# **Original Research Article**

DOI: https://dx.doi.org/10.18203/2394-6040.ijcmph20220704

# Assessment of knowledge and practice regarding menstrual hygiene among adolescent girls in government school of Kanpur Nagar: a descriptive cross-sectional study

Sapna Singh, Preeti Tyagi, Deepak Anand, Rashmi Gupta\*

Department of Obstetrics and Gynaecology, GSVM Medical College, Kanpur, Uttar Pradesh, India

Received: 06 January 2021 Accepted: 13 February 2022

\*Correspondence: Dr. Rashmi Gupta,

E-mail: drrashmigupta14@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**: Adolescent population makes one fifth of world population and in India 21% of the population falls in this group. Social prohibitions and traditional beliefs prevalent in our society lead to inadequate hygiene practices. **Methods**: Study was done in 304 adolescent girls in a government girls school of Kanpur Nagar by pretested printed questioners in a awareness program on menstrual hygiene. It was a descriptive cross sectional study among 304 school going adolescent girls of 13-19 year age.

**Results:** The mean age of menarche was 13.23 years while mean age of study participants was 15.69 years. Nearly 96.68% used sanitary pads during menses whereas 3.31% use house hold materials. The most common symptom during menstruation was dysmenorrhoea which was recorded in 22.85% study participants. In 79.47% cases first informant was mother about menstruation knowledge while 79.47% girl did not report any social discrimination during menstruation.

Conclusions: In this study menstrual hygiene practices among adolescent girls in a government girls school of UP was satisfactory probably because of various government scheme like menstrual hygiene management (MHM), provision of clean water and sanitation facility and distribution of free sanitary pads at monthly interval to all menstruating adolescent girls. Mother was the first informant on menstruation in most cases. Here school teacher can play a pivotal role in educating all adolescent girls and their mother about menstrual hygiene practices

**Keywords:** Adolescent girls, Menstrual health and hygiene, Sanitary pad

# INTRODUCTION

Adolescent is the age in between 10 to 19 years of life.<sup>1</sup> Adolescence has been recognized as a special period in their life cycle that requires special attention. This period marked as menarche and it is the phenomenon unique to all females.<sup>2</sup> Menstruation is a normal physiological process but lack of Menstrual Hygiene is a problem for adolescent girls, in low and middle income countries particularly in the schools where poor water sanitation and hygiene (WASH) facilities is often inadequate. Lack of puberty education and inadequate menstrual hygiene Management (MHM) items (sanitary pads) and their

proper disposal causes girls to experience menstruation as shameful and uncomfortable experience. Qualitative studies reports that girls feel fear and humiliation from leaking of blood and body odor and lead them to absent themselves from school. Cultural taboos add to girls' difficulties in preventing them from seeking help and impose restrictions in their diet and activities during menses. Objective of this study was to find out the prevalence of adequate menstrual hygiene practices among school going adolescent girls and to find out common problems faced by them.

## **METHODS**

The present study was conducted in a Government Girls Inter college of Kanpur Nagar. This study was descriptive cross sectional study among school going adolescent girls who were willing to participate in this study. Girls were of age group 13-19 years. Prior to collecting data a pilot study was conducted to test the questioner and appropriate modification was done in the questioners. Final modified questionnaire was used to conduct the study. Total Of 304 students participated in the study. Information on menarche awareness, type of absorbent used, disposal of absorbent after use ,hygiene practices, school absentees during periods, psychological upsets and pain management was collected through questioner. Study was done with the association of School administration. In the study participant information were kept confidential. After conducting the study students were educated about hygiene practices and cleared their doubts and misbelieve about the menstrual practices.

# Data analysis

Data of the study was collected using Microsoft office excel and the data was analyzed using statistical package for the social software (SPSS). Results were described in percentage and are displayed in appropriate tables.

#### **RESULTS**

There were total of 304 participants in this study. Among these 302 were having menses. The mean age of menarche was found to be 13.23 years (range: 13-19 year) while mean age of participants was 15.69 years. Among 304 girls, 272 were Hindu while 32 were Muslim by religion (Table 1).

Table 1: Age/class/religion distribution of study participants.

Variables	Menstruation	No menstruation
Age (years)		
13-16	127	0
17-19	175	2
Class		
8-10	127	0
11-12	175	5
Religion		
Hindu	270	2
Muslim	32	0
Others	0	0

Mean age of participants was 15.69 years, mean age of menarche was found to be 13.23 years.

