

ORIGINAL RESEARCH

Assessment and comparison of attitude towards menstrual cycle among adolescent girls of rural and urban school

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ABSTRACT

Education about menstrual cycle since childhood could result in decreased suffering of majority of females. Therefore, the present study was undertaken to assess the attitude of adolescent girls towards menstrual cycle. **Material and Methods:** The present questionnaire based cross-sectional study was conducted among 700 adolescent girls (350 in each group) aged between 10-17 years in rural and urban schools respectively studying at government as well as private schools of urban and rural areas respectively. The questionnaire questions were asked in 5 points likert scale (1 being strongly disagree; 2 as disagree; 3 as neutral; 4 as agree and 5 as strongly agree). **Results:** We found that majority of the girls from rural setting were not ready when they got their first periods. However, participants from both the settings were not aware how to respond to their first period. Knowledge regarding the physical changes taking place during menstruation were more among the urban area as compared to rural setting. Girls living in rural areas were more comfortable with their friends followed by their sisters in talking about menstrual problems. **Conclusion:** Adolescents must be recognized as a priority target group. There were substantial lacunae in the knowledge about reproductive health. There are different types of misconception, myths, restriction and lack of menstruation related knowledge. There is need for special policies and programs to address the problems of adolescents to prevent diseases and promote good health in them.

Keywords: Adolescence; Menstrual Cycle; Reproductive health

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INTRODUCTION

Adolescence is a transitional stage of physical and psychological development that generally occurs during the period from puberty to legal adulthood (age of majority). Adolescence mainly involves the teenage years, but various aspects like physical, emotional or socio-cultural changes may appear earlier and disappear later. For example, changes of puberty now usually begins during early-adolescence, especially in females.¹ Menstruation, also known as period is the steady discharge of blood and mucosal tissue (known as menses) from the inner lining of the uterus through the genitalia. The first period usually starts from twelve to fifteen years of age, a point which is known as menarche.²

The society makes girl child feel uncomfortable and thus interfere with her development. Menarche may remain as an unpleasant memory for her forever until she is primed for it.³ Due to lack of knowledge about the menstrual hygiene infections mainly of

reproductive tracts are increased which are then transferred to their newborns. Girls who had proper knowledge and education about the hygiene during menstrual cycle (M.C.) were less susceptible for reproductive tract infections (RTI) and their complications.⁴ The emphasis of most of the academicians has been towards physical aspects of adolescent cleanliness and practices used to maintain hygiene during the cycles were better in urban areas when compared with the rural setting. Teenagers should be taught about the proper methods and cleanliness practices and they should be made aware of various superstitious thoughts, social culture of different religion, and deprived of freedom regarding menstruation.³

Hence, education about M.C since childhood results in decreased suffering of majority of females. Many studies done on school going girls who had attained menarche shows that there is significant difference between the hygienic practices and knowledge among

urban and rural setting.⁴Therefore, the present study was undertaken to assess the attitude of adolescent girls towards menstrual cycle.

