

Knowledge and Awareness regarding HIV/AIDS Prevention, Diagnosis & Treatment among Pregnant Women of Belagavi city, Karnataka, India

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Abstract:

Introduction: Globally, there were 35 million people living with HIV, in 2013. According to the HIV estimates in the year 2015, number of people living with HIV/AIDS in India was 21.17 lakh. Pregnant mothers having HIV have additional risk of transmitting infection to offspring. Knowledge about correct practices for HIV can substantially reduce risk of HIV transmission and improve compliance to medicine. Present study tries to assess awareness and misconceptions regarding HIV/AIDS among pregnant women in Urban Health Centre in Karnataka. **Method:** A cross sectional study was conducted on 400 pregnant women attending antenatal clinic at urban health centre, Ramnagar of Belgaum city. Data was collected using a pre-designed and pre-tested structured questionnaire. **Results:** Most of pregnant women (95%) were in the age group of 19-29 years; with 56% Muslims and 43% educated up to secondary level. All 400 pregnant women had heard about HIV/AIDS. Anganwadi/ASHA/Health worker (53%) were among the most common source of information. Knowledge about the different modes of transmission by unprotected sex (88%), untested blood transfusion (68%), sharing of infected needle (83%) and mother to child transmission were (82%). Similarly, misconceptions regarding sharing food, clothes and handshake (5%), mosquito bite (10%) and houseflies (2.5%) were also present in pregnant women. 72% women knew about free testing at government institutions while only 42% knew about ICTC centres and 33% knew about PPTCT services. Knowledge regarding prevention of HIV through blood testing before transfusion and avoiding multiple partners was significantly associated with socio economic status. **Conclusion:** There is increased awareness and knowledge about HIV/AIDS in pregnant women. Health workers/ASHAs/Anganwadi workers are the major source of information for pregnant mother. Yet there are misconceptions which are present in pregnant mothers. Further focus needs to be given to develop appropriate communication strategy for pregnant mothers for improving knowledge and practices related to HIV/AIDS transmission prevention.

Key words: AIDS, ANC, Awareness, HIV, Pregnancy

Introduction:

Globally, in 2013, there were 35 million people living with HIV. ^[1] India has the third highest number of HIV+ve persons in the world. According to the estimates in the year 2015, number of people living with HIV/AIDS in India was 21.17 lakh. ^[2] According to HSS (HIV Sentinel Surveillance) 2012-2013, the overall HIV prevalence among ANC

attendees continued to be low at 0.35% in the country, with an overall declining trend at the national level. The highest prevalence in ANC mothers was recorded in Nagaland (0.88%), followed by Mizoram (0.68%), Manipur (0.64%), Andhra Pradesh (0.59%) and Karnataka (0.53%). ^[3] Karnataka has fifth highest prevalence of HIV in ANC. In Karnataka the number of people living with

HIV/AIDS were 2, 09,366 among them 83,917 were females. The number of children living with HIV/AIDS was 14,195. The HIV prevalence among the antenatal clinic attendees in Karnataka was 0.5-0.74 % according to household survey 2012–2013 and in Belgaum district it was 0.5-0.99 % among antenatal clinic attendees. [4] Pregnant women can transmit infection to the fetus and hence provide an unique opportunity for implementing preventive strategy against HIV infection of newborn babies. [5] in order to devise strategies for prevention of transmission of HIV infection, current level of knowledge and awareness needs to be understood. Present study tries to understand the knowledge and awareness of the pregnant women about HIV/AIDS.

Method:

A cross sectional study was conducted in Ramnagar urban health center, which is an urban field practice area of J.N. Medical College Belgaum, which has a population of 32,815 and comprises 16,213 females and 5200 eligible couples and 1025 pregnant women. Assuming that the prevalence of awareness of HIV/AIDS among pregnant women to be 50%, sample size was estimated to be 400 pregnant women attending clinic using 4pq/D² formula.

Permission was taken from Institutional Ethical Committee for undertaking this study. Prestructured questionnaire was devised and pilot tested on 10 pregnant mothers initially. Necessary corrections were done in questionnaire after receiving feedback from pregnant mothers. All mothers were requested to provide consent for participation in present study. Those who provided written informed consent were included in the study. There were no exclusion criteria for enrollment in the study except for the denial for informed consent. Present study was undertaken for a period of 12 months from February 2015 to January 2016. Information on socio demographic variables and awareness and misconceptions of HIV/AIDS was collected. Socio economic status was classified by using modified B.G. Prasad's classification 2015. Data was analyzed by using SPSS software version 20 using percentage and Chi-Square tests were used to find out

the association between awareness of HIV/AIDS and various socio demographic variables.

Results:

Socio Demographic Profile

A total of 400 pregnant females attending the antenatal clinic participated in the study. 95% participant were in the age range of 19–29 years (Figure 1). Around 5% of the respondents had no formal schooling while 43% had undergone secondary education (Figure 2). 95.25% of the females were housewives while only 4.75% were employed.

