

KNOWLEDGE REGARDING HIV/AIDS AMONG PREGNANT FEMALES ATTENDING ANTENATAL CLINIC AT KHYBER TEACHING HOSPITAL PESHAWAR, PAKISTAN

Fatima S¹, Afridi NK², Khan S³

¹ Khyber Teaching Hospital, Peshawar, Pakistan

² SAARC TB & HIV/AIDS Centre, Kathmandu, Nepal

³ Federal Medical Centre, Peshawar, Pakistan

ABSTRACT

Introduction: Globally, around 34 million people are living with HIV in 2010, and 35% of the pregnant women are tested for HIV in the low and middle income countries. HIV infection in pregnancy has become a complication of pregnancy in some developing countries. This has major implications for the management of pregnancy and birth. With an estimated one and a half million HIV-positive women becoming pregnant each year, almost 600,000 children will be infected by mother-to-child transmission annually.

Methodology: A cross sectional study was conducted from October – December 2011 in the Department of Obstetrics and Gynecology, Khyber Teaching Hospital, Peshawar. It is a tertiary care hospital located in Peshawar. A sample of 200 pregnant females was used to accomplish the study. The targeted study population was all antenatal attendees who were visiting the hospital within the current pregnancy. A pre-coded, pre- tested structured questionnaire was used to gather information on the study variables. The questionnaire included variables related socio-demographics e.g., age, education status, occupation, residence. It also included the gestational age and gravidity of the pregnant females.

Results: A total of 200 pregnant females attending the antenatal clinic participated in the study. The age range of the respondents was 17 to 45 years. Age range 17-25 years accounted for the highest percentage (52%). Around 70% of the respondents had no formal schooling while only 18% had got secondary education. Ninety – seven percent of the females were housewives while only 3% were employed. Out of the total respondents (200) only 86 (43%) have heard of HIV while 114 (57%) respondents have not heard of HIV.

Conclusion: The study concluded that only 43% of the pregnant females have heard of HIV. Although this is not promising still there is room for improvement. Health education targeting pregnant females is essential.

INTRODUCTION

Globally, around 34 million people are living with HIV in 2010, and 35% of the pregnant women are tested for HIV in the low and middle income countries.¹ The United Nations General Assembly Special Session (UNGASS), in 2001,

put a clear emphasis on the effect of HIV/AIDS on maternal and child health. The final declaration of commitment from the assembly stated that the proportion of infants infected with HIV should be reduced by 20% by 2005, and by 50% by 2010.²

HIV infection in pregnancy has become a complication of pregnancy in some developing countries. This has major implications for the management of pregnancy and birth. With an estimated one and a half million HIV-positive women becoming pregnant each year, almost 600,

Correspondence:

Dr. Shireen Fatima
Khyber Teaching Hospital
Peshawar, Pakistan
E-mail: shireenfati877@yahoo.com

000 children will be infected by mother-to-child transmission annually.³

HIV is transmitted mainly in three ways: through unprotected sexual intercourse, heterosexual or homosexual; through blood or blood products, donated semen or organs; or from an infected mother to her child (vertical or mother-to-child transmission). More than 70% of infections are a result of heterosexual transmission and over 90% of infections in children result from mother-to-child transmission.⁴

Data available from developed countries suggest that pregnancy does not accelerate the progression of HIV disease. A systematic review and meta-analysis of seven cohort studies from 1983 to 1996 suggested that there was an association between adverse maternal outcomes and pregnancy in HIV-infected women. Routine antenatal counseling and testing for HIV, also known as provider-initiated testing approach, involves testing all antenatal attendees for HIV, apart from those who decline the test (i.e., those who opt out). This is the standard of care in Scandinavia and other high-income countries.^{5,6} The sub-Saharan countries, in a bid to increase HIV testing rates, routine antenatal HIV counseling and testing was successfully introduced in the HIV prevention programmes of several countries in line with the Joint United Nations Programme on HIV/AIDS (UNAIDS) and World Health Organization (WHO) recommendations.⁷

