

Menstrual health management: Knowledge and practices among adolescent girls

KHATUJA R, MEHTA S¹, DINANI B, CHAWLA D, MEHTA S¹

Department of Obstetrics and Gynaecology, BSA Medical College and Hospital, Rohini, ¹Department of Obstetrics and Gynaecology, BJRM Hospital, Delhi, India

ABSTRACT

Objectives: To assess the knowledge and attitude of adolescent girls regarding menstruation and menstrual hygiene.

Material and Methods: After approval by the ethical committee, the study was conducted on 340 adolescent girls aged 12-19 years, belonging to an urban slum area of Delhi. This was a questionnaire based cross-sectional study conducted over a period of 9 months in a tertiary hospital. Confidentiality of the subjects was ensured.

Results: Out of 340 girls 69 % were between 16-19 years. Source of information about menstruation in majority of the cases was mother (60%). Only 48% girls knew menstruation before menarche and 24% girls knew uterus as the organ for menstruation. 71 % girls used sterile sanitary napkins as absorbent. Satisfactory changing of pads (>2pads/day) was done by 68 % and 77% girls cleaned the genitalia satisfactorily (>2 times/day). 41% girls were aware of the fact that unhygienic use of pad could be a source of genital infection and 8% girls had associated vaginal discharge. Social restrictions during menses in the form of religious activities, drop out from school, avoiding certain foods etc were practiced in many families.

Conclusion: Although the menstrual practices appear to be satisfactory in major percentage of girls but knowledge regarding menstrual hygiene is worrisome, as maximum girls are unaware of menarche and physiology of menstruation. Inclusion of such information in the school curriculum and wider coverage in mass media will help to bridge this gap.

Key words: Adolescence; hygiene; menstruation health.

Introduction

Early adolescence is a time of physical, intellectual, emotional, and social development for girls, with menarche being one of the important concerns. Menstruation is still a taboo subject which is not discussed openly and is associated with social restrictions and hence has been referred as a social stigma. All these lead to ineffective and unhygienic menstrual health of these young girls which predispose them to reproductive tract infections which can lead to various disabilities later on.^[1-3] Based on this background, we conducted a study to assess the knowledge, attitude, and practices of adolescent girls regarding menstruation and menstrual hygiene.

Materials and Methods

This was a questionnaire-based, cross-sectional study conducted on adolescent girls age 12–19 years attending the outpatient department of tertiary hospital in North Delhi. In all, 340 girls who had achieved menstruation were enrolled in the study over a period of 9 months after approval by the ethical committee. Questions related to knowledge, attitude, and practices including standard of cleaning evaluation,

Address for correspondence: Dr. Dinani B, Department of Obstetrics and Gynecology, BSA Medical College and Hospital, Rohini, Delhi, India.
E-mail: buntty.dinani@gmail.com

Access this article online	
Website: www.tjogonline.com	Quick Response Code 
DOI: 10.4103/TJOG.TJOG_93_18	

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

How to cite this article: Khatuja R, Mehta S, Dinani B, Chawla D, Mehta S. Menstrual health management: Knowledge and practices among adolescent girls. Trop J Obstet Gynaecol 2019;36:283-6.

source of information, social taboos, and restrictions with respect to menstruation were asked after taking informed verbal consent and the results were evaluated. Descriptive statistical analysis was used. Categorical variables were expressed as frequencies and percentages.

Results

All the girls were from low socioeconomic group of suburban community. Out of the total 340 girls, there were 69% ($n = 235$) between 16 and 19 years, 25% ($n = 84$) between 14 and 15 years, and only 6% ($n = 21$) between 12 and 13 years. About 24% ($n = 82$) girls had dropped out of school for personal/family reasons.

The source of information about menstruation in a majority of cases was mother (60%). Around 18% ($n = 62$) and 12% ($n = 42$) of girls were informed by relatives and media, respectively. The role of teachers ($n = 11$, 3%) was very minimal.

Only 163 (48%) girls knew about menstruation before menarche and 43% girls ($n = 146$) had the misconception regarding the organ involved in menstruation and they answered that it occurred through the urinary system. Only 81 (24%) girls knew that the organ responsible for menstruation was uterus and the remaining 113 (33%) of girls were unaware about the organ involved.

About 71% ($n = 242$) of girls used sterile sanitary napkins as absorbent, and the remaining used cloth pieces. Satisfactory changing of pads (>2 pads/day) was done by 68% ($n = 233$) girls, while 18 girls used the same pad throughout the cycle. The cycles of these girls may be short with scanty flow (1–2 days only), and hence they used only one pad/absorbent [Table 1].

