

# Awareness of Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Syndrome (AIDS) among the Pregnant Women of Rural areas of Puducherry, India

V.Vijayalakshmi, B.Nagaraj

**Abstract:** As according to the statistics of WHO, worldwide almost 50% of newly infected HIV infected adults in 2003 were women. In India, among all states, in 13 states, only 1 in 6 women had heard about HIV/AIDS and also their knowledge about transmission and prevention was poor. Further rural, less educated, poor women were least likely to be AIDS aware. The aim of the study is to investigate the awareness of transmission of HIV/AIDS and on the knowledge about the preventive measures among the pregnant women consulting the gynecology department in the Mahatma Gandhi Medical College and Research Institute in Puducherry. The present study concentrated both the inpatient and outpatient pregnant women who visits the gynecology department and the analysis was based on the information collected through personal interviews and questionnaires structured to assess the awareness of pregnant women about HIV/AIDS, modes of transmission, awareness on preventive methods, source of information and their attitude towards the People living with HIV/AIDS. All respondents were aware of the dreadful disease still there were much misconception about the modes of transmission and the preventive measures. High majority of respondents (63.3%) were aware about the disease through Television and expressed that media has a major role in creating awareness among the public. The level of awareness and knowledge of HIV/AIDS among pregnant women seems to be superficial; more education and knowledge about modes of transmission and preventive measures is needed.

**Keywords:** Attitudes, literacy, awareness, intervention programmes

## I. INTRODUCTION

India is considered to be the largest and most populated countries in the world, with over one billion inhabitants. It's estimated that around 2.3 million people are currently living with HIV/AIDS (NACO, 2007). In 2008 the figure was confirmed to be 2.5 million (UNAIDS, 2008), which equates to a prevalence of 0.3%.

Knowledge and Awareness is the first step in Human Immunodeficiency Virus (HIV) prevention. This infection has created a major global health crisis and its impact on a country is tremendous. Acquired Immunodeficiency Syndrome (AIDS) is an infectious disease caused by Human Immunodeficiency Virus (HIV).

The prevalence of HIV infection is estimated is high in India, since HIV was detected first in India in 1986. The epidemic began in high-risk groups such as female sex workers and their clients. However, married monogamous

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women have been identified as a population at increasing risk for HIV in India (Gangakhedkar *et al.*, 1994). Unless the population has an adequate understanding of AIDS and the ability to practice low risk behaviors, these rates will continue to rise. Through the efforts of the NACO, the availability and accessibility of antiretroviral drugs are made effective throughout India.

There are some common ways that individuals get affected by HIV/AIDS, such as sexual intercourse with HIV affected person, blood transfusion, using needles and injections used by the affected person, pregnancy phase and during breast feeding.

WHO expressed that HIV among children is a growing problem. An overwhelming majority of infected children acquire the infection through mother-to-child transmission. Prevention of HIV infection in infants and young children is now a priority and has been the rallying point for enhanced prevention efforts.

A study conducted in Mumbai reveals that, approximately 15-30% of child born diagnosed with HIV positive women will become infected with HIV during pregnancy and delivery. A further 5-20% will become infected through breastfeeding. Even though they undergo HIV test during pregnancy they don't know the modes of transmission. Thus, by giving awareness to the pregnant women about the modes of transmission of HIV/AIDS, the rate of HIV infected children can be decreased to a large extent (avert.org).

Though there were few studies to identify and measure the awareness levels among pregnant women, but were not from the Union territory of Puducherry, thus the following study was taken in Puducherry region, with the aim to assess the awareness, attitudes and beliefs of the pregnant women towards HIV/AIDS.

Knowledge and awareness about HIV/AIDS plays a vital role in overcoming the ignorance, illiteracy and poverty in this society. In present day, most of the young women are at the risk of HIV-infection because of their low status and their expected ignorance of sex and sexuality. It is predicted that the information about HIV will reduce the pregnant women and their child, the risk of getting infected and is therefore life saving too. Thus, the present study attempts to investigate the knowledge and awareness of HIV/AIDS among the pregnant women who are visiting Mahatma Medical College and Research Institute in Puducherry, India

Our aim was to investigate knowledge and awareness about HIV/AIDS among pregnant women in Puducherry as background for the future intervention



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and planned prevention program.

