

Knowledge and awareness of HIV/AIDS: A study among antenatal mothers attending a tertiary hospital of West Bengal.

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Abstract

Background: HIV/AIDS is still a public health problem in India. Children contribute around 7% of the total infections which are mostly because of mother to child transmission. Awareness of the pregnant women is necessary to reduce this preventable transmission. **Objective:** The study was undertaken to find out the level of awareness about HIV & AIDS among mothers attending antenatal clinic in NRS Medical College and to determine factors related to awareness level of the mothers. **Methodology:** A descriptive cross-sectional study was conducted among antenatal mothers attending NRS Medical College and hospital from 1st January, 2018 to 31st March, 2018 for the first time after taking informed verbal consent. Those who were severely ill, having complicated pregnancy and not willing to give consent were excluded from the study. Data was collected by a pre-designed pre-tested questionnaire which included their personal information and awareness regarding symptoms of HIV & AIDS, mode of transmission and preventive measures. Assessment of knowledge was done by a scoring method. **Result:** Majority (93.8%) of the mothers heard about HIV & AIDS but out of them 57.86% mothers scored less than 50%. Religion and literacy status were found to be significantly associated with knowledge score. **Conclusion:** Increase in awareness and improvement of knowledge regarding this incurable disease is the need of the hour.

Keywords: HIV/AIDS, awareness, antenatal mothers, mother to child transmission, HIV prevention.

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I. Introduction

HIV/AIDS continues to be a significant public health problem particularly in low and middle income countries. In 2016, 36.7 million people are living with HIV and 1.0 million died from HIV-related causes globally. A large number of young women are being affected by HIV worldwide. (1) In India, infection among women is also on the rise, females constituting 40.5 percent of all HIV infections. (2) Men who frequent sex workers transmit HIV to their wives in large proportion. (3)

According to 2016 estimates, there were 2.1 million children living with HIV globally and 160,000 children became newly infected. (1) HIV is an important cause of childhood mortality and morbidity and children account for 6.54% of all HIV infections. In India, 10.4 thousand children were newly infected in 2016 contributing to 12% of new infections. (2) More than 90% of these infections are mother to child transmission. (4)

HIV can be transmitted from a sero positive mother to her child during pregnancy, labour, delivery or breastfeeding. Without any interventions during these phases, rates of HIV transmission from mother-to-child can be between 15 - 45%. However, this can be reduced to less than 5% by effective interventions like measures to prevent HIV acquisition in pregnant woman, antiretroviral treatment for the mother and a short course of antiretroviral drugs for the baby along with appropriate breastfeeding practices. (2) MCTC was found to be 20 -45% in developing countries, 15-30% in non-breast feeding population & 30-45% among breast feeding children. (5)

According to WHO, 76% of pregnant women living with HIV globally received ARV treatments in 2016. Many countries are achieving very low rates of MTCT and some (Armenia, Belarus, Cuba and Thailand) have eliminated MTCT of HIV as a public health problem. Several countries with a high burden of HIV infection are also progressing along the path to elimination.

In India, knowledge and awareness about HIV and AIDS seem to be quite low, especially among women. (3) The Behavioural Surveillance Survey conducted in 2006 found gender differences in the knowledge about HIV and AIDS and the awareness was particularly low among rural women. (6) Economic dependency on men and cultural taboos like discussing sex or showing interest in or knowledge about sexual matters acts as a barrier to girls receiving HIV-related information from the elders, partners or peers. (3) So this study was

undertaken to find out the level of awareness about HIV & AIDS among mothers attending antenatal clinic in NRS Medical College and to determine factors related to awareness level of the mothers.

II. Methodology

A descriptive cross sectional study was conducted in the antenatal clinic of NRS Medical college and hospital. Mothers who had attended the clinic from 1st January ,2018 to 31st March,2018 for the first time were selected for the study after obtaining informed verbal consent. Those who were severely ill, having complicated pregnancy and not willing to give consent were excluded from the study. Ethical permission was obtained from Institution Ethics Committee.

