

Original Article

KNOWLEDGE AND AWARENESS ABOUT HIV/AIDS AMONG WOMEN OF REPRODUCTIVE AGE IN A DISTRICT OF NORTHERN INDIA

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ABSTRACT

Motivation: The awareness about infectious disease like HIV/AIDS can affect and even helps in reducing the prevalence, incidence and no. of cases of the disease in the communities. With this view a cross sectional study was conducted during 2 months from July to August 2010 among women of reproductive age group in the urban and rural areas of Bareilly District to study and to compare the level of awareness in two different areas of the district about HIV/AIDS.

Methodology: The two stage cluster sampling technique was adopted. A structured questionnaire was used to interview 620 women of reproductive age i.e. 310 women from each areas by house to house surveys. Each woman was interviewed for her level of awareness about HIV/AIDS. Chi (χ^2) square test and Standard Normal Variate (SNV) Test for comparison of two groups (rural & urban) proportion was done; z and p were calculated.

Results: 27.41% of rural and 80.32% of urban women was aware about HIV/AIDS. In rural areas, homosexual intercourse (74.11%) is one the most common mode of transmission followed by heterosexual intercourse (24.70%) and in urban areas heterosexual intercourse (79.12%) followed by needles/ blades/ skin puncture (73.09%). The commonest sources of information among women in rural areas were TV (41.17%) and Radio (32.94%). In urban areas TV (90.36%) was more common media.

Recommendations: As the awareness in the area especially in the rural areas was very low therefore it should be raised. The source of information should also be strengthened.

Key-words: Knowledge, Awareness, HIV, AIDS, Reproductive age

INTRODUCTION

Young women are biologically more vulnerable to HIV/AIDS infection than young men and this situation further aggravated by their lack of access to information on HIV/AIDS and even lesser power to exercise control over their sexual lives. Early marriage also poses special risks to young people, particularly women. This is especially relevant for India, where almost 50 percent girls are married off by the time they are 18 years of age.¹

In India, women account for around one million out of 2.5 million estimated number of people living with HIV/AIDS². Their heightened vulnerability has both biological and socio-economic reasons. Early marriage, violence and sexual abuse against women are the major socio-economic reasons of their vulnerability to HIV/AIDS infection. Their biological construct makes them more susceptible to HIV/AIDS infection in any given heterosexual encounter.²

Women have poor access to information and education, which is critical in the context of HIV/AIDS since behaviour change is the key to controlling the epidemic. This is further accentuated among poverty-stricken communities.²

Abstinence and condom use are usually not the options available to women since social norms for women are not 'supposed' to be sexually knowledgeable.²

Women have poor access to health services as a result of lower priority given to their health and their lack of decision-making powers within the family. Also, women usually have poor mobility, which inhibits access to information and services.²

It is estimated that India has the second largest population of people living with HIV/AIDS (PLHA), next to South Africa. An estimated 5.134 million individuals currently live with the virus across all states in India. In areas that are being more severely affected, the epidemic has started challenging recent developmental achievements.³

The HIV/AIDS epidemic in India is characterized by heterogeneity; it seems to be following the Type 4 Pattern, where the epidemic shifts from the most vulnerable populations such as commercial sex workers (CSWs), injecting drug users (IDUs), men sex with men (MSMs) to bridge populations like

clients of sex workers, sexual tract infections (STIs) patients and partners of drug users and then to the general population. The shift usually occurs when the prevalence in the first group exceeds 5 percent, with a two-three year time-lag between shifts from one group to another.³

It is with this background and keeping all these results and views of various related studies about HIV/AIDS in various parts of the world and the country the present study was carried out in both the rural and urban areas of the Bareilly District. The present study was also an attempt to evaluate comparatively the impact of mass media communications existing in our societies in both the areas i.e. rural and urban particularly of Bareilly district of Uttar Pradesh.

