



Menstruation: Is a Normal Phenomenon Perceived Normally in Early Adolescents: A Cross Sectional Study

Poonam Vijay Sancheti¹, Rupeshkumar Dattatray Shinde²

Financial Support: None declared

Conflict of Interest: None declared

Copy Right: The Journal retains the copyrights of this article. However, reproduction is permissible with due acknowledgement of the source.

How to cite this article:

Sancheti PV, Shinde RD. Menstruation: Is a Normal Phenomenon Perceived Normally In Early Adolescents: A Cross Sectional Study. Natl J Community Med 2020;11(7):286-290

Author's Affiliation:

¹LMO cum Assistant professor Dept of community medicine Dr. V. M govt medical college, Solapur Solapur; ²Assistant professor Dept of community medicine GMC Miraj Miraj, Sangli

Correspondence

Dr. Shinde Rupeshkumar Dattatray
rups1shinde@gmail.com

Date of Submission: 02-07-2020

Date of Acceptance: 22-07-2020

Date of Publication: 31-07-2020

ABSTRACT

Introduction: Most Indian women believe that menstruation contaminates the body and makes it unholy. With this background, present study was proposed.

Objectives: 1. To assess the effects of menstruation on routine activities in early adolescent girl students.

2. To describe the perceptions regarding menstruation in early adolescent girl students.

Methods: Present study was a cross sectional study carried out in slum and non-slum schools of a Sholapur city. Total study duration was 6. Total 172 school going adolescent girls were taken from slum and non-slum school each. Information regarding awareness, perceptions during menstruation was taken.

Results: Average correct score for perceptions regarding menstruation was 5.26 out of 8. 81.96% students used sanitary pads during their menstrual periods followed by 28 students used cotton cloth. 127 students missed playing sport activities while 123 missed normal daily activities. 35 students felt that they were a failure, during menstrual periods.

Conclusions: There are lacunae in knowledge and perception of girls regarding menstruation. The results reinforce need to encourage safe practices among the adolescent girls and bring them out of misconceptions, myths regarding menstruation. Menstruation affects self-esteem of girls.

Keywords: Awareness, Perception, menstruation

INTRODUCTION

The World Health Organization defines 'Adolescence' as the age group of 10-19 years.¹ Menstruation is a normal physiological process among 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. Most of the adolescent girls in India have little knowledge about menstruation. Large numbers of rural and urban populations believe that menstruation contaminates the body and makes it unholy. As a consequence, the girl often sees herself as impure, un-

clean and dirty. The lack of information can be attributed to a veil of secrecy that surrounds menarche.² Although menstruation is a natural process, it is linked with several misconceptions and practices, which sometimes result into adverse health outcomes. The manner in which a girl learns about menstruation and its associated changes may have an impact on her response to the event of menarche. The psychological trauma inflicted, at the first menstrual period without preparation may have long-lasting psychic repercussions. If adolescents are properly prepared, they accept menstruation as a normal physiological activity. Although menstruation is a natural process, it is linked with

several misconceptions and practices, which sometimes result into adverse health outcomes.³

Menstrual education is a vital aspect of adolescent health education. Culture, awareness, and socio-economic status often exert profound influence on menstrual practices. However, health education programs for young women in developing countries do not often address menstrual hygiene, practices, and disorders. Developing culturally sensitive menstrual health education and hygiene programs for adolescent females are recommended by professional health organizations like the World Health Organization and UNICEF.

Several issues impact the health and well-being of women as they go through their reproductive age group. The most under recognized of these are water, sanitation and hygiene, yet the benefits of these basic interventions are extensive and self-perpetuating, impacting women and their daughters from generation to generation.⁴

With this background, present study is proposed to find the perceptions of adolescent school girls regarding menstruation and to assess the effects of menstruation on routine activities in early adolescent girl students.