Data was collected by predesigned pretested questionnaire which was translated into local language regarding their personal information and awareness regarding symptoms of HIV & AIDS, their mode of transmission and preventive measures . Assessment of knowledge was done by awarding each correct answer with +1 , incorrect with -1 and 0 for no response. Total score was calculated and a cut off score of 50% was considered for determining the relationship of knowledge with socio- demographic factors. Data was analyzed with Microsoft excel. Results were presented as percentages & proportions and Chi square test was applied as the test of significance.

III. Results

During the present study, 210 mothers attending the antenatal clinic of NRS Medical college and hospital were considered during their first visit. Among the study population 10.15% were teenage mothers, 84.8% were Hindus, 56.7% from urban area , 7.6% illiterate and majority (92.4%) were homemakers. Mean per capita income was Rs 1350/ month whereas 4.3% were having PCI of < Rs 500/ month.

Majority (93.8%) of the mothers had heard about HIV & AIDS (Fig-1). Out of 197 mothers 114(57.86%) mothers scored less than 50%.

Majority of antenatal mothers had correct knowledge regarding the various modes of transmission like unsafe sex (87.8%), blood transfusion (89.9%), mother to child transmission (73.1%), contaminated needles (70.6%). But correct knowledge among mothers regarding touching , social kissing, sharing meals and mosquito bites were 58.4%, 53.8%, 56.3% & 29.4% respectively.

Three major symptoms like weight loss, prolong fever and prolong diarrhoea were reported by 43.65%, 7. 61% and 12.69% of the antenatal mothers respectively. However, the study population was more conversant with mode of prevention. Most of them knew about blood safety (85.8%), safe sex (84.2%), ANC screening (76.6%).

About 10% of the antenatal mothers said that AIDS has medical cure and about one third mentioned that drugs can slow the progress of the disease.

Among pregnant women above 25 years of age almost 49% were found to have a score more than 50% , which was higher than the younger age group. Only 9.38% of the Muslims scored above 50% compared to 48.48% of the Hindus and the difference was found to be statistically significant. Score above 50% was higher among urban & working mothers. Literates were found to have a significantly higher scores than illiterates.(Table-2)

Radio and television was found to be the major source of information about HIV/AIDS among the study population. Discussion with friends and relatives also contributed as an important information source to about one-fourth of the mothers.

Fig 1 : Study Population who heard about HIV / AIDS (N= 210)

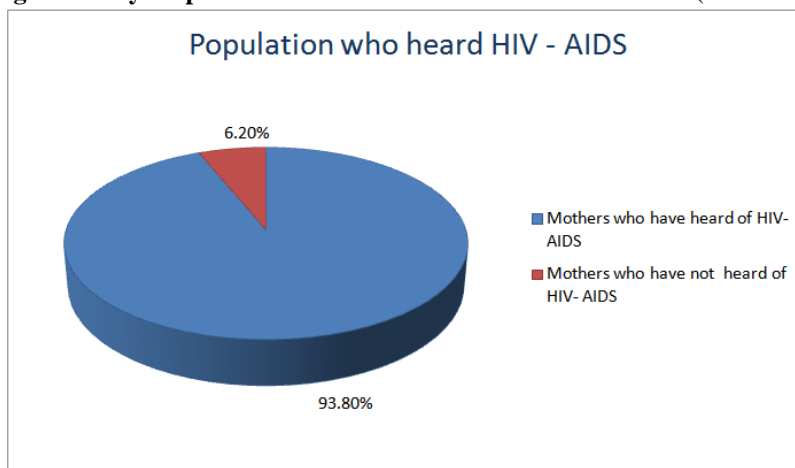


Table 1: Distribution of study subjects according to their correct knowledge of HIV & AIDS