Wherever possible, voluntary counseling and testing should be available to any pregnant women who request it and offered to all in areas of moderate or high prevalence. Routine testing of pregnant women without consent or without access to counseling is, however, an unacceptable practice and the disadvantages may negate any benefit obtained from knowing the HIV status of the women. These include a reluctance to utilize maternity services through fear of discrimination, denial of a positive diagnosis and stigmatization. Recommendations for mandatory testing of pregnant women or newborns have led to concern about the autonomy and rights of women.^{8,9} Complications of early pregnancy have been associated with HIV infection in several studies.^{10,11}

HIV-1 and HIV-2 infection in Africa have both been linked to a higher rate of spontaneous abortion. HIV sero-positive women were 1.47 times more likely to have had a previous spontaneous abortion and this rose to 1.81 in women in Uganda who were sero-positive for both HIV and syphilis.¹²

In many developed countries, HIV testing, antiretroviral therapy and infant feeding modifications have been used to virtually eliminate mother-to-child transmission of HIV yet Sub-Saharan Africa continues to be heavily affected due to lack of knowledge, testing services and antiretroviral therapy.¹³

It has been observed that most of the individuals in community do not have correct and complete information about HIV/AIDS and its prevention. And many of the female population are unaware about correct knowledge of HIV/AIDS. The study was conducted with the aim to determine the knowledge of pregnant females regarding HIV/AIDS attending a tertiary care hospital in Peshawar.

METHODOLOGY

A cross sectional study was conducted from October – December 2011 in the Department of Obstetrics and Gynecology, Khyber Teaching Hospital, Peshawar. It is a tertiary care hospital located in Peshawar. A sample of 200 pregnant females was used to accomplish the study. The sample size was calculated by assuming that knowledge level of the females on HIV/AIDS being 20% and the maximum acceptable difference from true value is 0.06, then for a significance value of 5%, the sample size came out to be 171. To account for non-response the sample size was inflated by 15% to give the sample size of 197. The final sample size was 200.

The targeted study population was all antenatal attendees who were visiting the hospital within the current pregnancy. Women, who were very sick, requiring urgent medical attention, were excluded from the study. Consent was taken from each of the women before starting the interview.

A pre-coded, pre-tested structured questionnaire

was used to gather information on the study variables. The questionnaire included variables related socio-demographics e.g., age, education status, occupation, residence. It also included the gestational age and gravidity of the pregnant females. The variables related to knowledge, attitude and practices were whether heard of HIV, source of information, whether HIV transmitted by kissing, sharing food, mosquito bite, through contaminated needles, blood products, breast milk etc. The interviews were conducted in local language. The principal investigator checked filled questionnaires for completeness at the end of each day.

Data was entered and analyzed in SPSS version 16.0. Descriptive analysis of frequencies and percentages were generated for the variables. The association between different variables was determined using chi square test and the significance level was set at 0.05.

RESULTS

A total of 200 pregnant females attending the antenatal clinic participated in the study. The age range of the respondents was 17 to 45 years. Age range 17-25 years accounted for the highest percentage (52%) while those 36 - 45 years of age group accounted for 5% (Figure 1). Around 70% of the respondents had no formal schooling while only 18% had got secondary education. Ninety – seven percent of the females were housewives while only 3% were employed.

It was observed that majority of the antenatal women 142(71%) were registered for antenatal check up in the third trimester while only 18 (09%) came for antenatal registration / check up in the first trimester. The participants who were first, second to fourth and more than four gravida were 32%, 39% and 29% respectively.

Out of the total respondents (200) only 86 (43%) have heard of HIV while 114 (57%) respondents have not heard of HIV (Figure 2). The rest of the questionnaire was administered only to those participants who have heard of HIV while the

participants who have not heard of HIV were given a brief introduction of HIV /AIDS and its prevention. Regarding source of information of HIV around 74% of the participants reported that the main source of information was mass media followed by friend/relative (21%) as reported by the participants (Figure 3). Table 1 summarizes the knowledge regarding HIV of pregnant women who have heard of HIV. Although most of the responses given by the participants were correct yet a few misconceptions still exists as evident by the responses. Around 44% of the participants responded that HIV can be transmitted by kissing/ hugging, 36% believed that clothes can act as an agent in the transmission of HIV while 32% responded that sharing/ eating food can transmit HIV. A higher percentage of participants responded that HIV transmission can occur due to sex with person having HIV (84%), contaminated needle/syringe (87%), contaminated blood transfusion (92%) and HIV infected mother to child transmission (70%).

