 5: Distribution of subjects according to their hygienic practices during menstruation.

Hygienic practices during menstruation	No.	Percentage
Daily bath		
Yes	123	93.18
No	09	6.82
Hand washing		
Regular*	120	90.91
Irregular	12	9.09
Hand washing with		
Water only	04	3.03
Soap and water	114	86.36
Water and antiseptic	14	10.61
Cleansing of external genitalia		
Regular**	87	65.91
Irregular	45	34.09
Cleaning of external genitalia with		
Water only	44	33.33
Soap + Water	88	66.67
Method of disposal		
Burn it	10	7.58
Throw it routine waste	93	70.45
Others (Don't Dispose/flush/hide)	29	21.97
Toilet facility		
Yes	101	76.52
No	31	23.48

*Regular: hand washing every time after visit to the toilet during menstruation; **Regular: Frequency of cleaning of external genitalia is ≥ 2 /day.

Table 5 reveals that among hygienic practices during menstruation, 93.18% had daily bath. Regular hand washing was present in 90.91% subjects, of which 86.36% subjects used soap and water for hand washing, 10.61% used water and antiseptics and 3.03% used water only. Regular cleaning of the external genitalia was present in 65.91% subjects only, of which 66.67% used

soap and water and 33.33% used only water. Toilet facility was present in homes of 76.52% subjects and 23.48% subjects' homes were still deprived of toilet facility. 70.45% of the subjects were disposing the materials used during menstruation by throwing that in routine waste, 7.58% were burning it and 21.97% were using other methods.

DISCUSSION

In the present study, the mean age of menarche of the study subjects was 13.43 ± 0.83 years which is similar to studies conducted by Bhattacharyya M et al and Thakre SB et al in which the mean age of menarche was found out to be 13.2 years and 12.86 years respectively.^{13,14} Prior awareness regarding menarche and menstruation among girls is generally low in rural areas in our country. It was evident that 50.76% of the subjects were ignorant about menstruation before menarche in the study. This in accordance to study by Bhattacharyya M et al in which 58% of adolescent girls were lacking knowledge of menstruation before menarche.¹³ The main source of information of menstruation before menarche in present study was mothers of the girls (66.15%) followed by sisters (21.55%). This is similar to the study done by Thakre SB et al in which mothers were the main informant followed by sisters in 71.33% and 23.78% girls respectively.¹⁴ Menarche is an important event in girls at the threshold of adolescence and ideally, mothers should be the main informants at this tender age of the girls. But the high level of ignorance on the part of this study subjects was due to low level of education of their mothers. In present study, 59.09% of the girls used sanitary pads only where as 40.91% used either cloth (new or old) alone or in combination with sanitary pads. This in accordance to the investigations of Bhattacharyya M et al in which 81.73% of the girls used sanitary pads only where as 18.27% used either cloth (new or old) alone or in combination with sanitary pads. In this study although only 13.64% used old washed cloth, 83.33% of them faced problems during washing and drying in the form lack of place, water and privacy.¹³ This is similar to study by Yasmin S et al in which 15.7% used old washed cloth and 70% of them faced problems during washing and drying in the form lack of place, water and privacy.¹² This is really cause of concern because shortage of water leads to improper washing of cloth and lack of place and privacy leads to storage of these in unhygienic places which is invitation to infectious organisms.¹⁵ The main reason for not using pads in present study was non-affordability due to high cost (78.94%) followed by non-availability and disposal problems which is similar to study by Thakre SB et al.¹⁴ Different restrictions were practiced by most of the girls in the present study, possibly due to the different rituals in their communities; the same were running in their families for years long, being practiced by their mothers or their grandmothers, due to lack of knowledge about menstruation. These findings were consistent with other studies.^{5,16,17} The present study showed that 93.18% girls took daily bath

during menstruation which is similar to study by Bhattacharyya M et al in which 86.08% girls took daily bath. Regular hand washing was present in 90.91% girls, 86.36% of which used soap and water where as in study by Bhattacharyya M et al 63.04% used soap and water for hand washing.¹³ Regular cleaning of external genitalia was present in only 65.91% girls out of which only 66.67% used soap and water for cleaning. Studies by Bhattacharyya M et al and Thakre SB et al showed 64.78% and 56.16% girls used soap and water for cleaning of external genitalia respectively whereas study by Dasgupta A et al reported that 97.5% rural adolescent girls used soap and water for cleaning of external genitalia.^{13,14,16} The reason for lesser number of girls cleaning the external genitalia was lack of knowledge about menstrual hygiene and lack of privacy.

