

A COMPARITIVE STUDY OF KNOWLEDGE AND PRACTICE OF MENSTRUAL HYGIENE AMONG THE ADOLESCENT SCHOOL GIRLS INRURAL AND URBAN AREA

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Abstract

Menstrual hygiene and its related knowledge are indispensable for young girls. Whether the knowledge transcends into practice is also an important aspect. This paper aims to assess the knowledge and practice of menstrual hygiene among rural and urban girls. In general, it was believed that menstruation and menstrual hygiene practices are still linked with socio-cultural restriction and taboos which results lack of knowledge and awareness in adolescent girls. This paper does a ground-level survey of these concepts. Menstruation is a monthly phenomenon for every woman that requires access to appropriate resources and facilities without which; a woman may suffer from poor menstrual hygiene related issues which in turn cause health issues and hampers their self-confidence. The prime objectives of the study were to find out the perceptions related to menarche, social taboos, stigma and spending capacity on sanitary napkins among girls (during menstruation) based on their socio-demographic profile. It also aims to compare the knowledge and practice of menstrual hygiene among the adolescent school girls in the rural and urban area. A sample of 120 students was studied, which was further divided into two parts i.e. 60 girls for rural area and 60 for the urban area. The data was collected using a 31 item, structured questionnaire. The tool was further divided into four parts. There was no association found between the education of mother and restrictions faced during menstruation by the adolescent girls. Even a less educated mother can be liberal while a mother who is more educated may impose more restrictions. The study concluded that there is no significant difference in knowledge and practices of menstrual hygiene among the adolescent girls of rural and urban area.

Key Words: Menstrual Hygiene, Adolescent, School, Girls, Rural, Urban, Menstrual Knowledge

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Introduction

Good menstrual hygiene empowers a girl and ensures that she can take care of herself and her menstrual health very well. Since this issue has long been a taboo in most developing societies therefore the knowledge and practice of menstrual hygiene is an essential area of discussion. Menstruation which is a routine biological phenomenon in girls and women remains masked in a culture of silence and shame. In certain societies girls in menstrual days are treated as unclean and impure. The Hindi movie 'Padman' released in 2018 is a case in point. The movie starring Akshay Kumar depicted how women in rural areas were treated as untouchables during the menstruating days and how very little attention has been paid to the menstrual hygiene and its related knowledge. When girls have insufficient and incorrect information related to menstrual hygiene it leads to more problems and a string of health concerns. The knowledge has to transcend into practice also.

Menstrual hygiene or its related knowledge has been thought to be linked to educational level, socioeconomic factors, cultural practices and statuses of the family to which these girls belong. The aim of maintaining menstrual hygiene is to make sure that girls (and women) can handle their body in such a way that is not only merely healthy, but such that it allows them to participate fully in school, or at work and in other activities.

Introduction of Variables

Knowledge- "Knowledge is the facts, information and skills acquired through experience or education. Knowledge can refer to a theoretical and practical understanding of a subject. Awareness gained by experience of a fact or situation."

Menstrual hygiene- "Effective menstrual hygiene is very important to the health, well-being, majesty, empowerment, mobility and productivity of women and girls. Maintaining poor menstrual hygiene can cause stigmas and ill health can lead to school absenteeism and increased school drop-out rates. It includes all those measures taken by individual to keep the genital area clean and dry during the menstrual cycle. Menstruation is a natural process however if not properly managed it can result in adverse health outcomes."

Practices- "Practice refers to something which is carried out regularly or repetition of an activity." In this research practices are defined as religious practices and menstrual practices during menstruation.

Past Literature

Gandotra et al. (2018) conducted a research on the "Assessment of knowledge and practices of menstrual hygiene among urban adolescent girls in North India". Most of the participants knew about the menstruation before menarche. Friends and mothers were the major source of informant about the menstruation. From this study it was concluded that women should be

educated about the menstruation and its physiological implications during menstruation. Incorrect restrictions, myths and beliefs related to menstruation can be removed by educating parents and teachers.

This study on “Menstrual hygiene, management, and waste disposal: practices and challenges faced by girls of developing countries” figured out that lack of privacy is major concern both in household and in schools. Also, ignorance, misconceptions, unsafe practices, and illiteracy of the mother and child regarding menstruation are the root cause of many problems. So, there is a big need to encourage adolescents at school levels to practice safe and hygiene behaviors **Kaur (2018)**.

