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Original Research Article

A study on awareness of human immunodeficiency virus among adolescent girls in urban and rural field practice areas of Osmania Medical College, Hyderabad, Telangana, India

Sudharani Gurram[1], Baburao Bollampalli[2]*

[1]Department of Community Medicine, Osmania Medical College, Koti, Hyderabad, Telangana, India
[2]Department of Community Medicine, Government Medical College, Suryapet, Telangana, India

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***Correspondence:**
Dr. Baburao Bollampalli,
E-mail: baburao33@gmail.com

ABSTRACT

Background: Adolescents in India represent over 1/5th (22.3%) of total population. Though they constitute the healthiest section of population they are considered as vulnerable group. India having a large population with low literacy levels leading to a low level of awareness of HIV/AIDS, the disease is posing an alarming threat on the public health scenario. Globally, almost of a quarter of people living HIV are under the age of 25 years. In India, 35% of all reported AIDS cases are among the age group of 15-24 years, indicating the vulnerability of the younger population to the epidemic. This study aimed to assess knowledge regarding HIV/AIDS and to explore epidemiological determinants of awareness among them. Objectives of the study was to study the awareness of HIV/AIDS among adolescents of urban and rural field practice areas of OMC Hyderabad 2) to study the factors associated with knowledge and awareness among adolescents of urban and rural field practice areas of OMC, Hyderabad.
Methods: A community based cross-sectional study is conducted in adolescents aged 10-19 years. A total of 760 adolescent girls (380 in each area) were interviewed and examined.
Results: The study revealed that only 37.4 per cent of the sample subjects had known the expanded form of the abbreviation HIV/AIDS. Very few of the respondents (12.6%) knew that HIV/AIDS is preventable. 39% of them had the no knowledge with regard to the mode of transmission.
Conclusions: This study strengthens the need of properly formulated awareness campaigns and programmes on HIV/AIDS.

Keywords: Adolescent, Awareness, Human immunodeficiency virus, Acquired immunodeficiency syndrome, Knowledge

INTRODUCTION

Adolescent is considered to be, no longer a child, and not yet an adult. Adolescence, the second decade of life, is a period in which an individual undergoes major physical and psychological changes. WHO defines adolescence as 10-19 years old, youth as 15-24 years old and young people as 10-24 years old. The adolescence has been divided into two phases: early (10-14 years) and late (15-19 years).[1] Today approximately one-fifth of the world population are adolescents, with more than four-fifths in developing countries.[2] Adolescents in India represent over 1/5th (22.3%) of total population. Though they constitute the healthiest section of population they are considered as vulnerable group.

This is because of the rapid physical, mental and psychological changes occurring in this age, coupled with lack of proper sources of information and education from parents, teachers and peers.[3]

India having a large population with low literacy levels leading to a low level of awareness of HIV/AIDS, the disease is posing an alarming threat on the public health scenario. Adolescence is shrouded in myths and misconceptions about sexual health and sexuality. Unprotected sexual practice among young adults can cause serious consequences, particularly in adolescent girls through unwanted pregnancy, maternal mortality due to early-age pregnancy and abortions. Moreover, immature reproductive tracts of young people make them more susceptible to HIV/AIDS. HIV affects the immune system and reduces the body's defenses to protect against various infectious diseases and cancer. Treatment is available to delay the death of persons suffering from the disease; however, there is no cure. Thus it becomes necessary to educate young people so that they can protect themselves from getting infected.

Globally, almost of a quarter of people living with HIV are under the age of 25 years.[4] In India, 35% of all reported AIDS cases are among the age group of 15-24 years, indicating the vulnerability of the younger population to the epidemic.[5] More than one third of reported cases of HIV/AIDS in India are among youth and 60 percent of these reside in rural areas.

To stop the spread of HIV/AIDS in India, the 10th five year plan (2002-2007) was developed with targets set to achieve 90% coverage of schools and colleges through education programmes and 80% awareness among the general population in rural areas.[6]

Rationale of study

Assessment of the awareness of HIV/AIDS in the youth is important for determining the impact of awareness programs as well as the need for interventions. This study aimed to assess the knowledge of rural youth regarding HIV/AIDS and to explore the epidemiological determinants of awareness among them.

METHODS

It is a community based cross sectional study conducted in OMC field area Harazpenta (urban) and Patencheru (rural). Study population includes adolescents girls (11-19 yrs) of age. Sample size is of 360 (urban) and 360 (rural) people, for the duration of one year from September 2017-September 2018) 1month.

