

## KAP STUDY

# HIV/AIDS KNOWLEDGE AND SEX RELATED HEALTH SEEKING ATTITUDE AMONG YOUNG ADULTS IN KARACHI, PAKISTAN

Alia Nasir<sup>1</sup>, Saima Merchant<sup>2</sup>, Badil<sup>3</sup>

<sup>1,2</sup>College of Nursing, Ziauddin University, Karachi, <sup>3</sup>Institute of Nursing, Dow University of Health Sciences, Karachi.

## ABSTRACT

**Background:** The epidemic of acquired immunodeficiency syndrome (AIDS) is considered as a big health problem. Therefore, in the absence of knowledge seeking behavior, issues cannot be handled adequately. Thus, the study is aimed to assess the knowledge about human immunodeficiency virus (HIV/AIDS) and sex-related health seeking attitude among young adults attending family-practice clinics in Karachi, Pakistan.

**Methods:** Across-sectional study was accomplished in family medicine clinics affiliated with a tertiary care private sector teaching hospital in Karachi. Both Male and female gender, 586 subjects were approached by convenient non-probability sampling method. Participants who came to visit family medicine clinics for any reason with age between 18 to 24 years and never married were enrolled for the study. Structured and pretested tool was used to gather the data. Along with socio-economic variables, inquired the level of knowledge about the transmission, cure and prevention of HIV/AIDS. Furthermore, study participants were also asked about the health and education-seeking attitude regarding sexual problems.

**Results:** Among 586 participants, males were 335 (57.2%) and females 251 (42.8%). Majority of them had knowledge that HIV can be transmitted by blood/blood products (92.7%), un-sterilized needles/syringes (85.3%) and unsafe-sex (93.5%). However, misconceptions were also present such as transmission of HIV by mosquito-bite, public toilets/swimming pools and food/water. Furthermore, 82.9% of study subjects believed that HIV is a vaccine preventable disease and 78.5% stated that AIDS is curable. Over 50% felt that their level of knowledge about HIV/AIDS is insufficient, and 72.7% subjects preferred school as a better source for providing sexual-health education, and the difference of these responses by sex were not significant. However, only 17.9% females preferred electronic media for providing sexual-health education compared to 30.7% males ( $p<0.01$ ) and 51.4% females stated allopathic doctors as better choice to consult for sexual problems compared to 36.1% males ( $p<0.01$ ).

**Conclusion:** The study concluded that the majority of young adults have inadequate knowledge and misconception about HIV/AIDS.

**Keywords:** HIV; AIDS; Knowledge; Sexual Health Seeking Attitude; Young Adults.

## Corresponding Author:

Alia Nasir

Ziauddin University,

College of Nursing, Karachi, Pakistan.

Email: alia.nasir@zu.edu.pk

## INTRODUCTION

The pandemic of Human immunodeficiency virus (HIV) /Acquired immunodeficiency Syndrome (AIDS) is one of the most threatening public health challenges. Young adults are at high risk of acquiring HIV/AIDS reflected by the fact that the incidence of HIV/AIDS is increasing among them throughout the world. It is estimated that about 36.7

million people are living with AIDS, of whom 34.9 million are adult<sup>1</sup>. The incidence of HIV is at rise in Pakistan as well; a survey report stated that in Pakistan about 132,000 people are affected with HIV<sup>2</sup>. Furthermore, numerous factors may increase young peoples' vulnerability to HIV such as a lack of knowledge about HIV/AIDS, lack of education and life skills, poor access to health services early sexual debut, early marriage, sexual coercion and

violence, trafficking and growing up without parents or other forms of protection from exploitation and abuse<sup>3</sup>. The importance of focusing on young people for the prevention and treatment of HIV has been emphasized in the World Health Organization (WHO) HIV Strategy 2011-2015, which aims to “reduce by 50% percentage of young people aged 15-24 years who are infected” with HIV compared with a 2009 baseline<sup>4</sup>.

While the number of new HIV infections have declined by 19% globally over the last decade, pointing to the success of HIV prevention programs, the Asian HIV epidemic remained largely stable. However, it evokes great concern as the HIV prevalence increases in low prevalence countries of Asia such as Pakistan, where drug injection is the main mode of HIV transmission<sup>5</sup>. Moreover, the threat for a surge in the number of HIV infected people in future amplifies because of high prevalence of risk factors for HIV/AIDS such as very mobile population including refugees in border areas, increasing prevalence of injecting drug users (IDUs), high prevalence of HIV among them, and many of these IDUs are also professional blood donors,<sup>6,7</sup> common practice of transfusion of unscreened blood and blood products<sup>8</sup>, high prevalence of use of un-sterilized therapeutic injections<sup>9</sup>, and poor knowledge regarding the disease<sup>10</sup> and misconception in transmission among population<sup>11</sup>. Furthermore, over 60% of Pakistan's population comprises of less than 25 years of age<sup>12</sup> which are at the center of the pandemic in terms of transmission, impact, and potential for changing the attitudes and behaviors that underlie HIV/AIDS.

