



ORIGINAL RESEARCH PAPER

Community Medicine

KNOWLEDGE, ATTITUDE AND PRACTICE OF MENSTRUAL HYGIENE AMONG ADOLESCENT SCHOOL GOING GIRLS IN THIRUMAZHISAI, TAMIL NADU

KEY WORDS: Menstruation, School Girls, Adolescent, Menstrual Hygiene

Madhumitha. M*	Department Of Community Medicine, Saveetha Medical College, Chennai, Tamil Nadu, India. *Corresponding Author
Rakesh Maiya. G	Department Of Community Medicine, Saveetha Medical College, Chennai, Tamil Nadu, India.
Waseem Akram	Department Of Community Medicine, Nimra Medical College, Vijayawada, Andhra Pradesh, India.
Timsi Jain	Department Of Community Medicine, Saveetha Medical College, Chennai, Tamil Nadu, India.

ABSTRACT

Introduction: In India annually 23million adolescent girls drop out of school early due to menstruation and many end up facing acute health problems, which is due to lack of awareness regarding menstrual hygiene. Menstrual practices are clouded by taboos and social cultural restrictions even these days, leading to adolescent girls remaining blind to the scientific facts and healthful health practices, necessary for maintaining positive generative health.

Aim and objective: To assess Knowledge, attitude and practice of menstrual hygiene among adolescent school going girls.

Methods: A cross sectional study was conducted with total sample size of 149 female participants which includes 8-10 grade girls. The knowledge was assessed by distributing a questionnaire.

Results: Only 3 girls were aware of menstruation prior to attainment of menarche. The difference in the awareness regarding menstruation in urban and rural area was highly significant. Only 36% girls in the urban and 54.88% girls in the rural area used homemade sanitary pads and reused the same in the subsequent period. Satisfactory Cleaning of external genitalia was practiced by only 47.63% of the urban and 37.96% of the rural girls. This study found differences in hygienic practices followed by adolescent girls in urban and rural area.

Conclusion: The knowledge and practices in Thirumazhisai regarding menstrual hygiene is good as compared to studies conducted in different regions in the past.

INTRODUCTION

WHO has defined Adolescence as the period between 10-19 years of life. Adolescents belong to vital age group not only because they are the entrant population to parenthood but also because they are threshold between childhood and adulthood. As they attempt to cross this threshold, they face various physiological, psychological, and developmental changes. The word "Adolescent" is derived from the Latin word "adolescere" which means to grow to maturity that indicates the defining features of adolescence. Menstruation is the first indication of puberty. Therefore, increased knowledge about menstruation right from childhood may escalate safe practices and may help in mitigating the suffering of millions of women (Yasmin et.al ,2013). The interplay of socio-economic status, menstrual hygiene practices and RTI are noticeable. Today millions of women are sufferers of RTI and its complications and often the infection is transmitted to the off springs of the pregnant mother. During puberty, the physical changes occur which transform the body of child into that of an adult, changes in body size, and changes in body proportions. Most of the girls receive their gynecological information from their mothers, religious books, older sister, or a peer. However, such information was generally given after menarche rather than before. Hence, there is a need to provide healthy family life education to the woman particularly the adolescent girls. Research indicates that a vast information gap exists among adolescent girls regarding prior awareness about menstruation and menstrual hygiene which do have an impact on the practices during menstruation (Patel RA et.al,2014). Menstruation is considered as unclean or dirty in Indian society. The way within which a woman learns about menstruation and its associated changes might have a bearing on her response to the event of start. Menstrual practices are clouded by taboos and social cultural restrictions even these days, leading to adolescent girls remaining blind to the scientific facts and healthful health practices, necessary for maintaining positive generative

health. Ladies having higher information concerning menstrual hygiene and safe practices are less prone to genital tract infections and its consequences. The social stigma hooked up to menstruation causes many ladies to carry out dangerous hygiene practices. Lacking a platform to share menstrual hygiene issues, ladies typically suffer from discomfort and infection, still they avoid visiting a doctor and getting treated for it.

Hence, the present study was planned to assess the knowledge and expressed practice regarding menstrual hygiene among adolescent girls of Government Girls Higher Secondary School, Thirumazhisai, Chennai, Tamil Nadu.

MATERIALS AND METHODS:

A cross sectional study conducted from November 2018 to March 2019 at Thirumazhisai. Pre tested validated structured questionnaire was used to assess the demographic data and knowledge, attitude and practices among adolescent girls of government school. Using the formula $4pq/L^2$. The sample size was calculated to be 149. The sample size was determined using a formula for estimation of single population proportion with the assumption of 95% confidence level. The adolescent girls willing to participate in the study were selected from the girls higher secondary school by simple random sampling technique using lottery method. Informed consent was taken before interviewing the study subjects and after explaining the purpose of study. Data was entered and descriptive and inferential statistics were used for data analysis. Chi-square test was applied to measure the association between the level of KAP and selected variables done on SPSS version 22.