Figure 1: Age distribution of the participants (n=400)

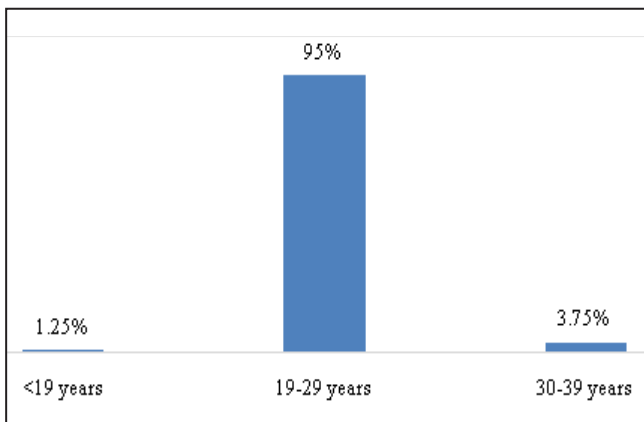
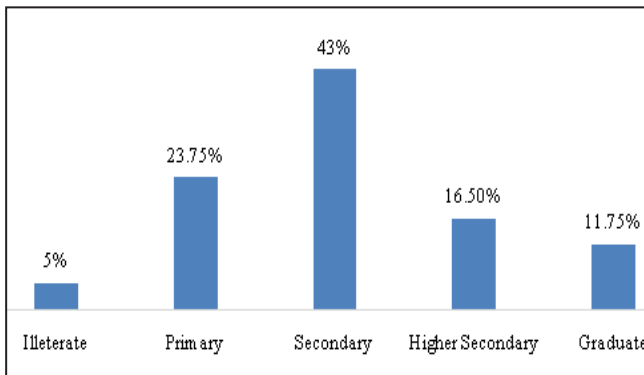
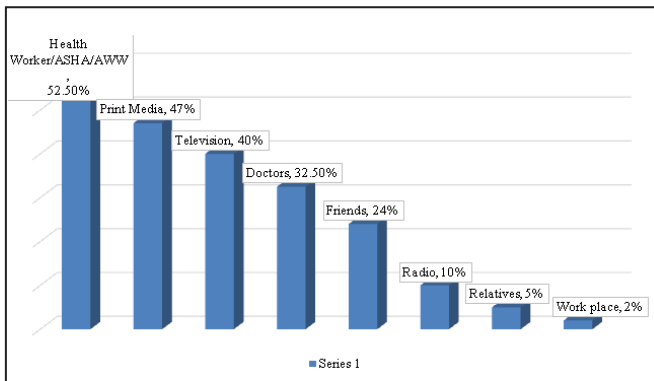


Figure 2: Educational status of the participants (n=400)



All respondents (400) had heard of HIV. Figure -3 describes sources of information regarding knowledge of HIV/AIDS among pregnant mothers (as there are multiple sources of information, percentage may not add up to 100).

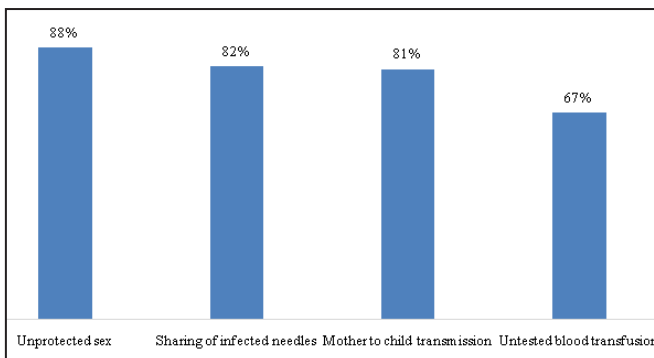
Figure 3: Source of Information for HIV/AIDS Knowledge



Knowledge about HIV/AIDS

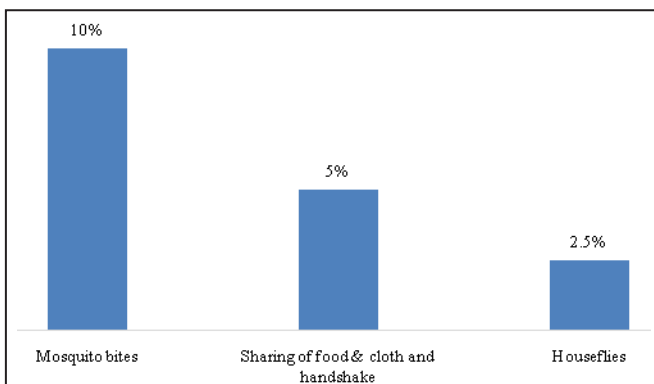
Figure -4 summarizes correct knowledge about the transmission of the HIV through unprotected sex, untested blood transfusion, sharing of infected needles and mother to child transmission.