AIMS AND OBJECTIVES

1. To assess the knowledge and awareness among the women of reproductive age group (15-45 year) about HIV/AIDS and its modes of transmission in the Bareilly District.
2. To make a comparison between women of reproductive age group from rural and urban areas of the District for their knowledge and awareness about source of information, modes of transmission, availability of cure of HIV/AIDS.

MATERIAL AND METHODS

This was a cross sectional study using two-stage cluster sampling technique. Fifteen clusters are from rural and fifteen are from urban areas of Bareilly district to give proportionate allocation to rural and urban population of the district. Rural areas were divided into blocks and 15 blocks were selected using simple random technique. These blocks were divided into villages and 15 villages were selected as clusters using simple random technique. Urban areas were divided into wards and 15 wards were selected as clusters using simple random technique. There are total 15 Blocks and 2073 villages in the rural areas and 70 wards in urban areas in the district. We have collected information from 20 or sometimes 21 women of reproductive age group from each cluster of urban and rural area with simple random sampling technique to get sample 620 women which is little more than the calculated sample size.

The sample size was calculated taking data from National AIDS Control Organization² according to which almost 73% of young people have misconceptions about modes of HIV transmission, economic dependence, lack of access to correct information, tendency to experiment and an environment which makes discussing issues around sexuality taboo. The minimum sample size of 592 women of reproductive age group was calculated for the study area including 50% from rural and 50% from urban areas respectively with + 5% allowable error and 95 percent confidence limit and using formula $4pq/(5\%p)^2$ where p is prevalence rate and q is 100-p and 5% of p is taken to allow margin of error.

In the present study we have collected information from 620 women of reproductive age group from two clusters of urban and rural area i.e. 310 women of reproductive age group from each rural and urban area of the district respectively. A structured questionnaire was used and informed consent was taken to interview the study participants by house to house surveys. Each woman from selected

household was interviewed for her knowledge, source of information, modes of transmission and availability of treatment for HIV/AIDS. Statistical analysis was done using Statistical Package for Social Sciences (SPSS) 12.0 version and Epi Info computer software. Chi (x²) square test and Standard Normal Variate (SNV) Test for comparison of two groups (rural & urban) proportion was done; z and p were calculated to draw valid inferences from information collected from women of two groups.

RESULTS

A total of 620 women of reproductive age group from both the areas of the district were interviewed. Out of these 310 women were from rural area and 310 were from urban area. In urban area 80.32% women told that they know about HIV/AIDS. The majority of Women in urban area were familiar with the disease and some of them (19.67%) don't know. But in rural area the majority of the women (72.58%) don't know anything about HIV/AIDS only few of them (27.41%) know.

Table1: Knowledge and Awareness of Women of Reproductive Age group (15-45 years) about modes of transmission of HIV/AIDS

Modes of transmission*	Rural (%) (N=85)**	Urban (%) (N=249)***	SNV Test	
			z-Value	p-Value
Homosexual inter course	63(74.11)	29(11.64)	12.090	0.000
Heterosexual inter course	21(24.70)	197(79.12)	10.188	0.000
Lack of Personal hygiene	9(10.58)	101(40.56)	6.569	0.000
Needles/ Blades/ Skin Puncture	15(17.64)	182(73.09)	11.090	0.000
Mother to child	5(5.88)	112(44.97)	9.639	0.000
Transfusion of infected Blood	8(9.41)	102(40.96)	7.101	0.000
Others	4(4.70)	3(1.20)	1.460	0.144
Don't Know	5(5.88)	88(35.34)	7.437	0.000

*Multiple response by one participant i.e. one woman of reproductive age group for various modes of transmission of HIV/AIDS.

**85 participants i.e. 85 women of reproductive age group who were aware about HIV/AIDS out of 310 women from rural area. Responses were taken only from 85 women of rural area during survey for modes of transmission of HIV/AIDS.

***249 participants i.e. 249 women of reproductive age group who were aware about HIV/AIDS out of 310 women from Urban area. Responses were taken only from 249 women of urban area during survey for modes of transmission of HIV/AIDS.