Table 2 depicts association between two variables i.e., heard of HIV and age category, it shows that the association between the two variables are not significant p -value (0.54) so different age categories have no association with the variable heard of HIV.

Table 3 depicts the association between two variables i.e., heard of HIV and education status categories. And it was found the two variables are highly significant p-value (0.000), it was also evident that around 71% of the women who have not heard of HIV have no formal schooling. It is also interesting to note as the education level becomes higher then more females are educated and have heard of HIV.

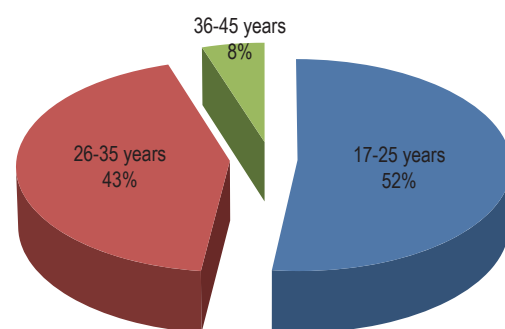


Figure 1. Age distribution of the pregnant females

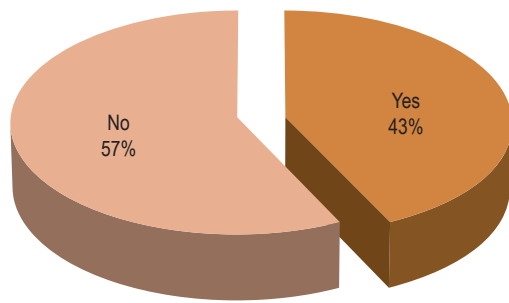


Figure 2. Knowledge regarding HIV

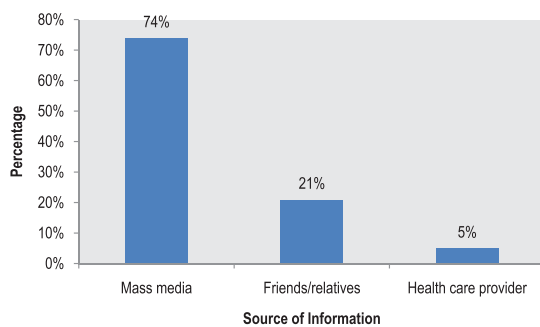


Figure 3. Source of Information regarding HIV

Table 1. Frequency analysis about knowledge regarding HIV (n = 86)	
Variables	Number (%)
HIV transmitted by kissing/hugging	
Yes	38 (44)
No	48 (56)
HIV transmitted by clothes	
Yes	31(36)
No	55 (64)
HIV transmitted by eating food with HIV person	
Yes	28 (32)
No	58 (68)
HIV transmitted by having sex with HIV person	
Yes	72 (84)
No	14 (16)
HIV transmitted by bite of mosquito	
Yes	58 (67)
No	28 (33)
HIV transmitted by contaminated needle/syringe	
Yes	75 (87)
No	11(13)
HIV transmitted by contaminated blood transfusion	
Yes	79 (92)
No	07 (08)
HIV transmitted by HIV mother to child	
Yes	60 (70)
No	26 (30)

HIV transmitted through breast milk	
Yes	48 (56)
No	38 (44)
Condom prevent HIV transmission	
Yes	35 (41)
No	51 (59)
AIDS curable disease	
Yes	40 (46)
No	46 (54)

Table 2. Cross Tabulation between Age group and heard about HIV (n = 200)

Age Group	Heard of HIV	
	Yes	No
17 - 25 years	41 (40%)	62 (60%)
26 - 35 years	39 (45%)	47 (55%)
36 - 45 years	6 (55%)	5 (45%)