Figure 4: Correct knowledge regarding HIV transmission (n=400)



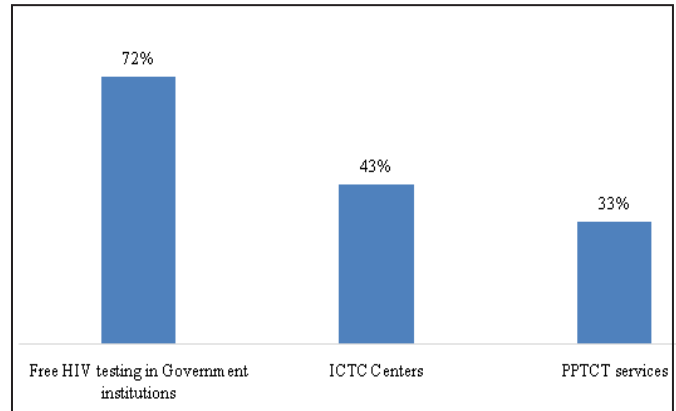
At the same time, there were misconceptions as well regarding spread of HIV/AIDS through mosquito bite, sharing of cloths-foods-hand shake and spread through house flies (Figure – 5).

Figure 5: Misconceptions regarding spread of HIV (n=400)



72% women knew availability of free testing for HIV/AIDS in government institutions. However, only 42% women knew about ICTC and 33% knew about PPTCT services (Figure

Figure 6: Correct knowledge of testing and treatment (n=400)



Association of HIV prevention with Socio Economic Status

There was statistically significant difference in knowledge about HIV prevention strategies based on socio economic status. Knowledge increased substantially with increase in socio economic status. Table 1 & 2 presents association of socio economic status with prevention of HIV by blood testing before transfusion and avoiding multiple sex partners respectively.

Table 1: Association between socio economic status and prevention of HIV by blood testing before transfusion

Socio economic status	Prevention by testing blood before transfusion				
	Yes		No		Total
	Number	%	Number	%	
Class I & II	26	72.2	10	27.8	36
Class III	74	68.5	34	31.5	108
Class IV	84	54.9	69	45.1	153
Class V	54	52.4	49	47.6	103
Total	238	59.5	162	40.5	400

Chi-square = 9.544, p value= 0.023

Table 2: Association between socio economic status and avoiding multiple sex partners

Socio economic status	Prevention by avoiding multiple sex partners				
	Yes		No		Total
	Number	%	Number	%	Number
Class I & II	36	100	0	0	36
Class III	102	94.4	6	5.6	108
Class IV	138	90.2	15	9.8	153
Class V	87	84.5	16	15.5	103
Total	363	90.8	37	9.2	400
Chi-square = 10.327, p value= 0.016					

Discussion:

In a study conducted in Osogbo, Southwest Nigeria [6] it was observed that 81.9% of pregnant women were aware of maternal to child transmission. A study conducted in Kazakhstan [7] observed that 89% knew that unprotected sex was a mode of transmission for AIDS and 86% knew about unsterilized needles as a mode of transmission. In a study conducted in Nigeria [8] it was revealed that 74.7% of pregnant women were aware of untested blood transfusion as a mode of HIV transmission, which is similar to our study. In a study conducted in Iran it was observed that 10.8% and 5% of pregnant women felt that AIDS also spreads by mosquito bites and using shared clothes respectively. [9] It has been noted that pregnant women who had completed secondary education and above were more likely to be aware of HIV as compared to pregnant women who had completed primary education. [10] In federal medical centre in Nigeria, pregnant women completed secondary education had knowledge (66.7%) which also showed that proportion of pregnant women with high knowledge of HIV/AIDS increased with increase in education status. [11] In our study, association of knowledge regarding spread of HIV by untested blood transfusion and avoiding multiple sex partners was significantly associated with socio economic status. In Jharkhand it was found that, socio economic status plays an important role in creating good concept of HIV/AIDS. It showed that illiterate women with high wealth index were more

likely to have knowledge than less wealth index pregnant women. [12] Higher level of education and SES increase the likelihood of knowledge about HIV/AIDS. [12]

Conclusion:

Majority of pregnant mothers were aware about the HIV/AIDS and mode of transmission. This is positive step towards implementation of program. However, programmatic knowledge with reference to ICTC centers and PPTCT services was found to be poor. This requires focused attention on communication strategies not just on prevention of HIV but also on available services for diagnosis and management of HIV in pregnancy.

Health workers are the most common source of information regarding HIV/AIDS for pregnant mothers. Strategies to keep health workers updated with further improve knowledge in pregnant mothers. At the same time mass media communication strategies which are wide spread are also likely to yield desired outcomes.

Further research needs to be done in order to understand vulnerabilities among lower socio economic groups regarding poor knowledge about HIV/AIDS and its prevention strategies. It will enable for further strategic approach development to deliver customized communication strategies targeted to this vulnerable population.

Declaration:

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Conflict of Interest: Nil

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