MATERIAL AND METHODS

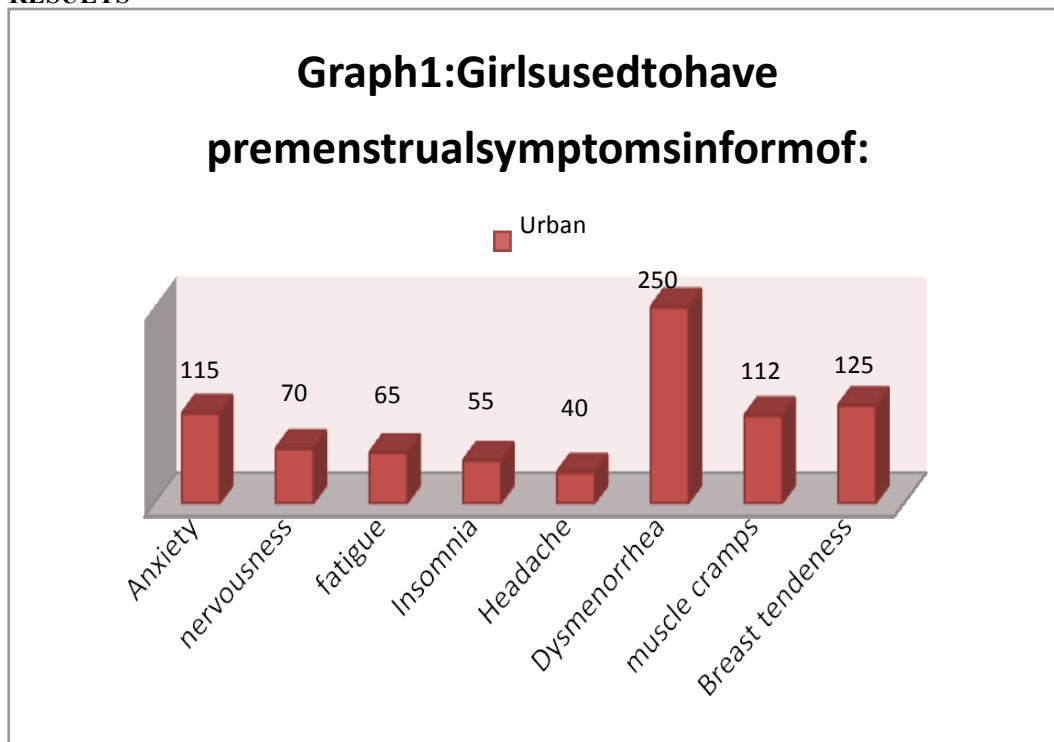
The present questionnaire based cross-sectional study was conducted among 700 adolescent girls (350 in each group) aged between 10-17 years in rural and urban schools respectively studying at government as well as private schools of urban and rural area respectively. Inclusion criteria consisted of adolescent girls aged 10-17 years of rural and urban schools who have attained menarche. Exclusion criteria consisted of mentally challenged girls of same age group and late adolescent girls aged 19-21 years were excluded from the study as they have passed school life. The study was approved by the institutional ethics committee (IEC) on 26/10/2017 with Ref no. PCMS/OD/2017/3568. In the study we took the informed consent from the principal of the school and the all the adolescent girls aged between 10-17 years of age were gathered together in the school

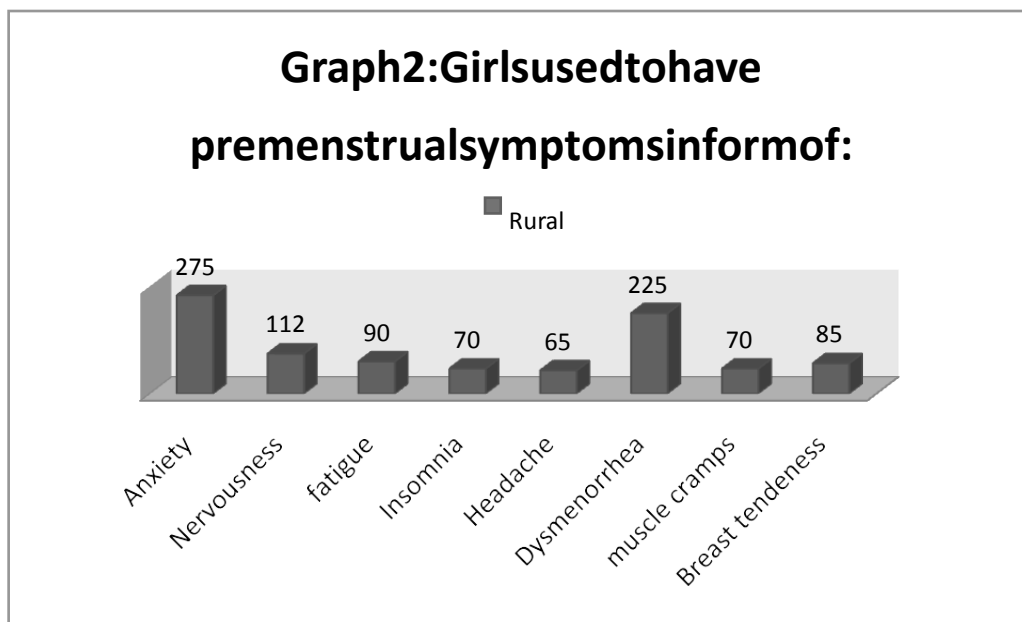
auditorium where they were explained about the questionnaire based study and then the Proforma were distributed to all the adolescent girls who have attained menarche and were asked to fill the format their itself. After filling the formats the Proforma was received from them.

