

Original Article

Knowledge and Practices of Menstrual Hygiene among Adolescent Females in Faisalabad

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Abstract

Objective: To identify the gaps between knowledge and practices of adolescent females regarding menstrual hygiene.

Methodology: It was a descriptive cross-sectional study in which 200 young girls aged 16-19 years from two intermediate colleges of Faisalabad were included. Simple random sampling was done. The study was conducted from 1-06-2015 to 1-01-2016. Socio-demographic characteristics of adolescent females and their mothers, knowledge and practices of menstrual hygiene among adolescent females were variables of interest. SPSS version 20 was used to analyze data. Frequency tables were generated and an appropriate test of significance was applied. Results were considered significant if p-value was <0.05.

Results: Our results showed that 71.5% of females were residing in urban areas while 28.5% were residing in rural areas. 9% of mothers of adolescent females were illiterate, 55.5% were ≤ matric, and 35.5% were matric, however, only 17% of adolescent females had information regarding onset of periods while 83% had no such information.

Conclusion: This study revealed a lack of knowledge and awareness among the target population about menstrual hygiene. There is dire need to bridge the gap between knowledge and practice through health education. Furthermore, more studies with larger sample sizes are required to assess knowledge and practices of menstrual hygiene among adolescent females to prevent them from infection and other complications.

Keywords: Menstrual hygiene, Adolescent females,

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Introduction

Adolescence is defined as period of transition from childhood to adulthood and the World Health Organization (WHO) has defined adolescence as the age group of 10-19 years. It is estimated that 52% of the females from all over the world (approximate 26% of the total population) belong to reproductive age¹. Adolescent girls constitute about 1/5th of total female population in the

world.² Menstrual flow can be light, moderate, or heavy and the length of period also varies.³ If poorly managed, menstrual period may be complicated by reproductive tract infections.⁴ Menstrual hygiene is basically the awareness, information, and confidence to manage menstruation by practicing safe hygienic methods and by using safe hygienic materials. By washing hands with soap and adequate water and safe

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disposal of sanitary materials after use also included in menstrual hygiene practices management.⁵ In India, Thakre -2011, conducted a study at Nagpur revealed that only 36.95% were aware of menstruation prior to attainment of menarche.⁶ A study conducted in Tehran concluded that only 32% adolescent girls practiced menstrual hygiene.⁷ A comparative study conducted in Saudi Arabia reported that 53.4% of girls in government schools and 67.9% in private schools have knowledge of menstruation⁸. Whereas in Pakistan, most population belongs to the middle and lower socioeconomic group, therefore face many problems regarding adolescent reproductive health. A study conducted in Mardan, Pakistan revealed that 57% Pakistan women due to lack of knowledge and money to practice hygienic practices during menstruation recognized the issue first time and 67% students had incomplete knowledge regarding menstrual hygiene.^{9, 10}

Menstruation is a natural physiological process in women's life started at puberty but due to illiteracy, ignorance about religious teachings, poverty, different socio-cultural trends, negligence regarding psychological health, unavailability of soap and sufficient water, inexistence of toilets and improper disposal of sanitary materials after use contribute to unhealthy menstrual hygiene practices and management.⁹

There is a gap in the knowledge about menstruation among adolescent girls. Several studies have revealed this gap and showed low level of awareness about menstruation among girls when they first experienced it.¹¹ A key priority for adolescent females is to have the necessary knowledge, facilities and the cultural environment to manage menstruation hygienically.⁷ Appropriate knowledge and healthy practices about menstrual hygiene plays an important role in improving the health of adolescent females. Therefore, the present study is carried out to assess knowledge and practices among adolescent females of intermediate colleges Faisalabad and also to

identify gaps between their knowledge and practices of menstrual hygiene.

Methodology

The study was initiated after the approval of the ethical review committee. This was a descriptive cross-sectional study conducted in two intermediate colleges of Faisalabad, among young girls between 16-19 years of age. The study included a total of 200 females in which sample size were calculated by using WHO sample size calculation formula i.e. $n = z \times p (1-P) / (\text{margin of error})^2$ simple random sampling was conducted from 1-06-2015 to 1-01-2016. Formal consent and permission was taken from concerned authorities of intermediate colleges of Faisalabad to conduct the study. Verbal consent was taken from females, the confidentiality of data was ensured that data will not be utilized except for the academic purpose.

A questionnaire comprising of both open and close ended questions was prepared. The questionnaire was pretested in another area and finalized. After seeking permission from the ethical committee, data was collected. Data analyzed by SPSS version 20. Frequencies and percentages were calculated for socio-demographic characteristics of adolescent females, socio-demographic characteristics of mothers, and their knowledge and practiced regarding menstrual hygiene. Chi-square test was used to compare variables. Results were considered significant if p-value was <0.05.

