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Original Article

Psycho-Social Behaviour of Rural and Urban Adolescent Girls of India During Menstruation: A Comparative Study

Supriya Kumari¹, Sukhmeet Minhas², Harinder Sekhon^{3,*}

* Chief Medical Officer (Psychiatrist), Composite Hospital, Group Centre, Central Reserve Police Force, Bantalab, Jammu – 181123, Jammu & Kashmir.

¹ Student, MBBS Final Year, Armed Forces Medical College, Pune – 411040.

² Reader, Dept of Community Medicine, Armed Forces Medical College, Pune – 411040, Maharashtra

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Context: Menstruation is part of the female reproductive cycle that starts when girls become sexually mature. Studies have revealed a huge gap in the knowledge, attitude and practices of adolescent girls, regarding menstruation. **Aims:** To study the psycho-social behaviour during menstruation among rural and urban adolescent girls, to get an insight of practices and identify the challenges encountered by them because of menstruation. **Settings and Design:** A community-based, descriptive, cross-sectional study, conducted in the rural and urban field practice areas of a medical college. **Methods and Material:** The study was conducted among adolescent girls 10-19 years of age, residing in the rural and urban field practice areas of a medical college. Data was collected in the form of personal particulars, anthropometric measurements and an examiner administered questionnaire. **Statistical analysis used:** Data was analysed using EpiInfo. **Results:** Mean age of study population was 16.9±1.75 years. Majority of girls attained menarche at 12 to 13 years of age. Comparatively more number of girls residing in urban area attained menarche at a younger age. All the girls from urban area used branded sanitary napkins available in market, while only 46.66% of the rural girls used these. **Conclusions:** Based on the findings of this study and analysis of the findings, we realise that this age group needs to be targeted, in order to encourage the girls to resort to good menstrual hygiene and bring about a positive change in their psychosocial behaviour and that of their families and community.

Key words: Adolescence, Behaviour, Girls, Menstruation, Rural, Urban

Corresponding author *

Dr Harinder Sekhon*

Chief Medical Officer (Psychiatrist), Composite Hospital, Group Centre, Central Reserve Police Force, Bantalab, Jammu – 181123, Jammu & Kashmir, Email: drharindersekhon@yahoo.com

Mobile no.:7298074530

1. INTRODUCTION

The World Health Organisation has defined adolescence as the age range of 10 – 19 years, the period between childhood and adulthood, marked by enhanced basal metabolic activities and endogenous processes like hormonal secretions with their influence

on various organ systems¹. Menstruation is part of the female reproductive cycle that starts when girls become sexually mature². Many studies have revealed a huge gap in the knowledge, attitude and practices regarding menstrual hygiene as well a rural – urban divide^{1,2,3}. WHO is focussing on making existing health facilities more 'friendly' to adolescents^{4,5}. Menstrual hygiene and management is an issue that is insufficiently acknowledged and has not received adequate attention, thereby affecting the very dignity of the girls during these days^{6,7,8,9,10}. Indian society is interwoven into a set of traditions, myths and misconceptions, especially regarding menstruation and related issues^{1,3,11,12}. In view of this, the present study was undertaken to study the psycho-social behaviour during menstruation among rural and urban adolescent girls, to get an insight of practices and identify the challenges encountered by them because of menstruation.

2. MATERIAL AND METHODS

This study was a community-based, descriptive, cross-sectional study conducted among adolescent girls 10-19 year old, residing in the rural and urban field practice areas of a medical college. Data was collected from all 30 girls in each group. Data collection from the study subjects broadly consisted of three types of procedures – personal particulars, anthropometric measurements and an examiner administered questionnaire. Age was recorded to the nearest completed year as per official records of the school. Record of educational status of the girl was restricted to the class in which she was studying at the time of data collection. Anthropometric measurements recorded were weight, height, Body Mass Index (BMI), waist circumference (WC), hip circumference (HC) and waist – hip ratio (WHR)⁵.

A pre-tested, validated questionnaire consisting of questions targeted at information regarding menstruation and issues related to psychosocial aspects was administered by the investigators. Informed consent was taken. Anonymity was maintained throughout. Data was collected, compiled and analysed thereafter, using appropriate statistical software, keeping in view the aims and objectives of the study.

3. RESULTS

On completion of the study and analysis of the results, the mean age of the total study population was found to be 16.9 ± 1.75 years while the mean anthropometric measurements like, mean height, mean weight, mean WC and mean HC were as shown in table – 1. The distribution of study population by religion is as shown in table – 2. The results in both the urban and the rural population were similar. Distribution of study population by type of family (table - 3) showed a predominance of three generation families in urban area (53.33%), while in the rural area, there were more number of joint families (36.66%). The distribution of study population by age at attainment of menarche (table - 4) showed that majority of the girls attained menarche at 12 to 13 years of age – whether they were from rural or urban area, but comparatively more number of girls residing in the urban area attained menarche at a younger age. All the girls from the urban area use company made branded sanitary napkins available in market (table - 5), while only about 46.66% of the rural girls use these. This is an important reflection on the knowledge, attitude and practices of the female population in the rural area, as well as the availability and affordability of the sanitary napkins. While all the urban girls claimed to change the used pads as and when required, only 30.0% of the rural girls followed this practice (table – 6). During menstruation, 66.66% of the urban girls slept at their usual place while 33.33% were told to sleep in a

separate room by their families (table - 7). On the contrary, 86.66% of the rural girls slept in their usual places during menstruation. It was found out that the main reason for this was lack of space in the village houses. Almost all the urban girls disposed off the used napkins in dustbins while those from rural area adopted various other methods of disposal (table – 8). The latter clearly highlights the fact that they are taught to keep this aspect of their physiology hidden from the people around.

