



Knowledge of Different Aspects of Menstruation Between Adolescent Girls of Rural and Urban Area in Wardha District in Central India: A Comparative Study

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ABSTRACT

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. Adolescent girls must be given attention as this age group carries risk of transmission to several Sexually transmitted diseases. This period is marked with onset of menarche (2). Hence, the present cross sectional study was carried out with the objective to compare the knowledge of different aspects of menstruation between adolescent girls of rural and urban area and to compare the knowledge regarding menarche, social taboos, and stigma during menstruation among the study population. A questionnaire was filled from the adolescent school girls of urban and rural area. Institutional ethical committee permission was taken. Informed consent was obtained from the students and their confidentiality was assured. Data analysis was done with the help of SPSS version 16.0 and Microsoft excel. Most of the students in both the areas used sanitary pads but did not know the proper method of its disposal. Girls should be educated about the facts of menstruation, physiological implications, significance of menstruation, and proper hygienic practices during menstruation.

KEYWORDS

Menstruation, adolescents, Menarche, abdominal pain

INTRODUCTION

WHO has defined Adolescence as the period between 10 to 19 year's life⁽¹⁾. Adolescent girls constitute about 1/5th total female population in the world. Adolescent girls must be given more attention as this age group carries risk of transmission to several Sexually transmitted diseases. This period is marked with onset of menarche. Menstruation is a phenomenon unique to all females⁽²⁾. It is still considered as something unclean or dirty in Indian society⁽³⁾. This concept is responsible for related taboos. The first menstruation is often horrifying and traumatic to an adolescent girl because it usually occurs without her knowing about it⁽⁴⁾. Although menstruation is a natural process, it is linked with several perceptions and practices, which sometimes result in adverse health outcomes. Women having a better knowledge regarding menstrual hygiene and safe menstrual practices are less vulnerable to reproductive tract infections⁽³⁾. So the present study was undertaken to study knowledge, status of hygiene and practices regarding menstruation among adolescent girls in rural and urban schools.

OBJECTIVE

1. To compare the knowledge of different aspects of menstruation between adolescent girls of rural and urban area
2. To compare the knowledge regarding menarche, social taboos, and stigma during menstruation among the study population.

MATERIALS AND METHODS

To determine knowledge about menstrual hygiene among

rural and urban school going population and participants filled a validated and reliable questionnaire. The characteristic information of the students and their answers to fourteen questions on research principles was collected. Anonymous questionnaire survey was developed for this purpose. Study participants were Rural and Urban school going adolescent girls in a selected school in Wardha district. It was a Cross sectional study. Sample size of 87 was calculated using Statcalc software of Epi Info version 6 at confidence interval of 95%, hence 100 subjects each from rural and urban population were chosen as the study subjects. As the study participants obtained in the rural area were 30, 35 and 35 from the rural area of 13, 14 and 15 years old females respectively, a similar population sample after matching the class and age was chosen for the urban area. Study duration of 1 week (11th January to 17th January 2016) was kept. The Study tool was a Pre-designed pilot tested interview schedule. Ethical clearance from the institutional ethical committee from Datta Meghe institute of medical sciences was taken. Informed consent was obtained from the students and they were assured of full confidentiality. Data was collected by face to face interviews conducted on the basis of pre-designed pro-forma. Data analysis was done with the use of frequency distribution tables.

Statistical analysis

It was done with the help of statistical software SPSS 16.0 and Graph Pad Prism 6.0. All the results were tested at 5% level of significance.

