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RESEARCH ARTICLE

COMPREHENSIVE KNOWLEDGE OF HIV/AIDS AMONG YOUNG MARRIED WOMEN IN THIRUVARUR DISTRICT, TAMILNADU, INDIA

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ABSTRACT

Every minute, five people under 25 are infected with HIV. One in three persons living with HIV/AIDS is age 15-24 and most of them are unaware that they carry the virus. Millions more have little or no knowledge of the disease and do not know how to protect themselves or take measures to prevent the spread of the disease. The aim of this paper was to assess the comprehensive knowledge of HIV/AIDS among young married Scheduled Castes women in Thiruvarur district, Tamil Nadu. Multistage stratified random sampling technique was applied to select 605 women in the age group of 15-24 years in all the five blocks in the period of ten months from July 2010 to April 2011. Result reveals that 91% of women had knowledge about the HIV/AIDS. Around 61.5% had high comprehensive knowledge of HIV/AIDS prevention and transmission among the respondents. The age of women, education of women, standard of living index and exposure to mass media had statistically significant association with comprehensive knowledge of HIV/AIDS. The women who were more exposed to mass media were more likely to get knowledge of HIV/AIDS than the less exposed women (OR= 1.977). It concludes that health awareness program should be launched to enhance their knowledge of sexual health problems in the study area.

INTRODUCTION

Acquired Immune Deficiency Syndrome (AIDS) was first recognized internationally in 1981. Government of India estimates that about 2.40 million Indians are living with HIV (1.93 -3.04 million) with an adult prevalence of 0.31% (2009). Children (<15 yrs) account for 3.5% of all infections, while 83% are the in age group 15-49 years. Of all HIV infections, 39% (930,000) are among women. All the high prevalence states show a clear declining trend in adult HIV prevalence. HIV has declined notably in Tamil Nadu to reach 0.33% in 2009 down from 0.58% in 2007. However, low prevalence states of Chandigarh, Orissa, Kerala, Jharkhand, Uttarakhand, Jammu & Kashmir, Arunachal Pradesh and Meghalaya show rising trends in adult HIV prevalence in the last four years. Most encouraging, the decline is also evident in HIV prevalence among the young population (15-24 yrs) at national level, both among men and women. Stable to declining trends in HIV prevalence among the young population (15-24 yrs) are also noted in most of the states. (NACO, World Bank, 2012). Scheduled castes are those castes/races, which have been or may in future be specified in a list in accordance with Article 341 of our Constitution. They remain at the bottom of social hierarchy and have been socially deprived, discriminated and exploited by the upper caste Hindus since time immemorial. This is the result of our rigid caste system which divides the Indian society into upper castes and lower castes on the basis of birth. Mythologically, the people of these castes are born impure, culturally they suffer from social disabilities and occupationally they are linked with impure occupation and above all they are exclusively dependent for their survival on the high castes of the respective villages who have tradition-bound attitudes, reflected in the nomenclature, castes, etc. (Vidyarthi, Mishra, 1977). Beteille points out that it is not easy to form a single consistent view of the present position of the Scheduled Castes because the regional diversity is so large and the balance between continuity and change so uncertain. Whereas in the past the social condition of the Scheduled Castes was governed strongly by the ritual opposition of purity and pollution, the calculus of democratic politics has become important today (Beteille, 2001). The implicit criterion for inclusion in the Schedule Caste list is the social and religious disability suffered by a caste on account of untouchability, i.e. being at the pollution end of the social hierarchy' (Sheth, 2006). Under this circumstance, the aim of this paper was to analyze the women's knowledge about HIV/AIDS and the mode of transmission among young married women in the rural areas of Thiruvarur district, TamiNadu.

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METHODOLOGY

Selection of the District: According to 2001 census, Thiruvarur district was the highest Scheduled Caste populated district and also backward district in Tamil Nadu.

