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Original Research Article

Comparative study of awareness and practices regarding menstrual hygiene among adolescent girls residing in urban and rural area

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ABSTRACT

Background: Menstruation is still regarded as something unclean or dirty in Indian society and it is strongly related with misconceptions and cultural restrictions. Learning about hygiene during menstruation is a vital aspect of health education for adolescent girls as patterns that are developed in adolescence are likely to persist into adult life.
Methods: A community based cross sectional study conducted in urban and rural field practice area of Department of Community Medicine, Khaja Banda Nawaz Institute of Medical Sciences, Gulbarga from Feb 2015 to July 2015. A total 230 adolescent girls were included in the study of which 123 from urban and 107 from rural area, after taking their verbal consent.
Results: Total 163 (70.9%) adolescent girls were aware about menstruation before the attainment of menarche. Awareness in urban area 95 (77.2%) was found higher compared to rural area 68(63.5%) and this difference was found to be statistically significant ($p<0.02$). It has been found that 83(67.5%) study participants from urban area used sanitary napkin during menstruation compared to only 56(52.3%) from rural area and this difference found statistically significant ($p<0.01$).
Conclusions: Overall awareness about menstruation was found low in both urban and rural area and needed to be increased by intensive health education among adolescents.

Keywords: Adolescents, Menstruation, Hygiene, Knowledge

INTRODUCTION

WHO has defined Adolescence as the period between 10-19 years of life.[1] According to United Nations Children's Fund (UNICEF), there are 243 million adolescents comprising 20% of the total population of India which clearly shows that India is truly "young".[2] This sheer number itself is a big challenge in itself; 15-19 years constitute 10% and majority lives in rural areas. Menarche marks the beginning of a multitude of physical, physiological, and psychological changes in the lives of the adolescent girls.

Menstruation is still regarded as something unclean or dirty in Indian society and it is strongly related with misconceptions and cultural restrictions.[3]

Learning about hygiene during menstruation is a vital aspect of health education for adolescent girls as patterns that are developed in adolescence are likely to persist into adult life.[4]

Adolescent girls often are reluctant to discuss this topic with their parents and often hesitate to seek help regarding their menstrual problems. 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). Many studies have revealed that most of the adolescent girls had incomplete and inaccurate information about the menstrual physiology and hygiene. Good hygienic practices such as the use of sanitary pads and adequate washing of the genital area are essential during menstruation. Menstrual hygiene and management will directly contribute the millennium development goal (MDG-2) on universal education and MDG -3 on gender equality and women empowerment. Menstrual hygiene is a priority intervention under RMNCH +A strategy.[5]

Hence taken into consideration of these facts this study was carried between adolescent girls residing in urban and rural area with objectives of

1. To access the knowledge and source of information regarding menstruation among adolescent girls.
2. To find out practices of menstrual hygiene among them.

METHODS

A community based cross sectional study was conducted in urban field practice area Khaja Bazar and rural field practice area Aurad, both comes under Department of Community Medicine, Khaja Banda Nawaz Institute of Medical Sciences, Gulbarga.

This study conducted during the period from Feb 2015 to July 2015. A house to house survey was carried out to find out adolescent girls in the particular area with the help of interns posted in Community Medicine.

A total 230 adolescent girls were included in the study by convenient sampling method, of which 123 from urban and 107 from rural area after taking their verbal consent. Adolescent girls who were not attained menarche and those who not willing to participate were excluded from the study. Pre designed, pre tested, semi structured questionnaire was used to collect the information from the study participants. After explaining the purpose of the study information regarding demographic profile, menstrual awareness, menstrual hygiene practices were obtained.

Data analyzed with the help of percentages and chi-square test wherever applicable.

RESULTS

Majority of the study participants were belonging to 13-15 years age group 57 (46.3%) form urban and 61(57.1%) from rural area. Followed by most of the study participants were belonging to 16-18 years age group 38 (30.9%) from urban and 31 (28.9%) from rural area.

It has been observed that total 163 (70.9%) adolescent girls were aware about menstruation before the attainment of menarche. Awareness regarding menstruation among adolescents who were residing in urban area 95 (77.2%) was found higher compared to adolescent girls who were residing in rural area 68(63.5%) and this difference was found to be statistically significant. ($p<0.02$).

