



Research Article

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Menstrual hygiene among adolescent girls: A cross sectional study in urban community of Gandhinagar

Jagruti Prajapati*¹, Riddhi Patel²

¹ Assistant Professor; Department of Community Medicine, GMERS Medical College, Gandhinagar, Gujarat-382012, India

² 2nd year Medical Student, GMERS Medical College, Gandhinagar, Gujarat-382012, India

Abstract

Background: Menstruation & menstrual practices are still bounded by socio cultural restriction & taboos resulting in adolescent girls remain ignore of scientific facts & hygienic practices during menstruation. Increase knowledge about menstruation right from childhood may escalate safe practices and may help in mitigating the suffering of millions of women. **Aims & Objectives:** (1) To assess the knowledge and the practices of menstrual hygiene among adolescent girls. (2) To assess the restrictions practiced by adolescent girls during menstruation. **Study Design:** Cross sectional, descriptive, community based study. **Setting:** Anganawadi centers (AWCs) of Urban Health Training Center (UHTC) of GMERS Medical College, Gandhinagar, Gujarat, India. **Methodology:** Total 7 AWCs under UHC 24 in which approximately 155 girls were enrolled. All adolescent girls fit to inclusion criteria & give consent were taken as study subject. Structured questionnaire was used for data collection. Data was collected regarding menstrual cycle, knowledge about menstruation, practices during menstruation and menstrual hygiene. **Statistics:** Data entry & analysis was carried out in Microsoft excel. Statistical analysis was done by using frequency. **Results:** Out of 88 respondents, 50% attained menarche at the age between 12-14 yrs. Maximum number of girls (65.9%) have blood flow for 2-5 days while 18.2% have excessive blood flow. Out of total 39.8% girls know about menstruation before menarche and majority of (48.9%) reported mother as a source of information regarding menstruation. Only 17% girls have correct knowledge regarding organ from where bleeding occurs while 33.1 % girls were knew that menstruation is a physiological process. 21.6% girls believed that there is a toxin in menstrual blood. Sanitary pad was used by 26.1% girls. Those who were using cloth pieces out of them 33.8% facing problem of washing & drying either due to shortage of water, lack of privacy or drying. Around 30% girls were not using sanitary pad because of cost. The relation between mother's education & knowledge regarding menstruation before menarche was not significant ($X^2= 2.41, P>0.05$). **Conclusion:** Menstrual hygiene was satisfactory among adolescent girls but lack of knowledge & awareness regarding menstruation. Education regarding reproductive health & hygiene should be given by Anganawadi workers as well as included as a part of school curriculum. All mothers irrespective of their educational status should be taught to break their inhibitions about discussing with their daughters regarding menstruation before age of menarche.

Keywords: Menstruation, Menstrual Practices, Adolescent Girls, Sanitary Pad.

INTRODUCTION

WHO has defined Adolescence as the period between 10-19 years of life. ¹ Adolescent girls constitute about 1/5th total female population in the world. Adolescence in girls has been recognized as a special period which signifies the transition from girlhood to womanhood. Menstruation is a phenomenon unique to all females. ² Menstruation is generally considered as unclean in the Indian society. Isolation of the menstruating girls and restrictions being imposed on them in the family, have reinforced a negative attitude towards this phenomenon ³ The first menstruation is often horrifying and traumatic to an adolescent girl because it usually occurs without her knowing about it. ⁴ There is a substantial lacuna in the knowledge about menstruation among adolescent girls. Several research studies have revealed this gap and they showed that there was a low level of awareness about menstruation among the girls when they first experienced it. ⁵ Many studies have revealed that most of the adolescent girls had incomplete and inaccurate information about the menstrual physiology and hygiene. It also revealed that mothers, television, friends, teachers and relatives were the main sources which provided information on menstruation to the adolescent girls. ⁶ Good hygienic practices such as the use of sanitary pads and adequate washing of the genital area are essential during menstruation. Women and girls of the reproductive age need access to clean and soft, absorbent sanitary products which can in the long run, protect their health. ⁷ Hygiene-related practices of women during menstruation are of considerable importance, as it has a health impact in terms of increased vulnerability to reproductive tract infections (RTI). 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