Selection of the Taluks: Multistage stratified random sampling technique was applied to select the respondents from the Thiruvarur district for the research purpose in the period of ten months from July 2010 to April 2011. Selection of the taluk was the first step in the multistage stratified sampling techniques. Thiruvarur district had totally seven Taluks, which comprise 573 revenue villages and 430 panchayat villages. In the first stage, out of seven taluks, it was decided to select five taluks. These five taluks represent the geographical area of the study district namely,

Selection of the Sample Blocks: In the second stage, the purposive sampling technique was applied to select the blocks, for the convenience of research work. The selected blocks were Nannilam, Thiruvarur, Tiruturaipundi, Valangaiman, and Mannargudi.

Selection of the Sample Villages: The selected five blocks totally comprise 352 revenue villages. During the third phase, an attempt was made to find out the villages which had more than 50% of scheduled

caste population. The total number of these villages was 87. Out of the 87 villages, around one-third of the villages were selected from each of the blocks by lottery method. The total number of selected villages was 28.

Selection of the Sample Respondents: After identifying the villages in each block, house listing operation was carried out in each of the selected villages prior to the data collection to provide the necessary frame for selecting the households for the study. Totally 6376 houses were listed in all the five blocks. Identification of eligible married young women (15-24 years) in each household was the next step in the research. There were 1164 households with the target population (39 households had two couples in the same house). Totally 1203 women in the age group of 15-24 were identified in all the five blocks. These women were living with their husbands and had given at least one birth one year prior to the survey. It was planned to select half of the population in each of the sample villages i.e., 601 was fixed as the sample size of the study. In order to take care of non-response due to various reasons, an extra 10% of respondents were included in the sample. Thus, in all, 661 respondents were selected following circular systematic random sampling technique. Of these 661 respondents, 605 completed the questionnaire, 32 respondents declined to participate and 24 respondents completed scheduled that had to be discarded of substantial inconsistency, yielding a response rate of 91.5%.

RESULTS

All women were asked whether they had knowledge of an illness called HIV/AIDS. Overwhelming majority of Scheduled Castes women (91%) had knowledge about the HIV/AIDS in the study area. The Government of India has been using mass media extensively, especially electronic media, to increase awareness of HIV/AIDS and its prevention in the general population. Survey was conducted among women who had knowledge of HIV/AIDS to identify the sources from which they learned about HIV/AIDS and the results are presented in (Table 1).

Table 1. Percentage Distribution of Women by Source of Information of HIV/AIDS (Multiple Responses)

Source of Information	Number of Women N=605	Percentage
Television	479	87.4
Friends/relatives	417	76.1
School teacher	114	20.8
Print media	78	14.2
Husband/spouse	63	11.5
Health worker	44	8.4

Television was by far the most common source of information on HIV/AIDS, reported by 87.4% of women who had heard of HIV/AIDS. The next most frequently reported sources were their friends/relatives (76.1%). One-fifth of women gained the HIV/AIDS knowledge from school teachers (20.8%) and 14.2% of women came to know about it through print media and 11.5% of women reported that they had heard about HIV/AIDS from husband/spouse and only 8.4% of women reported that they had heard from health workers.

Table 2. Percentage Distribution of Women by Knowledge on Mode of HIV/AIDS Transmission (Multiple Responses)

Mode of HIV/AIDS Transmission	Number of Women N=605	Percentage
Sex with HIV/AIDS persons	504	92.0
Transfusion of infected blood	498	90.9
Sex with persons who have many partners	337	61.5
Sex with sex workers	331	60.4
Infected mother to child	258	47.1

Table 2 discloses the knowledge of mode of transmission of HIV/AIDS among SC women. Among women who reported different modes of transmission of HIV/AIDS, overwhelming majority of women reported that sex with HIV/AIDS persons was the main mode of transmission of HIV/AIDS (92%). Other modes reported by women were transmission through transfusion of infected blood (90.9%), sex with persons who have many partners (61.5%) and sex with sex workers (60.4%). Another 47.1% of women reported that mother to child (if pregnancy occurs during a stage of HIV) one of the modes of transmission. It can be concluded that majority of SC women had accurate knowledge on mode of transmission of HIV/AIDS transmission and knowledge on the mother-to-child mode was poor.