The women of reproductive age group in both rural and urban areas were also responded for their knowledge about modes of transmission of HIV/AIDS. According to the women those who know anything about HIV/AIDS in urban area, the most common modes of transmission was

heterosexual intercourse (79.12%) whereas according to the women of rural counterpart of the district it was homosexual intercourse (74.11%) which is the most responsible mode for HIV/AIDS transmission. The women of urban area were also aware about other modes of

transmission responsible for HIV/AIDS like needles/ blades/ skin puncture (73.9%), mother to child (44.97%), transfusion of infected blood (40.96%) whereas the rural respondents also aware about various modes like heterosexual (24.70%), needles/ blades/ skin puncture

(17.64%), lack of personal hygiene (10.58%), transfusion of infected blood (9.41%), mother to child (5.88%), others (4.70%) and 5.88% responded that they don't know anything about HIV/AIDS [Table1].

Table 2: Women of Reproductive Age group (15-45 years) by their source of information of HIV/AIDS

Source of Information*	Rural (%) (N=85)**	Urban (%) (N=249)***	SNV Test	
			z-Value	p-Value
Radio	28(32.94)	120(48.19)	2.541	0.011
T.V.	35(41.17)	225(90.36)	8.696	0.000
Newspaper/Magazines	9(10.58)	177(71.08)	13.738	0.000
Internet	0(0.00)	9(3.61)	3.056	0.002
Doctor	4(4.70)	78(31.32)	7.136	0.000
School teacher	3(3.52)	39(15.66)	3.976	0.000
Health worker	7(8.23)	15(6.02)	0.662	0.508
Community meetings	0(0.00)	10(4.10)	3.228	0.001
Friends and Relatives	6(7.05)	53(21.28)	3.743	0.000
Don't know	10(11.76)	84(33.73)	4.773	0.000
Others	2(2.35)	3(1.20)	0.644	0.520
Slogans	2(2.35)	82(32.93)	8.989	0.000

*Multiple response by one participant i.e. one woman of reproductive age group for various sources of information about HIV/AIDS.

**85 participants i.e. 85 women of reproductive age group who were aware about HIV/AIDS out of 310 women from rural area. Responses were taken only from 85 women of rural area during survey for sources of information about HIV/AIDS.

***249 participants i.e. 249 women of reproductive age group who were aware about HIV/AIDS out of 310 women from Urban area. Responses were taken only from 249 women of urban area during survey for sources of information about HIV/AIDS.

The women of reproductive age group of age 15-45 years from both rural and urban areas were also responded for source of information about their knowledge about HIV/AIDS and other related facts. For the women of rural areas television (TV, 41.17%) is the most common source of information followed by radio (32.94%). The most significant factor in the rural areas is TV but not significant in comparison to second factor i.e. radio ($z=0.887$, $p=0.375$). Similarly for women of urban areas the TV (90.36%) was even much better source of information followed by newspaper/magazines (71.08%) and radio(48.19%). The most Significant factor in urban areas is TV which is significant in comparison to second factor newspaper/magazines ($z=2.411$, $p=0.016$) [Table2].

However while responding about availability of cure of HIV/AIDS in rural areas 11.61% women told that cure is available for the disease. The response was same by 32.58% women of urban

areas about availability of cure for the disease [Table3].

Table 3: Knowledge and Awareness regarding curability of HIV/AIDS

Response*	Rural Area (%)	Urban Areas (%)
Yes	36 (11.61)	101 (32.58)
No	30 (9.68)	127 (40.97)
Don't Know	19 (6.13)	21 (6.77)
**Not Applicable	225 (72.58)	61 (19.58)

Respondents

*Single response of women who were aware about HIV/AIDS

**The women who were responded that they don't know anything about HIV/AIDS

DISCUSSION

In the present study in the urban areas 80.32% women told that they know about HIV/AIDS

similarly in a study conducted by S Sarkar, M Danabalan, GA Kumar in Pondicherry⁴ it was observed that 96% of women had heard about HIV/AIDS. According to the findings of the present study the women are little less aware than that (99.6%) obtained by NACO⁵. In the rural areas it was observed that 27.41% women know about HIV/AIDS. According to the baseline survey carried out by P V Kotech and Sangita Patel⁶ in urban slums of Vadodara city 47% women had heard about HIV and the mass media were the most common source of the information. Keeping in mind all these results and views of various studies from various parts of the country in different communities it can be concluded here that there is similarity in status of awareness about HIV/AIDS in both rural areas and urban slums.