Results

The study included a total of 200 females, 154(77%) were 16-17 years old while 46(23%) were 18-19 years old. Large numbers 143(71.5%) of adolescent females were residing in urban areas while 57 (28.5%) were residing in rural areas. 18(9%) mothers were illiterate, 55% studied up to matric and 35.5% had education above matric. Our study showed that age at menarche among 200 adolescent females, 6% had 11 years, 9.5% had 12 years, 42% had 13 years, and 33.5%

had 14 years while 9% had 15 years. Only 17% of adolescent females had information regarding menstruation before the onset of periods while 83% had no such information. Source of information regarding menstruation among 85% adolescent females was mothers, 2% teachers, 5.5 % sisters, 2.5% friends and 5% acquired information from other source (print and electronic media) as shown in table III.

Moreover 55% used sanitary pad as absorbent during periods, 35% used old cloth after wash, and 10% used new cloth. 68.5 % changed their sanitary pad twice daily, 19.5% once and 12% every time after using washroom, 34.5 % took bath while majority 65.5% didn't take bath during periods. 98% washed their hands while 2% didn't after changing sanitary pads. In addition to this 47% faced problems like lower backache, 20% vaginal itching, 2.5% burning micturition and 20% females did not face any problem also shown in table III.

Out of 182 literate females only 104 (57%) were using sanitary pad and 78(43%) were using cloth,

and out of 18 illiterate females 6(33%) were using sanitary pads and 12 (67%) were using cloth as absorbent, while among 93 adolescent females, who had family income $\leq 20,000$ rupees, 41(44%) used sanitary pads and 52(56%) used cloth as absorbent and among 107 adolescent females who had family income $>20,000$ rupees, 69(64%) used sanitary pads and 38(36%) used cloth as absorbent. (Figure 1)

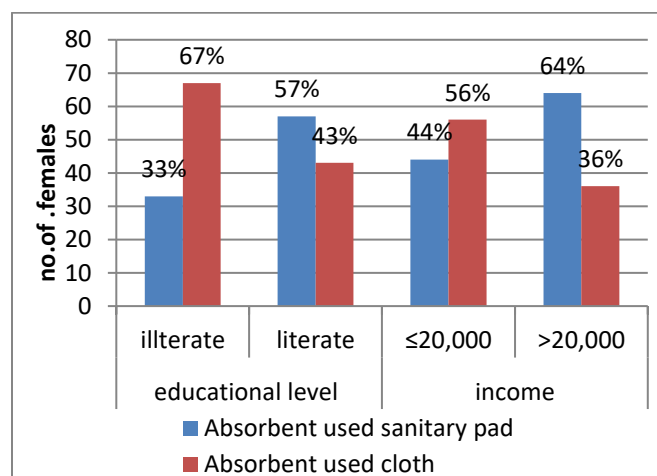


Figure 1: Association between the education level of the mother, monthly family income and absorbent used.

Table I: Association between knowledge and practices of menstrual hygiene among adolescent females (n=200)

Knowledge about menstrual hygiene Characteristics

Frequency of changing pads

Characteristics	Yes	No	Total	p-value
≤ 3 times/day	26 (13.0%)	150 (75.0%)	176 (88.0%)	0.001
> 3 times/day	8 (4.0%)	16 (8.0%)	24 (12.0%)	
Total	34 (17.0%)	166 (83.0%)	200 (100.0%)	

Washing hands after changing sanitary pads with soap and water

Yes	34 (17.0%)	162 (81.0%)	196 (98.0%)	0.36
No	0 (0.0%)	4 (2.0%)	4 (2.0%)	
Total	34 (17.0%)	166 (83.0%)	200 (100.0%)	

Take bath during periods

Yes	9 (4.5%)	60 (30.0%)	69 (34.5%)	0.28
No	25 (12.5%)	106 (53.0%)	131 (65.5%)	
Total	34 (17.0%)	166 (83.0%)	200 (100.0%)	

Table II: Association between socio-demographic characteristics of mothers and absorbent used during periods among adolescent females (n=200)

Absorbent used				
Characteristics	Sanitary Pad	Cloth	Total	p-value
Education level				0.002
Illiterate	6 (3.0%)	12 (6.0%)	18(9.0%)	
Literate	104 (52.0%)	78 (39.0%)	182(91.0%)	
Total	110 (55.0%)	90 (45.0%)	200 (100.0%)	
Total monthly family income				0.002
≤20,000	41(20.5%)	52 (26.0%)	93(46.5%)	
>20,000	69 (34.5%)	38 (19.0%)	107(53.5%)	
Total	110 (55.0%)	90 (45.0%)	200(100.0%)	

Table III: Socio-demographic characteristics of adolescent females (n= 200)

