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Original Research Article

Knowledge, attitude and practices regarding reproductive health among rural and urban adolescent girls

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ABSTRACT

Background: Menstruation is a biological event imbued with social, cultural and personal significance. Due to impact of social media and internet the incidence of indulging in unprotected sexual intercourse and unplanned pregnancies are rapidly increasing among teenagers. Objectives were to assess the knowledge regarding safe sex and contraceptive methods and compare the menstrual and sexual awareness among adolescent girls in rural and urban settings.
Methods: The health questionnaire was prepared from WHO adolescent health manual as reference base. The adolescent survey was done.
Results: In present study maximum number of girls had attained menarche between 12-15 yearsin both groups . The study showed lack of menstrual hygiene among rural girls in compare to urban girls where79 %girls use either sanitary pads or cotton and in comparison to urban girls, rural girls had more restrictions in going out.
Conclusions: Education regarding proper physiology of menses and there should be open discussion regarding restrictions and taboos related to menses at the school level to minimise the false beliefs

Keywords: Menstruation, Adolescent, Contraception, Hygiene

INTRODUCTION

Adolescence comes from the Latin word adolescere, which means "to ripen" or "to grow up. "WHO defines adolescent age as age group from 10 to 19 years of age.[1] It is a transition state from the complete dependence of children on their parents to the establishment of their own thinking. They experience various physical and emotional changes during this period.[2]

In current scenario India has a population of over 1 billion and adolescent comprises 22% (225 million) of the population, of which 47% are females.[3]

Menstruation is a biological event imbued with social, cultural and personal significance in Marván et al.[1] It is a natural process but due to several misconceptions and cultural practices in our country, adolescent girls still lackopen discussion or information regarding menstrual cycle and hygiene practices. Moreover, it has been associated with various taboos and restriction on girls during menstruation.

Due to impact of social media and internet the incidence of indulging in unprotected sexual intercourse and unplanned pregnancies are rapidly increasing among teenagers.

In both school and homes, menstrual hygiene and reproductive health is still the less discussed topic because most of the teachers and parents feel embarrassed to discuss this topic and it is not included in school curriculum also. This makes their knowledge regarding menstrual and safe sexual practices deficient and vulnerable for reproductive tract infection, sexual transmitted diseases, unsafe abortions, unplanned pregnancies and unsafe abortions impacting their future life.

Present study was conducted to compare awareness about menstrual hygiene and reproductive health among adolescents' girls and common ailments noted in urban and rural areas.

Aims and objective

Aim and objectives were to study the common ailments among adolescent girls, to study the awareness of menstrual hygiene practices among adolescent girls, to assess the knowledge regarding safe sex and contraceptive methods among adolescent girls and to compare the menstrual and sexual awareness among adolescent girls belonging to rural and urban habitat.

METHODS

Study type

The study type was cross sectional study.

Study place

The study conducted at Swaroop Rani hospital, Prayagraj.

Duration of study

The study conducted from 1 year between July 2020-June 2021.

Case selection

All adolescent girls between 15 years to 19 years were included in the study

Sample size

The 1000 adolescent girls and 500 urban and 500 rural girls.

Data collection and techniques

A health questionnaire was prepared for adolescents to assess their knowledge about menstrual hygiene, sexual awareness and contraceptive options; the questionnaire was prepared from WHO adolescent health manual as reference base. The adolescent survey was done.

All the adolescents' girls were categorized into 2 groups- Group 1: Girls from urban areas and group 2: Girls from rural areas.

The written consent was obtained from the adolescent girls and their parents as they participated in the survey. The girls were asked to fill up the questionnaire. The questions were explained to every girl in their preferred language personally. Confidentially was maintained as their name and address were not included in questionnaire. Health talk was also imparted and their queries were answered after collecting their performs.

Inclusion criteria

Age group of girls 15 to 19 years were included in the study.

Exclusion criteria

Married girls under 19 years of age were excluded from the study.

