

# Knowledge, practice and attitude of menstrual hygiene among school going adolescent girls: An interventional study in an urban school of Bagalkot city

Jyothi B., Kirthi Hurakadli

Department of OBG, S. N. Medical College, Bagalkot, Karnataka, India

## Abstract

**Background:** Menstrual hygiene depends upon the educational, socioeconomic, and cultural statuses of family. School curriculum has a role to be played in menstrual health. Poor water, sanitation and hygiene (WASH) facilities in schools, inadequate puberty education and lack of hygienic absorbents cause girls to experience menstruation as shameful and uncomfortable.

**Methods:** This was an interventional study conducted among menarche attained adolescent girls regarding menstrual hygiene. A pre test was conducted with pre-designed structured questionnaire for collection of data regarding menstrual hygiene. This was followed by a session of educating girls about menstruation and menstrual hygiene. A post test was conducted after one month to see the outcome. Data was collected and was analysed using Chi-square test for proportions and student 't' test for the quantitative data.

**Results:** The study produced significant positive changes in attitude, knowledge and beliefs in menstrual hygiene practices and restriction on menstruating adolescent girls.

**Conclusion:** A well- informed continuous school education programme should and better communication between students and their teachers and between daughters and mothers, would help improve the menstrual hygiene in adolescent girls.

**Keywords:** Adolescent girls; menstruation; hygiene; education

## Introduction

The World Health Organization (WHO) has defined adolescence as the age group of 10-19 years. Adolescence in India has been defined to be a period between 10-18 years<sup>[1]</sup>. Adolescence is a period of transition from childhood to adulthood. They are the formative years when maximum amount of physical, psychological and behavioural changes take place. Adolescent girls constitute about one fifth of the female population in the world<sup>[2]</sup>.

Menstruation is a phenomenon unique to the females. The onset of menstruation is one of the most important changes occurring among the girls during the adolescent years. The first menstruation (menarche) occurs between 11 and 15 years with a mean of 13 years<sup>[3]</sup>. Menstruation is a normal physiological process indicating beginning of reproductive life but

sometimes it is considered as unclean phenomenon in the Indian society<sup>[4]</sup>.

Menstruation, the periodic vaginal bleeding that occurs with the shedding of the uterine mucosa is one of the signs of puberty, and occurs one or two years following appearance of secondary sexual characteristics. Once established, every mature female menstruates on the average 3-5 days (minimum 2 days, maximum 7 days) each month until menopause. Periods can be light, moderate or heavy and the length of the period also varies<sup>[5]</sup>. If poorly managed, menstrual period may be accompanied by discomfort, reproductive tract infection, smelling and embarrassment among others. Learning about hygiene during menstruation is a vital aspect of health education for adolescent girls<sup>[5]</sup>. Menstrual hygiene depends upon the educational, socioeconomic, and cultural statuses of family. School

## Address for Correspondence:

**Dr. Jyothi Basappa**

Department of OBG, S. N. Medical College, Bagalkot, Karnataka

E-mail: drjyothibasappa1984@gmail.com

curriculum also have some role in menstrual health<sup>[4]</sup>.

Menstrual hygiene management (MHM) is a problem for adolescent girls in low and middle income countries (LMICs), particularly when attending school. Poor water, sanitation and hygiene (WASH) facilities in schools, inadequate puberty education and lack of hygienic MHM items (absorbents) cause girls to experience menstruation as shameful and uncomfortable. Qualitative studies report girls' fear and humiliation from leaking of blood and body odour, and lead menstruating girls to absent themselves from school<sup>[6]</sup>.

The mothers also lack sufficient knowledge and the skill to communicate to their daughters regarding menstruation and its hygiene. Faulty perceptions or misconceptions on menstruation and menstrual cycle will lead to faulty menstrual practices<sup>[7]</sup>.

Good hygienic practices, such as use of sanitary pads and adequate washing of the genital areas, are essential during menstruation period. Women and girls of reproductive age need access to clean and soft absorbent sanitary products which in the long run protect their health from various infections. To this effect, the practice of good menstrual hygiene reduces the incidence of reproductive tract infection (RTI). Thus, the consequences of RTIs are severe and may result in significant negative impact to a woman's health including chronic pelvic pain, dysmenorrhoea (painful periods) and in severe cases infertility.<sup>[8]</sup>

Poor menstrual hygiene is a risk factor for reproductive tract infection and cervical neoplasia<sup>[2]</sup>.