***Corresponding author:**

Dr. Jagruti Prajapati

Assistant Professor;
Department of Community
Medicine, GMERS Medical
College, Gandhinagar, Gujarat-
382012, India

offspring of the pregnant mother. ⁶

Women having better knowledge regarding menstrual hygiene and safe practices are less vulnerable to RTI and its consequences.⁸ Therefore, increased knowledge about menstruation right from childhood may escalate safe practices and may help in mitigating the suffering of millions of women. With this background the present study was undertaken to assess the knowledge, beliefs, and source of information regarding menstruation among the adolescent girls and also to identify the status of menstrual hygiene among them.

Objectives

- To assess the knowledge and the practices of menstrual hygiene among adolescent girls
- To assess the restrictions practiced by adolescent girls during menstruation

METHODOLOGY

Department of Community medicine GMERS Medical College, Gandhinagar situated in Gandhinagar city having Urban Health Training Centre (UHTC) in sector 24 having population of 5000. There are seven Anganawadi centers (AWCs) under UHTC. Approximately 155 adolescent girls are enrolled in the seven AWCs. Data were collected after taking consent of all the girls those who were willing. Participants were gathered at Anganawadi centre on the Mamta Day. Those girls who were fit to the inclusion criteria & willing to participate had given proforma. Before filling the questionnaire proforma was explained to them. After completing data collection health education & iron tablets were distributed among participants.

Study type:

An epidemiological study was conducted by Cross sectional study method.

Study population:

All adolescent girls enrolled in anganawadi of UHTC & fit to the inclusion criteria were included in the study.

Inclusion criteria:

- Unmarried, non pregnant, non- lactating adolescent girls
- Age 10 -19 years

Exclusion criteria:

- Not willing to give consent
- Married , pregnant, lactating adolescent girl

Ethical clearance:

Clearance was obtained from the institutional ethics committee. Willingness to participate in the study was obtained by written consent from the participants after explaining the objectives of the study.

Data collection:

A pre-designed, pre-tested, semi-structured questionnaire was used. Care was taken to ensure privacy and confidentiality. The pre-tested questionnaire was administered under supervision of the investigator to prevent the participants from sharing responses. The semi-structured questionnaire includes topics relating to knowledge regarding menstruation, source of information regarding menstruation and hygiene practiced during menstruation. Following data collection,

queries from the participants relating to menstrual and reproductive health were clarified by the investigator.

Data Analysis

Data obtained were entered into Microsoft Excel & analysed. Data was reported in the form of descriptive statistics. Statistical analysis was done by using frequency.

RESULTS

Study subjects for this study was 88 with mean age was 16 years. Majority of them (93.2%) were Hindu while rest of them was Muslim. 77 (79%) mother of adolescent girls were illiterate, 13(15%) studied up to primary followed by secondary 5(6%) (Fig 1)

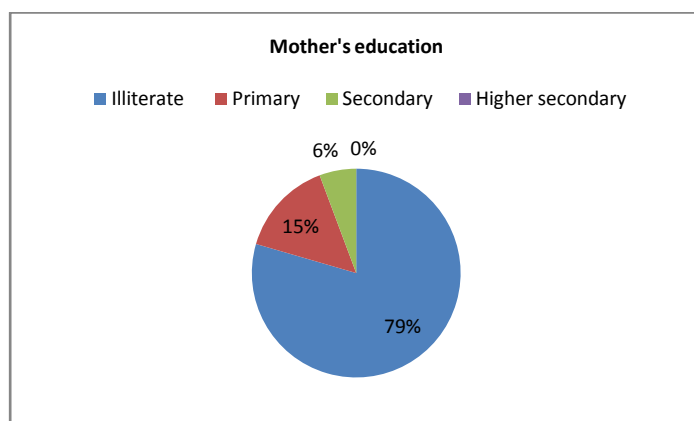


Figure 1: Mother's education among adolescent girls

50% girls have attained menarche in the age 12-14 years while 19.3% girls have attained in early age <12 years. 27.3% girls have reported blood flow for more than 5 days. In 53.5% girls length of menstrual cycle was 28-32 days. 18.2% girls have excessive quantity of blood flow. (Table 1)