Ethical approval

Institutional ethics committee permission was procured prior to the start of the study by institutional ethics committee, MLNMC, Prayagraj.

Statistical analysis

The data was analysed using chi square test. The results obtained were analysed using the chi-square test. P<0.05 was considered significant.

RESULTS

Table 1 showed age of menarche compared in both groups. Maximum number of girls attained menarche are between 12 years to 15 years of age in both groups.

Table 1: Comparison of average age of onset of menarche among rural and urban girls, (n=500).

Age of menarche (Years)	Group 1 (Rural), n (%)	Group 2 (Urban), n (%)	P value
<9	9 (1. 8)	8 (1.6)	0.2
9-11	31 (6.2)	52 (10.4)	0.021
12-15	405 (81)	396 (79.2)	0.34
>15	55 (11)	44 (8.8)	0.84
P=0.08			

Table 2: Source of knowledge regarding menstrual and sexual issues.

Sources	Group 1 (Rural), n (%)	Group 2 (Urban), n (%)	P value
Family, friends, school	317 (63.4)	350 (70)	<0.00001
Books/ newspaper/ magazines	75 (15)	315 (63)	0.0088
Internet/ television	80 (16)	208 (41.6)	<0.00001
No information	71 (14.2)	12 (2.4)	<0.00001
P<0.00001			

Above table is based on comparison between rural and urban adolescent girls based on the source of knowledge regarding menstrual and sexual issues. In both the groups

family, friends and schools were the main source of informant about menstrual and sexual issues., while significant difference was observed between both the groups based on internet/ television, books, newspaper and magazines serving as the source of information (p<0.00001*).

Still 14.2% of rural and 2.4% of urban adolescent girls had no knowledge about menstrual cycle and sexual issues like PID, contraception and pregnancy.

Table 3: comparison of menstrual practices among rural and urban adolescent girls.

Menstrual practices	Group 1 (Rural), n (%)	Group 2 (Urban), n (%)	P value
Cloth	267 (53.4)	102 (20.4)	<0.00001
Use of sanitary pads	167 (33.4)	300 (60)	<0.306
Use of cotton	66 (13.2)	98 (19.6)	<0.00001
	P<0.00001		
Frequency of changing			
Once in a day	172 (34.4)	55 (11)	<0.00001
Twice in a day	187 (37.4)	315 (63)	<0.00007
More than 2 times	141 (28.2)	130 (26)	<0.00001
	P<0.00001		
Disposal of pads			
Dustbins	154 (30.8)	425 (85)	<0.00001
Waste land	224 (44.8)	50 (10)	0.75
Reuse cloth	122 (24.4)	25 (5)	<0.00001
P<0.00001			

Menstrual hygiene practices were compared in both groups. Most of the urban girls use sanitary pads (65%) and use dustbins for their disposal (85%) as compared to rural girls who are still using cloth (53.4%) and use wasteland for their disposal (44.8%).

Table 4: Common gyaecological problems among adolescent girls.

Ailments	Group 1 (Rural), n (%)	Group 2 (Urban), n (%)	P value
Pain during periods	285 (57)	302 (60.4)	0.000114
Excessive flow	70 (14)	114 (22.8)	
Irregular cycles	80 (16)	151 (30.2)	
Acne	185 (37)	240 (48)	
Hirsutism	61 (12.2)	118 (23.6)	
Vaginal discharge	82 (16.4)	98 (19.6)	
Vaginal itching	56 (11.2)	60 (12)	
Breast lump	3 (0.6)	20 (4)	
Mastalgia	190 (38)	300 (60)	

Table 4 shows that most of the adolescent girls both in rural and urban groups attended adolescent OPD with the complaints of menstrual irregularities of which pain during menses and excessive flow during mensus are the most common complaints. Irregular cycles, acne hirsutism were found more in urban girls which might be due to changing lifestyles

Table 5: Knowledge regarding sexual practices and contraception.

