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RESEARCH ARTICLE

A STUDY OF ASSESSMENT ON THE KNOWLEDGE, AWARENESS AND PRACTICES ABOUT STI/RTIS AMONG ADOLESCENT GIRLS IN RURAL SOUTH INDIA

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ABSTRACT

Introduction: During adolescence, hormonal changes lead to onset of puberty, sudden and rapid physical growth, and development of secondary sexual characteristics. They could engage in wrong activities such as smoking, substance abuse, consumption of alcohol, and unprotected sex.

Methodology: A community based cross sectional study was conducted in the rural field practice area. The objective of the study was to assess the knowledge, awareness and practices about STI/RTIs among adolescent girls. All the mid and late adolescents were included. A pretested semi structured questionnaire was used for data collection. Sample size 240 was selected for the study. The participants were selected by house to house visit. The results were shown in frequency and proportions.

Results: Out of 240 participants 104 were mid and 136 belong to late adolescent age group. The most common self reported RTI was white discharge per vaginum 58 (24.1%) among them almost half of them didn't took any treatment. More than half of them didn't know the complications of RTIs. Regarding to the awareness of HIV/AIDS more than 80% of them heard about HIV/AIDS. More than 60% of them said that the route of transmission is by sexually and one third from mother to child transmission. Majority of them got to know about HIV/AIDS via television 104 (43.3%); and 69 (28.8%) of them heard in the school from teacher

Conclusion: There is a need to educate adolescent girls about STI/RTI as most of them ignore it as they cannot discuss freely even with family members. In such circumstances the role of adolescent friendly health clinics playing vital role needs to be reinforced.

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INTRODUCTION

During adolescence, hormonal changes lead to onset of puberty, sudden and rapid physical growth, and development of secondary sexual characteristics. They could engage in wrong activities such as smoking, substance abuse, consumption of alcohol, and unprotected sex. This period results in sexual, psychological, and behavioural maturation (WHO, 1965). There is substantial evidence that sexually transmitted diseases (STDs) enhance the transmission and acquisition of HIV infection, and that control of STDs is helpful in preventing HIV/AIDS (UNFPA, 2009). Another reason for their vulnerability to STDs is the lack of sex education, including education on STD prevention (UNFPA, 2009). Although adolescents and young adults aged 15 to 29 years old account for approximately 25% of India's total population, they represent 31% of the country's AIDS cases, indicating that many Indians are becoming infected during adolescence or early adulthood (Adolescent education programme, 2012 and Cohen, 1998). Adolescent girls are at risk of unsafe sexual activity that can lead to HIV/AIDS, other STIs, unwanted pregnancy and unsafe abortion. A primary and essential step towards hindering the spread of HIV to women is knowledge.

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MATERIALS AND METHODS

A community based cross sectional study was done in the rural field practice area of community medicine**.** All girls in the mid and late adolescent period i.e., age group 14-19 years were included in the study, because we assumed that by this age most of the girls would have attained menarche and are at risk. In order to achieve representativeness we included all the adolescent girls from the sub centres of our field practice area, and those who are not willing to participate were excluded. There were 12 sub-centres and we had taken about 20 girls from each sub-centre. It was decided to take a sample of 25 girls from each sub-centre, so as to compensate for non-

response. So the final sample size was 240. We used simple random sampling technique by visiting every third house in that particular village to select 25 girls from these sub-centres. An interview schedule was prepared for data collection by pre tested semi structured questionnaire. The girls selected by house to house visit. The girls and their mother/guardian were explained about the study and informed written consent was obtained from the respondents as well as guardians. The ethical clearance was obtained from the institute ethics committee. The study period was January to March 2017. Data was entered in Microsoft Excel and analysis was done in Statistical Package for Social Sciences 21.0 version (SPSS). The results were shown in proportions and percentage.

RESULTS

A total of 240 adolescent girls were participated in the study. In Table-1, 104 (43.3%) belong to early and 136 (56.7%) belonged to late adolescent group. The mean age of the participants was 17± 1.6 years. Seventeen (6.2%) of them were already married even though all of them were below 19 years. Among 240 participants who ever attended school, almost half of them 63 (26%) had dropped out of school. Out of those remaining 160 participants, who were currently attending school, 86 (35.9%) were going to co-education school and 74 (30.9%) of them were attending all girls school.

