ORIGINAL ARTICLE

Knowledge, Attitude and Perception about HIV/AIDS among Pregnant Women in Rural Area of Dehradun

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Abstract

Out of 356 pregnant women interviewed regarding their knowledge, attitude and perception about HIV/ AIDS, 156 (43.8%) were illiterate and only 10 (2.8%) were graduate and above. About 15(4.2%) of the study subjects were less than 20 years of age and 6(1.8%) were of 35 years and above whereas maximum number i.e., 193(54.2%) belonged to 20-25 years of age group. Subjects mainly belonged to lower middle 101 (28.4)% and lower 110 (31%) socio-economic class. Only 125 (35.1) of subjects had heard of HIV/ AIDS. With increasing status of literacy, awareness regarding HIV/ AIDS was observed to increase i.e., from illiterate 30 (20%) to graduate and above 10 (100%) 55(44%) of the subjects responded correctly that HIV/AIDS was not transmitted by mosquito or bed bug bite. Subjects with higher levels of education i.e., intermediate/ or graduate and above responded 100% correctly to questions such as, one could get AIDS by having sex with prostitutes or multiple partners, while 76.7% illiterates responded to this question correctly. The relationship between various levels of education and knowledge on modes of transmission was found to be statistically significant ($p<0.01$). Among those who had heard of HIV/ AIDS, 94(75.2%) perceived serious threat of AIDS to the human health in near future. Mass communication was source of information on HIV / AIDS among 109(87.2%) subjects. Television being the most common source of information (73.6%).

Key Words

AIDS, HIV, Knowledge, Transmission, Pregnant Women.

Introduction

According to UNAIDS/WHO, India has the largest number of HIV infected persons in the world. It was estimated that there were 3.31 million HIV infected persons in the adult population (15-49 years age group) in India, in the year 2001 (1). If we take care of 20% variability of unaccounted numbers of men having sex with men, intravenous drug users and other age groups it will yield an estimate of 5.1 million HIV infected persons by the end of 2003 (2,3). It has been observed that most of the individuals in community do not have correct and complete information about HIV/ AIDS and its prevention. India is now in the grip of so-called type 4 pattern of AIDS epidemic which shifts from high risk grip to the bridge population (clients of sex workers, STD patients) and then to general population, as a whole.

According to HIV sentinel surveillance 2003, males account for 73.5% of AIDS cases and females 26.5%, the ratio being 3:1. It reveals that HIV infection has percolated in the general population. It is seen that pregnant women are much receptive on health matters. So, it is important to assess their knowledge, attitude and perception regarding HIV/AIDS. For this purpose, the present study was conducted in a rural community of Dehradun District in Uttaranchal.

Material and Methods

The present study was conducted in a rural area of Dehradun district, under the Rural Health Training Center (RHTC), Rajeev Nagar in Doiwala Block being run by the Department of Community Medicine, HIMS,

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Dehradun. The RHTC provides health services to the community, which include regular OPD, antenatal care, post natal care family planning services, well baby clinic and referral services. The health center caters to a population of 14,720. All the pregnant women i.e., 356 registered at RHTC from April 2003 to March 2004 were interviewed by social workers (females) and Interns under the supervision of senior faculty members. The relevant information was collected in a pre- designed and pre tested performa with some modification of questionnaire (3) after explaining the purpose of the study and taking informed consent. The questionnaire included demographic information, awareness on AIDS/HIV, knowledge on modes of transmission, perception of risk and sources of information about HIV/ AIDS. The socio-economic status of family was also assessed according to Prasad 's modified classification. The information regarding the trimester of registered pregnancy and gravida were also collected for the purpose.

The data was analyzed using the SPSS software package and chi-square test was applied.

Results

Out of 356 study subjects, 15 (4.2%) pregnant women were less than 20 years of age and only 6 (1.8%) were of 35 years and above. The maximum number of pregnant women i.e. 193 (54.2%) belonged to the age group of 20-25 years. The median age of subjects was found to be 24.2 years (Table1a).