A large variety of morbidities such as nutritional deficiency disorders (stunting, wasting), menstrual disorders, etc. prevail among adolescents. RTIs/STIs/HIV/AIDS have already appeared as serious problems which can further complicate existing problems like teenage pregnancies, unsafe abortions. Repeated use of unclean napkins or reuse of improperly dried cloth napkins results in harbouring of micro-organisms causing vaginal infections<sup>[1]</sup>.

Women having better knowledge regarding menstrual hygiene and safe practices are less vulnerable to RTI and its consequences<sup>[5]</sup>. Therefore, increased knowledge about menstruation right from childhood may escalate safe practices and may help in mitigating the suffering of millions of women<sup>[3]</sup>.

## Materials and Methods

This was an interventional study conducted among 200 menarche attained adolescent girls regarding menstrual hygiene.

All schools in Bagalkot city were listed. The school for survey was selected randomly. This study included all the adolescent girls belong to 13 to 19 yrs age. Girls who did not attain menarche were excluded from the study. All eligible girls were included in the study in the randomly selected schools till the required sample size was met. After obtaining permission from DDPI, the school was visited as pre planned schedule for getting information. A verbal consent was obtained. A pre test conducted with pre-designed structured questionnaire for collection of data about menstrual hygiene. This was followed by a session of educating girls about menstruation and menstrual hygiene. Post test was conducted after one month to see the outcome. A special proforma was prepared to collect information regarding socioeconomic status, age, risk factors, urban or rural, educational status, etc. Data was collected and tabulated in the Microsoft excel and analyzed statistically by SPSS version. Mean and standard deviation was used to represent quantitative data and proportions of qualitative data. Chi-square test for proportions and student 't'test was applied for the quantitative data. McNemers test was applied for the binomial data.  $p < 0.05$  was considered as statistically significant.

## RESULTS

A total of 200 eligible students were interviewed. Most of the girls in the study were in the age group 13-14 years (63% of study).

33.5% of fathers and 53.5% mothers were literate. Of the 200 participants 18% were defined as being poor, 68% as being middle class, 14% as being upper class. 44.5% of students were from nuclear family, 52% from joint family and 3.5% belong to 3rd generation. All of them were unmarried.

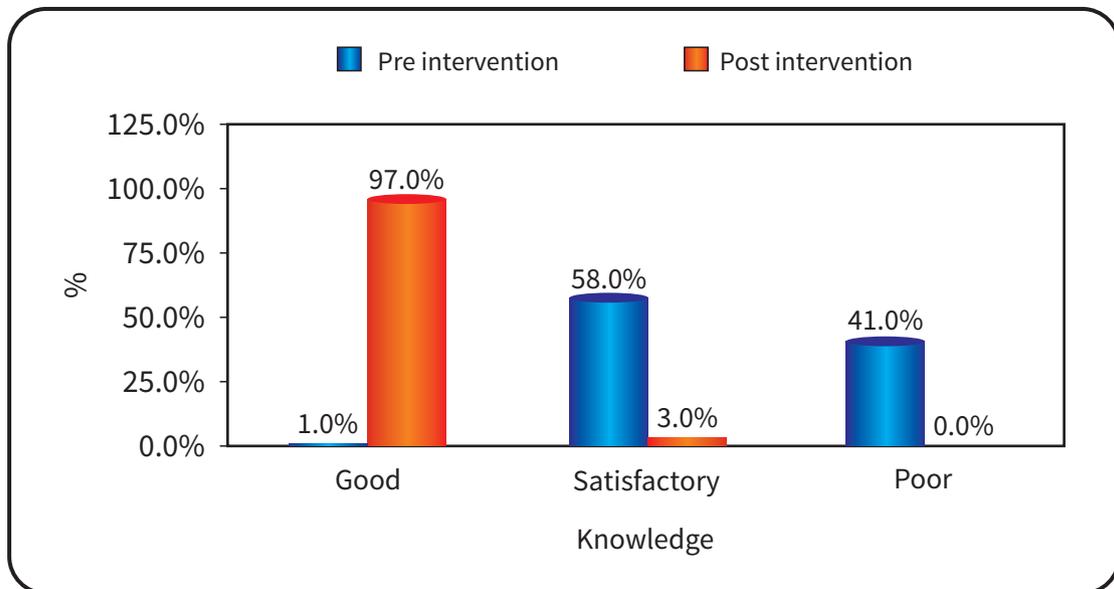
The results of the study are depicted in Tables 1, 2 and Figures 1, 2.