This future risk can be fueled by poor socio-economic indicators of Pakistan like increasing poverty, unemployment<sup>13</sup>, low levels of literacy and social disparities. In addition to unsatisfactory level of knowledge and attitude towards STDs including HIV/AIDS both in general, population and health care providers<sup>14-16</sup>. Moreover, there are limited and scarce opportunities and facilities of user-friendly reproductive health and counseling services in Pakistan. Health education might promote and endorses healthy attitude and behaviors towards preventing HIV/AIDS and sexually transmitted diseases. There is mounting evidence to show the effectiveness of school based sexual and reproductive health education, both in the developing and developed countries in approaching large numbers of teenagers and having a positive effect on preventing sexually transmitted infections including HIV in adolescents<sup>17,18</sup>. Current research study conducted in Saudi Arabia, which showed that participant had modest knowledge related HIV transmission<sup>19</sup>. The number of new cases of HIV is increasing in Pakistan. A survey accomplished recently has found that 132,000 people in Pakistan suffer from HIV<sup>20</sup>.

In Pakistan, it is neither socially acceptable to discuss health issues related to sexual behaviors in general nor to educate and teach about transmission and prevention of sexually transmitted diseases in schools in particular. The main objective of this study was to assess the knowledge about HIV/AIDS and sex-related health seeking attitude among young adults attending family-practice clinics in Karachi, Pakistan.

## METHOD

A cross-sectional study was conducted in family medicine clinics affiliated with a tertiary care private sector teaching hospital in Karachi. The study was conducted for the period of six months from 1<sup>st</sup> January 2011 to 30<sup>th</sup> June 2011. Overall, a total of 662 young adults (males and females) were approached to participate in the study. Those who came to visit family medicine clinics for any reason and fulfilled the study inclusion criteria (age between 18 to 24 years and never married) were explained the purpose of the study and asked to participate in the study. Ninety-one percent (586) of them agreed and gave consent to participate in the study. Data was collected by convenient non-probability sampling method. Data was collected using an anonymous, structured and pre-tested questionnaire. Along with socio-economic variables, we inquired the level of knowledge about the transmission, cure and prevention of HIV/AIDS. Furthermore, study participants were also inquired about the health and education-seeking attitude regarding sexual problems. All questions were asked to reply as yes/ no assertions.

Data was double entered and validated before final analysis. Statistical Package for Social Sciences (SPSS) version 21.0 was used for analyzing the data. Frequencies and percentages for questioned responses regarding knowledge about HIV/AIDS and attitude towards seeking sexual health were calculated. In order to compare the knowledge and attitude of males and females, chi-square test was used. A p-value of <0.05 was considered significant.

## RESULTS

**Table 1: Socio-demographic Characteristics.**

Characteristics	N (%)
Age (in Years) Mean $\pm$ SD 21.3 $\pm$ 2.1	
SEX	
Males	335 (57.2)
Females	251 (42.8)
Religion	
Muslims	541 (92.3)
Non-Muslims	45 (7.7)
Schooling	
No Schooling	106 (18.1)
Up To 10 Years	61 (10.4)
More Than 10 Years	419 (71.5)

Socio-demographic characteristics of respondents are shown in Table 1. The mean age of study population was  $21.3 \pm 2.1$  SD years. Out of the total (586) study participants, 335 (57.2%) were males and 251

(42.8%) were females. Majority of the study participants were Muslims 541 (92.3%) and having schooling of more than 10 years were 419 (71.5%) of subjects.