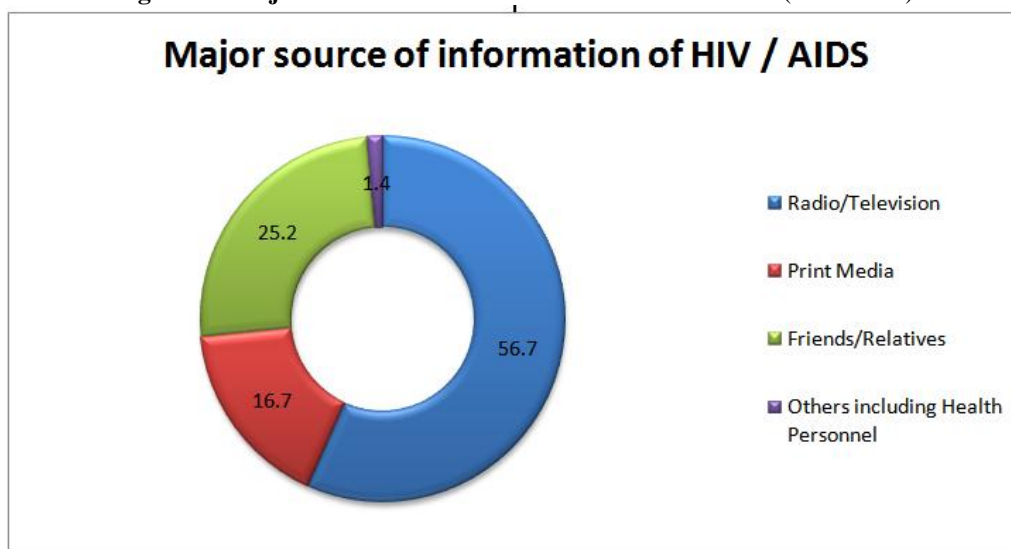
Knowledge of HIV & AIDS	Number (197)	Percentage
Mode of transmission:		
Unsafe sex	173	87.8
Blood transfusion	177	89.8
Mother to Child transmission	144	73.1
Sharing Needles	139	70.6
Touching	115	58.4
Kissing	106	53.8
Sharing meals	111	56.3
Mosquito bite	58	29.4
Major symptoms of HIV & AIDS :		
Weight loss	86	43.65
Weakness	22	11.16
Appetite loss	66	33.5
Prolonged fever	15	7.61
Itching & Irritation	34	17.25
Persistent Vomiting	28	14.21
Prolonged diarrhoea	25	12.69
Mode of prevention of HIV & AIDS :		
Safe sex	166	84.2
Blood Safety	169	85.8
Screening of antenatal mothers	151	76.6
Injection safety	136	69.0
Avoiding casual contact	98	49.7
Not sharing meals	103	52.3

*Multiple response

Table 2: Sociodemographic factors relating to the knowledge of mothers about HIV & AIDS:

Sociodemographic characteristics	Score < 50%	Score > 50%	Total (197)
	Number(%)	Number(%)	Number(%)
Age (in years)			
< 25	72 (62.6)	43(37.4)	115 (58.37)
≥ 25	42 (51.22)	40 (48.78)	82 (41.63)
$\chi^2 = 2.55 ; df=1; p= 0.11$			
Religion:			
Hindu	85 (51.52)	80 (48.48)	165(83.75)
Muslim	29 (90.62)	3 (9.38)	32 (16.24)
$\chi^2 = 16.81 ; df=1; p= 0.0000....$			
Residence:			
Rural	50 (62.5)	30 (37.5)	80 (40.6)
Urban	64 (54.7)	53 (45.3)	117 (59.4)
$\chi^2 = 1.19 ; df=1; p= 0.276$			
Occupation:			
Homemaker	107 (58.79)	75 (41.21)	182 (92.38)
Others	7 (46.66)	8 (53.34)	15 (7.62)
$\chi^2 = 0.84 ; df=1; p= 0.36$			
Per Capita Income:			
< ₹ 1350/ month	78 (56.94)	59 (43.06)	137 (69.54)
≥ ₹1350/month	36 (60)	24 (40)	60 (30.46)
$\chi^2 = 0.16 ; df=1; p= 0.68$			
Educational Status:			
Illiterate	11 (84.62)	2 (15.38)	13 (6.59)
Literate	103 (55.97)	81 (44.03)	184 (93.41)
$\chi^2 = 4.00 ; df=1; p= 0.043$			

Figure 2 : Major source of information of HIV & AIDS (N = 197)



IV. Discussion

Presently prevention is the cornerstone to reduce the spread of HIV in the society and this can be achieved by increasing the knowledge and awareness of the vulnerable groups. Information about HIV among pregnant women can help in reducing the mother to child transmission and can be live saving for the child.