Misconceptions about HIV/AIDS

People generally have many misconceptions about the ways of transmission of HIV/AIDS, such as 'shaking hands' with a person having AIDS, 'hugging' and 'kissing' them, 'sharing their clothes' or' sharing eating utensils', 'stepping on urine/stool', 'through insect bites', being bitten by mosquitoes, fleas or bedbugs,' etc. Under this background, respondents were asked whether a person can get HIV/AIDS from mosquito bites, by hugging someone who has HIV/AIDS, or by sharing food with a person who has HIV/AIDS.

Table 3. Percentage Distribution of Women by Misconception of the Mode of HIV/AIDS Transmission (Multiple Responses)

Misconception on Mode of HIV/AIDS Transmission	Number of Women N=605	Percentage
Sharing common toilet	48	8.8
Mosquito, flea and bedbug bits	44	8.0
Oral Kissing	26	4.7
Sharing food	22	4.0

The Table 3 discloses that the study population was highly knowledgeable on HIV/AIDS mode of transmission and only very meager proportion of them had the misconception on mode of HIV/AIDS. Only 8.8% of women reported that HIV/AIDS could be transmitted by 'sharing common toilet'. Other misconceptions about the spread of HIV/AIDS were bitten by mosquitoes, fleas or bedbugs (8%), 'oral kissing' (4.7%) and 'sharing food' (4%).

Compressive knowledge of HIV/AIDS prevention and transmission

This section examines, by means of a bivariate analysis the relationship between the dimensions of women who had comprehensive knowledge of HIV/AIDS prevention and transmission with independent variables representing age, education of women, occupation of women, standard of living index, age at marriage, birth order, exposure to mass media and health care facility. An examination of the descriptive statistics of a variable is important for identifying and summarizing the characteristics of the sample or population with respect to the variables. All the variables have been classified as categorical variables as appropriate.

Women's comprehensive knowledge on HIV/AIDS prevention and transmission:

0 = less comprehensive knowledge on HIV/AIDS prevention and transmission (stated 3 or less statements correctly)
1 = more knowledge on HIV/AIDS prevention and transmission (stated 4-5 statements correctly)
The Table 4 provides an assessment of the level of comprehensive knowledge of HIV/AIDS transmission. Comprehensive knowledge is defined as: 1) knowing that limiting sex partners to one uninfected faithful partner is HIV/AIDS prevention method, 2) being aware that HIV/AIDS can take place through transfusion of infected blood, 3) being aware that HIV/AIDS can transmitted from a mother to her baby, and 4) rejecting the two most common misconceptions in India - that HIV/AIDS can be transmitted through mosquito bites and by sharing food.

Table 4. Percentage Distribution of Comprehensive Knowledge of HIV/AIDS Prevention and Transmission by Background Characteristics

Background Characteristics	Less Knowledge	More Knowledge	Total	X^2	*P*
Age of women					
18 - 20	40.1	59.9	94		
21- 23	39.5	60.5	364	2.77	.249
24 years	30.9	69.1	147		
Education of women					
Illiterate	81.2	18.8	32		
Primary education	78.6	21.4	56		
Secondary education	34.0	66.0	467	86.22	.000
Higher secondary and above	8.0	92.0	50		
Occupation of women					
Non-workers	44.8	55.2	123		
Agricultural labourers	42.0	58.0	348	26.20	.000
Non-agricultural labourers	22.0	78.0	134		
Standard of living index					
Low	47.9	52.1	234		
Medium	34.3	65.7	318	28.68	.000
High	22.6	77.4	53		
Age at marriage					
Less than 18 years	61.1	38.9	18		
18 - 19 years	42.7	57.3	307	14.17	.003
20 - 21 years	34.9	65.1	238		
22 - 23 years	19.0	81.0	42		
Birth order					
First	51.5	48.5	365		
Second	47.3	52.7	207	15.07	.001
Third	32.3	67.7	33		
Exposure to mass media in weekly					
More frequently	23.8	76.2	252	39.42	.000
Less frequently	49.0	51.0	353		
Health care facility					
Within one Km	34.6	65.4	78		
1- 3 Km	38.0	62.0	171	3.69	.705
4 or more Km	39.6	60.4	356		
Total	38.5	61.5	605		