MATERIAL AND METHODS

Present study is a cross sectional school based study carried out in slum and non-slum schools of a city. Total study duration is 4 months from January 2018 to April 2018. Considering city population, 1000000, confidence interval as 0.95%, prevalence of knowledge regarding menstruation in adolescents to be 48%⁵ and allowable absolute precision of 0.08 and design effect as 2, minimum sample size calculated is 298. Here total sample studied is 344 students. Out of total participants, 172 participants were taken from slum and non slum school each. The study participants were girl students of the school learning in 7th and 8th standard. According to the admission register of each school, two schools were selected from slum area by chit method and all girl students in the 7th and 8th standard were included in the study. Study was also conducted in two schools randomly selected from non slum area of same city. 172 participants

of this school were studied as representative of adolescents' non slum area. Permission was taken from the school authority and due clearance was taken from the institutional ethics committee. According to the objectives a pre-designed and pre-tested questionnaire with both close- and open-ended questions was administered to the students. Students were informed that the participation is voluntary. Questionnaire to assess Girls' Menstrual Hygiene Practices in East Africa is a validated questionnaire available from internet⁶ was converted in local language and studied in 30 students as a pilot study to validate it in Indian population. Identity of participant was not revealed. Information regarding various aspects of menstruation like awareness about it prior to attainment of menarche and perceptions about the social taboos and restrictions associated with it was collected by questionnaire method. There were total 8 questions to check knowledge of students regarding menstruation, maximum score that could be achieved is 8 while minimum score was 0. 1 mark was given to every correct answer. Pain perceived by students during menstruation was assessed by a likert scale where no pain was labelled as 0 and maximum pain was to be marked as 10. Participant was supposed to mark a number between 0 to 10 as per pain perceived by them during menstruation. Information regarding self esteem level perceived during menstruation was also taken.

Health education regarding on hygienic practices during menstruation was given to the students after the study.

RESULTS

In the present study, 344 girls from both private and public schools were assessed to know menstrual hygiene related practices. They were belonging to age group 10-16 years. **The questions about basic needs of the family** revealed that, in last one year 230(66.86%) girls gone once or twice without food, 187(54.36%) girls once or twice gone without clean water, 216(62.79%) girls went without medicine once or twice. Thirteen (2.61%) girls told that their families always get unclean water for use. Four (1.16%) girls always faced lack of money for medical expenses. (Table 1)

Table 1: Girl students according to fulfilment of their basic needs during last year (n=344)

Frequency	Without food (%)	Without clean water (%)	Without medicine (%)	Without school expenses (%)
Never	87(25.29)	85(22.67)	91(26.45)	85(24.70)
Once/Twice	230(66.86)	192(54.36)	216(62.79)	245(71.20)
Several times	20(5.81)	14(2.61)	31(9.01)	7(2.03)
Many times	6(1.74)	40(10.17)	2(0.58)	6(1.74)
Always	1(0.29)	13(2.61)	4(1.16)	1(0.29)

Table 2: Distribution of girl students according to age of onset of menarche

Age (in completed years)	Started periods (n=192) (%)	Not started periods (n=152)(%)	Total (n=344) (%)
10	-	3(0.87)	3 (0.87)
11	4(1.16)	16(4.65)	20 (5.81)
12	61(17.7)	68(19.77)	129 (37.8)
13	88(25.58)	44(12.79)	132 (38.37)
14	17(4.94)	15(4.36)	32 (9.30)
15	16(4.65)	6(1.74)	22 (6.39)
16	6(1.74)	-	6 (1.74)

Out of total 344 students, 96 (27.90%) students thought that menstruation is a disease. 104 (30.23%) students thought that pregnant women menstruate. 103 (29.94%) students believed that menstrual blood comes from the stomach where the food is digested. 132 (38.37%) students believed that menstrual blood contains dangerous substances. 56 (16.28%) students believed that pain during menstruation means that person is sick. 208 (60.46%) students believed that, it is harmful for a woman's body if she runs or dances during her period. 238 (69.18%) girls were aware that women stop menstruating as they grow old. Menstrual blood comes from the uterus was known to 209 (60.76%) students. Average correct score for knowledge regarding menstruation was 5.26 out of maximum 8. Average age of initiation of menstruation is 12.75 years and standard deviation is 1.06 years. (Table 2)

Based on the **pain** perceived by girls from 0 to 10, average pain during menstruation, as perceived by girls was 0.96. **Average days of menstruation** per month in girls were 2.71 with maximum 7 days and minimum 1day. Most of the girls, 206 (59.88%) were aware about reusable pads. 65 (18.89%) of the girls had not heard about any one of the sanitary method practiced during menses.

Response to the questions regarding practices of sanitary products used during menses in the students revealed that, 159 (81.96%) girls out of 194 those having menses, were using sanitary pads during periods. None of them were using mattress or natural materials like mud, cow dung or leaves but 28 (14.43%) of them were using cloth/towel. (Table 3)

Out 194 girls, 74 (38.14%) girls had not bought disposable sanitary pads from the shop in last six months. 138 (71.13%) girls ever wanted to buy disposable sanitary pads from the shop but been unable to do so. 72(37.11%) girls faced that there is no disposable sanitary pads available in the shop.