Sex education awareness	Group 1 (Rural), n (%)	Group 2 (Urban), n (%)	P value
Unprotected sex causes			
Pregnancy	251 (50.2)	431 (86.2)	0.042
Sexual transmitted diseases	198 (39.6)	265 (53)	
Methods of contraception			
Withdrawal method	0	151 (30.2)	<0.00001
Condom	208 (41.6)	396 (79.2)	
Oral contraceptive pills	318 (63.6)	352 (70.4)	
Emergency contraceptive pills	41 (8.2)	275 (55)	
Periodic abstinence	69 (13.8)	210 (42)	

Knowledge regarding safe sexual practices and contraception were compared among both groups. The awareness of unwanted pregnancy following unprotected sex were (50.2%) and (80.2%) among rural and urban group respectively

The 70.4% and 63.6% of the urban and rural adolescent girls were aware about the use of OCP for contraception although they had no knowledge about its correct method of use. Condoms and emergency contraceptive pills were the other contraceptive methods about which more than half of the study population in urban adolescent girls were acquainted with while this rate was much lower in rural adolescent girls.

Statistically significant difference was found between both the groups on the basis of awareness and knowledge about contraceptive methods and unprotected sex.

Table 6: Sexual experiences among study population.

Sexually active	Group 1, n (%)	Group 2, n (%)	P value
Yes	16 (3.2)	137 (27.4)	<0.00001
No	484 (96.7)	363 (75.6)	

Table 6-among our study group few girls had sexual experiences i.e., 3.2% and 27.4% among rural and urban girls respectively

Table 7: Knowledge of sexual transmitted diseases among study population.

Mode of transmission of STD	Group 1 (Rural), n (%)	Group 2 (Urban), n (%)	P value
Shaking hands	162 (32.4)	25 (5)	<0.001
Hugging	167 (33.4)	50 (10)	
Kissing	258 (51.6)	75 (15)	
Coitus	233 (46.6)	402 (80.4)	
Blood transfusion	198 (39.6)	400 (80)	
Syringes	181 (36.2)	350 (70)	
No idea	100 (20)	47 (9.4)	

Table 7-knowledge regarding mode of transmission were compared among both groups. 80% of urban girls had awareness regarding unprotectedcoitus, used syringes and unscreened blood transfusion as source of STD as compared to rural girls among which only around 40% had been unaware.

The 46.6% rural and 80.4% adolescent girls had knowledge that unprotected coitus can cause sexual transmitted disease. Still 32.4%, 33.4% and 51.6% among rural girls considered hand shaking, hugging and kissing as a mode of spread of STD which was much lesser in urban group i.e., 5%,10%, 15% respectively.

Table 8: Common beliefs and restrictions during menses among rural and urban adolescent girls.

Belief and restriction during mensus	Group 1 (Rural), n (%)	Group 2 (Urban), n (%)	P value
Menstruation occurs			
capable of becoming pregnant	395 (79)	403 (80.6)	0.011
Allows dirty blood to come out	363 (72.6)	352 (70.4)	
Cleans the body	305 (61)	251 (50.2)	
Punish the women	61 (12.2)	32 (6.4)	
Restriction of activities			
Not go to temples and offer prayers	479 (95.8)	475 (95)	<0.001
Do not go out	190 (38)	68 (13.6)	
Do not go to school	186 (37.2)	71 (14.2)	
Do not enter kitchen	176 (35.2)	47 (9.4)	
Food restrictions	272 (54.5)	25 (5)	
No restrictions	21 (4.2)	25 (5)	

Beliefs and restrictions during mensus were compared among both groups. The 79% rural girls and 80.6% urban girls were aware of capability of becoming pregnant after attaining mensus. But still72.6% rural girls and 70.4% urban girls had misconception that mensus allows dirty blood to come out from the body. 61% rural girls and 32% urban girls had misconception that it cleans the body but still small group 12.2% rural girls and 6.4% urban girls considered it as punishment for females. 95% of both rural and urban girls had restrictions for going temples which is due to our Hindu culture. 38% do not go out, 37.2% do not go to school and 35.5% rural girls do not enter kitchen whereas 13.6%,14.2% and 9.4% respectively have restrictions along day-to-day activities.