Nearly 96.68% (292 of 302 girls) used sanitary pads during menses where as 3.31% (10 of 302 girls) use house hold materials (i.e. cloths etc) (Table 2). Out of 302 girls about 70.19% (202 girls) changed their menstrual pad less than two times in a day, while only 3.97% (12

girls) changed their pads more than 4 times a day. 25.83% (78 girls) changed their pads 2-4 times a day, indicating that most of the girls were well versed with the knowledge of sanitation and genitalia hygiene, so as to prevent infection (Table 3).

Table 2: Use of menstrual material.

Variables	N (%)
Sanitary pad	292 (96.69)
House hold cloth	10 (3.31)

Table 3: Frequency of changing menstrual material per day.

Variables	N (%)
<2 times	212 (70.19)
2-4 times	78 (25.83)
≥4 times	12 (3.97)

**Table 4: Disposal of menstruation material.** 

Variables	N (%)
Throw in open	0 (0)
Flush in toilet	0 (0)
Wrap it in plastic or	
paper and throw in	300 (99.34)
dustbin	
Do all of the above	2 (0.66)

Table 5: Hand hygiene and perineal hygiene after changing menstrual material.

Hygiene	Hand N (%)	Perineal area N (%)
Don't wash	0 (0)	7(2.31)
Wash with water only	5 (1.66)	64 (21.19)
Wash with and soap and water	297 (98.34)	231 (76.49)

Regarding disposal of menstrual pads none of among 302 girls had regular practice of throwing their pads in open/flushed in toilet while almost all 99.34% (300) of them through sanitary pads in dustbin after wrapping in plastic or paper, while sometimes only 0.66% (2 girls) dispose of in open . Etiquettes of menstrual hygiene and awareness were present among the girls as depicted in (Table 4). 98.34% (297 girls) washed their hands with soap and water, while only 1.66% (5 girls) washed their hands with water only. 2.31% (7 girls) did not wash their perineum after changing pads, while most of them 76.49% (231 girls) washed their perineum with water. While only 21.19% (64 girls) washed with soap and water during changing their pads (Table 5).

On the basis of convenient places for changing of menstrual pads it was found that most of the girls 97.68% (295 girls) were convenient at home for changing their

pads while 79.80% (241 girls) were convenient at school also, showing that the toilet facility was adequate. About 73.50% (222 girls) were convenient both school or at home (Table 6). The most common symptom during menstrual period encountered were dysmenorrhoea i.e. 22.85% (69 girls) followed by irregular periods in 12.91% (39 girls), mood swings in 10.93% (33 girls), itching in genitalia in 7.95% (24 girls) and lastly nausea in 1.99% (6 girls) (Table 7).

Table 6: Convenient place for changing of menstrual pad.

Variables	N (%)
Convenient place at home	295 (97.68)
Convenient place at school	241 (79.80)
Convenient at both places	222 (73.50)

Table 7: Complications during menstruation period.

Variables	N (%)
Pain	69 (22.85)
Irregular periods	39 (12.91)
Itching and irritation in genitalia	24 (7.95)
Nausea	6 (1.99)
Mood swings	33 (10.93)

Table 8: Social discrimination during menstruation (n=62).

Variables	N (%)
Don't face any discrimination	240 (79.47)
Face discrimination	
Not allowed to enter kitchen	8 (2.65)
Not allowed to attend school	0 (0.00)
Have to take unnecessary bath	58 (19.21)
Diet restrictions	11 (3.64)
Not allowed to go to worship place	62 (20.51)

Table 9: Source of information regarding menstruation.

Source of information	N (%)
From mother	240 (79.47)
From friends	20 (6.62)
From relative	15 (4.97)
Media	17 (5.63)
School	10 (3.31)

In our study most of the girls 79.47% (240 girls) did not face any social discrimination showing, 2.65% (8 girls) were not allowed to enter kitchen, all of the girls are allowed to attend school, 19.21% (58 girls) have to take unnecessary bath, 3.64% (11 girls) reported diet restriction and 20.51% (62 girls) were not allowed to go

to worship place (Table 8). It was found that knowledge regarding menstrual cycle, symptoms and signs, awareness of maintaining menstrual hygiene, cleanliness of genitalia and disposal of menstrual material were gathered mostly from mother 79.47% (240 girls), from friends 6.62% (20 girls), from relative 4.97% (15 girls) from media 5.63% (17 girls) and from teachers 3.31% (10 girls) (Table 9).

