

Original Research Article

## Knowledge, Attitude and Practices Regarding HIV/AIDS amongst the Adolescents - A Hospital Based Study

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### ABSTRACT

**Backgrounds:** Adolescents due to their new revelation to sexual activities and increased tendencies for experimentation are more vulnerable to HIV infection. Lack of correct health information, negative attitude and indulgence in risky behaviors adversely effects the prevention and control of HIV/AIDS.

**Objective:** To assess the Knowledge Attitude and Practices (KAP) about HIV/AIDS in adolescents attending a tertiary care facility

**Materials and Methods:** A hospital based cross sectional study comprising of 142 adolescents in 10-19 years age group was conducted.

**Results:** Out of total respondents, 32.4% adolescents aware about HIV/AIDS. Of the aware respondents 79.16% have reported that HIV can be transmitted from mother to child during childbirth. 64.9% cited unprotected sex, sharing needle, unsafe blood transfusion and through breastfeeding as the mode of transmission.

Adolescents who were aware about HIV/AIDS, 46% said that HIV positive person should not be allowed to work. Conversely 45.65 % adolescents have responded that HIV infected students should be permitted to attend schools. 52.17 % respondents know that condom can prevent HIV/AIDS. 47.82% are interested to use or insist to use condoms during sexual act. 4.35 % gap recorded between knowing the role of condom and the willingness to use or insist on the use of condom.

**Conclusions:** Knowledge about HIV/AIDS among adolescents is still inadequate. Negative attitude toward the HIV positive patients and not willing to use or insist on the use of condom is a serious cause of concern. Therefore, extensive educational campaigns on HIV/AIDS are the call of the hour.

**Keywords:** HIV/AIDS, KAP, Adolescent, Hospital based study.

### INTRODUCTION

The World Health Organization (WHO) defines an adolescent as any person between ages 10 and 19 years. Adolescence is a period in which a person is no longer a child, and not yet an adult. It is an age of transition when an individual experiences rapid growth and development, both physical and psychological, and changes from being a

child to an adult. Experimental temperament and high risk behavior are normal in this age group owing to the ongoing change in physical and mental states. This makes them more susceptible to HIV exposure. <sup>[1]</sup>

The estimated adolescent population in the world is 1.2 billion as per estimation report of UNICEF. <sup>[2]</sup> The adolescent population in India is 243

million as per Indian Census, 2011 [3] which is about 20% of the total population of India. Jorhat is a district in Assam, India with 2.3 Lakhs [4] adolescents that comes from a variety of background ranging from the rich affluent families to the poor slums dweller. Adolescents are the future of any society and thereby nation. This large group of population contains high potentiality for social and economic development of the country in future. [5]

Globally, an estimated 35.3 million people were living with HIV at the end of 2012; of these, 2.1 million were adolescents aged 10–19 years, of which the majorities were girls with 56%. [7] Following sub-Saharan Africa, South Asia had the highest number of adolescents living with HIV (130,000), accounting for 6% of the global burden of HIV among adolescents. [8]

Widespread ignorance, poor information and misconceptions about the disease are responsible to cause social stigma, discrimination and stigmatization. [6] A healthy and relatively disease free society can be achieved by preventing the occurrence of diseases like HIV/AIDS which is a highly preventable with paramount knowledge, attitude and practices. Hence through this study we tried to assess the knowledge, attitude and practices (KAP) of the adolescents attending the Jorhat Medical College Hospital (JMCH).

### Objectives:

- To assess the Knowledge Attitude and Practices about HIV/AIDS in adolescents attending JMCH
- To identify the adolescent populations who are informed but are not keen to use or insist to use condom during sexual act

### MATERIALS AND METHODS

A hospital based observational study was carried out from January to March 2015 at Jorhat Medical College Hospital, Jorhat. Adolescents, both male

and female in 10-19 years age range who attended Out Patient Department (OPD) for different grounds constituted the study universe and those who were available after applying the exclusion criteria constituted the sample frame (Fig-1). Written informed consent from parents/guardian and assent from the minors after explaining the need and scope of the study to parent/guardian and the adolescent in detail was obtained. Independent written informed consent was taken for adolescent above 18 years.