**Table 1. Influence of intervention on knowledge about menstrual hygiene**

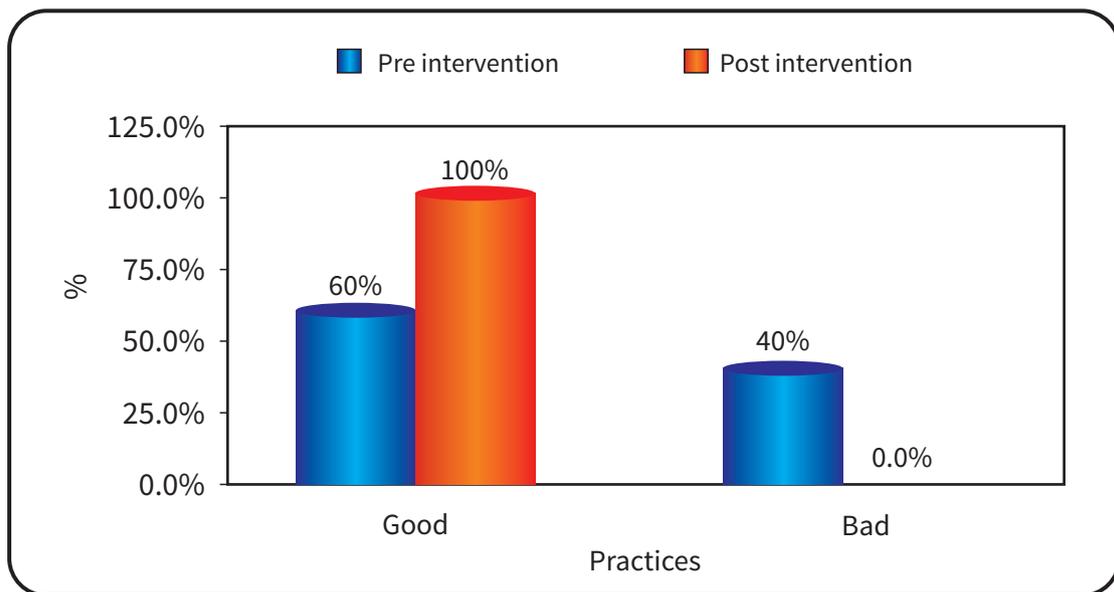
Questions	Pre intervention N(%)	Post Intervention N(%)
Have you heard about menstruation (yes)	142 (71%)	188 (94%)
Is it a normal phenomenon (yes)	84(42%)	185(92.5%)
From which organ does the menstrual blood come (uterus)	74(37%)	194(97%)
Is there influence of hot and cold food on menses (No)	31(15.5%)	169(84.5%)
Do you think menstrual blood is impure? (NO)	41(20.5%)	191(91.5%)
Does excessive bleeding leads to anemia?(yes)	77(38.5%)	197(98.5%)
One should not know about menstruation before menarche? (No)	36(18%)	179(89.5%)
Does a women have menses during pregnancy? (No)	93(46.5%)	191(96.5%)
Where does the menstrual blood come from? (vagina)	37(18.5%)	192(96%)
A girl should take more nutritious diet during menstruation? (yes)	134(67%)	188(94%)
Menstruation is a curse of God on girls? (No)	11(5.5%)	176(88%)

**Table 2. Influence of intervention on practice about menstrual hygiene**

Questions	Pre intervention N(%)	Post intervention N(%)
Do you visit holy place during menstruation? (yes)	11(5.5%)	177(88.5%)
Do you do kitchen work during menses? (yes)	104(52%)	197(98.5%)
Do you bath daily during menses? (yes)	194(97%)	200(100%)
Do you wash your genitalia more often during menstruation? (yes)	125(62.5%)	194(97%)
Which of these you use during menses?( sanitary pads)	158(79%)	196(97.5%)
How often do you change sanitary pads during menses. (2-3 times)	96(48%)	140(70%)
Do you practice isolation during menses? (No)	79(39.5%)	173(86.5%)
Do you prefer wrapping the pad with while disposing? (yes)	97(48.5%)	185(92.5%)
Where do you dispose off the sanitary pads?(Separate dustbin)	128(64%)	191(95.5%)
What type of cloth do you use during menstruation (cotton)	58(29%)	101(50.5%)
How do you wash your cloth during menstruation? (with soap and water)	110(55%)	200(100%)
Where do you dry the cloth? (sundry)	191(95.5%)	197(98.5%)
How do you dispose the used cloth ? (put in separate dustbin)	35(17.5%)	83(41.5%)