## II. MATERIALS AND METHODS

The Union Territory (UT) of Pondicherry, comprises of four coastal regions namely Puducherry, Karaikal, Mahe and Yanam. Puducherry and Karaikal with a population of 0.97 million, shares a state border and cultural and linguistic similarities with Tamil Nadu. Cross-migration between the two states for education, health, trade and tourism is very high. The present study is undertaken in Puducherry region alone. The Puducherry State AIDS Control Society (PACS) is the government body responsible for the prevention, care and treatment and support programs for the UT. Recent mapping and size estimates indicate that Puducherry has nearly 3,000-3,800 Most-At-Risk-Populations (MARPs) and nearly 9,000 people living with HIV/AIDS. The strong and sustained efforts of PACS and other agencies have helped in controlling the epidemic. Still, HIV prevalence among antenatal clinic attendees, among the MARPs and other groups continues to remain.

The present study is carried out in the Department of Obstetrics and Gynaecology in Mahatma Gandhi Medical College And Research Institute. The department was started in 2001 under the Trust Act by Sri Balaji Educational Charitable and Public Trust. It was established as a teaching and medical institute. The institute also concentrates on the health and well being of the rural people through the department of community medicine.

Since the study concentrated on the pregnant women, 60 Antenatal women were assessed through structured interview schedule on their awareness of HIV/AIDS based on the Convenience sampling method. The data were collected from both out patients and in patients (30 each) in the Gynecology Department of Mahatma Gandhi Medical College and Research Institute in Puducherry. The major objectives of the study are:

- To investigate the awareness of transmission of HIV/AIDS among pregnant women.
- To find out the knowledge about the preventive measures among the pregnant women.

The interview schedule included demographic information, awareness on HIV/AIDS, knowledge on modes of transmission, awareness on preventive methods, source of information and their attitude towards the people living with HIV/AIDS. The socioeconomic status of family was also assessed. The information regarding the trimester of pregnancy were also collected for the purpose of assessing the awareness level among the pregnant women.

## III. RESULTS

Out of the total 60 pregnant women chosen for the study, 68.3% of the respondents were belonging to the age group 20-25 years, 28.3% were within 26-30 years and 4.6% of the respondents were in between the age group of 31-35 years. On the whole from the study samples, a large percentage of the respondents were falling under the young age group. The awareness of HIV/AIDS among the young mothers is assessed here after. Along with age, in considering the educational qualification of the respondents, more than one third of the respondents (35%) has studied up to SSLC and 23.4% of the respondents have studied till plus two, 15% of the respondents have not even studied till Xth

Std (Table 1). Though there are 13.3% of respondents, 8.3% have pursued till post graduation and 5% of them have finished diplomas, still while analyzing the occupation of the respondents it is found that, all the pregnant women of this present study doesn't have any occupation and were housewives. Less education, lack of income and employment, they don't have adequate social exposure thus the level of awareness is also very less.

**Table 1: Age/education distribution**

Age/educational qualification of the respondents	Frequency	Percentage
<b>Age group</b>		
20-25	38	63.30
26-30	17	28.30
31-35	4	6.70
36-40	1	1.70
<b>Total</b>	<b>60</b>	<b>100.00</b>
<b>Educational qualification</b>		
Below Xth Std	9	15.00
SSLC	21	35.00
Plus two	14	23.40
Graduation	8	13.30
Post graduation	5	8.30
Diploma	3	5.00
<b>Total</b>	<b>60</b>	<b>100.00</b>

**Table 2: Occupation/family monthly income**

Occupation of the spouses of the respondents/family monthly income (in Rs.)	Frequency	Percentage
<b>Spouse occupation</b>		
Private	44	73.30
Government	6	10.00
Agriculture	6	10.00
Driver	4	6.70
<b>Total</b>	<b>60</b>	<b>100.00</b>
<b>Family monthly income</b>		
1000-2000	12	20.00
2001-3000	6	10.00
3001-4000	4	6.70
4001-5000	13	21.60
Above 5000	25	41.70
<b>Total</b>	<b>60</b>	<b>100.00</b>

Indian Culture binds more restrictions in family set up both for a male and female. Still in case of female it is relatively more. Few topics were not allowed to be discussed in home, especially matters related to sex, marital relationships, HIV/AIDS, STD, RTI and others. In analyzing the type of family of the respondents, more than fifty percent (53.3%) were living in a nuclear family setting and remaining 46.7% were within joint family set up. Thus, the pregnant women being in a joint family set up is less allowed neither to share her views nor to discuss on her doubts on HIV/AIDS. In this study, the misconceptions and lack of knowledge on HIV/AIDS among the pregnant can be attributed on these grounds. While analyzing the variables like occupation of the spouses of the respondents with the family monthly income, nearly three fourth of the respondent's spouses were working with private sectors, 10% were working with Government Sectors and another 10% were undertaking agriculture and 6.7% were drivers. Also in considering family monthly income, 48.3% of the respondent's family income is below 5000 and only 41.7% of the respondents have a monthly family income above 5,000 rupees. This shows the economic inconsistency in their life (Table 2).

