

# Knowledge and Attitude about HIV Transmission and Condom usage among College going Adolescents in Pondicherry: A Cross sectional study

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## ABSTRACT

**Background and Aim:** Adolescents need to know how to protect themselves from HIV/STDs for this sex education is the best way. Sex education should be an integral part of the learning process beginning in childhood and continuing into adult life, because it is lifelong process. The aim of study was carried out to identify the knowledge and attitude about HIV transmission and condom among collage going adolescents between age group of 18-25 years.

**Materials and Methods:** A cross sectional study design was used to study the knowledge and attitude about HIV transmission and condom usage. A total of 212 adolescents from age group of 17-21 year were studied, using self-designed semi-structured questionnaire to assess the knowledge regarding HIV transmission and condom usage among adolescents

**Results:** The mean age of study subjects was 19.7 years, majority of the study population were male gender (71%). Students had a satisfactory level of knowledge on HIV/AIDS prevention. Having adequate knowledge did not imply engaging in safe practices.

**Conclusion:** Students had a satisfactory level of knowledge on HIV/AIDS prevention. Having adequate knowledge did not imply engaging in safe practices. This study none-the-less highlighted some misconceptions about HIV transmission, which can be corrected by reinforcing sex education curriculum as sex education in collages was their main source of information on HIV.

**Keywords:** Knowledge and Attitude, HIV transmission, condom usage, adolescents

## INTRODUCTION

The term adolescence comes from Latin word meaning "TO GROW TO MATURITY".<sup>[1]</sup> According to WHO 10-19 years is called adolescents It is the period when maximum amount of physical, psychological, emotional and behavioral changes take place.<sup>[2]</sup> Sex education should be an integral part of the learning process beginning in childhood and continuing into adult life, because it is lifelong process.<sup>[3]</sup>

Adolescents need to know how to protect themselves

from HIV/STDs and premature pregnancies, for this sex education is the best way, it should be a lifelong learning process based on the knowledge and skills and positive attitude, it helps to young people to enjoy sex and relationships that are based on qualities such as positive knowledge, mutual respect, trust, negotiation and enjoyment.<sup>[4]</sup>

Condom is one of the most popular forms of mechanical barriers as it provides protection for the genital tract from sexually transmitted infections (STIs). It also prevents pregnancy by acting as a barrier stopping semen from

passing into the vagina.<sup>[5]</sup>

The use of the condoms was traced back to several thousand years ago. Condoms were invented in the fifteenth century in response to syphilis epidemic in Europe. Since then, the texture of condoms was developed from different kinds of materials such as leather and animal gut. During eighteenth century, the technological development improved the quality of condoms. Rubber was developed as material because of its strength and elasticity. The role of male condom for both contraception and prevention of STIs was established in Europe during this century.<sup>[6]</sup>

Worldwide condom use during sexual intercourse, an estimated 44 million couples use condom for family planning while as many as 60% of all condoms are used outside marriage.<sup>[7]</sup>

The effectiveness of condoms in preventing pregnancy or STIs depends on the user. The risk of pregnancy or STI is greater when condoms are not used correctly and consistently with every sexual act. However, when its used every time and in the approved manner it could prevent up to 80 to 95% of HIV transmission.<sup>[8]</sup> Condoms also reduce the risk of STIs spread by skin to skin contact, such as herpes and Human Papilloma virus. Based on this background, we would like to assess the knowledge of HIV transmission and attitude towards condom usage among the most vulnerable group adolescence. This purpose of study was carried out to identify the knowledge and attitude of HIV transmission and condom among collage going adolescents between age group of 18-25 years.

## MATERIALS AND METHODS

This study was started after getting approval from Institutional Ethical Committee. A cross-sectional study was conducted among collage going students in Pondicherry for a period of 1 month during the month of October 2019. After collecting samples, we conducted 2 session about sex education and awareness about HIV. Adolescents in the age group of 18-25 yrs studying 1st to final year were included. The number of students included in the study was 212 from private collage.