DISCUSSION

In present study maximum number of girls had attained menarche between 12-15 yearsin both groups . Nair et al reported maximum adolescent girls had menarche at age group between 14-15 years in their study The [10]. adolescent girls should be well informed about the menstruation even before starting of mensus and any informaion regarding menstrual issues and sexual issues like PID, contraception and pregnancy should be easily accessible to them. Among our study family members, schools and friends were the main informants. But the kowledge imparted to them were very limited because in our culture most of the mothers were less interested to discuss about menstrual and sexual issues with their daughters. Most of the girls were hesitant to discuss about the sexual issues in details with family members, teachers and with friends. Dube et al showed that 40% rural and 60% urban girls considered menstruation as natural phenomenon.[12] Singh et al found in 64.9% girl's mother was the first source of information.[11] Still 14.2 %rural girls had no source to attain any information regarding menstrual and sexual problems which was only2.4 % among urban girls .the study showed 53.4% rural girls still uses cloth and44 .8 %dispose it off in wasteland and 24.4% reuse it without proper cleaning making them vulnerable for reproductive tract infections. The study showed lack of menstrual hygiene among rural girls in compare to urban girls where79 %girls use either sanitary pads or cotton and 85% threw them in dustbins after wrapping in paper. Zakaria et al showed that most of the adolescent considered their mother to be their key informant.[15] Bano and AI Sabhan found that 62.5% of girls were not aware of this natural phenomenon until menarche.[15] Hakem et al revealed that in India 59.6% of urban girls and 48.8% of rural girls had such knowledge.[14] Thakre et al in their study at Nagpur, where they found that 60.5% adolescent girls from urban area and 30.8% from rural area used sanitary napkin during menstruation and this difference was also found to be statistically significant ($p<0.01$).[4,7] In study by Yasmin et al only 15.7 %used old washed clothes.[16] Most of the adolescent girls approached to adolescent clinic with the problems regarding menstrual irregularities, excessive blood flow or pain during mensus. Knowledge of safe sexual practices, contraception and mode of sexual transmitted diseases were compared in both urban and rural girls. Most of the rural girls were

hesitant to discuss the topic and their knowledge were found lacking in compare to urban girls which was found clinically significant (<0.5%). Both urban and rural girls found aware of becoming pregnant after attaining mensus. But 12.2% of rural and 6.4% urban girls considered it as punishment for women due to taboos and restrictions related to mensus. Around 70% of urban and rural girls had belief that mensus allows dirty blood to come out from our body and 60% rural girls and 50% urban girls admitted that mensus cleans our body which shows lack of proper knowledge regarding physiology of mensus. Restrictions during mensus were compared among both groups. About 90% among both urban and rural girls were still not go to temples. But in comparison to urban girls, rural girls had more restrictions in going out even to schools (38%), entering into kitchen (35.2%) and 54.2% had food restrictions which was found clinically significant ($p<0.001$).

Limitations

The study participants information regarding their knowledge, attitude and practice of reproductive health might have been influenced by social desirability, which may have affected its validity.

CONCLUSION

Adolescent girls should have better knowledge regarding menstrual hygiene making them less vulnerable to PID and reproductive tract infections and its future complications. Proper education to be given to mothers as they are first informant to their daughters. They are properly educated regarding menstrual hygiene and safe sexual practices so they can impart proper knowledge to their daughters. School education to be given regarding menstrual hygiene, contraception and safe sexual practices to make them less vulnerable for reproductive tract infections and unplanned pregnancies. Education regarding proper physiology of menses and there should be open discussion regarding restrictions and taboos related to menses at the school level to minimise the false beliefs and it should not be considered as punishment by the girls and they can enjoy restriction free life even during menses. Proper centres should be established for adolescent girls so that they can approach to health care personnel as and when required and there problems will be kept as privacy.

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