Sample size was calculated using the formula,  $n = z^2 pq / d^2$  taking P as 90% as per Behavioral Surveillance Survey (BSS) 2006 data for North-East India and d as 10% with 95% confidence interval and it came out as 152.

A predesigned structured and closed ended pretested proforma was used for interview. Female attendant was taken along with while interviewing female respondents. Ethical clearance was obtained from Institutional Ethics Committee of Jorhat Medical College, Jorhat.

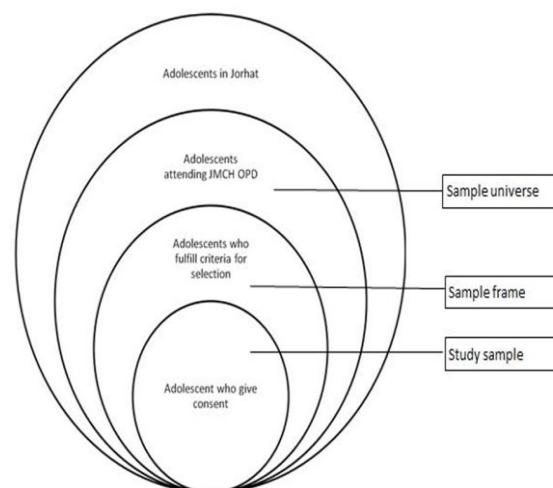


Fig.1: Sampling methodology

### Criteria for inclusion and exclusion

#### Inclusion

- All patients both male and female belonging to the age group of 10-19 years attending OPD services.

### Exclusion

- Subjects or guardians who were not willing to participate.
- Seriously ill, moribund patients, patients attending psychiatry OPD
- Adolescent with HIV positive status, if known was excluded as they were assumed to know basics of HIV.

**Statistical analysis:** Data collected was presented in numbers and percentage. MS Excel 2007 was used for analysis. Chi square test was done and considered to be significant if p value is less than 0.05.

### RESULTS

In the present study out of 152 adolescents sought, 142 were willing to participate in the study of which 88 (61.97%) were male and 54 (38.03%) were female. Adolescents in the age group of less than 15 years were mostly male (71.6%) while in the age group of more than 15 years were mostly female (59.2%).

**Knowledge on HIV/AIDS:** Out of 142 respondents 46(32.4%) adolescents responded that they have ever heard about HIV/AIDS. Only 19.32% male and 53.71% female ever heard about HIV/AIDS. This difference in knowledge between male and female was found to be highly significant with p value of less than 0.01. It was observed in the present study that only 19.56% of respondents could answer that HIV is caused by a virus with 54.35% being aware that HIV and AIDS are not synonymous. Of the total respondents 76.08% could tell that HIV cannot be detected simply by looking at a HIV positive person (Table 1).

**Attitude about HIV/AIDS:** It was surprising to note that 47.84% adolescent do not feel even today that HIV positive individuals should be allowed to attend educational institutions like schools and colleges. On the contrary 52.16% adolescent feels in favor that HIV positive students may be allowed to attend educational institutions.

In our study it was revealed that only 45.65% study subjects were in favour regarding the working of HIV positive person in a common place. On the other hand it was encouraging to observe that 80.43% respondent considered HIV as a treatable disease (Table-1).

**Knowledge on mode of transmission:** The knowledge and misconceptions associated with different modes of HIV transmission were inquired. Multiple responses were considered for assessing this. Most of the respondents were aware of the various established modes of HIV transmission.

A maximum of 79.61% responses were in favour of the statement that HIV can be transmitted from mother to child during childbirth (Table-2). It was followed by 64.9% responders who cited that HIV transmission is possible through unprotected sex, sharing of needle, unsafe blood transfusion and breastfeeding independently.