RESULTS

TABLE-1 DEMOGRAPHIC CHARACTERISTICS OF STUDY POPULATION

Variables	Urban(n=100)	Rural(n=100)
Age(yrs)		
13 yrs	30 (30.00%)	30 (30.00%)
14 yrs	35 (35.00%)	35(35.00%)
15 yrs	35(35.00%)	35(35.00%)
Religion		
Hindu	79(79.00%)	76(76.00%)
Muslim	15(15.00%)	20(20.00%)
Christian	6(6.00%)	4(4.00%)
Mother's Education		
Illiterate	6(6.00%)	20(20.00%)
Primary	15(15.00%)	36(36.00%)
Middle	18(18.00%)	30(30.00%)
Secondary	30(30.00%)	5(5.00%)
Higher Secondary	25(25.00%)	6(6.00%)
Degree & Above	6(6.00%)	3(3.00%)
Father's Education		
Illiterate	4(4.00%)	36(36.00%)
Primary	6(6.00%)	20(20.00%)
Middle	12(12.00%)	30(30.00%)
Secondary	10(10.00%)	5(5.00%)
Higher Secondary	16(16.00%)	6(6.00%)
Degree & Above	52(52.00%)	3(3.00%)
Monthly Family Income(Rs)		
Upto 5000 Rs	0(0.00%)	59(59.00%)
5001-10000	6(6.00%)	36(36.00%)
>10000	94(94.00%)	5(5.00%)

TABLE-2 DISTRIBUTION OF STUDY POPULATION ACCORDING TO HYGIENIC PRACTICES DURING MENSTRUATION

Hygienic practice during menstruation	Urban (n=100)	Rural (n=100)	Chi square p-value
Use of sanitary pad			
Yes	82(82.00%)	36(36.00%)	0.0001, S
No	18(18.00%)	64(64.00%)	
Method of disposal (n=82 in urban and n=36 in rural)			
Dig and bury	2(2.00%)	8(8.00%)	0.0001, S
Burn	3(3.00%)	6(6.00%)	
Throw in dustbin	72(72.00%)	20(20.00%)	
Away from house	5(5.00%)	2(2.00%)	
Source of information			
Mother	80(80.00%)	82(82.00%)	0.98, NS
Relatives	2(2.00%)	2(2.00%)	
Friends	17(17.00%)	15(15.00%)	
None	1(1.00%)	1(1.00%)	
Bleeding during menstruation			
Uterus	40(40.00%)	30(30.00%)	0.035, S
Urethra	25(25.00%)	15(15.00%)	
Anus	2(2.00%)	2(2.00%)	
Not known	33(33.00%)	53(53.00%)	

Cause of menstruation			
Physiological	23(23.00%)	19(19.00%)	0.29, NS
God Given	32(32.00%)	25(25.00%)	
Not known	45(45.00%)	56(56.00%)	
Suitable material during menstruation (n=82 in urban and n=36 in rural)			
Whisper	52(52.00%)	20(20.00%)	0.0001, S
New cloth	1(1.00%)	4(4.00%)	
Old cloth	1(1.00%)	10(10.00%)	
Whisper+Old cloth	22(22.00%)	1(1.00%)	
Whisper+New Cloth	6(6.00%)	1(1.00%)	
Restrictions during menses			
Religious	30(30.00%)	50(50.00%)	0.002, S
Food	10(10.00%)	15(15.00%)	
Not playing	50(50.00%)	33(33.00%)	
Marriage	10(10.00%)	2(2.00%)	
Cleanliness of genital area			
Yes	82(82.00%)	62(62.00%)	0.003, S
No	18(18.00%)	38(38.00%)	
Regular Bath			
Yes	95(95.00%)	98(98.00%)	0.442, NS
No	5(5.00%)	2(2.00%)	
Experience during menstruation (multiple responses)			
Mental Stress	20(20.00%)	30(30.00%)	0.378, NS
Abdominal Pain	70(70.00%)	68(68.00%)	
Irritation	50(50.00%)	48(48.00%)	

S=Significant, NS =Non Significant

TABLE-3 DISTRIBUTION OF STUDY POPULATION ACCORDING TO AGE OF MENARCHE AND THEIR REACTION TO MENARCHE

Variables	Urban (n=100)	Rural (n=100)	Chi square p-value
Age of menarche(yrs)			
<11 yrs	15(15.00%)	10(10.00%)	0.48, NS
12 yrs	60(60.00%)	60(60.00%)	
13 yrs	25(25.00%)	30(30.00%)	
Reaction about menarche			
Normal	44(44.00%)	41(41.00%)	0.836, NS
Scared	26(26.00%)	28(28.00%)	
Fever	12(12.00%)	14(14.00%)	
Ashamed	10(10.00%)	17(17.00%)	

Table 1 presents demographic characteristics of the study population. It is evident from the table that the age of study population ranged from 13 to 15 years, with mean age 15.21 ± 1.56 in urban and 15.62 ± 1.36 in the rural area. Majority of the study subjects belonged to Hindu religion. 94% in urban area had their monthly family income >10000 Rs and 5% in rural area had income >10000 Rs.