Inclusion criteria: Adolescent girls from class 8-class10

Exclusion criteria: Girls who haven't attained menarche
Students who weren't willing to participate in the study

RESULTS:

Table 1: Knowledge of Participants regarding menstrual hygiene (N = 149)

Variables	Frequency	Percent
Heard about menstruation before menarche	n	%
Yes	63	42.3 %
No	86	57.7 %
Learnt of menstrual hygiene in school		
Yes	148	99.3%
No	1	0.7%
Knowledge about cause of menstruation		
Yes	68	45.6%
No	81	54.4%
Duration of bleeding		
Yes	149	100%
No	0	0%
Menstrual cycle		
Yes	149	100%
No	0	0%
Know that menstrual blood is unhygienic		
No	16	10.7%
Yes	133	89.3%
Does menstruation mean one is sick		
Yes	0	0%
No	149	100%
Running/dancing during menstruation is harmful?		
Yes	1	0.7%
No	148	99.3%
Pain during menstruation		
Yes	149	100%
No	0	0%
Menstruation is a lifelong process		
No	149	100%
Yes	0	0%
Nutritional diet during menstruation is essential		
No	1	0.7%
Yes	148	99.7%
Abnormal foul-smelling flow		
Yes	1	0.7%
No	148	99.3%
Allergy during menstruation		
Yes	17	11.4%
No	132	88.6%

The above table shows the responses of participants to the questions that were directed to assess the knowledge regarding menstrual hygiene. It is observed that only 42.3% were aware of menstruation before menarche. It was observed that 45.6% were aware of cause of menstruation. 99.3% have learned about menstruation in school.

Table 2: Attitude of participants regarding menstrual hygiene (N = 149)

Variables	Frequency (n)	Percentage (%)
Discussion on menstrual hygiene with parents		
Yes	84	56.4%
No	65	43.6%

Comfort level to talk about menstruation		
Yes	144	96.6%
No	5	3.4%
Have you visited doctor with complaints in genital?		
Yes	2	1.3%
No	147	98.7%
Toilet facility at school		
Yes	149	100%
No	0	0%
Change of absorbent in school		
Yes	138	92.6%
No	11	7.4%

The above table shows the response of participants to the attitude assessing questions in the questionnaire. It is observed that 56.4% are comfortable to discuss about menstrual hygiene with parents. 92.6% are comfortable changing the absorbent in the school.

Table 3: Practice among the participants regarding menstrual hygiene (N = 149)

Variables	Frequency (n)	Percentage (%)
Type of absorbent used		
Yes	149	100%
No	0	0%
Frequency of changing		
Yes	141	94.6%
No	8	5.4%
Pad reuse		
Yes	0	0%
No	149	100%
Disposal method		
Yes	139	93.3%
No	10	6.7%
Change of absorbent in school		
Yes	138	92.6%
No	11	7.4%
Clean genitalia		
Yes	147	98.7%
No	2	1.3%
Do you pat dry the vagina before using pad?		
Yes	115	77.2%
No	34	22.8%
Hand-wash after changing the absorbent		
Yes	149	100%
No	0	0%
Do you use soap to wash hands?		
Yes	148	99.3%
No	1	0.7%
Measures of preventing allergy		
Yes	0	0%
No	149	100%

The above table shows the response of participants specific to the questions for assessing practices followed. It is observed that 100% were using sanitary pad as absorbent. 94.6% change the absorbent frequently that is at least 6 hours once. It is also observed that 77.2% pat dry the vagina before using the absorbent.

Table 4: Association between level of knowledge and few selected variables (N = 149)

Age group VS Level of Knowledge	Good Knowledge	Less Knowledge	P - Value
11-13 yrs	22	11	0.04
14-16 yrs	75	41	
Class VS Level of Knowledge			
6 th -8 th Class	21	14	0.52
9 th -10 th Class	76	38	
Age at Menarche VS Level of Knowledge			
10-12 yrs	78	40	0.25
13-16 yrs	19	12	

The above table is showing that there is statistically significant association between level of knowledge and Age of the girls with P-Value 0.04 (<0.05). But there is no significant relationship between level of knowledge and the factors such as Class and Age at Menarche.