**Table 3: Distribution on number of pregnancy**

Pregnancy	Frequency	Percentage
First	27	45.0
Second	31	51.7
Third	2	3.3
Total	60	100.0

**Table 4: Distribution on number trimester**

Trimester	Frequency	Percentage
First	2	3.3
Second	3	5.0
Third	55	91.7
Total	60	100.0

**Table 5: Distribution on source on information on HIV/AIDS**

Sources of Information	Frequency	Percentage
Family members	5	8.33
Media	35	58.33
Health personnel	7	11.66
Friends	4	6.66
Government awareness program	2	3.33
NGO's	4	6.66
Schools	3	5.00
Total	30	100.00

In examining the respondents trimester of pregnancy with their number of pregnancy (Table 3 and 4), a high majority (91.7%) of the pregnant women were in their third trimester of their pregnancy and most of them were with their second pregnancy (51.7%). Even though the government has implemented Preventing Parent to Child Transmission (PPTCT) programmes, misconceptions still prevail among prenatal mothers regarding HIV/AIDS.

In analyzing the effective medium through which the awareness of HIV/AIDS has reached the pregnant women, it was found that Media plays a major role in creating awareness about HIV/AIDS among the people and the results depicted that majority of respondents (58.33%) had heard of AIDS being mentioned on media and a significant fact that 11.66% of the respondents got aware of it through Health Professional because of the efficient works of health care system in Puducherry and the ANM's role in educating the antenatal women both in government and private clinics, followed by NGO's (6.66%) and few others from friends, neighbors and government programmes. It was observed that higher share of the respondents learnt most about AIDS through mass media and through the health professionals in comparison to other sources of communication (Table 5).

The study reports a shocking finding that many of the respondents believe that HIV/AIDS will spread through sharing meals, sharing common toilets, hugging, shaking hands, coughing and using public telephones. And some of the respondents even believed that HIV/AIDS will not spread through blood transfusion as represented in the Table 6.

**Table 6: Distribution on the modes of transmission**

Modes of transmission	Yes	No	Don't Know
Sharing meals	11(18.33%)	48(80%)	1 (1.66%)
Using common toilet	13 (21.66%)	44(73.33%)	3 (5%)
Blood transfusion	53 (88.33%)	6 (10%)	1 (1.66%)
Hugging	8 (13.33%)	46(76.67%)	6 (10%)
Shaking hands	2 (3.33%)	55(91.67%)	3 (5%)
Coughing	19 (31.66%)	37(61.67%)	4 (6.66%)
Unprotected sex	56 (93.33%)	2(3.33%)	2 (3.33%)
From infected mother to child	50 (83.33%)	6 (10%)	4 (6.66%)
Using public telephone	5 (8.33%)	53(88.33%)	2 (3.33%)
Breast feeding	41(68.33%)	9 (15%)	10 (16.7%)

**Table 7: Distribution of preventive methods of HIV/AIDS**

Prevention methods of HIV/AIDS	Frequency	Percentage
Through using condoms	6	10.00
Safe sex	29	48.33
Through use of disposable syringes	3	5.00
Safe blood transfusion	3	5.00
All the above	4	6.66
Don't know	15	25.00
Total	60	100.00

From the tabular representation, it is very clear that a lot of misconceptions about the mode of transmission of HIV/AIDS exist among the respondents. The percentage depicts the lack of awareness and knowledge of pregnant women on HIV/AIDS.

Majority of the respondents (68.33%) said that HIV/AIDS will spread through breast feeding, still some of the respondents (15%) expressed that HIV/AIDS will not spread through Breast feeding and 16.7% of the respondents didn't know whether HIV/AIDS will spread through breast feeding or not. 83.33% of the respondents believe that HIV/AIDS will spread from infected mother to child, simultaneously 10% of the respondents feels that HIV/AIDS will not spread from the infected mother to child, where there is no proper clarity among the respondents (Table 6).

It is however relieving that all the respondents were aware about the main source of spreading HIV (unprotected sex). Though nearly half of the respondents strongly believed that AIDS could be prevented by ensuring safe sex but 25% of the respondents didn't know how to prevent HIV/AIDS which is much significant. But there is also another valid point that, only 10% of the respondents believed that AIDS can be prevented using Condoms and also only 5% believed in using disposable syringes and safe blood transfusion, which clearly shows that, they doesn't have a proper knowledge about the prevention of HIV/AIDS (Table 7).