Basu&Sarkar (2017) carried out a study on “Menstrual hygiene among school going girls in a rural area of West Bengal which concluded that menstrual hygiene among the study population was found to be poor. The improving education level of the mothers can go a long way in improving menstrual hygiene practice.

The cross-sectional study was carried out by **Yadav et al. (2016)** at seven village development committees in Doti district, Nepal. This study was done among 276 students from grade seven and eight of 11 schools. 67.4% respondents had fair knowledge and 26.4% respondents had good knowledge on menstrual hygiene management. However, out of 141 female adolescent respondents, only 56 (40%) were engaged in good menstrual hygiene practices. Around half of the respondents had positive attitude towards menstrual hygiene management related issues. Although knowledge on menstrual hygiene management among school adolescents is fair, still attitude and practice need to improve.

The study done by **Dixit et al. (2015)** on “Awareness about menstruation and menstrual hygiene practices among adolescent girls in central India”. Findings of the study revealed that awareness was much more and good menstrual hygiene found in the private schools as compared to the government schools. Mother was the first informant regarding menstruation in case of 70 % of girls with 54% in government school and 86% girls in private school. Sanitary pads were used among 98% girls out of which 38% girls used the absorbent material for 6-12 hours.

Manjunatha et al. (2014) concluded from their study that knowledge was better than practice, but both were not satisfactory. So, the girls should be educated about the significance of menstruation, use of proper sanitary pads or absorbents and its proper disposal. This can be achieved by giving them proper training and health education by teachers, family members, health workers, and media so that there won't be any misconception to the adolescent girls regarding menstrual hygiene.

Dube and Sharma (2012) conducted a study and the data indicated that a large number of urban population were aware of menstruation whereas a majority (56%) of the rural girls were not fully aware of its physiological basis. Regarding awareness about menstruation 60% of urban girls were of the view that it is natural cyclic process, where as 56% rural girls were of the opinion that it is some kind of disease or a physical problem.

A study was conducted by **Trinoye et al. (2003)**. “Menstruation: knowledge, attitude and practices of students in Taiwan”, the purpose of the study was to explore gender differences in knowledge and attitudes towards menstruation among Taiwanese adolescents. The results showed that almost all the students had heard about menstruation and most of them had received menstrual information at school. However, their knowledge about menstruation was not accurate. Moreover, the male students expressed more negative attitudes towards menstruation than the female students.

Kamble(2001) did a similar research titled “A study to access the knowledge and practice of menstruation and menstrual hygiene among school girls”. The findings of the study showed that 61.66% of the girls had an average knowledge regarding menstruation on menstrual hygiene and 87.66% of the girls followed correct practices.

Objectives of the Study

1. To study the perceptions regarding menarche, social taboos, stigma and their spending capability on napkins during menstruation among the girls based on their socio-demographic profile.
2. To assess the preferences of clothes that girls like to wear during menstruation.
3. To compare the knowledge and practice of menstrual hygiene among the adolescent school girls in the rural and urban area.

Hypothesis

H1: School going adolescent girls whose parents have less annual income spend less money on napkins per month as compared to girls whose parents earn good amount of income.

H2: Girls whose parents are less educated face more restrictions and stigmas during menstruation.

H3: Girls prefer to wear more loose and baggy clothes casually during menstruation.

H4: During menstruation girls prefer long dresses to wear on special occasion.

H5a: There exists significant difference in knowledge about menstruation hygiene between rural and urban areas.

H5b: There exists significant difference in practice of menstrual hygiene between the adolescent school girls of rural and urban areas.

Research Design

(i) Sample for the Study

A sample of 120 students was studied which was further divided into two parts i.e. 60 for rural area and 60 for the urban area. Data was collected from the adolescent girls studying in the school which includes the Classes 8th – 12th. Randomly two government schools were selected for the study.

(ii) Tools Used in the Study

The data was collected using 31 items questionnaire developed by the researcher. The tool was further divided into four parts.