Hygienic practices like what absorbent material they use, how they dispose it, method of cleaning external genitalia were asked. They were also asked for the use of medicines used during menstruation for premenstrual symptoms and iron tablet to prevent anemia. Open ended question were asked inform of will u worry or notify omiss periods? What kind of food restrictions are used at your home if any? The questionnaire questions were asked in 5 points like rt scale (1 being strongly disagree; 2 as disagree; 3 as neutral; 4 as agree and 5 as strongly agree).

Data collection was done over one and a half year after approval of IEC. Data was cleaned, coded and filled in excel sheet. Percentage and mean were calculated. Chi square test was applied to study the association.

RESULTS





Graph 1 shows kind of problem girls faced during menstruation in urban area revealed that majority of the girls had dysmenorrhea followed by breast tenderness and anxiety.

Graph 2 shows kind of problem girls faced during menstruation in rural setting, which revealed that majority of the girls had anxiety followed by dysmenorrhea.

Table 1, 2 and 3 shows attitude towards menstrual cycle among adolescent females in rural and urban settings using Likert scale. 90% girls from urban and 86.3% from rural area do not take iron tablets to prevent anemia during menstrual period. 90% girls from urban and 86.3% from rural area do not take iron tablets to prevent anemia during menstrual period. Use of analgesics for dysmenorrhea was seen more in urban setting as compared to rural. The kind of restriction used at home in Urban area revealed that majority of the girls were restricted for going to temple followed by entering into kitchen and then going to school. The kind of food restriction used at home in urban setting revealed that majority of the girls were restricted to eat pickle followed by papaya.

The kind of food restriction used at home in rural setting revealed that majority of the girls were restricted to eat pickle followed by papaya.

We found that majority of the girls from rural setting were not ready when they got their first periods. However, participants from both the settings were not aware how to respond to their first period. Knowledge regarding the physical changes taking place during menstruation were more among the urban area as compared to rural setting. The availability of the stuff (like pad or cloth) were fine with the girls from the urban area, moreover sanitary pads were used more in this area as compared to rural settings. Those who were not afraid of buying pads from the shops at the school responded that they were happy to know about the knowledge of menstruation when they got their first period.

Girls are more comfortable in discussing the facts and problems faced during this time with their friends followed by their mother and sister. Girls living in rural areas are more comfortable with their friends than their other and sisters in talking about menstrual problems.

Table 1: Likert scale: Responses received from the participants

Question	Group	1	2	3	4	5	Total	Chisquare value	P value
I had enough stuff (like pad or cloth) when I got my first period	Urban	38(10.9)	69(19.7)	52(14.9)	121(34.6)	70(20.0)	350	25.509	0.001
	Rural	79(22.6)	83(23.7)	53(15.1)	82(23.4)	53(15.1)	350		
I knew how to use pad	Urban	66(18.9)	94(26.9)	67(19.1)	84(24.0)	39(11.1)	350		