About 36.66% girls from the urban area stated that they were not allowed by their families to enter the kitchen area during menstruation, while only 10.0% of the rural girls gave similar statement (table - 9). It was found out that the reason for more number of rural girls being allowed in the kitchen during these days was that the family needed working hands and could not afford to do otherwise. It was interesting to note (table - 10) that almost half of the urban girls stated that anybody coming in contact with them while they were menstruating, cleaned up by having bath (43.33%), or at least spraying water on themselves (30.0%). On the contrary, more than half of the rural people did nothing after contact since they have comparatively less time and resources to indulge in this practice. The common restrictions are imposed on the girls during this period were as shown in table – 11. No difference was found in the school attendance of the study population from both the groups during menstruation (table – 12).

4. DISCUSSION

In the present study, it was observed that 76.66% of girls in urban area came from Hindu families while Muslims constituted a little less than one-third. This was an important finding since religion influences the thinking, customs and practices of people to a great extent. More number of girls residing in urban area attained menarche at a younger age, in the present study. In a similar study, age of menarche of girls

ranged from 11 to 15 years and maximum number of girls were between 13 and 14 years of age¹⁵. In another study, 72.77% have attained menarche at 12-14 years¹⁶. Therefore, we see that results of the present study are comparable to that of others. Mean age of menarche was also found comparable to that of the other studies^{7,8,15,17}. Distribution of study population by type of family in the present study, showed a predominance of three generation families in urban area (53.33%), while in the rural area, there were more number of joint families (36.66%). In a similar study, the family structure showed 72.2 per cent (n=195) in the urban and 73.6 per cent (n= 206) from rural areas lived in nuclear family¹⁸. This is important since we know that young girls seek advice at home from the elder ladies in the household. Hence, the presence as well the awareness of the elder ladies is an important influencing factor. The aspect of use of company made branded sanitary napkins was also found to be similar to that of other studies^{18,19,20,21}. While all the urban girls claimed to change the used pads as and when required, only 30.0 per cent of the rural girls followed this practice in the present study. In another study, the median number of absorbents used during the last menstrual period was 8 (3.18) by each subject (range, 1-18), and was not significantly different between rural and urban girls²⁰.

In the present study, no difference was found in school attendance of the study population from both groups during menstruation. Another cross-sectional study from India found that 17% of girls reported missing school due to dysmenorrhoea, while 60% reported disruption of their daily activities². Rate of absenteeism in rural participants was more²⁰. In yet another study, 83% girls attended school during menstruation; out of which 72% were rural¹⁷. A variety of restrictions are imposed on the girls during menstruation. The common ones found in this study

were – not allowed to go to a place of worship, not allowed to cook or serve food, not allowed to eat and sleep with the rest of the family. Similar results were found in other studies^{16,17}. In the present study, during menstruation, 66.66% of the urban girls slept at their usual place while 33.33% were told to sleep in a separate room by their families (table - 6). On the contrary, 86.66% of rural girls slept in their usual places during menstruation. The main reason for rural girls being allowed to sleep in the same place was lack of space in the house. In similar studies it was found that almost half the girls had to sit separately during menses^{17,22}.

Table 1: Description of age profile & anthropometric measurements of study population

PARAMETER	MEAN	SD
AGE	16.9	1.759
HEIGHT	149.3	8.154
WEIGHT	44.8	8.086
WC	31.3	2.822
HC	34.8	2.646

Table 2: Distribution of study population by religion

RELIGION	FREQUENCY		TOTAL (60)
	URBAN (30)	RURAL (30)	
HINDU	23(76.66)	22(73.33)	45 (75.0)
MUSLIM	7(23.33)	8(26.66)	15 (25.0)
TOTAL	30 (100.0)	30 (100.0)	60 (100.0)

Table 3: Distribution of study population by type of family

TYPE OF FAMILY	FREQUENCY		TOTAL (N=60)
	URBAN (n=30)	RURAL (n=30)	
NUCLEAR	8 (26.66)	8 (26.66)	16 (26.66)
JOINT	6 (0.20)	16 (53.33)	22 (36.66)
THREE GENERATION	16 (53.33)	6 (0.20)	22 (36.66)
TOTAL	30 (100.0)	30 (100.0)	60 (100.0)

Table 4: Distribution of study population by age at attainment of menarche

AGE (IN YEARS)	FREQUENCY		TOTAL (N=60)
	URBAN (n=30)	RURAL (n=30)	
<12	6 (20)	1 (3.33)	7 (11.66)
≥12 to <14	22 (73.33)	17 (56.66)	39 (65)

