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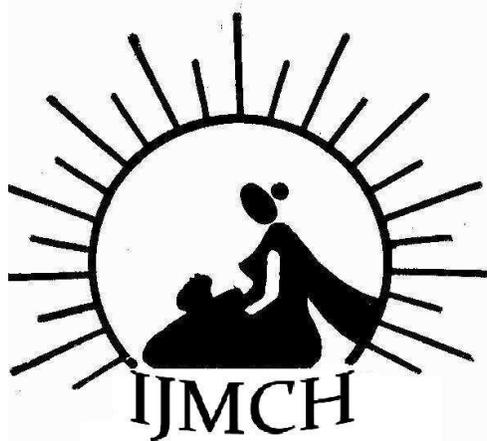
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What is the level of awareness of HIV/AIDS among school going children in a rural area of TamilNadu?

Comparison of HIV/AIDS Awareness between Girls and Boys in a Rural area of Tamil Nadu: A School based Cross-sectional study

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ABSTRACT

Research Questions: What is the level of awareness of HIV/AIDS among school going children in a rural area of TamilNadu?

Settings: School based study in the field practice area of Rural Health Centre in Chunampet, Tamil Nadu.

Study Design: Cross-sectional study

Participants: School Children from 9th, 10th and 12th standard from 2 higher secondary schools.

Methodology: Medical students collected the information regarding HIV/AIDS after obtaining verbal consent. The study included 696 students. Those who had not heard about HIV/AIDS were excluded from the study.

Results: More than 90% respondents had heard about the disease. 70% females and 64% males knew that virus was responsible for the disease. Girls had better knowledge than boys about source of infection, modes of disease transmission and non-availability of vaccine, but reverse was true for availability of treatment. Level of awareness regarding the methods of diagnosis and preventable nature of the disease was very high.

Key words: *HIV/AIDS, Knowledge of HIV, Rural Girls, School Children.*

INTRODUCTION

The National Data (2006) suggest that adult HIV prevalence in India is approximately 0.36 percent, amounting to an average of 2.5 million people living with HIV and AIDS (PLHAs). For every 100 PLHAs, 61 are men and 39 women. Prevalence is high in the 15-49 age group (88.7 percent of all infections) and 31% of AIDS burden is between 15-29yrs that comprises 25% of country's population. Currently, under-15 category accounts for 3.8 percent of all HIV infections, as against 3 percent in 2002. This clearly indicates that young people are at high risk of contracting HIV infection. Even though prevalence in some of the southern states like Tamil Nadu has shown a decline from 0.47% to 0.39%, indicating that epidemic has stabilised, new areas of concern have emerged within the country. Epidemic is under control because of enormous effort and mobilization over the past decade. This guard cannot be lowered. While the percentage of adult population affected by HIV and AIDS may have dropped, in absolute numbers, India's AIDS figure is still substantial. It is the third largest in the world, and remains the largest in Asia.⁽¹⁾

HIV infection is entirely preventable through awareness raising and is the mainstay of the strategic response to HIV/AIDS in India as 99 percent population of the country is uninfected. Changing knowledge, attitudes and behaviour thus is a key thrust area of the National AIDS Control Programme. Through this route the programme promotes prevention, and aims to reach out to 80 percent of the high risk groups and 95 percent of the young people.

Recent NFHS⁽²⁾ data for Tamil Nadu indicated that 94% women and 97.7% men who were ever married (15-49 yrs), had heard about HIV/AIDS and only 42.1% females and 82.8% males were aware that consistent condom use reduces the chances of getting HIV/AIDS. There are very few studies on knowledge gaps among school children in this region. Few studies⁽³⁻⁹⁾ from other parts of the country indicate that there is widespread ignorance and misconceptions about certain aspects of this disease among adolescents.

Empowerment of youth with sufficient knowledge about HIV/AIDS is important if we have to put a break on the rising trends globally. Hence, this study was undertaken to assess the extent of knowledge and attitudes of school children regarding HIV/AIDS, study any gender differences and thus provide inputs to improve school AIDS education programme in two schools of a rural area in Tamil Nadu.

MATERIALS AND METHODS:

The cross sectional study was carried out among school children from the field practice area of rural health centre in chunampet situated 35 kms away from the teaching institute in kancheepuram district in Tamil Nadu between February and March 2009. There were 2 higher secondary schools in the field practice area and both were selected to assess the knowledge and attitude regarding HIV/AIDS. We studied all the available students from 9th, 10th and 12th standards between the age group 14- 19 yrs in both the schools. Response rate was 100%. All those who had not heard about the disease were excluded from further analysis. Data was collected by 6th semester Medical Undergraduates as part of their project activity who were imparted sufficient training in interview techniques before the start of the survey. School Students were enrolled after obtaining verbal consent and participation was purely voluntary. Necessary permission was also taken from the school principals. Questions

were administered in vernacular language. No information pertaining to personal identity was collected to ensure unbiased response. The questionnaire mainly contained questions on cause, mode of transmission, investigations to be done for diagnosis, high risk groups (HRG) and availability of treatment and vaccine. Data was analyzed using simple proportions.