orcloths when Igot my firstperiod	Rural	96(27.4)	85(24.3)	43(12.3)	73(20.9)	53(15.1)	350	14.146
								0.007
I knew whatto expect whenIgotmyfirstperiod	Urban	55(15.7)	91(26.0)	85(24.3)	88(25.1)	31(8.9)	350	27.664
	Rural	90(25.7)	90(25.7)	46(13.1)	71(20.3)	53(15.1)	350	0.001
When I amhavingmyperiods, I amscared boyswillfindout	Urban	53(15.1)	54(15.4)	69(19.7)	122(34.9)	52(14.9)	350	39.606
	Rural	84(24.0)	93(26.6)	28(8.0)	90(25.7)	55(15.7)	350	0.001
I have not toldanyonethat my periodshavestarted	Urban	102(29.1)	88(25.1)	41(11.7)	70(20.0)	49(14.0)	350	11.587
	Rural	64(18.3)	99(28.3)	45(12.9)	85(24.3)	57(16.3)	350	0.021
Iwashappy when I foundoutabout menstruation	Urban	134(38.3)	100(28.6)	57(16.3)	31(8.9)	28(8.0)	350	41.098
	Rural	78(22.3)	100(28.6)	46(13.1)	76(21.7)	50(14.3)	350	0.001

Table 2: Likert scale: Responses received from the participants (continued)

Question	Group	1	2	3	4	5	Total	Chisquarevalue (P value)
I ambotheredbybuying pads at schoolorstore	Urban	79(22.6)	85(24.3)	50(14.3)	88(25.1)	48(13.7)	350	2.023
	Rural	72(20.6)	94(26.9)	45(12.9)	82(23.4)	57(16.3)	350	0.731
Just the factthat I have myperiods makesmeuncomfortable	Urban	40(11.4)	76(21.7)	42(12.0)	123(35.1)	69(19.7)	350	30.666
	Rural	79(22.6)	93(26.6)	54(15.4)	78(22.3)	46(13.1)	350	0.001
Iwasscared whenmyfirst periodstarted	Urban	39(11.1)	58(16.6)	63(18.0)	127(36.3)	63(18.0)	350	25.667
	Rural	80(22.9)	74(21.1)	57(16.3)	94(26.9)	45(12.9)	350	0.001
I worry a lotaboutmyperiodsstar tingunexpectedly	Urban	23(6.6)	89(25.4)	49(14.0)	126(36.0)	63(18.0)	350	52.757
	Rural	81(23.1)	95(27.1)	56(16.0)	65(18.6)	53(15.1)	350	0.001
Idonotliketobeseen putting padsinthegarbage	Urban	47(13.4)	61(17.4)	60(17.1)	115(32.9)	67(19.1)	350	26.673
	Rural	89(25.4)	82(23.4)	46(13.1)	76(21.7)	57(16.3)	350	0.001
When I talkwithmyfriends aboutperiods, I feeluncomfortable	Urban	118(33.7)	121(34.6)	43(12.3)	46(13.1)	22(6.3)	350	43.312
	Rural	79(22.6)	80(22.9)	51(14.6)	81(23.1)	59(16.9)	350	0.001
Icouldn'twait togetmyfirst period	Urban	127(36.3)	88(25.1)	63(18.0)	44(12.6)	28(8.0)	350	19.770
	Rural	87(24.9)	108(30.9)	46(13.1)	65(18.6)	44(12.6)	350	0.001
I feel verygrownupwhenIhavemyperiod	Urban	58(16.6)	103(29.4)	84(24.0)	74(21.1)	31(8.9)	350	41.4730.001
	Rural	112(32.0)	118(33.7)	20(5.7)	55(15.7)	33(9.4)	350	
I feel	Urban	168(48.0)	87(24.9)	56(16.0)	26(3.7)	13(3.7)	350	55.6680.001

excitedwhenigetmyperiod	Rural	94(26.9)	127(36.3)	35(10.0)	63(18.0)	31(8.9)	350	
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Table 3: Likert scale: Responses received from the participants (continued)