PART	DESCRIPTION	NO. OF ITEMS
Part – 1	Socio-demographic profile	5
Part – 2	General awareness	11
Part – 3	Knowledge about menstruation	3
Part – 4	Practices about menstruation	14

(iii) Statistical Tools Used in the Study

Statistical tool that helped in evaluation of data are as follows:

1. Overall percentages were calculated.
2. Chi-square and T-test were applied with the help of SPSS software.

Data Presentation and Interpretation

H1: There is significant difference between parental annual income and money spent on napkin by adolescent girls.

Table 1: Association between parents' annual income and money spend on sanitary napkins.

Money spend on Napkin	Annual Parents income				Chi-square value	df	p-value
	1-3 Lacs	3-6Lacs	6-9 Lacs	Total			
Rs. 100-200	62(65.3)	6(35.3)	1(12.5)	69(57.5)	49.7	8	0.00**
Rs.200-300	16(16.8)	2(11.8)	1(12.5)	19(15.8)			
Rs.300-400	8(8.4)	5(29.4)	1(12.5)	14(11.7)			
Rs.400-500	7(7.4)	4(23.5)	1(12.5)	12(10)			
Above Rs. 500	2(2.1)	0(0)	4(50)	6(5)			
Total	95(100)	17(100)	8(100)	120(100)			

**Significant at 0.01 level

Table 1 represents the association between parents' annual income and money spent on napkins per month. Significant association (Chi-square value=49.7, $p < 0.01$) was observed between parents income and money spend on napkins at 0.01 level of significance. Hence, there is significant difference between parental annual income and money spend on napkin by adolescent girls was accepted. 65.3% girls whose parents' income is between 1-3 lacs spend less money on napkin as Rs.100-200 on napkins.

The above discussion shows that most of the adolescent girls have parental income in between 1-3lacs and spend between Rs.100-200 on an average per month on napkins during menstruation period.

H2: There exists significant difference between education of mother and restriction faced during menstruation

Table 2: Association between education of mother and the restrictions faced by adolescent girls during menstruation

	Illiterate	Primary school	Middle	Secondary school	Graduate and above	Total	Chi-square value	df	p-value
Do not go to school	4(17.4)	1(2.6)	4(12.1)	1(5.6)	1(12.5)	11(9.2)	26.7	20	0.14
Do not perform any sports activity/outdoor activity	6(26.1)	24(63.2)	17(51.5)	11(61.1)	6(75)	64(53.3)			
Avoid sour food/cold water	4(17.4)	11(28.9)	3(9.1)	3(16.7)	0(0)	21(17.5)			
Sleep separately	3(13)	0(0)	3(9.1)	1(5.6)	0(0)	7(5.8)			
Do not enter in the kitchen	2(8.7)	1(2.6)	1(3)	0(0)	0(0)	4(3.3)			
Do not household work	4(17.4)	1(2.6)	5(15.2)	2(11.1)	1(12.5)	13(10.8)			
Total	23(100)	38(100)	33(100)	18(100)	8(100)	120(100)			

Table 2 represents the association between education on mother and the restriction face by girls during menstruation period. Non-significant difference was observed at 0.05 level of significance. Therefore, the hypothesis H2 shows that there exists significant difference between education of mother and the restriction face among adolescent was rejected. There is no difference between the education of mother and restrictions faced during menstruation. Even a less educated mother can be liberal and impose fewer restrictions while a mother who is more educated may imposes more restrictions.

H3: Adolescent girls prefer to wear more loose and baggy clothes casually during menstruation.

Table 3: Sub categories of casual clothes preferred during menstruation

Preference of casual clothes	Frequency	Percent	Chi-square value	df	p-value
Loose and baggy clothes	82	68.3	133	3	0.00**
Snug fitted clothes	28	23.3			
short dresses	1	0.8			
Long dresses	9	7.5			
Total	120	100.0			

**Significant at 0.01 level

Table 3 represents the association among adolescent girls wearing of casual clothes during menstruation. Significant association found (Chi-square value=133, $p < 0.01$) at 0.01 level of significance. Responses shows that girls prefer mostly loose and baggy clothes (68.3%) followed by snug fitted clothes (23.3%), short dresses (0.8%) and long dresses (7.5) respectively. During menstruation loose & baggy clothes are a favorite among adolescent girls.