OBSERVATIONS:

696 students [349 (50.15%) females] were enrolled in the study out of which 7.2% (n=50, 30 females) were excluded from the study as they were not aware of the term HIV/AIDS (Fig 1). Commonest source of information for both the sexes was television, followed by friends/relatives (Fig 2).

Response rates to knowledge based questions among study population (Table I, II)

When asked about the causative agent of HIV/AIDS, 70% females and 64% males knew that virus was responsible for the disease. Most [76% females, 67% males] knew that HIV/AIDS was contagious, but many [60% females, 66% males] were not aware that blood sample, genital secretions are potential sources of infection. When asked about the various modes of transmission giving various options, we got conflicting response. Vast majority of students (males and females) identified sexual route, blood route and HIV infected mother to child during pregnancy as the modes of transmission. When asked whether sharing toilets, towels, utensils, shaking hands, swimming or playing together or sustaining mosquito bites would increase the risk of transmission, majority of the females, unlike the males, showed good level of awareness that these weren't the proven modes of spread as shown in table II. Majority [65% females, 52% males] didn't know that certain professions like drivers, commercial sex workers (CSWs) and men having sex with men (MSM) were at increased risk of contracting the disease. Most [57% females, 58% males] were unaware of window period but correctly identified [70% females, 71% males] the usual methods of diagnosing the condition. When asked about prevention and treatment, most believed that the condition was non-curable [65% females, 73% males] but preventable [65 % females, 65% males]. However only few [34% females, 44% males] knew that drugs were available to improve quality of life and prevent early death, and that it was available free of cost in most government centres. Finally when asked about status of vaccines on HIV/AIDS, about half [56% females, 41% males] were aware that no such vaccine was yet available in the market that could effectively protect individuals from getting the disease.

Table I: Response of study population to knowledge based questions regarding HIV/AIDS

Knowledge based questions	Correct response		Incorrect response		Not Aware	
	Males % (n=327)	Females % (n=319)	Males % (n=327)	Females % (n=319)	Males % (n=327)	Females % (n=319)
What is the causative agent of HIV/AIDS?	64	70	23	29	13	1
What is the source of infection?	16	20	66	60	18	20
Is it contagious?	67	76	27	22	6	2
Are drivers, CSWs, homosexuals at increased risk?	48	35	52	65	0	0
What is window period?	11	10	31	33	58	57
How do you do confirmation of diagnosis?	71	70	26	20	4	10
Is AIDS curable?	73	65	16	20	11	14
Is treatment available?	44	34	45	41	11	26
Is treatment available free of cost?	36	34	31	32	33	34
Is AIDS preventable?	65	65	26	29	9	6
Is vaccine available?	41	56	27	18	32	25

Attitude towards HIV/AIDS

When asked about confidentiality about lab results, most [69.5% females, 71.5 % males] opined that the disease status should not be known to others. Majority of the students had favorable attitude towards PLHA stating that family members should have sympathetic [75.2% females, 73.3% males] and helpful behavior [72.4 % females, 87.7% males] towards the HIV/AIDS patient. 91.7% males and 85.2% females favored voluntary testing for HIV/AIDS.

Table II: Gender wise comparison with regards to various modes of transmission.

Modes of transmission	Males				Females			
	Yes Number	%	No Number	%	Yes Number	%	No Number	%
Sexual route	314	96.02	13	3.98	312	97.81	7	2.19
Blood route	267	81.65	60	18.35	261	81.82	58	18.18
Mother to child	291	88.99	36	11.01	282	88.40	37	11.60
Sharing Toilets	91	27.83	236	72.17	82	25.71	237	74.29
Hand shake	36	11.01	291	88.99	35	10.97	284	89.03
Sharing Utensils	108	33.03	219	66.97	28	8.78	291	91.22
Swimming together	151	46.18	176	53.82	67	21.00	252	79.00
Mosquito bites	78	23.85	249	76.15	91	28.53	228	71.47
Kissing	84	25.69	243	74.31	18	5.64	301	94.36
Sharing Towels	48	14.68	279	85.32	53	16.61	266	83.39
Playing together	35	10.70	292	89.30	37	11.60	282	88.40

Fig 1: Proportion of males and females aware of the term HIV/AIDS.