≥14 to <16	2 (6.66)	10 (33.33)	12 (20)
>16	0	2 (6.66)	2 (3.33)
TOTAL	30 (100.0)	30 (100.0)	60 (100.0)

Table 5: Distribution of study population by type of pads used during menstruation

TYPE OF PADS USED	FREQUENCY		
	URBAN (n=30)	RURAL (n=30)	TOTAL (N=60)
Home-made disposable pads	0(0)	2(6.66)	2(3.33)
Home-made reusable pads	0(0)	14(46.66)	14(23.33)
Branded sanitary napkins available in market	30(100)	14(46.66)	44(73.33)
TOTAL	30 (100.0)	30 (100.0)	60 (100.0)

Table : 6 Distribution of study population by frequency of changing pads during menstruation

FREQUENCY OF CHANGING PADS	FREQUENCY		
	URBAN (n=30)	RURAL (n=30)	TOTAL (N=60)
1 pad/ period	0(0)	1(3.33)	1(1.66)
Once a day/ period	0(0)	20(66.66)	20(33.33)
Depending on requirement to change	30(100)	9(30)	39(65)
TOTAL	30 (100.0)	30 (100.0)	60 (100.0)

Table 7: Distribution of study population by sleeping quarters during menstruation

SLEEPING QUARTERS	FREQUENCY		
	URBAN (n=30)	RURAL (n=30)	TOTAL (N=60)
As usual	20(66.66)	26(86.66)	46(76.66)
In separate room	10(33.33)	4(13.33)	14(23.3)
TOTAL	30 (100.0)	30 (100.0)	60 (100.0)

Table 8: Distribution of study population by mode of disposal of used pads during menstruation

MODE OF DISPOSAL	FREQUENCY		
	URBAN (n=30)	RURAL (n=30)	TOTAL (N=60)
Dustbin	29(96.66)	6(20.0)	35(58.3)
Burying	0(0)	9(30.0)	9(15.0)
Burning	0(0)	6(20.0)	6(10.0)
In latrine	1(3.33)	0(0)	1(1.7)
In nearby river	0(0)	9(30.0)	9(15.0)
TOTAL	30 (100.0)	30 (100.0)	60 (100.0)

Table 9: Distribution of study population by practise of not-entering the kitchen during menstruation

ENTERING KITCHEN/ COOKING FOOD DURING PERIODS	FREQUENCY		
	URBAN (n=30)	RURAL (n=30)	TOTAL (N=60)
NO	11(36.66)	3(10.0)	14(23.3)
YES	19(63.33)	27(90.0)	46(76.7)
TOTAL	30 (100.0)	30 (100.0)	60 (100.0)

Table 10: Distribution of study population by practise of other people cleaning up themselves after coming in contact during menstruation

ON TOUCHING DURING PERIODS	FREQUENCY		
	URBAN (n=30)	RURAL (n=30)	TOTAL (N=60)
SPRAY WATER	9(30.0)	10(33.33)	19(31.7)
HAVE BATH	13(43.33)	0(0.0)	13(21.7)
TOUCH COW	0(0.0)	2(6.66)	2(3.3)
NOTHING	8(26.66)	18(60.0)	26(43.3)
TOTAL	30 (100.0)	30 (100.0)	60 (100.0)

Table 11: Distribution of study population by restrictions during menstruation

RESTRICTIONS DURING MENSTRUATION	FREQUENCY		
	URBAN (n=30)	RURAL (n=30)	TOTAL (N=60)
SOUR FOOD	11(36.66)	7(23.33)	18(30.0)
RICE, CURD, KHEERA	16(53.33)	21(70.0)	37(61.7)
VISITING TEMPLES	3(10.0)	2(6.66)	5(8.3)
TOTAL	30 (100.0)	30 (100.0)	60 (100.0)

Table 12: Distribution of study population by school attendance during menstruation

GOING TO SCHOOL DURING PERIODS	FREQUENCY		
	URBAN (n=30)	RURAL (n=30)	TOTAL (N=60)
NO	1(3.33)	1(3.33)	2(3.3)
YES	29(26.66)	29(26.66)	58(96.7)
TOTAL	30 (100.0)	30 (100.0)	60(100.0)

5. CONCLUSION

The present study was aimed at comparing the psycho-social behaviour of rural and urban adolescent girls during menstruation. Although the sample size of the study was relatively small, it does bring out the common practices and perceptions related to menstruation. Based on the findings of this study and analysis of the findings, we realise that this age group needs to be targeted, in order to encourage the girls to resort to good menstrual hygiene and bring about a positive change in their psychosocial behaviour as well

as that of their families and community. Although, on the whole, girls coming from urban areas have better practices during menstruation, compared to rural girls, there are lot of misconceptions and superstitions associated with this physiological process in both the communities. The above findings reiterate the need to encourage safe and hygienic practices among adolescent girls and also bring them out of the misconceptions related to menstruation.

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