Table 5: Knowledge based on the total score attained by the participants on response to the questionnaire

Knowledge level	Frequency (N)	Percentage (%)
Good knowledge (Scores 46 and above)	97	65.1 %
Less knowledge (Scores below 46)	52	34.9 %
Total	149	100 %

65.1% of participants had good knowledge regarding menstrual hygiene (Table 5)

DISCUSSION

Numerous similar studies have been conducted nationally and internationally on the knowledge and awareness regarding menstrual hygiene in the past.

The present study revealed that 65.1% had adequate knowledge about menstrual hygiene, and 34.9% had inadequate knowledge about menstrual hygiene.

The study showed that the mother of the adolescent girl was the primary source of information regarding menstruation, for majority of the respondents. Similar studies done by (Damor R et.al,2015 ;Jailkhani 2014 ;Jogdand et.al,2011) in urban settings in Meeraj and Guntur found that the main source of information regarding menstruation was mother.

In the present study, majority of the students knew that menstruation was a normal physiological process whereas in (Kamath et. al,2013) Udupi taluk reported that 72.2% (n = 195) of urban girls knew that menstruation was a physiologic process. (Yasmin et. al,2013) found that 72.8% of respondents knew menstruation to be a physiological process. This finding is consistent with the present study.

In the present study, majority of the study population use sanitary napkin. A study done by (Damor et.al,2015) among adolescent school girls in an urban setting elicited that 52.34% used only sanitary napkins as menstrual absorbent while 44.53% used both cloth and pad. This finding is different the present study. Different study setting may be the cause

UNICEF report in 2014 stated that in Tamilnadu, 79% of girls were unaware of menstrual hygiene practices, but it was observed to be improved in this particular study setting.

The duration of menstrual flow in our study was 4–6 days for 86% girls, whereas in a study by (Mathiyalagen P et.al,2017) 76.9% girls had bleeding for 3–5 days and in a study by (Kanotra et. al,2013) the duration of menstrual flow was within

5 days in 96.3% of girls and 3.7% had prolonged menses (>5 days).

In the present study, hand washing with only water was found in 100% of girls, whereas 99.3% of girls used soap and water which was found to be similar to a study in which 28.5% girls used only water and 71.5% used both soap and water for hand washing (Sharma S et.al,2017).

In the present study, 93.3% of the girls used proper disposal technique of wrapping the sanitary pad with paper and then throwing it into a dustbin which was similar to a study where 57.5% of girls disposed the pad properly (Dasgupta et.al,2008).

ACKNOWLEDGEMENTS

The author thanks the HM and teachers of the government girls higher secondary school, Thirumazhisai, who gave me permission to conduct this study in the school. The author also thanks all the authorities and study participants.

DECLARATIONS

Funding:None

Conflict of interest:None declared

Ethical approval:

The study was approved by the institutional ethical committee.

REFERENCES

1. Yasmin S, Manna N, Mallik S, Ashfaque A, Paria B,2013.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 ;5:22-6.
2. Kamath R, Ghosh D, Lena A, Chandrasekaran V,2013 .A study on knowledge and practices regarding menstrual hygiene among rural and urban adolescent girls in Udupi Taluk, Manipal, India. Glob J Med Public Health ;2:1-9.
3. Damor R, Kantharia SL,2015. Original article menstrual hygiene: Gaps in the knowledge and practices. J Evidence Based Medicine and Healthcare ;2:2290-5
4. Jailkhani SM,2014.Patterns and problems of menstruation among the adolescent girls residing in Athe Urban Slum. Sch J Appl Med Sci ;2:529-34.
5. Jogdand K, Yerpude P,2011.A community based study on menstrual hygiene among adolescent girls. Indian J Matern Child Health ;13:1-6.
6. Mathiyalagen P, Peramasamy B, Vasudevan K, Basu M, Cherian J, Sundar B. A,2017.descriptive cross-sectional study on menstrual hygiene and perceived reproductive morbidity among adolescent girls in a union territory, India. J Family Med Prim Care ;6:360-5.
7. Kanotra S, Bangal V, Bhavthankar D,2013.Menstrual pattern and problems among rural adolescent girls. Int J Biomed Adv Res ;4:551-4.
8. Sharma S, Mehra D, Kohli C, Singh MM,2017.Menstrual hygiene practices among adolescent girls in a resettlement colony of Delhi: A cross-sectional study. Int J Reprod Contracept Obstet Gynecol ;6:1945-51.
9. Dasgupta A, Sarkar M. Menstrual hygiene,2008. How hygienic is the adolescent girl? Indian J Commun Med ;33:77.
10. Patle RA, Kubde SS ,2014. Comparative study on menstrual hygiene in rural and urban adolescent. Int J Med Sci Public Health ;3:129–32