**Table 8: Distribution on availability of medicinal care**

Availability of medicinal cure	Frequency	Percentage
Medicines are available	17	28.30
Medicines are not available	28	46.70
No idea	15	25.00
Total	60	100.00

**Table 9: Distribution on opinion on HIV/AIDS as dreadful disease**

Opinion on HIV/AIDS as dreadful disease	Frequency	Percentage
Don't know	5	8.33
No medicine	32	53.30
No vaccine	1	1.70
Death is inevitable	21	35.00
All the above	3	5.00
Total	60	100.00

**Table 10: Distribution showing extent of discrimination**

Discrimination towards HIV/AIDS patients	Frequency	Percentage
Will interfere and try to educate the people	33	45.00
Feel for it but don't involve in it	16	26.70
Don't mind it	11	18.30
Total	60	100.00



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Similarly, half of the respondents believed that there is no medical treatment for AIDS, 35% felt that there is no cure and the death is inevitable in the case of AIDS (Table 9). It is pathetic that 28.3% of the respondents blindly believed that there is medical treatment for HIV/AIDS, though 46.7% of the respondents were aware that there is no medical treatment, still 25% doesn't

have any idea about it (Table 8). Table 8 explains the availability of medicines for HIV/AIDS and table 9 signifies the extent of dreadfulness of the disease. With regard to the discrimination of respondents towards an AIDS infected, even though the respondents believe that AIDS patients should not be discriminated, only 45% respondents said that they will interfere in such issues of social discrimination, 26.7% feel for it but don't involve in it and 18.3% doesn't mind about it too (Table 10).

From the above representation, it is very clear that a lot of misconceptions about the mode of transmission of HIV/AIDS exist among the respondents. Another interesting finding was that 43.3% of the respondents believed that drug addiction aggravated the spread of HIV/AIDS, 38.3% didn't feel so and 18.4% doesn't have any idea on this issue (Table 11).

From the all the observation above, it can be clearly stated that, there is no proper awareness on HIV/AIDS among the pregnant women chosen for this study from the Mahatma Gandhi Medical College and Research Institute. In order to bring awareness to the pregnant women on HIV/AIDS, suggestions were asked to the women, which are represented in Table 12.

**Table 11: Distribution showing influence on drug addiction**

Influence of drug addiction	Frequency	Percentage
Drug addiction will increase the spread of HIV/AIDS	26	43.30
Drug addiction will not increase the spread of HIV/AIDS	23	38.30
Don't know	11	18.40
Total	60	100.00

**Table 12: Distribution showing respondents suggestions**

Respondents suggestions	Frequency	Percentage
Increase awareness through media	36	60
Increase awareness through sex education in schools	18	30
Increase awareness through public speech	3	5
Increase awareness through skits and dramas	3	5
Total	60	100

## DISCUSSION

The present study intended to find out the awareness level of HIV/AIDS among the pregnant women. The respondents have poor knowledge about the modes of transmission of HIV/AIDS. Even though all respondents are aware about HIV/AIDS to some extent, misconceptions still exist and proper knowledge about the awareness on modes of transmission of HIV/AIDS and on preventive methods is required.

## IV. CONCLUSION

The awareness and knowledge about HIV/AIDS of pregnant women in the Puducherry region seems to be superficial. Outwardly it seems the women have a overall knowledge about the infection, still there are women with less knowledge about the transmission and mode of prevention of HIV/AIDS. It can be suggested that, the testing and counseling on HIV/AIDS for both men and women must be available free of charge. The pregnant women who has been diagnosed with HIV positive need personal counseling and support with information on the infection and also about the option of abortion or antiretroviral therapy and, when medically indicated caesarean section, together with no breastfeeding or exclusive breastfeeding to reduce the likelihood of mother-to-child transmission. Further awareness campaigns through the media and additional efforts to increase the level of awareness among the people of Puducherry are more essential.

### Researcher suggestions:

- Since many of the respondents have misunderstanding about the modes of the transmission of the HIV/AIDS, thus awareness programs should be provided for pregnant women before they are subjected to the HIV tests in hospitals.
- Group awareness programs should be organized for the patients/husbands/relatives.
- Apart from giving counseling to the pre-natal women, it will also be beneficial to give counseling to their spouses.
- The availability of condoms in all OPD's has to be ensured so that people will have easy access to it.
- The detailed awareness about the transmission of HIV/AIDS through media and public speech are required.

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