**Table 2: Knowledge of HIV/AIDS among studied young adults and comparison of difference by sex.**

Statement	Correct Answers	Answered correctly			
		Total (586) n (%)	Males (335) n (%)	Females (251) n (%)	p – Value
HIV a viral disease	Yes	488 (83.3)	286 (85.4)	202 (80.5)	0.12
HIV weakens the body's ability to fight infections	Yes	402 (69.6)	236 (70.4)	166 (66.1)	0.27
HIV infected person may remain asymptomatic	Yes	90 (15.4)	48 (14.3)	42 (16.7)	0.42
HIV affects in any age group	Yes	273 (46.6)	180 (53.7)	93 (37.1)	0.01
HIV is transmitted by unsafe sex	Yes	548 (93.5)	320 (95.5)	228 (90.8)	0.02
HIV is transmitted by infected blood / blood products	Yes	543 (92.7)	321 (95.8)	222 (88.4)	0.01
HIV is transmitted by un-sterilized needles/ syringes	Yes	500 (85.3)	288 (85.9)	212 (84.5)	0.61
HIV is transmitted by shaking hands with infected person	No	333 (56.8)	196 (58.5)	137 (54.6)	0.34
HIV is transmitted by using / sharing personal belongings	No	360 (61.4)	192 (57.3)	168 (66.9)	0.02
HIV is transmitted by contaminated food/ water	No	262 (44.7)	147 (43.9)	115 (45.8)	0.64
HIV is transmitted by mosquito bite	No	397 (67.7)	226 (67.5)	171 (68.1)	0.87
HIV is transmitted by using public toilets/ swimming pools	No	355 (60.6)	198 (59.1)	157 (62.5)	0.39
HIV is transmitted by dental procedures	Yes	73 (12.5)	37 (11.0)	36 (14.3)	0.23
HIV is preventable by vaccination	No	486 (82.9)	275 (82.1)	214 (85.3)	0.30
AIDS is curable	No	460 (78.5)	258 (77.0)	202 (80.5)	0.31

Responses to questions regarding knowledge of HIV/AIDS among study subjects and their difference by sex are given in Table 2. In all, 83.3% of study subjects knew that HIV/AIDS is a viral disease and 69.6% respondents had knowledge that it weakens the body's ability to fight against infections and this knowledge was equally prevalent in both sex. Only 15.4% (males: 14.3%; females: 16.7%; p-value = 0.42) of respondents knew that HIV infected person may remain asymptomatic. Males knew more regarding modes of HIV transmission by blood and blood products (males: 95.8% versus females: 88.4%; p-value <0.01) and un-safe sex (males: 95.5% versus females 90.8%; p-value = 0.02) while no significant difference of knowledge response about transmission by un-sterilized needles and syringes

was found by sex (males: 85.9%; females: 84.5%; p-value = 0.61). There were also misconceptions about the route of transmission. Mosquito bite (67.7%), public toilets/ swimming pools (60.6%) and food/ water (44.7%) was incorrectly identified as route of transmission. These misconceptions were equally common among men and women. Only 12.5% study participants (males: 11.0%; females: 14.3%; p = 0.23) reported that HIV can be transmitted by dental procedures. In addition, 82.9% (males: 82.1% and females: 85.3%) and 78.5% (males: 77.0% and females: 80.5%) and believed that there is a vaccine and cure for HIV/AIDS respectively and there were no significant difference of knowledge by gender for these variables (p-value = 0.3).

**Table 3: Sex-related health seeking attitude among studied young adults and comparison of difference by sex.**

Agreed	Total (586) n (%)	Males (335) n (%)	Females (251) n (%)	p – Value
Have insufficient knowledge about sexual health	296 (51.5)	157 (46.9)	133 (52.9)	0.14
Have wish to obtain more information about sexual health	257 (43.9)	156 (46.6)	101 (40.2)	0.13
Health education about sexual issues should be given in schools/ colleges	426 (72.7)	237 (70.7)	189 (75.3)	0.22

Health education about sexual issues should be given by print media	124 (21.2)	85 (25.4)	39 (15.5)	0.04
Health education about sexual issues should be given by electronic media	148 (25.3)	103 (30.7)	45 (17.9)	0.01
Best option to consult for sexual health is allopathic health care providers	250 (42.7)	121 (36.1)	129 (51.4)	0.01

Sex-related health seeking attitude and their difference by males and females are given in Table 3. Over 50% of study participants (males 46.9% and females 52.9%; (p-value = 0.14) felt that their level of knowledge is insufficient for sexual health and 43.9% (males 46.6% and females 40.2%; (p-value = 0.13) wish to acquire more information about the disease. Preponderance (72.7%) of study participants agreed that school/ college is a better source for providing education about sexual health (males: 70.7%, females: 75.3%; (p-value = 0.22). However, only 17.9% females agreed that electronic media is a better option for education about sexual health compared to 30.7% males (p< 0.01) and similarly 15.5% females agreed that print media should be used for sexual health education compared to 25.4% males (p< 0.04). In contrast, 51.4% females and 36.1% males (p< 0.01) stated allopathic health care provider as better choice to consult for sexual problems.