Table 1. Distribution according to age, marital and Educational status of study participants (n = 240)

Mean (SD)	Mean-17 years ± 1.6	
Type of school currently enrolled	Frequency	Percentage
Primary school (up to 7th grade)	28	11.7
High school (8th -10th grade)	104	43.3
Higher secondary (11th and 12th grade)	105	43.8
Never went to school	3	1.2
Total	240	100
Type of schooling		
Co-education	86	35.9
Girls only	74	30.9
Discontinued education	63	26.2
Never went to school	17	7.0
Total	240	100

Table 2. Knowledge, awareness and practices about reproductive tract infections (RTIs) and sexually transmitted infections (STIs) in adolescent girls (n=240)

Symptoms of RTI/STIs	Frequency	Percentage
White discharge per vaginum	58	24.1
Itching	36	15.0
Burning micturition	15	6.3
None	131	54.6
Total	240	100
Treatment sought for RTI/STIs	Frequency	Percentage
No treatment	48	44.1
Private doctor	18	16.5
Government doctor	26	23.9
Over counter drugs	5	4.5
Others	12	11.0
Total	109	100
Causes for RTI/STIs		
Don't know	126	47.1
Poor menstrual hygiene	54	27.0
Poor genital hygiene	16	6.2
Others	44	19.7
Total	240	100
Complication of RTI/STIs		
Don't know	138	57.5
Infertility	26	10.8
Sepsis	34	14.1
Others	42	17.5
Total	240	100

Table-2 showing self reported reproductive tract infection, if any history of white discharge per vaginum 58 (24.1%) itching genitals 36 (15.0%) burning micturition 15 (6.3%). Few girls also reported more than one condition and for analysis the most common symptom was considered. The treatment sought by them were almost half 48(44.1%) did not seek any medical advice. Most of the participants (15.5%) tried household remedy, food restrictions etc. If they sought any medical advice, it was mainly from a Govt/private practitioner (40.4%). Of all the girls interviewed, 126 (47.1%) were not aware about the causes of RTIs. Among the rest i.e. 114, 54 (27.0%) said that it could be because of poor menstrual or poor genital hygiene. However, 44 girls thought that malnutrition, dietary changes, internal diseases could be the cause of RTIs. More than half of them (57.5%) did not know any complications because of RTIs. One fourth of them felt that it could lead to sepsis or infertility.

Table 3. Knowledge and awareness related to HIV/AIDS in adolescent girls (n=240)

Source of information related to HIV/AIDS	Frequency		Percentage
Television	104		43.3
Teacher	69		28.8
Friends	27		11.2
Print media	18		7.5
Health worker	16		6.7
Others	6		2.5
Routes of HIV transmission*	Frequency		Percentage
Unprotected sex	153		63.7
Unsterile needle	109		45.4
Blood transfusion	108		62.1
Mother to child	97		40.4
What can a person do to prevent HIV infection?	Frequency		Percentage
Having one faithful partner	62		25.8
Using condoms (*Nirodh*)	70		29.1
Others*	26		10.8
Don't know	82		34.1
Total	240		100
Question related to HIV/AIDS*	Yes	No	Don't know
Can a healthy looking person have HIV infection	164 (68.3%)	55 (22.9%)	21 (8.7%)
Can HIV infection gets transmitted from mother to baby?	151 (62.9%)	67 (27.9%)	38 (15.8%)
Can HIV/AIDS be cured?	133 (55.4%)	87 (36.2%)	20 (8.3%)
Is test to detect HIV available in Govt. hospital?	126 (52.5%)	88 (36.6%)	26 (10.8 %)
Is condom effective in preventing HIV infection?	85 (35.4%)	38 (15.8%)	117 (48.7)

*Multiple responses

Other complications mentioned by 42 participants (17.5%) included chronic back pain, bone damage etc. Awareness of HIV/AIDS, 194 (80.8%) had heard about HIV/AIDS before the interview. Among those who had heard about HIV/AIDS, when asked about the various routes of transmission most of them mentioned sexual route (63.7%). More than one third 97(40.4%) mentioned that HIV can be transmitted from mother to child and109 (45.4 %) also told that HIV can be transmitted through unsterile needle. (Table-3). Participants got information not only from mass media like television but also from teachers, health providers and relatives. Majority of them got to know about HIV/AIDS via television 104 (43.3%); and 69 (28.8%) of them heard in the school from teacher and for 27(11.2%) participants, friends were the primary source of information. Most of the participants 82(34.1%) did not know about any preventive measures. One fourth of them stressed that having single and faithful partner 62 (25.8%) and 70 (29.1%) felt that nirodh can prevent HIV transmission. Remaining participants also mentioned that taking advice from doctor or having a good lifestyle would be helpful. Two thirds of them told that it was possible for a healthy looking person to have HIV infection. Almost two thirds (75.3%) told that HIV can get transmitted from mother to child. The response came to be more as compared to the previous question as it was a leading question. Most of them felt that HIV/AIDS can be cured. Approximately half of them were aware of availability of any test available in government hospital. 76.4% of them felt that condom could be effective in preventing HIV transmission.