A self-designed semi-structured questionnaire was given to access the knowledge regarding sex education and HIV/AIDS among collage going adolescents. The questionnaire was divided into 2 groups. Part 1 includes socioeconomic status and part 2 includes knowledge, attitude and personnel thought about sex education and HIV. Most of the questions were structured with 2-5 options. The study was conducted after obtaining written permission from the head of the institution, Pondicherry. Completed questionnaires we compiled and entered into

Microsoft excel and analyzed using Statistical package of social science (SPSS) version 21.

## RESULTS AND DISCUSSION

The mean age of study subjects was 19.7 years. Figure 1 depicts that Majority of the study population were male gender (71%). Most of the study population belongs to SES class I (figure 2) followed by class III, II and IV respectively based on modified Kuppusamy scale. This study has tried to assess the knowledge and attitude about HIV/condom to assess the perception regarding sexual health among adolescents and to identify the need of imparting sex education in the collage going adolescents (17-21 years) from Pondicherry. (Table 1) Regarding the need of sex education among adolescents, in our study 212 students were participated in which 56% heard about HIV/AIDS, 61% had a knowledge about STDS spread, 21% answered that it is possible to cure HIV. Similar study results have been shown by Thanavnh et al.<sup>[9]</sup>

Acceptable level of knowledge was demonstrated by majority of participants. However, misconception about transmission such as HIV spread just by being them 20%. These finding shows the need for reinforcement of educational interventions particularly in collages and secondary school curriculum. similar misconceptions have been reported by Mansoor<sup>[10]</sup>, Koksai<sup>[11]</sup> and Tan.<sup>[12]</sup>

In spite of these misconceptions, the some of students (37%) were aware where to obtain condoms and indicated self-sufficiency in unwanted sex. Knowing a source of condoms is the first requisite for obtaining them but is not the same as actually being able to do so. Various barriers can prevent young people from accessing condoms, among the more common being their cost and the stigma associated with obtaining them. An average usage of condom was observed 65% of participants involved in sexual activity reported condom usage. This is similar to the 56.3% reported by colins Kingonem and Jane Fransis and this is similar to the 54.8% reported by Andergie etal<sup>[13]</sup> in Ethiopia. Condom usage in our study is however higher than 35% reported by the 2011 DHS-MIC in Cameron.<sup>[14]</sup>

Regarding practices, 46% of participants had been engaged in sexual activity. This is similar to 16 years reported in South Africa<sup>[15]</sup> as age at sexual debut.

However, studies in other African countries<sup>[16]</sup> have reported an earlier age for first sexual encounter. The proportion of sexually active students reported in our study is lower than 43.7% reported by Haddison et al<sup>[17]</sup> and 54% reported by Tarkang<sup>[18]</sup> but higher than 14.9% reported by Andargie et al<sup>[13]</sup> in Ethiopia. Sex is now viewed as a norm among young people and this might explain the early age at which they start engaging in