The Table 4 shows the percentage distribution of comprehensive knowledge of HIV/AIDS prevention and transmission according to their background characteristics. The results indicate that younger women had less comprehensive knowledge of HIV/AIDS prevention and transmission than their counterparts. With regard to the proportion of mothers who had high comprehensive knowledge of HIV/AIDS, prevention and transmission was less among the 18-20 age group (59.9%) than those in aged 24 (69.1%) and also in the age group of 21-23 (60.5%). The proportion of women having high comprehensive knowledge of HIV/AIDS prevention and transmission increased among illiterate women (18.8%) to women who have completed higher secondary and above level of education (92%). The results reveal that women's education was significantly associated with knowledge of HIV/AIDS prevention and transmission with a Chi-square value of 86.22 at p= .000. The correlation between knowledge of HIV/AIDS prevention and transmission and women's occupation shows a positive association. The proportion of women (Table 4) in households in the high wealth quintile had more comprehensive knowledge of HIV/AIDS prevention and transmission (77.4%) than women in medium (65.7%) and low wealth quintile (52.1%). Further, it is seen from the table that the standard of living condition of women was significantly associated with knowledge of HIV/AIDS prevention and transmission with a Chi-square value of 28.68 at p= .000. It is also observed that the age at marriage and knowledge of HIV/AIDS prevention and transmission was positively associated with a correct understanding of HIV/AIDS prevention and transmission. The women who married at later age (22 and above years) had correct prevention and transmission knowledge on HIV/AIDS (81%) than those who married at an earlier age (65.1% among 20-21 years; 57.3% among18-19 years; and 38.9% who married before 18 years). The higher birth order pregnancies had high comprehensive knowledge of HIV/AIDS prevention and transmission (67.7%) than lower birth order pregnancies (48.5%). Exposure to mass media was strongly and positively associated with a correct understanding of HIV/AIDS prevention and transmission. The women who had more exposure to mass media had higher comprehensive knowledge of HIV/AIDS prevention and transmission (76.2%) than less exposed women (51%). Slight difference was noticed between women residing within one Km radius and women residing four and above Km away from health care institutions with regard to their complete knowledge on HIV/AIDS prevention and transmission.

Logistic regression analysis

The logistic regression analysis results in (Table 5) show that the odd ratios (Exp (B)) indicate the effect of each of the predictor variables on the comprehensive knowledge of HIV/AIDS prevention and transmission, controlling other variables included in the model. The results of the multivariate analysis are presented in the form of regression coefficients and odds ratio. With regard to level of knowledge on HIV/AIDS, around 61.5% had high comprehensive knowledge of HIV/AIDS prevention and transmission (stated 4-5 statements correctly) and the remaining 38.5% of women had less knowledge of HIV/AIDS prevention and transmission (stated 2 statements correctly) among SC women. It is observed from the analysis that (Table 5) age of women, education of women, standard of living index and exposure to mass media had statistically significant association with comprehensive knowledge of HIV/AIDS prevention and transmission. All other independent variables such religion, occupation of family, type of family, age at marriage, duration of marital life, age at first birth, birth order, and distance of health care facility were negatively associated with comprehensive knowledge of HIV/AIDS prevention and transmission.