H4: During menstruation girls prefer fitted clothes for special occasions.

Table 4: Preference of clothes for special occasion during menstruation.

Preference of clothes on special occasions	Frequency	Percent	Chi-square value	df	p-value
Fitted clothes	60	50.0	62.9	3	0.00**
Loose clothes	19	15.8			
Short dresses	2	1.7			
Long dresses	39	32.5			
Total	120	100.0			

**Significant at 0.01 level

Table 4 represents the preference of clothes for special occasion during menstruation. Significant association was found (Chi-square value=62.9, $p < 0.01$) at 0.01 level of significance. Responses shows that girls prefer fitted clothes (50%) followed by Long dresses (32.5%), loose clothes (15.8%) and short dresses (1.7%) respectively. From above discussion, it is concluded that girls prefer long dresses on special occasions (like parties, functions etc.) during menstruation periods.

H5a: There exists significant difference in knowledge about menstruation hygiene between rural and urban areas.

Table 5: Knowledge between urban and rural adolescent girls about menstrual hygiene.

Urban		Rural		t- value	Df	p-value
Mean	SD	Mean	SD			
4.27	1.13	4.10	1.17	0.79	118	0.43(NS)

Table 5 represents the significant value of knowledge between rural and urban areas of adolescent girls. The Mean and SD of awareness for urban as 4.27 and 1.13 respectively whereas mean and SD of awareness for rural area as 4.10 and 1.17 respective. The t-value 0.79 found to be non- significant at 0.05 level of significance Therefore, the hypothesis shows there exists significant difference in knowledge between rural and urban area adolescent girls was rejected.

H5B: There exists significant difference in practice of menstrual hygiene between the adolescent girls of rural and urban areas.

Table 6: Practices between urban and rural adolescent girls

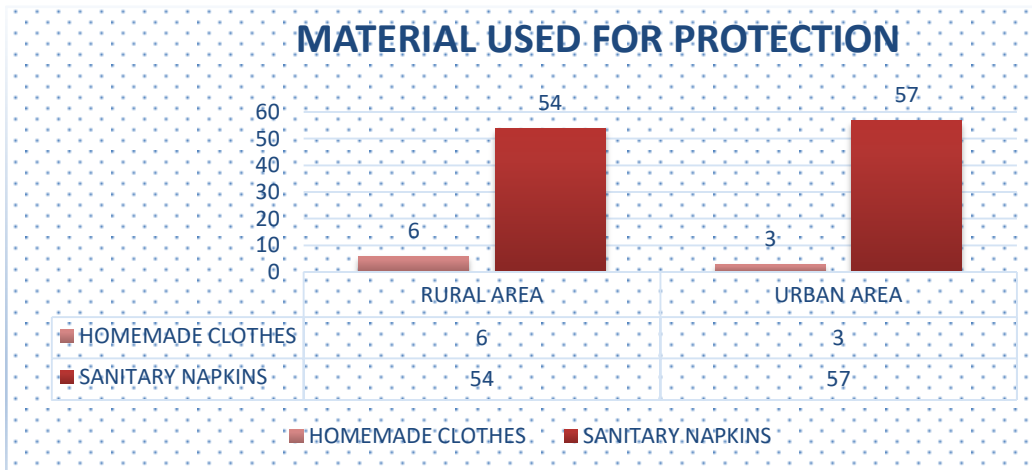
Urban		Rural		t- value	Df	p-value
Mean	SD	Mean	SD			
30.4	4.20	31.7	3.78	-1.85	118	0.07(NS)

Table 6 represents the significance value of practices between rural and urban areas for adolescent girls. The Mean and SD of practices for urban as 30.4 and 4.20 respectively whereas mean and SD of practices for rural area as 31.7 and 3.78 respective. The t-value -1.85 found to be non- significant at 0.05 level of significance Therefore, hypothesis H5b that there exists significant difference practices of menstrual hygiene between the adolescent girls of rural and urban areas was rejected.

From the above discussion (from Table 5 and Table 6), we conclude that the adolescent girls belonging to urban and rural areas have similar knowledge and practice of menstruation hygiene. There is no difference between the rural and urban area when it comes to knowledge and practice of menstrual hygiene.