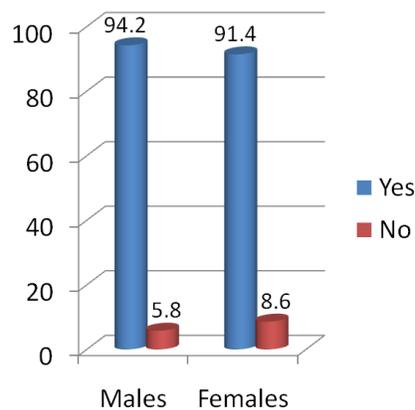
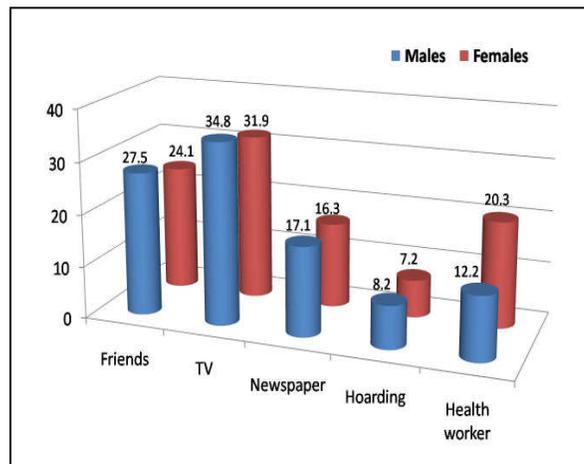


Fig 2: Sources of information related to HIV/AIDS among school children.**DISCUSSION:**

'Physiologically, young people are more vulnerable to sexually transmitted infections (including HIV) than adults; girls more than boys. Lack of access to correct information (almost 73 percent of young people have misconceptions about modes of HIV transmission), tendency to experiment and an environment which makes discussing issues around sexuality taboo adds to their vulnerability. Being sexually active they are more likely to have multi-partner unprotected sex with high risk behaviour groups.⁽¹⁾

Young women are biologically more vulnerable to HIV infection than young men – a situation aggravated by their lack of access to information on HIV and even lesser power to exercise control over their sexual lives. Early marriage also poses special risks to young people, particularly women. This is especially relevant for India, where almost 50 percent girls are married off by the time they are 18 years of age.⁽¹⁾ In Tamil Nadu as per NFHS 3 data, 22.3% of females between 20-24yrs were married by the age of 18 and 7.7% of women between 15-19yrs were already mothers or pregnant at the time of the survey.⁽²⁾ Recently there has been a feminization of HIV epidemic i.e. increase in no. of women and young girls being infected particularly where heterosexual sex is the mode of transmission.⁽¹⁾ Few studies⁽¹⁰⁻¹¹⁾ in India attribute the prevalence of HIV/AIDS to the low level of awareness of the disease in women, particularly in rural areas.

The present study revealed that 8.6% females, as compared to 5.8% males, had not heard about HIV/AIDS. This was consistent with the NFHS report for the region.⁽²⁾ Television was the commonest source of information like in other studies^(6, 8, 12) and surprisingly school featured in none of the responses. This was contrary to the fact that an HIV/AIDS education programme was held six months prior to the study through an initiative of State AIDS Control Society. It calls for action to improve school health education as well as use mass media more effectively. Knowledge with regards to sources of infection, high risk groups, availability of free treatment was unsatisfactory especially among girls. Study done in Karnataka⁽³⁾ and Mumbai⁽¹³⁾ showed that only 24.3% and 34% students respectively were aware about the existence of antiretroviral drugs. However, in our study girls were better aware than boys with regards to important modes of transmission and preventable nature

of the disease unlike other study¹⁴ where the general level of awareness with regards to mode of spread was average. Higher level of awareness has been seen among girls from Haryana.⁽¹²⁾

The strength of the study lies in the fact that it can serve as benchmark for future comparisons besides providing valuable inputs in designing the content of health education to address important knowledge gaps. However, the study has certain limitations too. Since the study was interviewer based it was difficult to ascertain whether it had any influence on inhibiting the students from giving unbiased answers. There might be some amount of guess work while answering questions which was unavoidable.

CONCLUSION:

Reaching youngsters at an impressionable age before they become sexually active can lay the foundation for a responsible lifestyle, including healthy relationships and safe sex habits. NACO has initiated number of schemes in this direction like the Adolescent Education Programme, youth network, Yuva and Red Ribbon Club.⁽¹⁾ It is important to monitor the impact of these as well as other interventions to improve awareness on the subject and take corrective actions time to time. Health education can indeed prove to be a very effective social vaccine to reverse the epidemic of HIV/AIDS.

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