**Figure 1. Knowledge about menstrual hygiene in adolescent girls**



**Figure 2. Practices about menstrual hygiene in adolescent girls**

**Discussion**

Over the transition from childhood to adulthood occurs during adolescence period which is characterized by major biological changes like physical growth sexual maturation and psycho-social development. During this phase of growth the girls first experience menstruation and related problems which is marked by feelings of anxiety and eagerness to know about this natural phenomenon. However, they do not get the appropriate knowledge due to lack of a proper health education.<sup>[1]</sup>

Though menstruation is a normal physiological

process for all healthy women, it has been surrounded by secrecy and myths in many societies.<sup>[2]</sup>

The routine health services do not have provisions for adequate care of adolescent health problems. understanding the health problems related to menstruation and the health seeking behaviour of the adolescent girls, their awareness about pregnancy and reproductive health will help us in planning programmes for this vulnerable group.<sup>[1]</sup>

This study has tried to assess the knowledge attitude and practices regarding menstrual hygiene among school girls.<sup>[1]</sup>

The present study showed a majority of girls interviewed belonged to the age group of 13-14 years (63%). Even though 71% had just heard of menstruation, their knowledge regarding menstruation was poor when compared to 99.6% of the girls heard about menstruation in study done by shanbhag. This can be explained by the fact that reproductive health is a taboo subject and this topic is never discussed openly in the class or even talked about among the peer group.

Most of girls think that it is a curse of god or sin or a disease. This is due to lack in knowledge and gap in further scope for improvement in the adolescent reproductive health coverage.

In present study only 37% girls knew that menstruation is due to cyclical uterine bleeding.

In the present study 62% of the study population clean their private parts compared to 56.8% shanbhag study and found satisfactory.

In this study it was seen that 79% used sanitary pad when compared to shanbhag study where it was only 44.1%. The use of sanitary pad was higher which was probably due to the fact that the availability was high and also due to influence of television which has increased their awareness regarding the availability and use of sanitary pads.

More than 94.5% were restricted from taking part in religious activities and visiting holy places.

Family life education has been recognised as an important component of school health programme. We can improve the knowledge by introducing topics on normal physiological aspects of menstruation and pregnancy for the adolescent girls in health education sessions conducted by health professionals.<sup>[1]</sup>

## Conclusion

The study produced significant positive changes in attitude, knowledge and beliefs in menstrual hygiene practices and restriction on menstruating adolescent girls.

Intense and longer interventions are needed to improve the menstrual hygiene practices.

Well informed continuous school education programme should be delivered to students.

There should be better communications between students and their teachers and between daughters and mother.

## References

1. Shanbhag D, Shilpa R, D'Souza N, Josephine P, Singh J, Goud BR. Perceptions regarding menstruation and practices during menstrual cycles among high school going adolescent girls in resource limited settings around Bangalore city, Karnataka, India. *International Journal of Collaborative Research on Internal Medicine & Public Health*. 2012 Jul 1;4(7):1353.
2. Barathalakshmi J, Govindarajan PK, Ethirajan N, Felix AW. Knowledge and practice of menstrual hygiene among school going adolescent girls. *National Journal of Research in community medicine*. 2014;3(2):138-42.
3. Yasmin S, Manna N, Mallik S, Ahmed A, Paria B. Menstrual hygiene among adolescent school students: An in-depth cross-sectional study in an urban community of West Bengal, India. *IOSR J Dent Med Sci*. 2013 Mar;5(6):22-6.
4. Paria B, Bhattacharyya A, Das S. A comparative study on menstrual hygiene among urban and rural adolescent girls of west Bengal. *Journal of family medicine and primary care* 2014 Oct;3(4):413.
5. UML, Yusuf MW, Musa AB. Menstruation and menstrual hygiene amongst adolescent school girls in Kano, Northwestern Nigeria. *African journal of reproductive health*. 2010;14(3):201-7.
6. Van Eijk AM, Sivakami M, Thakkar MB, Bauman A, Laserson KF, Coates S, Phillips-Howard PA. Menstrual hygiene management among adolescent girls in India: a systematic review and meta-analysis. *BMJ open* 2016 Mar 1;6(3):e010290.
7. Zaidi SH, Sivakami A, Ramasamy DJ. Menstrual hygiene and sanitation practices among adolescent school going girls: a study from a South Indian town. *International Journal of Community Medicine And Public Health* 2017 Feb 4;2(2):189-94.
8. Upashe SP, Tekelab T, Mekonnen J. Assessment of knowledge and practice of menstrual hygiene among high school girls in Western Ethiopia. *BMC women's health*. 2015 Dec;15(1):84.

Date received: July 2<sup>nd</sup> 2019

Date accepted: July 27<sup>th</sup> 2019

**Conflict of interest: Nil**

**Source of funding: Nil**