Table 1: Distribution of study participants according to their age groups.

Age group (in years)	Urban (n=123)	Rural (n=107)	Total (n=230)
10-12	24 (19.5)	13 (12.1)	37 (16.1)
13-15	57 (46.3)	61 (57.1)	118 (51.3)
16-18	38 (30.9)	31 (28.9)	69(30.0)
≤19	4 (3.2)	2 (1.9)	6 (2.7)

Figures in parentheses indicate percentage.

Table 2: Distribution of study participants according to their Awareness about menstruation before menarche.

Awareness	Urban	Rural	Total
Yes	95 (77.2)	68 (63.5)	163 (70.9)
No	28 (22.8)	39 (36.5)	67 (29.1)
Total	123 (100.0)	107 (100.0)	230 (100.0)

Figures in parentheses indicate percentage; X2 = 5.19, df =1, p <0.02.

Majority of the study participants in urban 63(51.2%) as well as in rural 57 (53.2%) area, get the information about menarche / menstruation from their mothers. However this differences between urban and rural area was not found statistically significant ($p<0.73$).

87 (70.7%) study participants from urban area and 69(64.5%) from rural area said that cause of menstruation was physiological. 12(9.7%) adolescent girls from urban area and 17(15.9%) adolescent girls from rural area believed that menstruation was due to curse of god. However this differences between urban and rural area was not found statistically significant ($p<0.36$).

It has been found that 83(67.5%) study participants from urban area used sanitary napkin during menstruation compared to only 56(52.3%) from rural area and this difference found statistically significant ($p<0.01$). Overall prevalence of use of sanitary pad during menses was found low 139 (60.4%).

Majority of the study participants from urban 92(74.8%) as well as from rural 87 (81.3%) clean their external genitalia daily.

21(17.1%) study participants from urban area and 14(13.1%) from rural area uses only water for cleaning of their external genitalia, however this difference was not found statistically significant. ($p=0.11$).

Table 3: Distribution of study participants according to their general information about menstruation.

Source of information about menarche / menstruation	Urban (n=95)	Rural (n=68)	Total (n=163)	p value
Mother	52 (54.7)	33 (48.5)	85 (52.1)	$X^2 = 0.61$, df =2, p =0.73
Sister	17 (17.9)	14 (20.6)	31 (19.0)	
Friends / others	26 (27.4)	21 (30.9)	47 (28.8)	
Cause of menstruation	**Urban (n=123)**	**Rural (n=107)**	**Total (n=230)**	**p value**
Curse of god	12 (9.7)	17 (15.9)	29 (12.6)	$X^2 = 2.03$, df =2, p = 0.36
Physiological	87 (70.7)	69 (64.5)	156 (67.8)	
Don't know	24 (19.5)	21 (19.6)	45 (19.6)	

Figures in parentheses indicate percentage.

Table 4: Distribution of study participants according to menstrual hygiene practices.

	Urban	Rural	Total	p value
Material used during menstruation				
Sanitary napkin	83 (67.5)	56 (52.3)	139 (60.4)	$X^2 = 5.48$, df =1, p <0.01
Cloth	40 (32.5)	51 (47.7)	91 (39.6)	
Cleaning of external genitalia				
Daily	92 (74.8)	87 (81.3)	179 (77.8)	$X^2 = 1.40$, df =1, p = 0.23
Only during menses	31 (25.2)	20 (18.7)	51 (22.2)	
Method of cleaning				
Soap and water	78 (63.4)	81 (75.7)	159 (69.1)	$X^2 = 4.36$, df =2, p = 0.11
Antiseptic and water	24 (19.5)	12 (11.2)	36 (15.7)	
Only water	21 (17.1)	14 (13.1)	35 (15.2)	
Restriction practices during menses				
Practiced	91 (74.0)	72 (67.3)	163 (70.9)	$X^2 = 1.24$, df =1, p = 0.26
Not practiced	32 (26.0)	35 (32.7)	67 (29.1)	

Figures in parentheses indicate percentage.

Restrictions during menses were practiced in majority of the study participants from urban 91(74.0%) as well as rural 72(67.3%) area, however this difference also was not found statistically significant (p=0.26).