CONCLUSION

The current study has highlighted the needs of the adolescent girls to have accurate and adequate information about menstruation and its appropriate management. Mothers are the first teacher of the children, so they need to be equipped with the correct information as well as communication skills, so that adolescent girls are ready for this important physiological event in their life.

Funding: No funding sources

Conflict of interest: None declared

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

REFERENCES

1. Dhingra R, Kumar A. Knowledge and practices related to menstruation among tribal (Gujjar) adolescent girls. *Etho-Med.* 2009;3(1):43-8.
2. Ahuja A, Tiwari S. Awareness about pubertal changes among adolescent girls. *J Fam Welf.* 1995;41(1):46-50.
3. Chaudhari RH. Socio-economic demographic and reproductive health profile of adolescents in the SAARC countries. Paper presented in south Asia Conference on Adolescents. 1998; New Delhi, India.
4. Khanna A, Goyal RS, Bhawsar R. Menstrual practices and reproductive problems: A study of adolescent girls in Rajasthan. *J Health Manag.* 2005;7(1):91-7.
5. Muddey AB, Keshwani N, Muddey GA, Goyal RC. A cross-sectional study on the awareness regarding safe and hygienic practices amongst school going adolescent girls in the rural areas of Wardha district. *Glob J Health Sci.* 2010;2(2):225.
6. Bhatia JC, Cleland J. Self reported symptoms of gynecological morbidity and their treatment in South India. *Stud Fam Plann.* 1995;26:491-5.
7. Jugal R, Kandpal SD, Semwal J. Social aspects of menstruation related practices in adolescent girls of district Dehradun. *Ind J of community health* 2013;25(3):213-16.
8. Mensch BS, Bruce J, Greene ME. The uncharted passage: Girls' adolescence in the developing world [internet] 1999. Available at www.popcouncil.org. Cited 21 jan 2017.
9. Singh MM, Devi R, Garg S, Mehra M. Effectiveness of syndromic approach in management of reproductive tract infections in women. *Indian J Med Sci.* 2001;55(4):209-14.
10. Ten VTA. Menstrual hygiene: A neglected condition for the achievement of millennium development goals [internet] 2007. Available at mwia.net/wp-content/uploads/2012/12/menstrual-hygiene.pdf. cited 21 jan 2017.
11. Menstrual hygiene in South Asia: A neglected issue for WASH Programmes [internet]. Available at www.wateraid.org/~media/publications/menstrual-hygiene-south-asia.pdf.
12. Yasmin S, Manna N, Mallik S, Ahmed A, Paria B. Menstrual hygiene among adolescent school students: An indepth cross-sectional study in an urban community of West Bengal, *Ind J Dent Med Sci.* 2013;5(6):22-6.
13. Bhattacharyya M, Sen P, Hazra S, Sinha RN, Sahoo S. A Study of Menstrual Hygiene among Adolescent school girls in a slum area of Kolkata. *Ntl J of Community Med.* 2015;6(3):345-8.
14. Thakre SB, Thakre SS, Reddy M, Rath N, Pathak K, Ughade S. Menstrual Hygiene: Knowledge and practice among adolescent school girls of Saoner, Nagpur district. *J Clinic Diag Res.* 2011;5(5):1027-33.
15. EL Gilany A, Badwi K, El. Fedawy S. Menstrual hygiene among adolescent girls in Mansoura, Egypt. *Reprod Health Matt.* 2005;13(26):147-52.
16. Dasgupta A, Sarkar M. Menstrual Hygiene: How Hygienic is the Adolescent Girl. *Ind J Commun Med.* 2008;33(2):77-80.
17. Narayan KA, Shrivastava DK, Peltó PJ, Veerapmmal S. Puberty rituals, reproductive and health of adolescent school girls of South India. *Asian-Pac Popul J.* 2001;16:225-38.

Cite this article as: Kapoor G, Kumar D. Menstrual hygiene: knowledge and practice among adolescent school girls in rural settings. *Int J Reprod Contracept Obstet Gynecol* 2017;6:959-62.