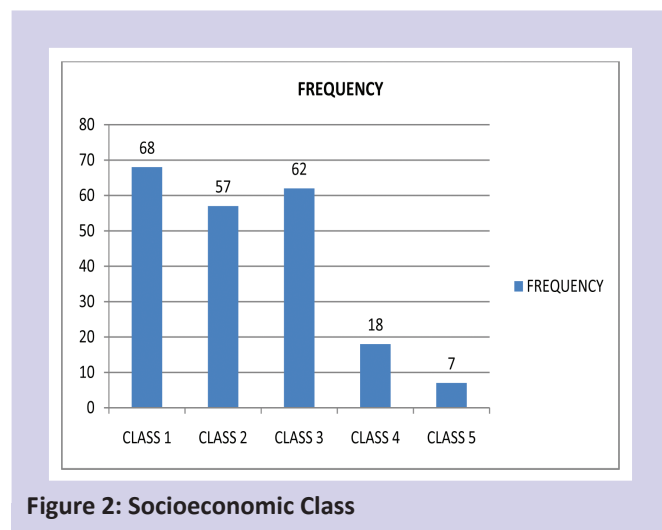
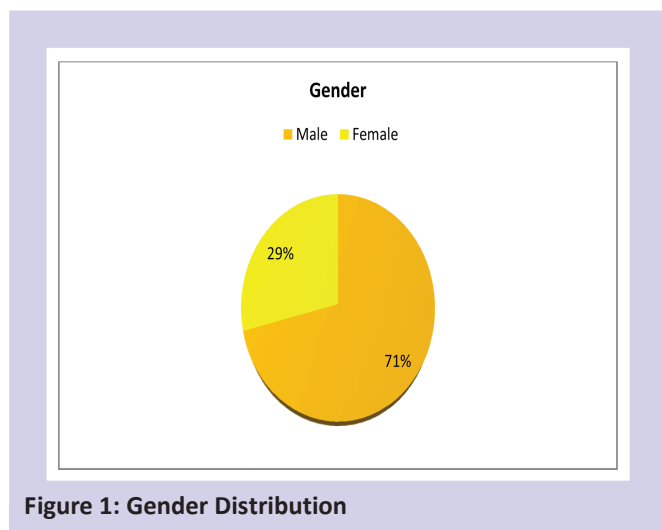


Table 1: Knowledge about HIV transmission and Condom

Variables	Yes	%
Have you ever heard of HIV/Aids	119	56
Does it spread	130	61
Can you be safe from HIV	124	58
Is it possible to cure HIV	44	21
<b>KNOWLEDGE ABOUT SYMPTOMS OF HIV</b>		
Discharge from penis/vagina	23	10
Pain during urination	13	6
Ulcer in genital parts		
All of the above	47	22
Don't know	130	61
<b>KNOWLEDGE ABOUT CONDOM</b>		
Have you ever seen /used condom	65	30
Are effective methods of preventing pregnancy	141	66
Can condom be reused	10	5
Condom reduce sexual pleasure	78	37
Does Government provide condom	79	37

sexual activities.

It is essential to study the pattern of condom use which is not only important for family planning and reduce fertility indices but also a life safer by preventing HIV infection. When properly used, male condoms represent a proven and effective mean for family planning and preventing transmission of HIV/AIDS and other STS (UNAIDS technical update Geneva, UNAIDS, 2000).

Men play a powerful and even dominant role in reproductive decisions sometimes regardless of their partner wishes or health. Therefore, it is important to direct the focus of health programs to advocate for a healthy male sexual behavior.<sup>[20]</sup>

Among all respondents, condoms were considered as an effective method of contraception and prevention of transmission of STIs. The analysis of this study showed that the knowledge, attitude of condom use were low. Although condoms were reported by majority of respondents, only 30% had used them.

### CONCLUSION

The rate of condom use was low among studied sample, the respondent level of knowledge about proper and effective use of condoms for protection from STIs were low. The main predictors of male condom use in this study were being Unmarried and perceived high risk of

HIV & STIs transmission. Students had a satisfactory level of knowledge on HIV/AIDS prevention. Having adequate knowledge did not imply engaging in safe practices. This study none-the-less highlighted some misconceptions about HIV transmission, which can be corrected by reinforcing sex education curriculum as sex education in colleges was their main source of information on HIV/AIDS.

#### CONFLICT OF INTEREST:

The authors declared no conflict of interest.