However, a parallel prevalence of mistaken belief in regard to virus transmission was observed and found that 64.9%, 47.66%, 47.66% and 21.40% respondent believes that HIV can be transmitted through mosquito bite, cough, sharing kitchen and shaking hand respectively.

**Table-1: Showing knowledge and attitude on different aspects associated with HIV/AIDS**

Responses to questions asked	Correct Response (%)		Overall percentage of Correct response (%)
	Male	Female	
Causative Organism	11.76	24.13	19.56
HIV and AIDS synonymous	52.94	55.17	54.35
HIV by looking	88.23	68.96	76.08
Attend school/college	52.94	51.72	52.16
Allowed to work	47.05	44.83	45.65
Can be treated	76.47	82.75	80.43

**Table-2: Showing knowledge on mode of transmission**

Mode of transmission	Male (%)	Female (%)	Overall percentage (%)
Mother to child	76.47	82.75	79.61
Breastfeeding	64.70	65.51	64.90
Needle sharing	64.70	65.51	64.90
Unprotected sex	64.70	65.51	64.90
Unsafe Blood transfusion	64.70	65.51	64.90
Cough	47.05	48.27	47.66
Sharing kitchen	47.05	48.27	47.66
Shaking hands	11.76	31.03	21.40
Mosquito bite	64.70	65.51	64.90

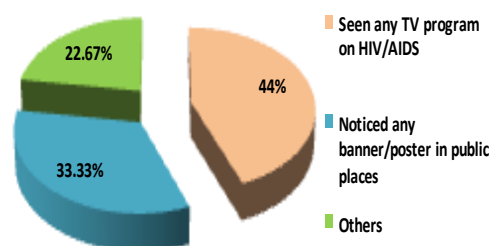
**Table-3: Showing knowledge on prevention of spread of HIV/AIDS**

Characteristics	Male (%)	Female (%)	Overall percentage (%)
Using condoms	64.70	44.80	54.75
Socially out casting	50.00	51.72	50.86
Screening before blood transfusion	64.70	44.83	54.75
Spread cannot be prevented	0	31.73	31.73

**Knowledge on prevention of HIV/AIDS:**

The responses for prevention of HIV spread were analyzed and it was found that 54.75% knew that the use of condom can prevent transmission of HIV virus. Similarly 54.76% adolescents cited that screening of blood before blood transfusion can prevent HIV transmission. However, it is surprising to note that 50.86% felt that HIV transmission can be prevented only by social out casting of an infected person. It was discouraging to know that 31.73% respondents still felt that the spread of HIV/AIDS cannot be prevented by any means (Table-3).

**Source of Information:** Mass media played a significant role in educating the responders about HIV/AIDS. In majority (44%) of the responders, television was the prime source of information followed by noticing of banners/ posters (33.33%). Other sources of information (22.67%) were awareness lectures, radio, street plays, and discussion with peers (Fig. 2). Out of the total respondents who have ever heard about HIV/AIDS only 30% could tell the meaning of a folded red ribbon.



**Fig.2: Source of information in educating the responders about HIV/AIDS**

**Practice of using condom:** A gap of 4.35% was recorded between knowledge and practice amongst the male and female regarding the use/ insistence of use of condom during intercourse. All males were willing to use condom however only 31% of females were willing to insist their partners to use condoms. This difference in male and female was found to be statistically significant with a p value of less than 0.01. (Table 4)

**Table-4: Showing the knowledge and the willingness to use condom to prevent spread of HIV/AIDS**

Knowledge and willingness	Male (%)	Female (%)	Overall percentage (%)	p value
Use of condom can prevent HIV/AIDS	64.70	44.80	52.17	Significant (0.0158)
Use/ insist to use	64.70	31.00	47.82	Not significant

**DISCUSSION**

The present study which was a hospital based observational study has

revealed that only 32% responders have ever heard of HIV/AIDS. This finding was found to be consistent with other similar

Indian studies. [6, 9,10] However, contrary to our observation, Behavioural Surveillance Survey 2006 has reported that 94.7% and 80.4% of adolescents in Assam and India respectively have heard of HIV/AIDS. [4] Similarly, according to Basir Gaash, Muzaffar Ahmad, Rehana Kasur and Shabnam Bashir it was 76% in a study conducted on female senior secondary school students in Kashmir. [9] This may be explained that higher knowledge among senior secondary school students may be due to the fact that they acquired the knowledge of HIV/AIDS from their school curriculum.