Table 1: menstrual pattern in adolescent girls (n=88)

Pattern	No. (%)
Age at which menarche attained	
<12	17 (19.3)
12-14	44 (50.0)
>14	27 (30.6)
Duration of blood flow in days	
<2	6 (6.8)
2-5	58(65.9)
>5	24(27.3)
Length of cycle in days	
<28	29(32.9)
28-32	47(53.5)
>32	12(13.6)
Quantity of blood flow	
Normal	61(69.3)
Excessive	16(18.2)
Scanty	11(12.5)

Regarding knowledge about menstruation 39.8% girls were knew about menstruation before menarche. Mother was the source of information in 48.9% girls followed by sister (25%), friends (12.5%) and relatives (10.2%). Out of total majority (51.1%) girls have no knowledge regarding organ from where bleeding occurs. Only 33.1 % girls have knowledge that menstruation is a physiological process while 59.1% did not know about cause of menstruation. 21.6% girls believe that there is toxin in menstrual blood. (Table 2)

Table 2: Distribution of respondents according to their knowledge about menstruation (n= 88)

Attributes	No. (%)
Knew about menstruation before menarche	
Yes	35(39.8)
No	53(60.2)
Source of knowledge of menstrual cycle before menarche	
Mother	43(48.9)
Teacher	1(1.1)
Friend	11(12.5)
Relatives	9(10.2)
Sister	22(25.0)
Do not know	2(2.3)
Knowledge of organ from where bleeding occurs	
Uterus	15(17.0)
Kidney	0(0.0)
Bladder	24(27.3)
Stomach	4(4.5)
Do not know	45(51.1)
Knowledge of cause of menstruation	
Physiological	29(33.1)
God given	5(5.7)
Result of sin	1(1.1)
Due to some disease	1(1.1)
Do not know	52(59.1)
Any toxin in menstrual blood	
Yes	19(21.6)
No	69(78.4)

26.1% girls practiced sanitary pad as a type of absorbent. Out of 65 girls who were not using sanitary pad 33.8% were facing problem of either washing or drying (13.6%) 29.2% girls were not using sanitary pad because of cost, 21.5% due to difficult to discard. 100% girls have different types of restriction during menstruation in the form of religious place/ temple (87.5%), routine household work (35.2%) and certain types of foods (8.1%) etc. (Table 3)

Table 3: Distribution of respondents according to their practices during menstruation

Attribute	No. (%)
Type of absorbent	
Sanitary pad	23(26.1)
New cloth	28(31.8)
Old washed cloth	29(33.1)
Pad + old washed cloth	5(5.7)
Pad + new cloth	3(3.4)
Problems faced while using cloth during washing & drying	
Yes	22(33.8)
No	43(66.2)
Type of problem faced while using cloth during washing & drying	
Shortage of water	12(54.5)
Lack of privacy	7(31.8)
Drying	3(13.6)
Reasons for not using sanitary pads	
No reason	21(32.3)
Difficulty in discard	14(21.5)
Costly	19(29.2)
Don't know about it	8(12.3)
Don't feel comfortable with it	3(4.6)
Different restriction among adolescent girls during menstruation*	77(87.5)
Religious place/temple/religious occasion	31(35.2)
Routine household work	4(4.5)
Playing	5(5.7)
Attending school	7(8.1)
Certain types of foods	