Question	Group	1	2	3	4	5	Total	Chisquarevalue (P value)
I feel uncomfortable about menstruation at school	Urban	103(29.4)	59(16.9)	47(13.4)	107(30.6)	34(9.7)	350	28.0390.001
	Rural	89(25.4)	109(31.1)	19(5.4)	102(29.1)	31(8.9)	350	
I am terrified that people will find out when I have my period	Urban	56(16.0)	80(22.9)	61(17.4)	119(34.0)	34(9.7)	350	15.0190.005
	Rural	86(24.6)	91(26.0)	36(10.3)	101(28.9)	36(10.3)	350	
I feel it's ok to discuss periods with boys	Urban	137(39.1)	111(31.7)	30(8.6)	50(14.3)	22(6.3)	350	19.3790.001
	Rural	103(29.4)	96(27.4)	29(8.3)	78(22.3)	44(12.6)	350	
Every time someone mentions periods, I get nervous	Urban	96(27.4)	104(29.7)	68(19.4)	71(20.3)	11(3.1)	350	49.9050.001
	Rural	58(16.6)	132(37.7)	47(13.4)	55(15.7)	58(16.6)	350	
I am glad I have grown mature enough to menstruate	Urban	58(16.6)	92(26.3)	85(24.3)	81(23.1)	34(9.7)	350	19.0440.001
	Rural	90(25.7)	111(31.7)	50(14.3)	68(19.4)	31(8.9)	350	
I feel special when I have my period	Urban	99(28.3)	130(37.1)	78(22.3)	28(8.0)	15(4.3)	350	24.9390.001
	Rural	89(25.4)	130(37.1)	44(12.6)	55(15.7)	32(9.1)	350	
I feel proud when I have my period	Urban	96(27.4)	123(35.1)	69(19.7)	42(12.0)	20(5.7)	350	23.8010.001
	Rural	82(23.4)	104(29.7)	47(13.4)	81(23.1)	36(10.3)	350	
When I began having my period, I changed into a woman	Urban	113(32.3)	92(26.3)	82(23.4)	49(14.0)	14(4.0)	350	37.6910.001
	Rural	75(21.4)	145(41.4)	43(12.3)	58(16.6)	29(8.3)	350	
I feel ugly when I have my period	Urban	80(22.9)	107(30.6)	60(17.1)	73(20.9)	30(8.6)	350	4.269 0.371
	Rural	83(23.7)	110(31.4)	44(12.6)	72(20.6)	41(11.7)	350	
It is ok if I got to temple while having periods	Urban	109(31.7)	104(29.7)	50(14.3)	51(14.6)	36(10.3)	350	8.6050.072
	Rural	86(24.6)	110(31.4)	39(11.1)	73(20.9)	42(12.0)	350	
I am comfortable while sleeping during my periods	Urban	65(18.6)	95(27.1)	50(14.3)	121(34.6)	19(5.4)	350	15.124 0.010
	Rural	85(24.3)	93(26.6)	47(13.4)	87(24.9)	38(10.9)	350	
I always felt tense before my expected date of period	Urban	36(10.3)	80(22.9)	69(19.7)	120(34.3)	45(12.9)	350	44.0070.001
	Rural	93(26.6)	103(29.4)	44(12.6)	79(22.6)	31(8.9)	350	

DISCUSSION

The changes occurring since childhood to an adult period in human body during teenage is recognized by physical growth, secondary sexual characters and psycho- social development. During this phase of growth the girls first experience menstruation and related problems which is marked by feelings of anxiety and eagerness to know about this natural phenomenon. However, they do not get the appropriate knowledge due to lack of a proper health education programme in schools. Moreover, the traditional Indian society regards talk on such topics as taboo and discourages open discussion on these issues. These all thought result in suppression of feelings which causes severe mental exertion and take health advices from non medicos and people who do not have complete knowledge of the subject.⁵ However, the day to day medical services are not sufficient enough to provide proper care

to adolescent health and its related problems. Understanding the health problems related to menstruation and the health seeking behavior of the adolescent girls, their awareness about pregnancy and reproductive health will help us in planning programmes for this vulnerable group. This type of study has been done to know the knowledge, attitude, practices and perception regarding menstrual cleanliness of school girls in rural and urban areas.

