

Do behavioral patterns of university students of Nepal make them vulnerable to HIV/AIDS?

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Introduction: Nepal is confronted with the increasing incidence of HIV among young adults. The University students at their age are at increased risk of the disease, determined by their behaviors. Thus, Assessment of knowledge, attitude, and beliefs of them are essential prior to implementation of prevention and control strategies.

Methods: This cross sectional study was carried out in 2006 among university students at Tribhuvan University, Kirtipur, Nepal. A total of 100 students participated from different departments. The questionnaire design included background characteristics, condom use, knowledge and opinion towards HIV/ AIDS, Sexual risk behavior and sexual relation, symptoms on STI and HIV/ AIDS, stigma and discrimination regarding HIV/AIDS.

Results: The median age of male respondents was 26 years and that of female was 23 years. Among married respondents (16.7%), female respondents were married at younger age (F=23yrs, M=24yrs). The majority of them were unemployed (78.1%). The major sources of information regarding HIV/ AIDS were television (95.8%) and radio (91.7%). Only 13.5% of respondents (F=12%, M=15.2%) knew about voluntary counseling and testing services (VCT). The age of first sexual intercourse was 22 years; same for both men and women. Among them, 65.4 % admitted using condoms during first intercourse. Family planning centre was the major condom supply source (78.1%). Use of condoms was the most common perceived method of protection against HIV/AIDS for both male (93.5%) and female (78%). Seventy- nine percentage of respondents maintained that HIV is transmitted by sharing of food, and mother to child, and HIV+ individuals looked healthy.

Conclusions: This study provides empirical evidence of stirring knowledge about HIV and sexual behavior among adults; however; needs further examination through a longitudinal study.

Key words: Sexual behaviour, human immunodeficiency virus

Introduction

At the end of 2001, the United Nations Joint Program on HIV/ AIDS estimated that more than 40 million people globally lived with HIV/AIDS. It is projected that, at current rates, more than 100 million people worldwide will have been infected with HIV by 2005.¹ In twenty first century, the greatest pandemic has its greatest impact in the developing world with 95 percent of the affected population living in developing countries. According to 2001 census

of Nepal, the total population is 23.3 million, among which 47.3 percent are between 15 to 49 years of age. In 1988, the first case of AIDS was reported in Nepal. However, limited data indicate that HIV prevalence is currently around 0.5 percent in the adult population between the ages of 15 – 49 with male female ratio of approximately 3:1.² As of May 2006, National Centre for AIDS and STD Control (NCASC) has reported 6,290 cases of HIV positive.³ Given the existing medical and public health infrastructure in Nepal and the lack of continuity in national HIV/AIDS surveillance

systems, it is very likely that the actual number of cases is many times higher. UNAIDS/WHO estimate for 2002 around 60,018 people living with HIV/AIDS, and 2,958 AIDS related deaths in that year alone.⁴

High potential for a generalized epidemic is indicated by behavioural and seroprevalence data. In the absence of effective interventions, even a “low to moderate growth scenario” would make AIDS the leading cause of death in the 15-49 year old population over the coming years. For Nepal, this would mean that around 100,000-200,000 young adults will become infected and that overall 10,000-15,000 annual AIDS cases and deaths may be expected.⁴

Young people are a productive and significant segment of Nepal's population. This group is at the centre of Nepal's HIV epidemic. UNAIDS places a high priority on prevention among young people and has supported efforts to raise awareness of HIV/AIDS. Young people (15-29 years) constitute 27% of the total population of Nepal but Nepal's national various behavioural data indicate the increasing vulnerability of young people to HIV/AIDS in terms of a widening generational and cultural gap between emerging new values, (group) norms, knowledge, behaviour and independence on the side of adolescents. To address the root causes of the epidemic, more research on Knowledge, Attitude, and Practice (KAP) and related contextual factors is needed. In order to achieve correct knowledge, attitude and behaviour of young people to measure their concerns and to be included in decision making, this research was carried out with an objective to study their behavioural patterns and vulnerability towards HIV/AIDS.

The aim of the current study is to provide a valid assessment of sexual behaviors and HIV/AIDS-related knowledge and attitudes among University Students. We focus on basic measures of knowledge, attitudes and sexual habits.

Materials and Methods

The present cross sectional study was conducted in July, 2006, included a survey with a detailed questionnaire for students of Masters Degree at Tribhuvan University, Kirtipur, Nepal. The population was selected as the University represents young people from urban and rural areas of the country. Furthermore, HIV/ AIDS related surveys had not been carried out focusing on them. This study includes 100 students from different educational departments with 50 males and 50 females. To maintain the data quality, four subjects have been excluded. Selection was based on a simple random selection method.

The questionnaire design was based on those used previously and validated by related studies and contained

five aspects: background characteristics, condom use, knowledge and opinion towards HIV/ AIDS, Sexual risk behavior and sexual relation, symptoms on STI and HIV/ AIDS, stigma and discrimination regarding HIV/AIDS. The data thus collected was compiled, analyzed and interpreted electronically by using SPSS 13 version software.

Results

There were remarkable disparities between the responses of male and female respondents. The median age of male respondents is 26 years and that of female is 23 years. Among married respondents (16.7%), female respondents were married at younger age (F=23yrs, M=24yrs). The majority of them were unemployed (78.1%). More than half of the respondents were from urban areas (55.2%).

All the respondents admitted that they had heard of HIV/ AIDS. The major sources of information (Figure 1) regarding HIV/AIDS were television (95.8%) and radio (91.7%). They also mentioned other sources of information as newspaper (79.2%); hoarding boards (50.0%); however, friends, family, and health workers were mentioned less frequently (< 50%).