The women of reproductive age group in both rural and urban areas also responded for their knowledge about modes of transmission of HIV/AIDS. According to the women those who know anything about HIV/AIDS in urban area, the most common modes of transmission was heterosexual intercourse (79.12%) whereas according to the women of rural counterpart of the district it was homosexual intercourse (74.11%) which is the most responsible mode for HIV/AIDS transmission. Similar findings were observed by P V Kotech and Sangita Patel⁶ in their study carried out in urban slums of Vadodara city and according to which knowledge regarding modes of transmission were sexual act followed by needle and blood transfusion. Similarly according to the study by S Sarkar, M Danabalan, GA Kumar in Pondicherry⁴ 83% women knew one or more modes of spread of this disease. With the help of the observations in these studies here we can say that there are similarities in status of awareness about modes of transmission of HIV/AIDS in all the three types of communities namely rural, urban and urban slum in the different regions of the country.

Some of the women in the urban areas in the present study don't know (19.67%) about HIV/AIDS and among these some of them even don't know (33.73) the exact source of their information. The scenario was reversed in the rural areas where it was observed that the majority of the women (72.58%) don't know anything about HIV/AIDS and out of total women who know anything about HIV/AIDS in the rural areas 11.76% women don't know about any source of information from where they had

got information about HIV/AIDS. And it is comparable with the result of fifty three percent young women who even not heard about HIV/AIDS as stated in the study and the baseline survey carried out by P V Kotech and Sangita Patel⁶ in urban slums of Vadodara city. According to the NACO⁷ Young women are biologically more vulnerable to HIV/AIDS infection than young men and this situation aggravated by their lack of access to information on HIV/AIDS and even lesser power to exercise control over their sexual lives. Early marriage also poses special risks to young people, particularly women. This is especially relevant for India, where almost 50 percent girls are married off by the time they are 18 years of age. Lack of access to correct information (almost 73 percent of young people have misconceptions about modes of HIV transmission), tendency to experiment and an environment which makes discussing issues around sexuality taboo adds to their vulnerability.

For the women of rural areas television (TV, 41.17%) is the most common source of information followed by radio (32.94%). Similarly for women of urban areas the TV (90.36%) was even much better source of information followed by newspaper/magazines (71.08%) and radio (48.19%). Similarly in the study conducted by S Sarkar, M Danabalan, GA Kumar in Pondicherry⁴ the sources of knowledge were television (81.98%), radio (42.79%), newspaper (15.76%) and health care providers (10.8%) [Table2]. According to the NACO⁸ the Women have poor access to information and education, which is critical in the context of HIV/AIDS since behaviour change is the key to controlling the epidemic. This is further accentuated among poverty-stricken communities.

We have not found any similar study observing about availability of cure of HIV/AIDS like in the present study.

CONCLUSION

With the observations in the present study it is clear that the awareness in rural areas among women is very low as compared with the urban counterpart in the district therefore the knowledge and awareness should be raised by the Government agencies as well as by Non-Government Agencies (NGOs) in both the areas of the district. But the emphasis to create

awareness should be more in the rural areas. As the impact of the disease is very much devastating in all the important aspects including social, mental, physical, reproductive, cultural, educational, and economic of human life therefore no part of the region should be ignored. The source of information should also be strengthened by all the agencies and organizations of the region to spread the knowledge and awareness about HIV/AIDS.

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