The current study showed that only 43.47 % adolescent had the knowledge of HIV spread through unprotected sexual contact. Similarly, study done on female senior secondary school students in Kashmir it was found that only 20.44% respondent could mention unprotected sexual contact as the mode of transmission of HIV. [9] On the contrary a higher level of knowledge on HIV spread was recorded in BSS 2006. [4] Similar higher percentages were also observed in other studies. [1,10] These variations of knowledge on HIV transmission may be an indirect indication of the quality and impact of various awareness campaigns on HIV/AIDS conducted by different stakeholders as a measure of prevention and control of this dreaded disease.

In our study we found that 52.17% respondents were aware that the use of condom during sexual act can prevent HIV/AIDS. In contrast a higher percentage of awareness 84.1% was recorded amongst secondary school students in Lucknow. [11] This difference may be explained by the fact that our study participants are not a homogeneous group like secondary school students and therefore, varied literacy rate may be the cause of poor awareness with regard to HIV/AIDS.

Our study revealed that knowledge on prevention of transmission of HIV/AIDS by using condom during sexual

contact (54.75%) and screening of blood before transfusion (54.75%) was poor among the study adolescents. Our findings are near to the finding (38%) of another study conducted in Kashmir. [9]

To our surprise we found that 50.86% adolescent boys and girls are still uninformed and believes that social out casting has a role in the prevention and control of HIV transmission. Moreover nearly one third of the respondents were not aware about the different methods of prevention of HIV transmission. Our findings support that existing awareness campaign could not reach the high risk target audience successfully.

It has been observed that television (TV) was the main source of information about HIV/AIDS among the study participants 58.67%. This finding is consistent with earlier study where 54.9% respondent reported TV as the main source of information. [6] Similarly Baasir Gaash, Muzaffar Ahmad, Rehana Kasur and Shabnam Bashir have reported electronic media as the common source of information of HIV/AIDS. [9]

All the 64.7% males who knew that HIV can be prevented by using condoms were willing to use condom during sexual intercourse. However, among female respondents the knowledge about using condom to prevent HIV was found lower 44.8% and only 31% female participants would insist their partners to use condom during intercourse. This gap of knowledge and practice in female (13.8%) is seeking attention and needs to be addressed appropriately by policy maker of National Health Programme. Also we observed that the difference in knowledge among male (64.7%) and female (38%) is quite large. This gender disparity on knowledge clearly reflects that HIV/AIDS awareness campaign have yet to reach to this high risk female community sufficiently. This may be due to the fact that our society is still conservative and sex is still considered to be a subject to be discussed

privately specially among female adolescents. Therefore, this gender difference in knowledge must be considered while formulating public health intervention campaign for prevention and control of spread of HIV/AIDS.

## CONCLUSION

Present study concludes that maximum numbers of adolescents have never heard about HIV or AIDS. Those who have heard about this disease do not possess a satisfactory overall knowledge on the modes of transmission and different strategies for its prevention. Also, there exist a number of parallel misconceptions regarding the modes of HIV transmission and immoral attitude towards the patient living with HIV. Therefore, appropriate public health awareness campaign should be the center of attention to educate the adolescent masses along with the other high risk susceptible host.

**Limitations:** The study is a hospital based observational study. Therefore, results cannot be generalized to the entire population of Jorhat. The sampling technique used is convenient sampling (grab sampling) which is a type of non probability sampling.

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**Conflict of Interests:** The authors declare that they have no conflict of interests.

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