In urban area majority of mothers of adolescent were secondary educated and in rural area were educated upto primary and middle school. In urban area majority of fathers were educated upto graduation level and more and in rural most of the fathers were illiterate or educated upto middle school.

Table 2 Distribution of students according to hygienic practices during menstruation reveals that 82% of the students in urban area and 36% in rural area were using sanitary pad during menstruation. In both the area most of the students threw their sanitary pads after their use. 40% of students in urban area and 30% in rural area knew about the proper site of bleeding. 45% of the students in urban area and 56% in the rural area did not know the correct cause of menstruation. 30%, 50% urban and 50%, 33% rural females faced restrictions during religious functions and playing respectively.

Table 3 shows that in urban areas the mean age of menarche 12.21 ± 0.63 and in rural area it was 12.32 ± 0.51 . In this study, the overall mean age of menarche of the respondent's is 12.35 ± 0.61 . Table 3 also revealed that menarche was normal in 44% of urban students and 41% of rural students. 26% in urban and 28% in rural area were scared. 12% in urban and 14% in rural area complained of fever. 10% urban and 17% rural students felt ashamed.

DISCUSSION

This study observed that 82% in urban area and 36% in rural area used sanitary pads and 36% girls in the urban and 14% girls in the rural area were using homemade sanitary pads. This rural urban difference in using sanitary pads is highly statistically significant ($P = 0.0001$). Patle et al. ⁽⁵⁾ shows in their study that the use of sanitary pad was higher among girls in urban schools (50%) in comparison to rural (19%). In the study by Narayan et al., ⁽⁶⁾ it was found that only 1.7% girls in the rural area and 8.3% girls in the urban areas used commercially available sanitary pads. Drakshayani et al. ⁽²⁾ found that almost all the girls were using old cloth as menstrual absorbent.

Most (60% in urban and 40% in rural) of the girls in the present study threw sanitary pads away outside the house. A study by Raina D. ⁽⁷⁾ (2014) showed that 16% threw sanitary pads away from house.

In the present study it was revealed that, 40% of students in urban area and 30% in rural area know about the proper site of bleeding.

In a study by Thakre ⁽⁸⁾ et al. only 2.58% were aware about the correct source of bleeding during menstruation. 30%, 50% urban and 50%, 33% rural females faced restrictions during religious functions and playing respectively. In a study done by Jogdand K⁹ et al. it was revealed that 78.99% were not allowed to attend religious functions and 20.63% girls were restricted from playing in urban areas the mean age of menarche 12.21 ± 0.63 and in rural area it was 12.32 ± 0.51 . In this study, the overall mean age of menarche of the respondent's is 12.35 ± 0.61 . Jogdand K⁹ et al found that 72.77% of the subjects attained menarche by 12-14 years age.

CONCLUSIONS

It was concluded from the study that 82% in urban area and 36% in rural area used sanitary pads. More adolescents from urban area used sanitary pads. More adolescents in the urban area knew the correct source and cause of bleeding than the rural area. Most (60% in urban and 40% in rural) of the girls in the present study threw sanitary pads away outside the house.

Many of the students replied they faced restrictions in religious functions and playing during menstruation. Although adolescent girls from both the area used to face restric-

tions, more girls in rural area used to face restrictions during religious occasions.

RECOMMENDATION

Most of the adolescents in our study were using sanitary pads but correct method of disposal was not known which should be taught to them in the schools. Health education about the correct source of bleeding must be given to the adolescent population so that they will be made aware of the source of menstrual bleeding. Girls should be educated about the facts of menstruation, physiological implications, significance of menstruation, and proper hygienic practices during menstruation.

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