Majority of subjects, 151 (42.4%) were illiterate while 30(8.4%) were intermediate and 10(2.8%) were graduate and above (Table 1b).

As far as their occupation was concerned, the maximum number of pregnant women 225 (63.2%) was of housewives followed by 57 (16%) with income generating work at home, whereas only 30 (8.4%) were engaged either in private service or government job (Table 1c).

The study subjects belonged to middle (25.9%), lower middle (28.4%) and lower (30.9%) socio-economic status respectively (Table 1d).

It can also be seen from Table 2 that majority of the antenatal women 182(51.1%) were registered for antenatal check up in the second trimester while only 38 (10.7%) came for antenatal registration / check up in the first trimester. The subjects who were first, second, third, fourth or more gravida were 36.5%, 28.4%, 20.5% and 14.6% respectively.

Table 3 shows that only 125(35.1%) pregnant women had heard of HIV/AIDS showing an increasing awareness with increase in their literacy status. About 79.8% were graduates or above and 19.2% were illiterate. It was observed that majority of pregnant women 24(80%) who had heard of HIV/AIDS were engaged in either private or government jobs, while only 8(18.2%) were laborers/ agriculture workers. Majority of pregnant women (83.3%) amongst those who had heard about HIV/AIDS, belonged to upper the socio economic class.

It was also revealed that regarding the knowledge of HIV/AIDS transmission, illiterate pregnant women answered less correctly to all questions as compared to other educational groups. Only 42.4% subjects responded correctly to a question put forth to them such, as AIDS was not transmitted by bites of mosquitoes/ bed bugs. Other correct responses were: AIDS was transmitted by hugging or kissing/ wearing clothes used by an HIV/ AIDS patient (69.6%), sharing food with an infected of HIV/ AIDS patient (69.6%). Educated (intermediate/ secondary/ graduate or more) subjects responded correctly to questions (100%): that one gets AIDS by having sex with prostitutes / with multiple partners/ with a man or women who has HIV/AIDS, and blood transfusion from a man/ woman who had HIV/ AIDS, while the response of the illiterates was comparatively on the lower side (63.3% or less). The difference of knowledge on modes of transmission in respect to various levels of education was found to be statistically significant ($p<0.01$) (Table 4).

Table 5 reveals the perception of AIDS among subjects who had heard of HIV/AIDS. They were asked questions regarding the threat of AIDS to human health. The threat perception increased with the level of education.

A similar response pattern was seen for the question: whether AIDS was going to be a serious threat in near future to the community. Positive responses in the favor of such a threat of catching AIDS were given by illiterates (16.7%), primary educated (28.6%), junior high school/high school (32%), intermediate/graduates and above (30 %).

Table 6 depicts majority of subjects 73 (84.8%) had heard of AIDS being mentioned on television as the source of information, followed by radio/ transistor 23(18.4%). It was observed that maximum 111(88.8%) subjects learnt most about AIDS through mass media in comparison to other sources of communication, i.e. 61(48.8%).

Table 1

Demographic characteristics of pregnant women (n=356)

Table 1 (a)

Category Age (years)	Number (%age)
<20	15 (4.2)
20-25	193 (54.2)
25-30	92 (25.8)
30-35	50(14.0)
>35	6 (1.8)
Median age (years)	24.22

Table 1 (b)

Category Education	Number (%age)
Illiterate	151 (42.4)
Up to Primary	80 (22.5)
Junior High School/High school	85 (23.9)
Intermediate	30 (8.4)
Graduate and above	10 (2.8)

Table 1 (c)

Category Occupation	Number (%age)
House wife (HW)	225 (63.2)
HW with income generating work at home	57 (16.0)
Private Service	22(6.2)
Government Service	8(2.2)
Laborer / Agricultural	44(12.4)

Table 1(d)

Category Socio-economic status	Number (%age)
Upper Class	6 (1.7)
Upper middle class	47 (13.2)
Middle class	92 (25.8)
Lower middle class	101 (28.4)
Lower class	110 (30.9)

Table 2

Antenatal Registration of Pregnant Women

Trimester	Number	Percentage
First Trimester	38	10.7
Second Trimester	182	51.1
Third Trimester	136	38.2
Gravida		
First	130	36.5
Second	101	28.4
Third	73	20.5
Fourth or more	52	14.6

Table 3

Distribution of Pregnant Women who were aware of HIV/AIDS according to their Education.