DISCUSSION

Awareness about menstruation before menarche: In our study total 163 (70.9%) adolescent girls were aware about menstruation before the attainment of menarche. Awareness regarding menstruation among adolescents who were residing in urban area 95 (77.2%) was found higher compared to adolescent girls who were residing in rural area 68(63.5%) and this difference was found to be statistically significant (p<0.02).

In a study done by Mayank Gupta et al also showed that total 129(36.9%) study participants were aware about menstruation before the attainment of menarche.[6] Awareness among study participants who were residing in urban area 108 (38.7%) was found higher compared to who were residing in rural area 21(29.5%).

The same findings were revealed by study done by Rupali Patle et al that total 324 (55.6%) study participants were aware or partially aware about menstruation before the attainment of menarche.[7] Awareness among study participants who were residing in urban area 187 (63.4%) was found higher compared to who were residing in rural area 137(47.6%).

Source of information about menarche / menstruation:

In our study majority of the study participants in urban 63(51.2%) as well as in rural area 57 (53.2%), get the information about menarche / menstruation from their mothers. Similar findings were observed by Mayank Gupta et al that majority of the study participants in urban 199 (71.3%) as well as in rural area 41(57.7%), get the information about menarche from their mothers.[6]

Abhay Mudey et al in his study found that majority of the study participants 122 (40.6%) were get the information about menarche from their mothers.[8]

Similar findings were founded by Kamath R et al in his study that majority of the study participants 85.6% from urban and 82.9% from rural were get the information about menarche from their mothers.[9]

Cause of menstruation:

In this study 87 (70.7%) study participants from urban area and 69 (64.5%) from rural area said that cause of menstruation was physiological. 12 (9.7%) adolescent girls from urban area and 17 (15.9%) adolescent girls from rural area believed that menstruation was due to curse of god.

Similar findings were observed by Mayank Gupta et al that majority 218(78.1%) study participants from urban area and 44 (61.9%) from rural area said that cause of menstruation was physiological.[6]

Material used during menstruation:

In our study it has been found that 83(67.5%) study participants from urban area used sanitary napkin during menstruation compared to only 56(52.3%) from rural area and this difference found statistically significant ($p<0.01$).

Similar findings were revealed by Subhash Thakre et al in his study, that 146(60.5%) study participants from urban area and 45 (30.8%) from rural area used sanitary napkin during menstruation and this difference found statistically significant ($p<0.01$).[10]

In a study done by Mayank Gupta et al also showed that 183 (65.5%) study participants from urban area and 39 (54.9%) from rural area used sanitary napkin during menstruation and this difference found statistically significant ($p<0.01$).[6]

Cleaning of external genitalia:

In our study majority of the study participants from urban 92(74.8%) as well as from rural 87 (81.3%) clean their external genitalia daily. Similar findings were observed by study done by Mayank Gupta et al majority of the study participants from urban 252 (90.3%) as well as from rural 59 (83.1%) clean their external genitalia daily.[6]

Method of cleaning:

In our study majority 78 (63.4%) study participants from urban area and 81 (75.7%) from rural area uses soap and water for cleaning of their external genitalia.

A study conducted by Abhay Mudey et al also found that majority 178 (59.3%) study participants uses soap and water for cleaning of their external genitalia.[8]

Mayank Gupta et al in his study found that 141 (50.5%) study participants from urban and 24 (33.8%) from rural area uses soap and water for cleaning of their external genitalia.[6]

Restriction practices during menses:

In our study restrictions during menstrual period were practiced which may be any kind in majority of the study participants from urban 91(74.0%) as well as rural 72(67.3%) area, however this difference also was not found statistically significant ($p=0.26$). A study conducted by Usha Rani Chadalawada and Santhi Kala showed that 100 (66.7%) study participants during their menstrual period practiced restrictions of any kind.[5]

CONCLUSION

Overall awareness about menstruation was found low in both urban and rural area. Awareness about menstruation needed to be increased by intensive health education among adolescents. What is the cause and physiology of menstruation should be properly explained to adolescents through school campaigns. Overall prevalence of use of sanitary napkin was found low in our study and it should be increased by easy availability of sanitary napkins at affordable cost in respective areas. Stigma associated with menstruation, higher prevalence of restriction practices during menstruation needed to be deceased by IEC campaign and health education.

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