About 77% ($n = 262$) of girls cleaned the genitalia satisfactorily (>2 times/day), 19% ($n = 63$) girls cleaned unsatisfactorily, while 15 girls did not clean their genitalia during menstruation [Table 1].

Only 41% ($n = 141$) of girls were aware of the fact that unhygienic use of pad could be a source of genital infection. About 8% ($n = 29$) girls had associated vaginal discharge. These girls complaint of dirty discharge on and off throughout the cycle. Some also had foul smelling discharge.

Restrictions in attending religious activities were seen in 65%, avoiding certain foods in 10%, school absenteeism in 6%, and 2% girls were not allowed to do household work during menses. Another 14% girls had multiple restrictions imposed on them during the menstruation [Table 2].

Table 1: Menstrual hygiene practices

Practice	Variables	No. of cases	Percentage
Absorbent used	Cloth pieces	98	28.8
	Sanitary pad	242	71.1
Method of disposal	Disposed off	312	91.7
	Reused	28	8.2
Changing of absorbent	Satisfactory (>2 /day)	233	68.5
	Unsatisfactory (<2 /day)	89	26.1
	Not done	18	5.3
Cleaning of external genitalia	Satisfactory (>2 times/day)	262	77.0
	Unsatisfactory (<2 times/day)	63	18.5
	Not done	15	4.4
	Not done		

Table 2: Restrictions practiced during menstruation

Restrictions	No. of cases	Percentage
Nonparticipation in religious occasions	220	64.7
Absenteeism from school	22	6.4
Avoidance of certain food	33	9.7
Not allowed to attend social occasion	10	2.94
Restriction on household work	7	2.05
Others (more than one restrictions)	48	14.1

Discussion

Menstruation is a phenomenon unique to adolescent girls and most of the girls are ignorant regarding the scientific basis of menstruation. This sometimes leads to adverse outcomes in form of pelvic inflammatory diseases, chronic pelvic pain, and infertility later in life. These budding women are totally unaware of these adversities in their adolescence. Menstrual practices in developing and undeveloped countries are still shadowed by social restrictions and various taboos putting them into a vulnerable group. We did not find any studies regarding the issue in developed countries after searching the database. In this study, the knowledge of young girls interviewed was lacking regarding not only the scientific basis of menstruation but also the adverse effects that poor menstrual hygiene practices can have on their health.

Most of the girls in the study were between 16 and 19 years with a majority educated till high school.

In most of them, the major source of information was mother which was similar to studies by Dhanage *et al.*, Ramachandra *et al.*, and Dasgupta and Sarkar.^[4-6] But on the contrary, a study conducted by El-Gilany *et al.*^[7] showed media to be the main source of information and the study by Tegegne and Sisay^[8] found sisters (43%) to be an important source of information. In a study by Balamurugan and Bendigeri,^[2] female teachers were the main source of information in rural area. The above comparison shows that mother is still the primary source of information in developing and underdeveloped countries.

The role of media and school teachers is dismal and should be strengthened.

The knowledge about the menstruation before menarche is important so that the young girl is mentally and physically prepared for this natural phenomenon. Here, we found only 48% of girls were aware about menstruation before menarche which is comparable to the study by Deo and Ghattargi,^[9] but Dasgupta *et al.* and Tegegne and Sisay found a much higher percentage of informed girls (68% and 86%, respectively).^[6,8] Only 24% of girls in our study knew that the uterus was the organ involved in menstruation. This highlights the lower level of knowledge and infrequent discussion regarding menstruation occurring in this group of girls.

Studies have found usage of pads among girls during menses to be between 11% and 82%,^[6,8,10] while our study found this to be about 71%. A similar study was conducted by the authors 3 years back wherein the rate of sanitary pads usage was 62%.^[11] This increase in use of pads can be due to the implementation of Government program of supplying free sanitary pads in all Government-aided schools.

Regarding personal hygiene-related practices, 68% of girls were changing the pad/cloth satisfactorily and 77% of girls were cleaning genitalia adequately which is similar to figures from other studies.^[4,10] But Thakre *et al.* found optimal menstrual hygiene in only 34% of girls. This may be because they had included both the urban and rural population.^[12]

Though only 48% of girls were aware about menstruation before menarche, 68% were maintaining good menstrual hygiene and 41% ($n = 141$) girls were aware of the fact that unhygienic use of pad could be a source of genital infection. Only 8% ($n = 29$) of girls had complaints of vaginal discharge, implying increased awareness of cleanliness in spite of lack of knowledge. This highlights that active participation of authorities has a positive impact on the health of individuals.