Category Education level	Number (%age)
Illiterate	30 (19.9)
Up to Primary	28 (35.0)
Junior High School/High school	32 (37.6)
Intermediate	25 (83.3)
Graduate and above	10 (100.0)
Occupation	
House wife (HW)	72 (32.0)
HW with income generating work at home	21 (36.84)
Private Service	17 (77.27)
Government Service	7 (77.27)
Laborer/ Agricultural	8 (18.18)
Socio-Economic Status	
Upper Class	5 (83.33)
Upper middle class	27 (57.45)
Middle class	42 (45.65)
Lower middle class	29 (28.71)
Lower class	22 (20.0)

Table 4

Knowledge of HIV/AIDS among pregnant women according to educational status and number of correct responses (% age)

AIDS is Transmitted By	Illiterate n=30	Up to Primary level n=28	JrHS/HS n=32	Intermediate n=25	Graduate/ Post Graduate n=10	Total n=125	p value
Hugging /Kissing/ or wearing clothes of HIV/AIDS positive person	13 (43.3)	17 (60.7)	25 (78.1)	21 (84.0)	9 (90.0)	85 (68.0)	<0.01
Sharing food with an HIV infected person	12 (40.0)	15 (53.6)	24 (75.0)	20 (80.0)	9 (90.0)	80 (64.0)	<0.01
Having sex with Sex workers	23 (76.7)	24 (85.7)	28 (87.5)	25 (100.0)	10 (100.0)	110 (88.0)	<0.01
Having sex with multiple partners	23 (76.7)	25 (89.3)	30 (93.8)	25 (100.0)	10 (100.0)	113 (90.4)	<0.01
Having sex with a HIV/AIDS positive man or woman	19 (63.3)	23 (82.1)	29 (90.6)	24 (96.0)	10 (100.0)	105 (84.0)	<0.01
Bites of Mosquitoes or bed bugs	6 (20.0)	9 (32.1)	17 (53.1)	15 (60.0)	8 (80.0)	55 (44.0)	<0.01
Sharing of needles/syringes with an HIV/AIDS infected person	17 (56.7)	19 (67.8)	27 (84.4)	22 (88.0)	9 (90.0)	94 (75.2)	<0.01
Blood transfusion from a HIV/ AIDS positive person	20 (66.7)	21 (75.0)	29 (90.6)	23 (92.0)	10 (100.0)	103 (82.4)	<0.01
HIV/AIDS positive Mother to child	18 (60.0)	20 (71.4)	26 (81.3)	22 (88.0)	10 (100.0)	96 (76.8)	<0.01

JrHS= Junior High School, HS=High School

Table 5

Perception of AIDS/HIV among pregnant women who had heard of HIV/AIDS according to their educational status and number of correct responses (%age).

Questions asked	Illiterate n=30	Up to Primary n=28	JrHS n=32	Intermediate n=25	Graduate/ Post Graduate n=10	Total n=125	p value
Do you think that AIDS is a threat to human health?	17 (56.7)	20 (71.43)	24 (75.0)	22 (88.8)	9 (90.0)	92 (73.6)	<0.05
Is AIDS going to be a serious threat in near future to the human race?	19 (63.3)	20 (71.4)	25 (78.1)	21 (84.0)	9 (90.0)	94 (75.2)	<0.05
What are the chances of a person catching AIDS?	5 (16.7)	8 (28.6)	11 (34.4)	9 (36.0)	3 (30.0)	36 (28.8)	<0.05

Table 6

Source of Information on HIV/AIDS among pregnant women who had heard of HIV/AIDS.