## **DISCUSSION**

In the present study there were total 304 participants of the age group 13 to 19 years. Among these 304 participants 302 were having menses and two have not attained menarche. The mean age of menarche was 13.25 years and mean age of participants was 15.69 years ( range- 13 to 19 years). This finding was consistent with other studies Khanna et al, Subhash et al, El Gilany et al and Narayana et al.3-9 In our study 96.68% (292 out of 302) used sanitary pads and only 3.31% (10 girls out of 302) used house hold absorbent material such as old used and washed cloth pad which was consistent with the finding of Yerpude et al and Sarkar et al.<sup>7,8</sup> This is because higher awareness of school going adolescent girls due to various government program like menstrual hygiene management (MHM) and distribution of free sanitary pads in such school by various government and private organization. In our study, most common symptom was dysmenorrhoea affecting approximately 22.85% girls which is similar to study done by Patil et al in Maharashtra. RTI in the form of itching and irritation was reported in 7.95% participants inspite of using sanitary pads, it may be because of infrequent pad changing or poor hygiene practices. Khanna et al reported similar results in their study.<sup>3</sup>

In this study 79.47% participants got their first information on menstruation at or before menarche from their mother which is consistent with the finding of Subhash et al where mother were first informant. Singh et al found in 64.9% girls, mother was first source of information similar to present study. <sup>10</sup> Close relation and better communication between mother and daughter may be the reason for similar outcome in different studies. Menarche is a crucial period in every adolescent girl life and ideally mother should be the first informant. Therefore there is a strong need for the family life education for the parents also to strengthen the menstrual hygiene practices among adolescent girls.

# **CONCLUSION**

It was found through current study that information about menarche and menstrual hygiene practices among adolescent girls in a government girls school of UP was satisfactory because of various government scheme like menstrual hygiene management (MHM), provision of clean water and sanitation facility and distribution of free sanitary pads at monthly interval to all menstruating adolescent girls. Mother was the first informant on

menstruation at or before menarche in most of the cases so mothers of school going adolescent girl can be specially educated about menstrual hygiene practices by school teachers, ASHA or any local health care worker. Here school teacher can play a pivotal role in educating all adolescent girls and their mother about menstrual hygiene practices so their training about MHM should also be conducted at regular interval.

Funding: No funding sources Conflict of interest: None declared

Ethical approval: The study was approved by the

Institutional Ethics Committee

## REFERENCES

- 1. Programming for adolescent health and development. Available at: https://apps.who.int/iris/handle/ 10665/42149. Accessed on 20 October 2021.
- 2. Drkshayani DK, Venkata RP. A study on menstrual hygiene among rural adolescent girls.Ind J Med Sci. 1994;48(6):139-43
- 3. Khanna A, Goyal RS, Bhawsar R. Menstrual practices and reproductive problems: A study of adolescent girls in Rajasthan. J Health Manage. 2005;7:91-7
- 4. Thakre SB, Sushama S Thakre, Reddy M, Rathi N, Pathak K, et al. Menstrual hygiene: Knowledge and practice among adolescent school girls of Saoner, Nagpur District. J Clin Diagn Res. 2011;5:1027-33.

- 5. El-Gilany AH, Badwi K, El-fedawy S. Menstrual hygiene among adolescent school girls in Mansoura Egypt. Reprod Health Matters 2005;13:147-52.
- 6. Jogdand K, Yerpude P. A community based study on menstrual hygiene among adolescent girls. Indian J Matern Child Health. 2011;13:1-6.
- 7. Bobhate PS, Shrivastava SR. A cross sectional study of knowledge and practices about reproductive health among female adolescent in an urban slum of Mumbai. J Fam Reprod Health. 2011;5:117-24
- 8. Dasgupta A, Sarkar M. Menstrual hygiene: How hygienic is the adolescent girl? Indian J Community Med. 2008;33:77-80.
- 9. Narayana KA, Srinivasa DK, Ppetlo PJ. Puberty rituals, reproductive knowledge and health of adolescent school girls in south India. Asia Pacific Pop J. 2001;16(2):225-38.
- 10. Singh SP, Singh M, Arora M, Sen P. Knowledge assessment regarding puberty and menstruation among school adolescent girls of district Varanasi. Indian J Prevent Social Med. 2006;37(1,2):9-14.

Cite this article as: Singh S, Tyagi P, Anand D, Gupta R. Assessment of knowledge and practice regarding menstrual hygiene among adolescent girls in government school of Kanpur Nagar: a descriptive cross-sectional study. Int J Community Med Public Health 2022:9:1412-5.