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#### REFERENCES

- Bansal RD, Mehra M. Adolescent girls an emerging priority.
- WHO. Adolescents, The critical phase, the challenges and the potential published by WHO [Internet]. Available from: URL: [http://www.searo.who.int/entity/child\\_adolescent/documents/adolescent\\_critical\\_phase/en](http://www.searo.who.int/entity/child_adolescent/documents/adolescent_critical_phase/en).
- Menon S. Adolescent health issues, public Health update. 2002.
- Grunseit, Kippex. Effects of sex education on young people's sexual behaviour [Internet]. WHO/GPA, Available from: URL: [http://data.unaids.org/publications/IRC-pub01/jc010impac-tyoungpeople\\_en.pdf](http://data.unaids.org/publications/IRC-pub01/jc010impac-tyoungpeople_en.pdf).
- Jain A. P, Behere P, Jain P, Jain M, Joshi R, Jain S, et al. Textbook of Family Medicine. Hyderabad, New Delhi: Pars medical publisher; 2009.
- Lewis M. A. In: Brief history of condoms. Mindel A. Condoms., editor. London: *BMJ*; 2000:1-16.
- Gardner R, Blackburn R. D, Upadhyay U. D. Closing the condom gap: Baltimore, Johns Hopkins school of Public Health population information Program. [Retrieved from Mar 29, 2010]; *Popul Rep H*. 1999 9:1-6.
- USAIDS, WHO. Family planning a global handbook for providers. 2007:202-10. Retrieved from [www.who.int./reproductivehealth/public](http://www.who.int./reproductivehealth/public).
- Thanavanh B, Rashid HO, Kasuya H, Sakamoto J. Knowledge, attitudes and practices regarding HIV/AIDS among male high school students in Lao Peoples Democratic Republic. *J Int AIDS Soc*. 2013; 16:17387.
- Mansoor AB, Fungladda W, Kaewkungwal J, Wongwit W. Gender differences in KAP related to HIV/AIDS among freshmen in Afghan universities. *Southeast Asian J Trop Med Public Health*. 2008; 39:404-18.
- Koksal S, Narmal N, Vehid S, Yurtsever E. Knowledge and attitude towards HIV/AIDS among Turkish students. *Infecti Dis J Pak*. 2005; 14:118-23.
- Tan X, Pan J, Zhou D, Wang C, Xie C. HIV AIDS Kunled, attitudes and behaviours assessment of Chinese students: questionnaire study. *Int J Environ Res Public Health*. 2007:248-3.
- Andargie G, Kassu A, Moges F, Kebede Y, Gedefaw M, Wale F, Alem A, Andualem B, Adungna S. Low prevalence of HIV infection, and knowledge, attitude and practice on HIV/AIDS among high school students in Gondar, Northwest Ethiop. *J Health Dev*. 2007; 21(2):1-3.
- National Institute of Statistics (2012). The 2011 Cameroon Demographic and Health Survey and Multiple Indicators Cluster Survey (DHS-MICS 2011). [www.statistics-cameroon.org/downloads/EDS-MICS11/DHSM-IC\\_2011\\_preliminary\\_report.pdf](http://www.statistics-cameroon.org/downloads/EDS-MICS11/DHSM-IC_2011_preliminary_report.pdf).
- Zuma K, Setswe G, Ketye T, Mzolo T, Mbelle N. Age at sexual debut: a determinant of multiple partnership among South African Youth. *Afr J Reprod Health*. 2010; 14(2):47-54.
- Mmbaga JE, Leonard F, Leyna GH. Incidence and predictors of adolescent's early sexual debut after 3 decades of HIV interventions in Tanzania: A time to debut analysis. *PLoS One*. 2013; 7(7):e14700.
- Haddison EC, Nguefack Tsague G, Noubom M, Mbacham W, Ndumbe PM, Mbopi Keou FX. Voluntary Counseling and testing for HIV among high school students in Tiko health district, Cameroon. *Pan Afr Med J*. 2012; 13:18.
- Tarkang EE. Age at sexual debut and associated factors among high school female learner in Limbe urban area of Cameroon. *Glob Adv Res J Social Sci*. 2013; 2(7):163-168.
- The male condom. UNAIDS technical update. Geneva, UNAIDS, 2000 (A Best practical collection) 2000. Retrieved from [http://data.unaids.org/publications/IRCpub01/JC302TU18MaleCondom\\_en.pdf](http://data.unaids.org/publications/IRCpub01/JC302TU18MaleCondom_en.pdf)
- Lasse A, Becker S. Husband- wife communication about family planning and contraceptive use in Kenya. *Int Fam Plan perspect*. 1997; 23(1):15-20.