Characteristics	Frequency	Percentage%
Age (years)		
16-17	154	77.0
18-19	46	23.0
Total	200	100
Residence		
Urban	143	71.5
Rural	57	28.5
Total	200	100
Education level		
Illiterate	18	9.0
≤matric	111	55.5
>matric	71	35.5
Total	200	100
Age at menarche(years)		
11	12	6.0
12	19	9.5
13	84	42.0
14	67	33.5
15	18	9.0
Total	200	100
Information regarding menstruation before onset of periods		
Yes	34	17.0
No	166	83.0
Total	200	100
Source of information		
Mother	170	85.0
Teachers	4	2.0
Sister	11	5.5
Friends	5	2.5
Any other (print & electronic media)	10	5.0
Total	200	100
Absorbent used during periods		
Sanitary pad	110	55.0
Old cloth after wash	70	35.0
New cloth	20	10
Total	200	100
Frequency of changing pads		
Once a day	39	19.5
Two times a day	137	68.5
Every time after using wa	24	12
Total	200	100
Take bath during periods		
Yes	69	34.5
No	131	65.5
Total	200	100

Washing hands after changing sanitary pad with soap and water

Yes	196	98.0
No	4	2.0
Total	200	100
Problems faced during periods		
Vaginal itching	40	20.0
Burning micturition	5	2.5
Discharge	21	10.5
Lower backache	94	47.0
None	40	20.0
Total	200	100

Discussion

200 females were included in the study and found that most of the females were 16-17 years old and 98.5% were Muslims. Mothers play an important role in the teaching and training of adolescent females. Our study disclosed that only 9% mothers of adolescent females were illiterate while 55.5% had education up to matric and 35.5% were above matric ($p<0.001$) as shown in table II. Results of our study are comparable with a study undertaken by Upashe et al (2015) who asserted that 21.3% of mothers of adolescent females were illiterate, 66.8% studied up to matric and only 11.9% were above matric¹². Adequate family monthly income plays an imperative role in menstrual hygiene practices of adolescent females. More than half (53.5%) had family monthly income >20,000 rupees while 34.5% had income 10,000-20,000 rupees and only 12% had income less than 10,000 rupees ($p<0.001$). The findings of our study are comparable with the study conducted by Farid and et.al (2008) who confirmed that only 12% female's family income was more than 20,000 rupees while 28% had income 10,000-20,000 rupees and the majority (60%) had a family income less than 10,000 rupees¹³.

To find out the association between knowledge and practices of menstrual hygiene among adolescent females our study showed that among 176 adolescent females who changed pads ≤3 times /day, 26 (13.0%) had knowledge about menstrual hygiene and 150(75.0%) had no knowledge, likewise, among 24 adolescent females who changed pads >3 times/day, 8

(4.0%) had knowledge about menstrual hygiene and 16 (8.0%) had no knowledge about menstrual hygiene. The result was found statistically significant ($p < 0.001$). Similarly, Sapkota et.al (2013) reported in their study that 8.2% of adolescent females changed pads once daily while the majority (50.8%) changed twice daily and 41% changed pads every time after using washroom.¹⁴ Among 196 adolescent females who washed hands after changing sanitary pads with soap and water, 34 (17.0%) had knowledge about menstrual hygiene and 162 (81.0%) had no knowledge. All 4 (2.0%) adolescent females who did not wash hands after changing sanitary pads with soap and water had no knowledge about menstrual hygiene. The result was found statistically insignificant ($p = 0.36$). However, results of the study conducted by Upashe and et.al (2015) showed that large number of adolescent females washed their hands after changing sanitary pad with soap and water.¹²

Among 69 adolescent females who took bath during periods 9 (4.5%) had knowledge about menstrual hygiene and 60 (30.0%) had no knowledge. Similarly, among 131 adolescent females who did not take bath during periods, 25 (12.5%) had knowledge about menstrual hygiene and 106 (53.0%) had no knowledge. The result was found statistically insignificant (p value = 0.28). A similar study carried out in 2013 Sadiq and Salih confirmed that only 22.6% adolescent females did not take bath during periods.¹⁵

Menstrual hygiene also has an environmental impact, in that it constitutes a waste problem, which again is a result of the fact that adequate waste management infrastructures are rare in developing countries. According to a study in India, an average woman generates 125 to 150 kg of tampons, pads and other applicators in her lifetime.⁷, another study was conducted in Sokoto Nigeria, which also showed that an additional source of infection is presented by 'the type of absorbent used during menstruation', which is said to be of paramount importance since

reusable materials could cause infections if improperly cleaned and poorly stored.¹⁶

LIMITATION: Our study has some limitations. Firstly, it was a cross-sectional study that might have over or underestimated the knowledge and practices of menstrual hygiene. Another limitation of the study was that the sampling frame was limited to only one city and suburbs because of which results of the study cannot be generalized for whole Pakistani population.

Conclusion

This study revealed a lack of knowledge and awareness among the target population about menstrual hygiene. There is dire need to bridge the gap between knowledge and practice through health education. Awareness programs are required to be held among adolescent females at school levels to improve their knowledge and practices regarding menstrual hygiene.

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