DISCUSSION

In India around 40% of currently married women have reproductive health problems with reproductive tract infections being a significant one (Ray, 2011). In this study, proportion of participants reporting any symptom of RTIs was 46.4%, out of which 24.1% had white discharge per vaginum. Almost 44.1% of them never sought treatment and who sought, most took household remedy or went to doctor. Similar studies from urban Meerut and rural Tamil Nadu 16% and 19.4% reported symptoms of RTI like white discharge per vaginum for which only 10% sought treatment (Pattanaik, 2000 and Jain, 2009). One important point is that less than two thirds knew about RTIs in our study. Almost half of the participants had no knowledge regarding causes and complications of RTIs. Almost all the girls had heard about HIV/AIDS from different sources. Studies from Kerala and Mumbai noted that almost all (99.9%) had heard of HIV/AIDS (Lal, 2000 and Shetty, 2011). The difference in the results with the later two studies can be explained with high female literacy in Kerala and also higher age group of study subjects. According to the NFHS 3 data, 64.3% of adolescent girls aged 15-19 years residing in rural area had heard about AIDS (Reproductive and sexual health of young people in India, 2009). In a study done in rural Punjab, about less than half of adolescent girls had heard about AIDS (Kaur, 2009). In a survey done in Vadodara showed that 60% males and only 23% females had heard about HIV (Koteche, 2011). Another study done among women from 13 states of India reported that only one in six women had heard of AIDS (Balk, 1997).

In the present study, majority (43.3%) of the participants got to know about HIV/AIDS via television, 28.8% of them from the school teacher and 11.2% from friends. The source of information could vary in rural, semi urban and urban areas as evidenced by many similar studies. In a school based study in urban Delhi, majority of the adolescent girls got to know about HIV through friends, media and internet (McManus, 2008). In present study none of the participant got information from any school health education programme as part of adolescent health education programme. In present study, the knowledge about transmission of HIV infection was more than two third (63%) of participants knew unprotected sex as one of the route. Similar studies from Delhi and Mumbai showed that adolescents mainly got information about HIV/AIDS from television and school (Lal, 2008 and Chinsembu, 2011). showed that sexual route as a means of transmission. Even though there is scope for educational intervention all these studies highlight the role of mass media in spreading the right information to this vulnerable section of the community. Our survey identified substantial deficiencies in knowledge of AIDS in certain key areas. When it comes to preventive measures more than one third (34.1%) did not know, but the rest mentioned few steps like having a faithful partner, using *nirodh*. An analysis of NFHS data for two states, Maharashtra and Tamil Nadu, showed that 47% and 82% of all rural women in Maharashtra were aware of AIDS only about 28% and 71% knew that one can avoid it, and only about 16% possessed correct knowledge about its transmission (Pallikadavath, 2005). One study among women from 13 states of India reported that almost half of them named sexual route as a means of transmission and less than one fourth of them mentioned that HIV can get transmitted from mother to child (Http://Nacoonline.Org/Upload/Publication/Iec%20&%20mainstreaming/Mainstreaming%20hiv%20and%20aids%20for%20women.Pdf. Accessed on 30/4/2012).

In this study among those aware about HIV/AIDS, almost half (36.2%) of them felt that HIV cannot be cured and 15.8% did not know that condoms were an effective method of preventing HIV/AIDS. In a study by *Shetty P V et al* showed that 61% felt that AIDS as incurable (Pallikadavath, 2005). There is a growing evidence of premarital sexual behaviour and upto 10% of young women having premarital sexual experience and also in cities like Delhi young adults aged 15-29 years account for 32% of AIDS cases and the number of young women living with HIV/AIDS is twice as that of young men (Http:// Nacoonline.Org/Upload/Publication/Iec%20&%20mainstreaming/Mainstreaming%20hiv%20and%20aids%20for%20women.Pdf. Accessed on 30/4/2012). A qualitative study done in Mumbai has suggested that a family-based intervention to prevent adolescent HIV infection is feasible and adolescent friendly as well as convenient (Asha Banu Soletti, 2009).

During the interviews some of the adolescent girls were accompanied by their mother or grand- mother who might have influenced the response of the participants, particularly those questions HIV/AIDS etc. this could have resulted in some amount of social desirability bias. Most of the symptoms were self reported which makes difficult to differentiate between physiological leucorrhoea and actual reproductive tract infection. So there is a scope for over estimation of prevalence of RTIs.

Conclusion

There is a need to educate adolescent girls about RTI as most of them ignore it as they cannot discuss freely even with family members. In such circumstances the role of adolescent friendly health clinics playing vital role needs to be reinforced.

Factors affecting avoidance of health-seeking behaviour should be further evaluated and interventions implemented to address these factors. Health education must be targeted towards mothers in such a way so as to benefit their adolescent daughters.

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