## DISCUSSION

In the near future an effective vaccine for the prevention of HIV may not be available, the availability, accessibility and affordability of anti HIV/AIDS drugs is question mark, particularly in resource-constrain, and developing countries like Pakistan. In this scenario, primary prevention through increasing awareness and knowledge, and having positive and healthy attitude and behaviors is the best strategy to prevent HIV/AIDS infection. This study has highlighted significant gaps in the knowledge about HIV/AIDS and sexual health seeking attitude among young adults, despite the fact that the majority of the study participants were literate and had at least secondary school level of education.

In general, males demonstrated a slightly better level of understanding compared to females; particularly about mode of disease transmission by blood and blood products, un-sterilized syringes/ needles and un-safe sex. These results are consistent with the study by Raza et al.<sup>21</sup> in Lahore, Pakistan where it was found that even educated young women have more knowledge gaps in AIDS and its mode of transmission than young men. Similar results were documented from New Delhi<sup>22</sup> and Mumbai<sup>23</sup> India and from Dhaka, Bangladesh<sup>24</sup>; both are the major countries of south Asia along with Pakistan. This is probably because in our culture males feel free to talk about matters relating to sex compared to females.

A considerable proportion of respondents thought

that HIV is transmitted by mosquito bite, contaminated food/ water, shaking hands, using public toilets and swimming pools. Moreover, only small number of our study participants knew that HIV/AIDS could be transmittable through contaminated dental procedures. In addition, majority of study subjects were of the opinion that HIV/AIDS is a curable and vaccine preventable disease. Similar misconceptions surfaced in previous studies regarding the modes of transmission, prevention and treatment of HIV/AIDS.<sup>25-27</sup> Unfortunately such misconceptions may encourage some youth to practice risky behaviors by creating the false impression in them that they will be cured if they become infected with HIV.

Over half of the respondents including both males and females felt that their level of knowledge about sexual health as 'insufficient' and majority of them expressed a wish to obtain more information about sexual health. These findings are consistent with findings of Trajman et al.<sup>28</sup> where majority of high school students felt to have insufficient level of knowledge about STD/AIDS and would prefer to have more information. Likewise, the parents/guardians of adolescents study conducted in Tanzania, recognized this need and strongly supported the idea of providing education on sexuality and reproductive health to their children.<sup>29</sup>

This is probably due to the fear and anxiety, which is associated with this disease. In Islamabad, Pakistan, Mezhar et al. documented that over 62% women felt that colleges are the place to impart sex education.<sup>30</sup> In our study too, both males and females were of the opinion that health education regarding sexual issues should be provided in schools and colleges. Majority of females however did not agree to electronic media being a better way to disseminate knowledge about sexual health. A number of studies from Brazil,<sup>27</sup> Singapore<sup>31</sup> Nigeria<sup>32</sup> and India<sup>33</sup> reported electronic media as the most frequent source of information on STDs and AIDS. These contrast study findings reflect our social and cultural restrictions and boundaries where matters related to sex are not openly discussed with parents and other family members, and it is common practice in our country that both television and radio are watched and heard as a joint family activity and electronic media is a common source of entertainment and information for all family members.

Non-allopathic health care providers (hakims, quacks) were identified as a main source from where individuals get consultation about their



sexual problems in Sindh, Pakistan<sup>13</sup>. In our study, only 43% study subjects (males 36% and females 51%) reported allopathic health care providers as a better choice for consultation regarding sexual health problems. This might be the reflection of advertisements by quacks and traditional healers posted on signboards located in almost every city and town of the country and by advertising their services in newspapers printed in local languages.

## RECOMMENDATIONS

The findings of this study suggest that there should be inclusion of sexual health teaching as an integral part of school and college curriculum. Community health nurses can play an important role by increasing the public awareness and understanding about diseases like HIV/AIDS. HIV/AIDS counseling and educations for the prevention of these conditions should be conducted. More studies are needed to assess the understanding and misconceptions of peoples about HIV/AIDS at large scale. Intervention work should also be conducted to enhance the awareness of this disease among public through evaluation of these interventions.

## CONCLUSION

The study concluded that the majority of young adults have inadequate knowledge and misconception about HIV/AIDS. Interventions focusing on health education regarding HIV/AIDS should be provided using schools/colleges as main platform.

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