In present study we asked questions to analyse the knowledge, perceptions and beliefs among the girls from both rural and urban settings. We found that majority of the girls from rural setting were not ready when they got their first periods. However, participants from the both the settings were not aware how to respond to their first period. Knowledge regarding the physical changes taking place during menstruation were more among the urban area

as compared to rural setting. This may be due to the availability of mass media as compared to rural settings. A study conducted among school girls in Egypt by El-Gilany et al⁶ observed that mass media was the main origin of information about hygienic practices, followed by mother.⁶

The availability of the stuff (like pad or cloth) were fine with those from the urban area, moreover sanitary napkins used was high in this area in relation to rural settings. Those who were not afraid of buying pads from the shop at the school responded that they were happy to know about the knowledge of menstruation when they got their first period. Our findings are supported by Gupta et al⁷ who reported that traditional beliefs regarding menstruation still persist and menstrual hygiene among the adolescents was found to be unsatisfactory. This clearly indicates that there is need of more knowledge and educational programmes to be conducted for school going girls and provision of family health education package to all girls. Menstrual-hygiene is a serious problem that needs to be improved at all levels.⁷ Deo et al⁸ in a study on awareness regarding menstruation knowledge in adolescent girls (16 - 20) found that, most of the girls perceived menstruation as a natural occurrence of blood discharge every month. Some girls perceived it as a process by which impure blood is thrown out of the body every month; others were of the idea that it is simply blood spotting every month.

El-Gilany et al⁷ revealed that the use of sanitary pads and old cloth was found to be significantly high among urban school girls and rural girls, respectively. Similarly, Sathe et al⁹ also stressed on the need for introducing sex education in schools. Adolescents lack correct and scientific knowledge on sexuality and their fears and concerns related to their sexuality are not being addressed. There are no forums where they can discuss sexuality issue without fear and guilt. They concluded that lack of knowledge particularly about sexually transmitted infections pose a serious health problem which the policy makers of the nation need to take up seriously on an urgent basis.⁹

In present study in both the settings girls stopped attending their school in the event of menstruations. Thakre et al⁴ showed that 73.64% and Das Gupta et al¹⁰ found that (85%) girls practiced different restrictions during menstruation, mainly stop going schools. Still there is persistence of some traditional beliefs among the adolescents regarding menstruation and menstrual hygiene which should be unacceptable in the present scenario. Social stigma is still attached as the girls were having restriction.

Mother and mass media are the main source of information regarding menstruation in the pre-menarche age. There is a need of targeted interventions among the adolescent girls to raise awareness regarding healthy menstrual practices. Provision of family health education program and advice to address universal accessibility of healthy menstrual knowledge is essential at all levels.

Even today's modern world, physiology and nature of menstruation are very poorly understood among the female population due to many socio-cultural factors which make them to adapt certain practices unknowingly when the rite is incorrect. All women, whether rural or urban, irrespective of their socioeconomic status have their own beliefs and practices concerning menstrual hygiene.¹¹

Present study is not devoid of the limitation. Small sample size and cross sectional nature were the main. Due to that present study findings cannot be applied to large population. There is a need of a large randomized clinical trial to provide strength to present study findings.

CONCLUSION

Adolescents must be recognized as a priority target group. There were substantial lacunae in the knowledge about reproductive health. There are different types of misconception, myths, restriction and lack of menstruation related knowledge. There is need for special policies and programs to address the problems of adolescents to prevent diseases and promote good health in them. Schools should take active participation to educate the teen age girls about the reproductive health, RTIs, and cleanliness to be kept during Menstrual Cycle. Better hygienic customs can be adopted by making low cost sanitary napkins (social marketing).

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