Material used for protection

Material use for protection	Rural Area		Urban Area		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Homemade Clothes	6	10%	3	5%	9	7.5%
Sanitary Napkins	54	90%	57	95%	111	92.5%
Total	60	100%	60	100%	120	100%

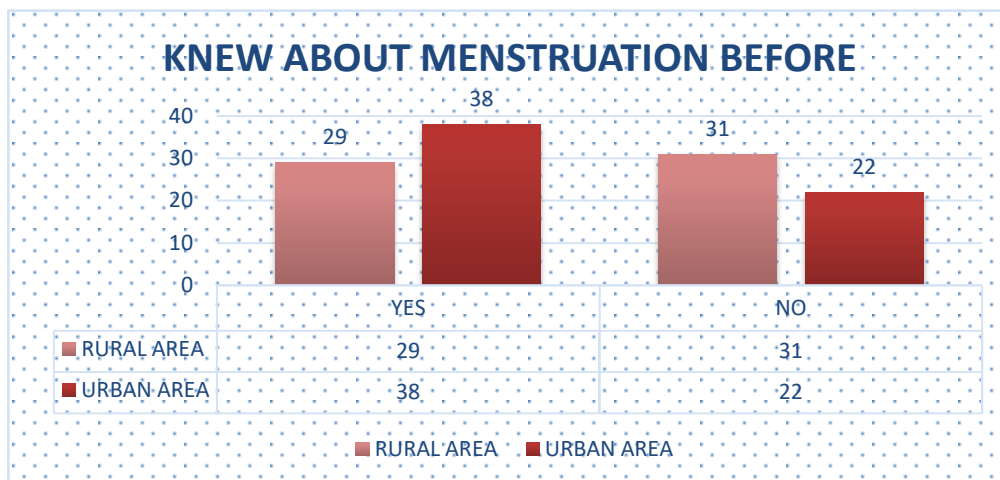


It has been

found that 57 (95%) participants from urban area used sanitary napkins during menstruation compared to 54 (90%) from rural area. Very few girls used unsanitary absorbent materials 3 (5%) in urban area and 6 (10%) in the rural area, however cloth is being gradually replaced by the pads both in urban and rural area.

Knew about menstruation before

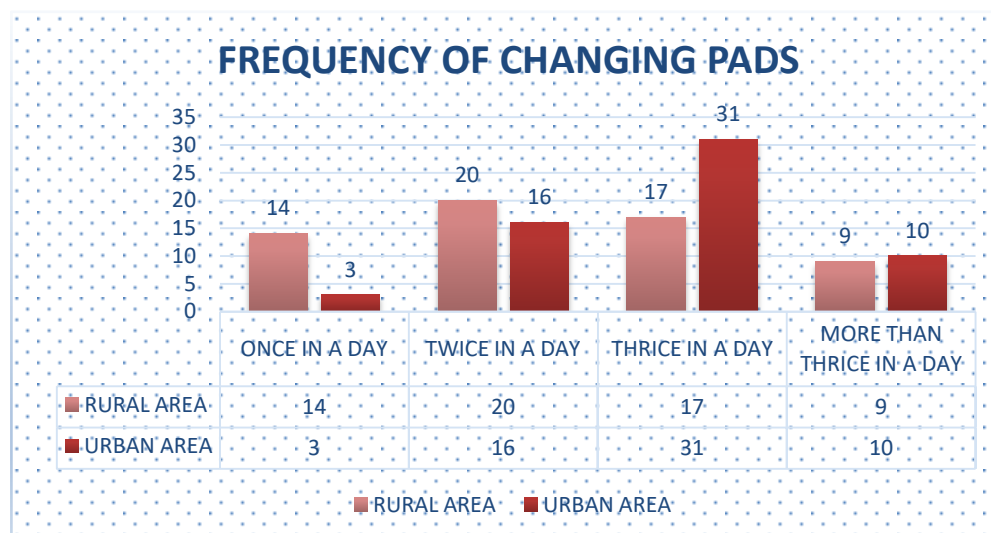
Knew about Menstruation Before Menarche	Rural area		Urban area		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	29	48.3%	38	63.3%	67	55.8%
No	31	51.7%	22	36.7%	53	44.2%
Total	60	100%	60	100%	120	100%



The above graph and table represents that most of the participants prior to menarche (onset of menstruation) were well informed about the menstruation. Data indicates that knowledge of the respondents in urban area 38 (63.3%) was more as compared to the rural area 29 (48.3%).