χ^2 : 1.22
p-value: 0.54

Table 3. Cross Tabulation between Education status and heard about HIV (n = 200)

Education category	Heard of HIV	
	Yes	No
No formal schooling	41 (29%)	98 (71%)
Primary schooling	06 (60%)	04 (40%)
Secondary schooling	25 (69%)	11 (31%)
Above Secondary schooling	14 (93%)	01 (07%)

χ^2 : 1.22
p-value: 0.000

DISCUSSION

Knowledge of HIV/AIDS among pregnant females was not appreciably high as 57% have not heard of HIV/AIDS. Only 43% of the pregnant females have heard of HIV. These findings are also shown in a study conducted by Singh where about 40% of pregnant women had heard of AIDS.¹⁴ One of the most important finding in this study was that education levels play a significant role in awareness regarding HIV/AIDS. So the higher educational status of pregnant women was associated with the increase in awareness towards HIV/AIDS. Similar findings are reported by a number of studies conducted.^{15, 16}

The main source of information regarding HIV/AIDS was mass media (74%) and many studies

have corroborated this finding. The significance of information, education and communication in prevention and control of HIV/AIDS had been advocated.¹⁷

Misconceptions regarding HIV/AIDS are still prevalent as 44% of the participants believed that HIV is transmitted by kissing/hugging, 36% responded that it is spread by wearing clothes of infected person. There was also misconception about eating food with HIV infected person and mosquitoes' bite can transmit HIV infection. The issue of misconceptions was also highlighted in various studies.^{18, 19} Lack of precise and correct information and knowledge about sexual health has resulted in myths and misconceptions about sex and HIV, contributing to increasing transmission rates as well as stigma and discrimination towards people living with HIV/AIDS.

Approximately 50% of the pregnant females belong to 17 – 25 years age group and giving them health at this stage might help them in preventing themselves and their newborns from the risk of HIV/AIDS. A study conducted in Pakistan also showed that 58.7% of the participants responded that use of condom can prevent the transmission of HIV/AIDS while in this study 41% responded that condom can prevent HIV.²⁰

Whereas breastfeeding carries significant health benefits to infants and young children, HIV can

be transmitted during breastfeeding from an HIV-infected mother to her infant. Reducing this

transmission while ensuring improved HIV-free survival is one of the most pressing public health dilemmas confronting researchers, health-care professionals, health policy-makers and HIV-infected women in many areas of the world, especially in developing countries. Mother-to-child transmission of HIV can occur during pregnancy, labour or delivery, or through breastfeeding. Without specific interventions, HIV-infected women will pass the virus to their infants during pregnancy or delivery in about 15-25% of cases; and an additional 5-20% of infants may become infected postnatally during breastfeeding, for an overall risk of 30-45%.

Breastfeeding may thus be responsible for one third to one half of HIV infections in infants when interventions are not available.²¹

Areas of concern include the low level of knowledge gained directly from health care workers and only 04 (05%) of the pregnant females responded that they have heard HIV from health care workers. There is a perturbing lack of knowledge about the breastfeeding routes of transmission particularly as the participants were pregnant women, as 56% responded that HIV can be transmitted through breast milk. Awareness that condoms can prevent HIV transmission was relatively low 41% and also that 46% responded that AIDS is a curable disease is also alarming. These areas should form part of the health education imparted during each antenatal session and should be supported with the use of audio-visual aids.

Although the scientific community are struggling to find a long lasting cure for HIV/AIDS, till now there is no effective treatment available nor has a vaccine breakthrough been made for HIV/AIDS. Advocacy, general awareness, health education, safe sex practices, screening of blood products are the best recommended practices.

CONCLUSION

The study concluded that only 43% of the pregnant females have heard of HIV. Although this is not promising still there is room for improvement. Health education targeting pregnant females is essential. Awareness campaigns regarding HIV/AIDS involving mass media and through health care providers can be helpful and beneficial in prevention and spread of HIV/AIDS.

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