Inclusion criteria

Adolescent girl who have attained menarche and who has given consent

Exclusion criteria

Patients who did not give consent.

Data analysis:-by using epinfo 3.5.1, ms excel statistical test:-chi-square, percent.

RESULTS

Socio demography

In the present study, majority 292 out of 760 (38.4%) of adolescent girls belongs to 14-16 yrs age group. Similar findings found in rural area with 181 (47.5%) girls belonging to 14-16 yrs age group whereas in urban area 126 (33.2%) belongs to 12-14 yrs age group.

Table 1 shows majority [596 (78.3%)] of the subjects were Hindus. Muslims and Christians constituted 10.7% each. Most of the respondents belongs to lower middle class 174 (22.9%). The same was observed in rural area [161 (42.4%)], whereas in urban area [109 (28.7%)] belongs to lower middle class. majority of the respondents were unmarried 719 (94.6%). Those who have married were above 17 yrs of age. In rural area slightly higher percent of girls 24 (6.3%) were married than in urban area where 17 (4.5%) were married.

Table 1: Socio demographic variables distribution of adolescent girls.

Socio demographic variables		Rural		Urban		Total	
		Number	%	Number	%	Number	%
Religion	Hindu	301	79.2	295	77.6	596	78.3
	Muslim	44	11.6	37	9.8	81	10.7
	Christian	35	9.2	46	12.1	81	10.7
	Others	0	0	2	0.5	2	0.3
Socio economic status	Upper class	1	0.3	32	8.4	33	4.3
	Upper middle class	15	3.9	101	26.6	116	15.3
	Lower middle class	65	17.1	109	28.7	174	22.9
	Upper lower class	161	42.4	103	27.1	264	34.7
	Lower class	138	36.3	35	9.2	173	22.8
Marital status	Married	24	6.3	17	4.5	41	5.4
	Unmarried	356	93.7	363	95.5	719	94.6

Table 2: Knowledge assessment among study population.

Knowledge assessment		Rural		Urban		Total	
		Number	%	Number	%	Number	%
Regarding HIV/AIDS	Full form of HIV/AIDS	106	34.8	122	40.3	228	37.4
	HIV/AIDS is preventable	36	11.8	40	13.1	76	12.6
	HIV/AIDS is curable	15	4.9	8	2.6	23	3.8
	Facility for screening of HIV/AIDS present	3	1.1	6	1.9	9	1.8
	Do not know	144	47.4	128	42.1	272	44.4
Regarding transmission of HIV	Unprotected sex	19	6.3	32	10.3	51	8.3
	Contaminated blood	7	2.3	12	3.8	19	3.1
	Mother to child	10	3.3	6	2.2	16	2.6
	Needles	13	4.2	35	11.3	48	7.8
	Know all	121	39.8	119	38.7	240	39.2
	Do not know	134	44.1	104	33.7	238	39
Regarding prevention	Abstinence	16	5.2	3	0.9	19	3.1
	Blood transfusion after testing	10	3.2	8	2.7	18	3
	Condom	0	0	6	1.9	6	0.9
	Avoid contaminated needles	42	13.9	58	18.9	100	16.3
	Know all	92	30.2	105	34.1	197	32.3
	Do not know	144	47.5	128	41.5	272	44.4

Table 2 shows, approximately 37.4 per cent of the respondents knew the full form of HIV and AIDS correctly. It was found that only 12.6 percent of the respondents knew that HIV/AIDS is preventable and 3.8 percent of the students had the knowledge that HIV/AIDS is not curable. Approximately 1.1 per cent of the rural adolescents and around 1.9% of the urban students were aware of the existence of HIV testing facility in their district. Out of the girls who have heard about HIV, significant percentage of girls knew about transmission of HIV in both rural and urban area. Only 134 (44.1%) in rural area and 104 (33.7%) in urban area did not know about route of transmission.

It was encouraging to note that 39.2 per cent of the students had correct knowledge about various modes of transmission. 8.3 per cent had the knowledge that it can transmit through indiscriminate and unsafe sexual relations. 3.1 per cent had knowledge that it could transmit through contaminated blood transfusion while 7.8 per cent of them knew that HIV could be transmitted through contaminated needles and syringes and only 2.6 percent of students had knowledge about vertical transmission of HIV from infected mother to baby. In rural area 144 (47.5%) girls and in urban area128 (41.5%) girls did not know about the preventive measures of HIV. Remaining girls knew one or other modes of prevention. Similarly, when asked about the ways to prevent the disease; majority of them had no knowledge about prevention of HIV/AIDS. 3.1% replied that abstinence can prevent HIV/AIDS. 16.3% of the adolescents had the knowledge that HIV/AIDS could be prevented with the use of only sterile/disposable syringes and needles. 3% of them knew that screening of blood sample for HIV/AIDS is a way to prevent the disease.