Frequency of Changing Pads

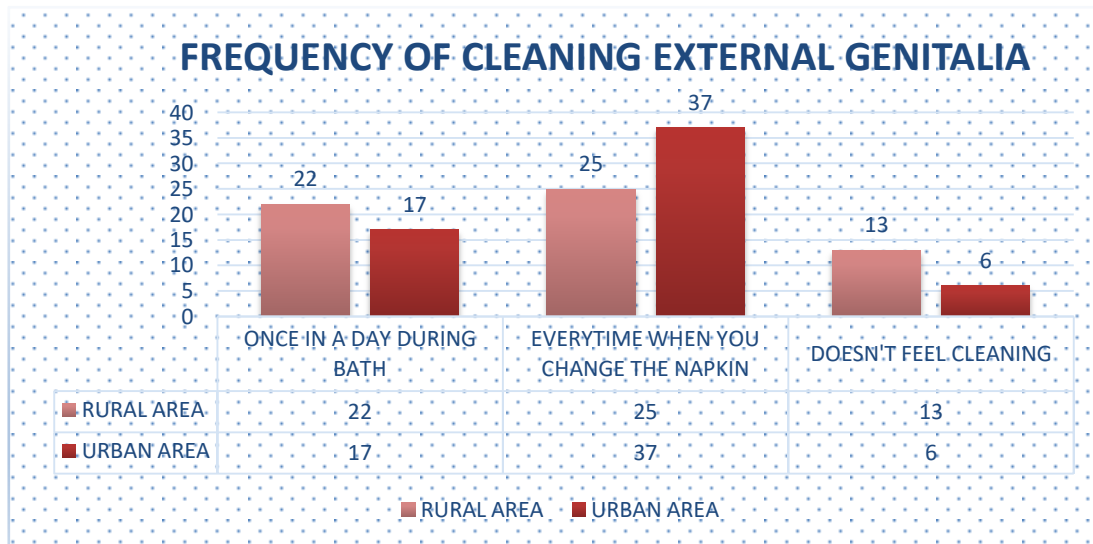
Frequency Of Changing pads	Rural area		Urban area		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Once In A Day	14	23.3%	3	5%	17	14.2%
Twice In A Day	20	33.3%	16	26.7%	36	30%
Thrice In A Day	17	28.3%	31	51.7%	48	40%
More Than Thrice In A Day	9	15%	10	16.7%	19	15.8%
Total	60	100%	60	100%	120	100%



Frequency of changing pads is well-practiced in the urban area. 31 (51.7%) respondents change the sanitary napkin thrice in a day where as in rural area 17 (28.3%) respondents change the napkin thrice in a day. Only 3 (5%) adolescent girls changes the sanitary napkin once in a day in urban area and 14 (23.3%) adolescent girls changes the sanitary napkin once in a day in rural area.

Frequency of cleaning external genitalia

	Rural Area		Urban Area		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Once In A Day During Bath	22	36.7%	17	28.3%	39	32.5%
Every Time When You Change The Napkin	25	41.7%	37	61.7%	62	51.7%
Doesn't Feel Like Cleaning	13	21.7%	6	10%	19	15.8%
Total	60	100%	60	100%	60	100%



The cleaning of external genitalia every time when respondents change the napkin was high in the urban area 37 (61.7%) as compared to the rural area 25 (41.7%). Very few respondents were not feeling like to clean the external genitalia in the urban area 6 (10%) and in rural area it is 13 (21.7%).

Conclusions

From this study, it is concluded that the adolescent girls whose parent annual income is less spend less money on sanitary napkins per month.

There is no association between the education of mother and restriction faced during menstruation by the adolescent girls. Even a less educated mother can be liberal while a mother who is more educated may impose more restrictions.

The study reveals that adolescent girls like to wear more loose and baggy clothes casually in both urban and rural areas.

Fitted clothes for special occasion during menstruation were a favorite among respondents.

The study shows that there is no significant difference in knowledge and practices of menstrual hygiene among the adolescent girls of rural and urban area.

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