Many social restrictions in the form of avoiding religious activities (65%), avoidance of certain foods (10%), and household activities (2%) were seen in our study group.

Absenteeism from school was found to be 6% in our study group, but it was 10%, 16%, 48%, and 50% in the study by Cakir *et al.*, Dasgupta and Sarkar, Dessalegn *et al.*, and Tegegne and Sisay, respectively.^[6,8,13,14] The most important cause for school absenteeism as quoted by our study group was difficulty in changing pads while in school and there is no ambiguity regarding this, which is similar to studies by Dasgupta and Sarkar and Tegegne and Sisay^[6,8] But Dessalegn *et al.* and

Cakir *et al.* found dysmenorrhea as the main cause of young girls missing school.^[13,14]

There exists a big gap in the knowledge, attitudes, and menstrual practices in the young adolescent girls. By supporting and promoting community and school health programs, this gap can be bridged and also it helps in achieving a positive change in the behaviour and level of awareness among these girls.

The strengths of this study include stringent protocol used for patient intake, asking questions, and evaluating the responses. There are few limitations of this study as this is a single-center study, so the sample size and findings might not be representative of the experience in other hospitals and thus limits its generalizability.

Large population-based study is recommended for future as small sample size limits generalization of findings of this study, and further longitudinal studies are recommended to draw better conclusions.

Conclusion

As per this study, although the menstrual practices appear to be satisfactory in major percentage of girls, knowledge regarding menstrual hygiene is worrisome, as many girls are unaware of menarche and physiology of menstruation. Inclusion of such information in the school curriculum and wider coverage in mass media will help bridge this gap. Proper and comprehensive education regarding menstruation and healthy menstrual practices will go a long way in preventing morbidity later in life.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Van Eijk AM, Sivakami M, Thakkar MB, Bauman A, Laserson KF, Coates S *et al.* Menstrual hygiene management among adolescent girls in India: A systematic review and meta-analysis. *BMJ Open* 2016;6:e010290.
2. Balamurugan SS, Bendigeri ND. Community based study of reproductive tract infections among women of the reproductive age group in the urban health training centre area in Hubli, Karnataka. *Indian J Community Med* 2012;37:34-8.
3. Juyal R, Kandpal S, Semwal J. Menstrual hygiene and reproductive morbidity in adolescent girls in Dehradun, India. *Bangladesh J Med Sci* 2014;13:170-4.
4. Dhanage C, Wadde S, Bhise M, Mantri S. A study of assessment of knowledge and practices regarding menstruation among school

- going adolescent girls who had attained menarche. *Int J Prev Med* 2015;11:13-8.
5. Ramachandra K, Gilyaru S, Eregowda A, Yathiraja S. A study on knowledge and practices regarding menstrual hygiene among urban adolescent girls. *Int J Contemp Pediatrics* 2016;3:142-5.
 6. Dasgupta A, Sarkar M. Menstrual hygiene: How hygienic is the adolescent girl? *Indian J Community Med* 2008;33:78-80.
 7. El-Gilany AH, Badawi K, El-Fedawy S. Menstrual hygiene among adolescent schoolgirls in Mansoura, Egypt. *Reprod Health Matters* 2005;13:147-52.
 8. Tegegne TK, Sisay MM. Menstrual hygiene management and school absenteeism among female adolescent students in Northeast Ethiopia. *BMC Public Health* 2014;14:1118.
 9. Deo DS, Ghattargi CH. Perceptions and practices regarding menstruation: A comparative study in urban and rural adolescent girls. *Indian J Community Med* 2005;30:33-4.
 10. Yasmin S, Manna N, Mallik S, Ahmed A, Paria B. Menstrual hygiene among adolescent school students: An in depth cross-sectional study in Urban community of West Bengal, India. *IOSR-JDMS* 2013;5:22-6.
 11. Mehta S, Khatuja R, Nigam S, Gupta K, Goel N. Menstrual hygiene: A 'red alert' situation. *Eur J Obstet Gynecol Reprod Biol* 2013;170:577-8.
 12. Thakre SB, Thakre SS, Reddy M, Rathi N, Pathak K, Ughade S. Menstrual hygiene knowledge and practice among adolescent school girls of Saoner, Nagpur District. *J Clin Diagn Res* 2011;5:1027-33.
 13. Dessalegn TZ, Berihun M, Abay M. Age at menarche and the menstrual pattern of secondary school adolescents in northeast Ethiopia. *BMC Women's Health* 2009;9:29.
 14. Cakir M, Mungan I, Karakas T, Giriskan I, Okten A. Menstrual pattern and common menstrual disorders among university students in Turkey. *Pediatr Int* 2007;49:938-42.