Table 3: Distribution according to source of knowledge of HIV/AIDS in rural area.

Source of knowledge	Rural		Urban		Total	
	Number	%	Number	%	Number	%
Television or radio	83	27.3	72	23.3	155	25.6
Newspaper	19	6.2	20	6.5	39	6.3
Friends	42	13.8	55	17.8	97	15.8
Health awareness programme	25	8.2	45	14.7	70	11.4
Do not know	135	44.5	116	37.7	251	41.1
Total	304	100.0	308	100.0	612	100.0

Table 3 shows, 44.5% rural adolescents and 37.7% of urban adolescents had no knowledge of HIV/AIDS. For majority of the adolescents television 25.6% is the source of knowledge followed by friends 15.8%.

DISCUSSION

In this present study among the total study population 612 (80.5%) girls heard about HIV/AIDS. In both the areas knowledge regarding HIV/AIDS is high. The difference was not statically significant. Similar results found by Kotwal et al, in their study in which they stated that majority of school dropout girls (96%) and school going girls (76%) knew the full form of AIDS.[7]

Aggarwal et al conducted study in which the result indicated high level of knowledge of AIDS, but misconception of transmission and prevention were also present.[8] Rural girls had significantly more knowledge as well as misconceptions regarding AIDS than urban girls.

Basir et al in their study also stated that only 24 per cent of the adolescents had never heard of HIV/AIDS.[9]

Bhan et al found that knowledge regarding HIV/AIDS among rural adolescent girls was very low which is differing with the present study.[10]

The results of knowledge on modes of transmission are consistent with the following studies. Basir et al found that only 24 per cent of the adolescents had never heard of HIV/AIDS.[9] Among those who were aware, only about a half of the adolescents (48.44%) attributed the cause to a germ or a virus. A little less than half of the adolescents (43.04%) had no idea about the possible mode of transmission. Sharma et al referring to knowledge related to AIDS stated that, most (93.7%) knew about its mode of transmission out of which most responses came for infected syringes, unsafe relations, using infected blood etc.[11] Kotwal et al also found that, majority of both of school dropout girls and school going girls (94%) knew the transmission of AIDS.[7]

Knowledge on prevention of HIV/AIDS is consistent with the following studies: National Family Health Survey 2005 - 2006 reports, states that only 20% of females had a comprehensive knowledge about HIV/AIDS', which includes knowledge about condoms as a preventive measure.[11,13] Basir et al in their study stated that, only 24 per cent of the adolescents had never heard of HIV/AIDS.[9] Among those who were aware, the best method of prevention was total premarital abstinence (25%), followed by sterilisation of needles before injection (21.8%). But differing results found by Kotwal et al as they stated with reference to knowledge on HIV/AIDS that majority of school dropout girls (90%) and school going girls (86%) knew the protection from AIDS.[7]

CONCLUSION

Majority of adolescent girls from rural area were in 14-16 yrs age group whereas in urban area they were in 12-14 yrs age group and most of them were students. About 79.2% of urban and 77.6% of rural the study subjects were belongs to Hindu religion and most of the respondents belong to upper lower (42%) and lower middle (28.7%) in rural and urban areas respectively. In the present study 80% and 81.1% of rural and urban girls respectively heard of HIV. Out of the girls who have heard about HIV significant percentage of girls know about transmission of HIV in both rural and urban area. Only 44.1% in rural area and 33.7% in urban area did not know about route of transmission. In rural (47.5%) and in urban (41.5%) area did not know about the preventive measures of HIV. Remaining girls knew one or other modes of prevention.

There were few limitations, as the present study was done only in post menarcheal adolescent girls, hence the results so obtained cannot be generalized to the whole adolescent population. Since it is a qualitative study, it would have been better if focused group discussions on knowledge and awareness on HIV/AIDS were carried out. But owing to the administrative problem and technical feasibility, focused group discussions could not be undertaken. Data were based on the self- report of students, who might under report or over report their attitudes and knowledge especially on knowledge and awareness on HIV/AIDS

Recommendations

To initiate intensive health education and awareness campaigns as a majority of girls are ignorant and misconceptions about knowledge and awareness on HIV/AIDS. To start school - based programmes on health education on above issuesspecially by strengthening with booster sessions and community programmes involving parents and community organisations.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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