DISCUSSION

HIV/AIDS now represents a global pandemic. One in three persons living with HIV/AIDS is aged 15-24 and most of them are unaware that they carry the virus. All women interviewed were asked if they had ever heard of an illness called AIDS. Overwhelming majority of SC women in the present study had knowledge about the HIV/AIDS (91%). More than three-fifth of women (61.5%) had high

Table 5. Logistic Regression Examining the Effect of Background Characteristics on Comprehensive Knowledge of HIV/AIDS Prevention and Transmission

Variables	Logistic Coefficient (β)	Significant value (p)	Odds Ratio Exp(β)
Age of women			1.000
18-20 (ref)			
21-23	.081	.008	.339
24 years	1.336	.031	.263
Religion			
Hindu (ref)			1.000
Christian	9.191	.481	.826
Education of women			
Illiterates (ref)			1.000
Primary education	.113	.848	1.119
Secondary education	1.726	.000	5.617
Higher secondary/above	3.101	.000	22.22
Occupation of Women			
Non-workers (ref)			1.000
Agricultural labourers	.729	.025	2.074
Non-agricultural labourers	.142	.538	1.153
Type of family			
Nuclear Family (ref)			1.000
Joint family	-.128	.534	.880
Standard of living index			
Low level (ref)			1.000
Medium level	.112	.092	1.002
High level	2.105	.006	3.901
Age at marriage			
18 or less years (ref)			1.000
19-20	.052	.940	1.053
21 or more	.110	.922	1.116
Duration of marital life			
1-2 years (ref)			1.000
3-4 years	.499	.119	1.648
5-6 years	.689	.202	1.991
Age at first birth			
19 or less years (ref)			1.000
20-22	.379	.195	1.460
23 or more	.778	.334	2.178
Birth order			
First birth (ref)			1.000
Second birth	.399	.179	.671
Third birth	.021	.973	.980
Exposure to mass media in weekly			
Less frequently (ref)			1.000
More frequently	.681	.001	1.977
Distance of health care facility			
Within 1 Km (ref)			1.000
1-3 Km	.665	.259	1.945
3 or more	.406	.337	1.501
Constant	-1.308	.106	.270

-2 log likelihood =1666.88

comprehensive knowledge of HIV/AIDS prevention and transmission and the remaining 38.5% of women had less knowledge of HIV/AIDS prevention and transmission among SC women. The study showed that awareness level of general population about HIV/AIDS was found to be highest among urban males (91.8%). Awareness among rural females was low in Jharkhand, Gujarat, Chhattisgarh, Uttar Pradesh and West Bengal (NACO, 2001). Only 27% respondents were aware that a mosquito bite or sharing a meal with an infected person could not transmit HIV. Television and radio were the most common mass media sources of information on HIV/AIDS/STI in many states. 40.7% of the respondents had a positive attitude towards HIV infected individuals and were willing to share food with infected persons. The study suggested that there is a need for creation of higher level of awareness among the community people, FSW, MSM, etc. on issues such as HIV/AIDS/STI for a better future (NACO, 2001). HIV/AIDS now represents a global pandemic. Prevalence of HIV/AIDS has been on the rise for more than a decade and has alarming proportions in recent years in India. To prevent HIV transmission, the government has been making various efforts. There is no cure for this STI, and it results in death. Although much of India has a low rate of infection, certain places have been more affected than others. HIV epidemics are more severe in the southern half of the country and the far north-east. The highest HIV prevalence is found in Andhra Pradesh, Maharashtra, TamilNadu and Karnataka in the south; and Manipur and Nagaland in the north-east. In the southern states, HIV is primarily spread through heterosexual contact. Infections in the north-east are mainly found amongst injecting drug users (IDUs) and sex workers (NACO, 2008).

The present logistic regression analysis shows that when compared with women (21-23 years), women with higher age (24 years) were less likely to get knowledge of HIV/AIDS (OR= 0.263). The logistic regression analysis discloses that when compared with illiterate women, women with higher education (secondary and above level) were more likely to get knowledge of HIV/AIDS (OR= 22.22). It is also observed that the chance of getting knowledge of HIV/AIDS was more among the women living in high wealth index (OR= 3.901) than among the women living in the medium wealth index (OR=1.002) with the reference category (low WI). The women who were more exposed to mass media were more likely to get knowledge of HIV/AIDS than the less exposed women (OR= 1.977). It is concludes that comprehensive knowledge of HIV/AIDS among women is less. Therefore, this study recommended that to gear-up further the ICE activities to create an accurate knowledge on the mode of transmission of HIV/AIDS and prevention programs.

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