*multiple response

Regarding hygienic practices 95.5% girls had daily bath. Hand washing with soap & water was present in 93.2% and cleaning of external genitalia with soap & water was present in 35.2%. Only 42.1% girls have

toilet facility at their home while 57.9% were used common toilet. (Table 4)

Table 4: Distribution of respondents according to their hygienic practices during menstruation

Hygienic practices during menstruation	No. (%)
Daily bath	
Yes	84(95.5)
No	4(4.5)
Hand washing	
Regular *	85(96.6)
Irregular	3(3.4)
Hand washing with	
Water	6(6.8)
Soap & water	82(93.2)
Cleaning of external genitalia	
Regular **	80(90.9)
Irregular	8(9.1)
Cleaning of external genitalia with	
Water	57(64.8)
Soap & water	31(35.2)
Facility for separate bathroom	
Yes	37(42.1)
No	51(57.9)

Mother's education & knowledge regarding menstruation before menarche was not significant($X^2 = 2.41, P > 0.05$)

DISCUSSION

In present study maximum number of girls has attained menarche between 12-14 years. Narayan et al⁹ and Keerti Jagdand⁸ reported similar findings. 65.9% girls have blood flow in 2-5 days. Balsubramaniam¹⁰ reported 84% girls had 2-5 days menstrual blood flow. 39.8% girls knew about menstruation before menarche this may be due to low level of education among girls & their mother. In this study 48.9% girls have reported mother as a first source of information. Other source of information was sister, friend & relatives. Singh et al¹¹ found in 64.9% girl's mother was the first source of information.

It was observed in this study that 17% girls believed that during menstruation bleeding occur from uterus while study conducted by S. Yasmin¹² reported 63.3%. In this study 33.1% girls believed that menstruation is a physiological process similar finding was observed in study conducted by Khanna et al.¹³ A study by Dasgupta et al⁶ in a rural community showed that majority of the girls preferred cloth pieces rather than sanitary pads as menstrual absorbent. Only 11.25% girls used sanitary pads during menstruation. In a study conducted in Rajasthan by Khanna et al¹³, three-fourths of the girls used old cloth during their periods and only one-fifth reported using readymade sanitary pads. It was observed that the usual practice was to wash the cloth with soap after use and keep it at some secret place till the next menstrual period. To maintain privacy these are sometimes hidden in unhygienic places. In this study 26.1% girls were used sanitary pad and remaining was using either old or new cloth pieces. In study by S. Yasmin¹² only 15.7% used old washed cloth 30% faced problem of lack of place, water, privacy while washing & drying cloth pieces. In present study 33.8% faced problem in drying & washing. Health education should be developed to empower young women with sufficient knowledge so that they adopt appropriate health-taking behaviors. Educating young girls about the routine practice of taking a bath with warm water in the early days of menstrual period, regular hand washing and regular cleaning of external genitalia lead to the development of positive mental and social behaviors and also be effective in reducing hygiene problems in the community.

The limitations of this study was sample size & sampling methods, additional studies may be needed using large sample size that should include open ended questions.

CONCLUSION

This study was conducted to ascertain knowledge & practices among adolescent girls. The study revealed that menstrual hygiene was satisfactory among a adolescents. Lack of sufficient knowledge & awareness among girls regarding menstruation can be due to low level of education among themselves & their mothers. Education regarding reproductive health & hygiene should be given by Anganawadi workers as well as included as a part of school curriculum. Mothers of adolescent girls were ignorant about informing daughters about menstruation prior to menarche. All mothers irrespective of their educational status should be taught to break their inhibitions about discussing with their daughters regarding menstruation before age of menarche. Better hygienic practices can be adopted by making sanitary pads available at affordable prices (social marketing). Incorrect restrictions, myths and beliefs associated with menstruation can be removed by the help of teachers and parents. Educational television programmes, trained school nurses/ health personnel, motivated school teachers, and knowledgeable parents can play a very important role in transmitting the critical messages of correct practices about menstrual hygiene to the adolescent girls of today.

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