Because of periods girls are missing some of the regular activities.123 (63.40%) of the girls were unable to carry out their daily activities like cooking, fetching water; 107 (55.15%)were unable for walk far and stay at home during periods.

Table 3: Distribution of girls according to the product used during period (n=194)

Sanitary product used	Adolescent girl students (n=194) (%)
Sanitary pad	159 (81.96)
Cloth/towel	28 (14.43)
Menstrual cup	3 (01.54)
Toilet paper	2 (01.03)
Cotton	1 (00.51)
Tampon	1 (00.51)

Table 4: Distribution of girl students according to activities missed due to periods

Activities missed due to periods	Adolescent girl students (n=194) (%)
Paid work	94(48.453)
Housework	90 (46.39)
Going out of home	107 (55.15)
Walking far from houses	107 (55.15)
Cooking, fetching water, daily routine activities	123 (63.40)
Going for Religious places	67 (34.53)
Playing sports	127 (65.46)

Table 5: Reasons for missing the school in girl students during menstruation

Reasons	Adolescent girl students (n=194) (%)
Afraid of staining clothes	39 (20.10)
Afraid of others fun of me	21 (10.30)
Causes pain	73 (37.62)
Feel uncomfortable/tired	97 (50.0)
No place to wash and change	28 (14.43)
No place to dispose pads	84 (43.30)
Don't have sanitary pads	10 (5.15)

Table 6: Perception regarding self- esteem in girl students during the menstrual period

Perception	Adolescent girl students (n=194) (%)
Happy with myself	46 (23.71)
I am no good	101(52.06)
As good as others	95(48.97)
I could be happier	134(69.07)
I am failure	35(18.04)
Less confident than when I am not on period	109(56.18)

67 (34.53%) were unable to go for their religious places during period. 127 (65.46%) were not able to play sports. (Table no. 4)

Most common reason of missing school in girl students was feeling tired/ uncomfortable followed by having no place for disposal of sanitary pads. Pain, fear of staining, fear of other making fun and no place to change sanitary pads were other reasons. (Table no.5)

Questions regarding perception of students regarding their self esteem during menstruation period revealed that only 46 (23.71%) of girls feel happy with themselves during periods, while 101(52.06%) were feeling like 'I am not good', 134(69.07%) wish that they could be happier, 35(18.04%) consider them as failure and 109(56.18%) feel less confident than other days.(Table no. 6)

DISCUSSION

Average age of initiation of menstruation is 12.75 years and standard deviation is 1.06 years in present study. In a study carried out by Shanbhag D, Shilpa R, D'Souza N et al, mean age of the students was 14.08 years with a standard deviation of 1.06. The study showed a majority of girls interviewed belonged to the age group of 14 - 15 years (58.7%) and 329 (65%) had attained menarche though mean age of attainment of menarche was 13.4 years. ⁷ In a similar study done in Rural West Bengal, the age of menstruating girls ranged from 14 to 17 years, maximum (76.25%) number of girls being between 14 and 15 years of age group.³ In the studies conducted by Mittal K et al, Koshi EP and Kulkarni MV et al the mean age of menarche among the adolescent girls were 13.1 years, 14.19 years, and 13.5 years respectively. ⁸⁻¹⁰

In present study, 96 (27.90%) students thought that menstruation is a disease. 104 (30.23%) students thought that pregnant women menstruate. 103 (29.94%) students believed that menstrual blood comes from the stomach where the food is digested. The study done in rural Gujarat showed that only 31% felt that menstruation was a normal phenomenon. ¹¹ Study which was undertaken among adolescent school going girls in Saoner, in the Nagpur district reported the use of old clothes in 45.74% of the subjects.¹²

Present study revealed that, 159 (81.96%) girls out of 194 those having menses, were using sanitary pads during periods and 28 (14.43%) of them were using cloth/towel which was more than rural areas mostly due to better availability. In the study carried by Shanbhag D, Shilpa R, D'Souza N et al, it was seen that 44.1% used sanitary pad and 21.2% used both cloth and sanitary pad. ⁵Regarding the

practices followed, in a study done in Rural West Bengal, 11.25% girls used sanitary pads during menstruation, 42.5% girls used old cloth pieces. 40% girls used both cloth pieces and sanitary pads during menstruation.³ In the study by Kusuma ML, Ahmed M.¹³ only 54% were using sanitary pads and among the rest, 39.2% were using old cloth piece and 6.8% were using new cloth piece as an absorbent. The more surprising fact was that 38.80% were reusing the cloth piece during menstruation.