Among the mothers attending the antenatal clinic of our institution 6.2% have not heard of HIV/AIDS. Studies from Uganda⁽⁷⁾(2010) and Nigeria (8)(2003) showed that all the respondents heard about HIV/AIDS whereas a study in Maharastra⁽⁹⁾ in 2002 revealed that 19% of the pregnant women were not aware of the disease. Another study from Kolkata⁽¹⁰⁾(2008) revealed that 12.86% had never come across the term. This shows improvement of knowledge over the years in India. However variations in awareness of HIV/AIDS in different parts of the country is quite prominent. A study in Bangalore⁽¹¹⁾ revealed that about 98% of the women were aware of HIV/AIDS whereas another study from Kanpur⁽¹²⁾ found that awareness about HIV/AIDs was only 59%.

Radio and television was found to be the most important source of information followed by friends and health personnel. Similar finding was obtained from China⁽¹³⁾, Nigeria⁽⁸⁾, Sikkim⁽¹⁴⁾ and Bangalore⁽¹¹⁾. In Uganda⁽⁷⁾, school and friends served as an important source of information. In Nigeria⁽⁸⁾ dissemination of HIV/AIDS information is an integral component of ANC and the place where antenatal care was sought affected the women's awareness.

Regarding the modes of transmission of the disease majority of the study population mentioned about blood transfusion and unsafe sex which is similar to the findings obtained in Sikkim⁽¹⁴⁾, Uganda⁽⁷⁾ & Kazakhstan⁽¹⁵⁾. However in Bangalore⁽¹¹⁾ sexual route of transmission was mentioned by only 42.9% of the study population. Mother to child transmission was known to 73.1% of the antenatal women. Knowledge of mother to child transmission was almost similar in Sikkim⁽¹⁴⁾, Kazaksthan⁽¹⁵⁾ and Kanpur⁽¹²⁾. A study in Bangalore⁽¹¹⁾ revealed that 81.6% of the antenatal women were not aware of mother to child transmission. This can be a matter of serious concern towards achieving zero infection rate. Misconceptions regarding the modes of transmission were also noted among the women. More than half of the study population believed that touching and sharing meals with HIV positive individuals can lead to infection. Such myths should be addressed in the awareness program as these beliefs often prevent HIV/AIDS patients from getting adequate care and support from family and society.

Regarding the common presentations of HIV/AIDs patients, 43.65% of the study subjects knew about weight loss followed by loss of appetite as mentioned by 33.5%. Other symptoms known to the pregnant women were prolong fever, diarrhoea, vomiting and weakness. In Kazakhstan⁽¹⁵⁾ 37% knew about fever in HIV infection. In China⁽¹³⁾ about 10% of the population were aware of the symptoms. However, in Uganda⁽⁷⁾ women were aware of Herpes zoster, Kaposi sarcoma, oral candidiasis beside symptoms like fever, diarrhoea, vomiting and weight loss. In the present study about 10% of the antenatal mothers said that AIDS has medical cure and about one third mentioned that drugs can slow the progress of the disease. Similar observations were noted in a study carried out in Kazakhstan.

The present study revealed that 85.8% and 84.2% of the pregnant women knew about blood safety and safe sex respectively. Screening of antenatal mothers as a mode of prevention was mentioned by 76.6% of the population which corroborates with their knowledge about mother to child transmission. Misconceptions like

avoiding casual contact & not sharing meals also existed among half of the study population . Knowledge about safe sex and use of condom was almost similar in other studies carried out in Uganda(7), Kazakstan(15). Misconceptions regarding modes of prevention were also present in other studies carried out in India and abroad.

Constant efforts are necessary to improve the knowledge and awareness about HIV/AIDS among the general population and the adolescent girls and married women in particular to reduce the burden of HIV in children. This can be achieved through the various methods of mass communication as well as special drives can be taken up in schools to reach the adolescents.

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