Source of Information	Illiterate n=30	Up to Primary n=28	JrHS/ High School n=32	Intermediate n=25	Graduate/ Postgraduate n=10	Total n=125
Mass communication:						
Transistor/Radio	2 (6.7)	2 (7.1)	-	-	-	4 (3.2)
Television	22 (73.4)	21 (75.0)	25 (78.1)	20 (80.0)	4 (40.0)	92 (73.6)
News paper / Magazine	-	-	4 (12.5)	4 (12.5)	5 (50.0)	13 (10.4)
Bill Board/ Poster/Hand outs/ Holdings	-	-	-	-	-	-
Total						**109 (87.2)**
Others Sources of Communication:						
Village Head/BDC member/ Village Panchyat	1 (3.3)	-	1 (3.3)	-	-	2 (1.6)
School Teachers	-	-	-	1 (4.0)	1 (10.0)	2 (1.6)
Family members	1 (3.3)	3 (10.7)	2 (6.3)	-	-	6 (4.8)
Health workers (Males/Females), ANM/TBA/LHV	2 (6.7)	(3.6)	-	-	-	3 (2.4)
Doctors/ Vaidya/ Hakim at Dispensary/Hospital	1 (3.3)	-	-	-	-	1 (0.8)
Relatives/Friends	1 (3.3)	1 (3.3)	-	-	-	2 (1.6)
Total						**16 (12.8)**

Jr HS =Junior High School, BDC = Block Development Committee, Vaidya = Practitioner of Ayurveda system of Medicine, Hakim = Practitioner of Unani system of Medicine, ANM = Auxillary Nurse and Midwife, TBA = Traditional Birth Attendant, LHV = Lady Health Visitor.

Discussion

The present study reflects that the 54.21% of pregnant women belonged to the age group of 20-25 years. The illiterate (43.82%) study subjects had lowest awareness, knowledge on transmission and perception of threat of AIDS. Out of total 356 subjects, only 125 (35.11%) of them had heard of AIDS. Singh *et al* (4) showed in their study that about 40% of pregnant women had heard of AIDS. Kumar *et al* (5) observed that 33.4% of general population who had heard about AIDS belonged to 15-60 years of age.

In our study, the higher educational and socio-economic status of pregnant women were associated with the increase in awareness towards AIDS which is similar to other studies carried out in different parts of India (6-8). There was a rising trend about knowledge on modes of transmission with various educational levels. The knowledge of AIDS not being transmitted by mosquitoes or bed bugs bites was lowest (20%) among illiterates, which is similar to other studies (9-13).

In a study conducted on French women social acceptability of testing was high, 68.8% of the sample even supporting mandatory prenatal HIV screening. Such acceptability appeared to be based less on an in-depth knowledge about the risks of transmission from mother-to-fetus than on the general French context of free-of-charge mandatory prenatal care and on the potentially reassuring effect of a true negative test (11).

In the present study the perception of threat of AIDS was higher among all educational levels even among illiterates. Singh *et al* (4) and Ambati *et al* (9) have also revealed similar findings among educated pregnant

women. Regarding the source of information on HIV/ AIDS, television was the most popular and effective media (85%). Antenatal women in Blantyre, Malawi obtain health information on HIV/AIDS from the radio (96.3%), health workers (82.2%), religious gatherings (66.7%), friends (54.8%) and newspapers (39.3%). The majority intend to be accompanied by own mother and sister for delivery (52.4% and 15.4% respectively) (14). Other authors have also observed television to be the most common source of information (4-7,11).

Conclusions

Since awareness is the only key to the prevention of HIV/AIDS, there is an urgent need to increase the awareness about HIV/ AIDS, specially among the low socio economic, illiterate people of the community using all methods of mass media and intensive information, education and communication (IEC) activities by use of local folk media.

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