In present study, 123 (63.40%) of the girls were unable to carry out their daily activities like cooking, fetching water; 107 (55.15%) were unable for walk far and stay at home during periods. 67 (34.53%) were unable to go for their religious places during period. 127 (65.46%) were not able to play sports. In the study by Drakshayani Devi K, Venkata Ramaiah P., more than 50% were restricted from household work, taking part in religious activities, attending marriages, and playing during menstruation. 13 were restricted from attending school during menstruation. 38 would rest more often during menstruation than at other times. Foods restricted during menstruation included milk and milk products (20), vegetables.¹⁴

In present study, only 46 (23.71%) of girls feel happy with themselves during periods, while 101 (52.06%) were feeling like 'I am not good', 134 (69.07%) wish that they could be happier, 35 (18.04%) consider them as failure and 109 (56.18%) feel less confident than other days which showed more impact on their self esteem than other studies, which may be due to mean age of students in this study is less than others. In the study done by Shanbhag D, Shilpa R, D'Souza N ⁵ even a large majority of the students experienced fear (44.1%), followed by anxiety in 26.1% during menarche. Only 43 (14.07%) showed a positive attitude towards the process of menstruation. In the study done in rural Gujarat by Tiwari H, Tiwari R, Oza UN., ¹¹ at the time of first menstruation, 28.3% felt shame, 12.6% felt guilt and 20.6% had a sense of fear.

REFERENCES

1. World health organization, The reproductive health of adolescence strategy for action, A joint WHO/UNFA/UNFPA/UNICEF Statement, Geneva: WHO; 1989, p.1
2. WHO Health needs of adolescents. Report of WHO Expert Committee, Technical Report series, 609:15.
3. Dasgupta A, Sarkar M. Menstrual Hygiene: How Hygienic is the Adolescent Girls; Indian journal of community Medicine; April 2008;33(2): 77-80.
4. Brocklehurst C, Bartram J. Swimming upstream: why sanitation, hygiene and water are so important to mothers and

- their daughters. *Bull World Health Organization* 2010; 88:482.
5. Anna Maria van Eijk, M Sivakami, Mamita Bora Thakkar, Ashley BaumanKayla F Laserson, Susanne Coates, et al; Menstrual hygiene management among adolescent girls in India: a systematic review and meta-analysis; *BMJ Open* 2016;6:e010290. doi:10.1136/bmjopen-2015-010290
 6. Questionnaire to assess Girls' Menstrual Hygiene Practices in East Africa. Questionnaire, version 11; 31st May, 2013.
 7. 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. *Intl J Collaborative Res on Internal Med & Public Health* 2012;4(7):1353-62
 8. Mittal K, Goel MK. Knowledge regarding Reproductive Health among urban adolescent girls of Haryana. *Indian journal of community Medicine.*2010;35(4):529-30.
 9. Koshi EP. A study of health status of adolescent school girls in an urban area of Almagh, Lucknow. *Indian J Med Sci.*1971;25(6):376-383.
 10. Kulkarni MV, Durge PM, Kasturwar NB. Prevalence of Anemia among Adolescent Girls in an Urban Slum. *National journal of community medicine;*2012;3(1):108-11.
 11. Tiwari H, Tiwari R, Oza UN. Knowledge, attitudes and beliefs about menarche of adolescent girls in Anand district, Gujarat. *Eastern Mediterranean Health Journal.* 2006; 12:3-4. Accessed Aug 24 2019. Available from URL: http://www.emro.who.int/publications/emhj/1203_4/pdf/21.pdf
 12. Thakre BS, Thakre SS, Reddy M, Rathi N, Pathak K, Ughade S. Menstrual Hygiene: Knowledge and Practice among Adolescent School Girls of Saoner, Nagpur District. *Journal of Clinical and Diagnostic Research.* October 2011; 5(5): 1027-1033
 13. Kusuma ML, Ahmed M. Awareness, perception and practices of government pre-university adolescent girls regarding menstruation in Mysore city, India. *International journal of community medicine and public health;*2016;3:1593-9.
 14. Drakshayani Devi K, Venkata Ramaiah P. A study on menstrual hygiene among rural adolescent girls. *Indian J Med Sci.* June 1994;48(6):139-43.