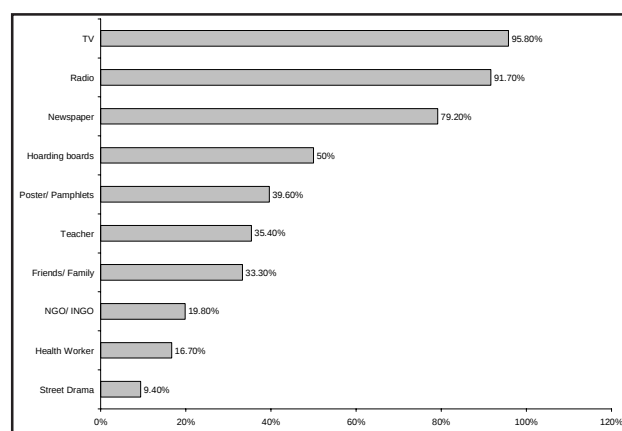


Fig. 1. Major Source of Information about HIV/AIDS

Despite the fact that all the respondents had heard of HIV, nearly seventeen percentages had no knowledge about place of HIV testing services. Only 13.5% of respondents (F=12%, M=15.2%) knew about voluntary counseling and testing services (VCT), While those, who reported to hospitals and nursing homes (75%), also mentioned pharmacy/ private clinic (21.9%) as of providing testing services.

Although all the respondents were familiar with use of condoms for family planning, but, among the users (21.8%), only 71.4% maintained its use to prevent STIs and HIV. Family planning centre, as mentioned by respondents is the major condom supply source (78.1%), others include

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grocery store (71.9%); local pharmacy (66.7%); government hospitals (57.3%); private hospital/nursing home (10%).

Use of condom was the most common perceived method of protection against HIV/AIDS for both male (93.5%) and female (78%) respondents followed by limiting sex to single partner: male (52.2%) and female (60.0%). Avoiding sex with People Living with HIV/AIDS (PLWHAs) is considered protective method by 46% of female and 58.7% of male (Figure 2). Wrong perceptions about hugging and kissing as modes of transmission of disease with AIDS patients was 17.4% in male and 18% in female.

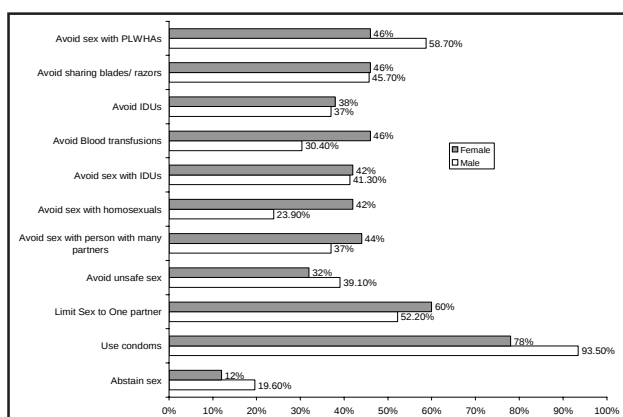


Fig. 2. Methods of Protection from HIV/AIDS

Respondents were asked about transmission of HIV- sharing food, healthy looking with HIV, mother to child transmission. Only 78.1 % of all the respondents answered all questions correctly. Those who responded only 2 answers correctly were 18.8% and only one correct answer was 3.15%. As offered in (figure_3), no distinguishable response between male and female was observed. When asked, only 8 (8.3%) replied that they know someone from social circle or family, who is HIV positive.

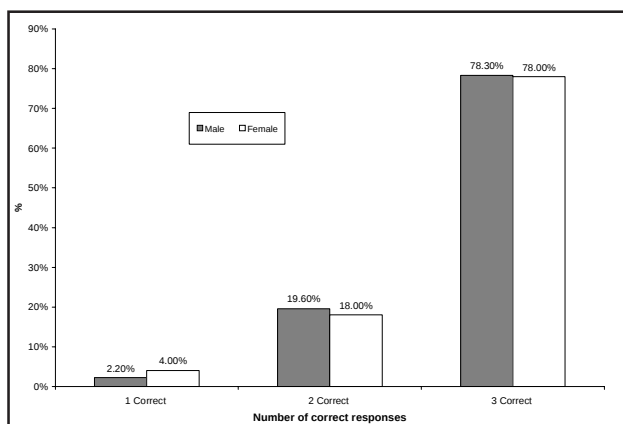


Fig. 3. Knowledge of HIV Transmission

When asked if they had sexual intercourse ever, 27.1% reported they had. The age of first sexual intercourse was 22 years. Among them, 65.4 % admitted using condoms during first intercourse. Again, 53.8% admitted that their first sexual encounters were with their spouses, 26.9% with boyfriends or girlfriends and 19.2% with no response- five respondents. However, out of these five respondents, two had sexual encounters with CSWs at age of 20 and 22 years. Syphilis (49%) and Gonorrhoea (42.7%) were the most heard STIs other than HIV/AIDS. Nearly 42 % could not name symptoms of STIs in men similarly, 47% of respondents could not identify STIs symptoms in women.

Table: 1 Knowledge on Symptoms of STIs in Men and Women

Knowledge on symptoms of STIs in Men	Male %	Female %
Genital discharge	29.0	56.0
Burning urination	35.5	60.0
Genital ulcers	19.4	48.0
Swellings	61.3	52.0
Itching on genitalia	51.6	68.0
Pain during intercourse	29.0	60.0
Do not know	32.6	50.0
Symptoms of STIs in Women		
Abdominal pain	22.7	34.5
Genital discharge	50.0	55.2
Foul smelling	59.1	69.0
Burning pain in urination	40.9	55.2
Genital ulcers	13.6	44.8
Swelling	27.3	48.3
Itching	18.2	58.6
Inflammation of genitals	27.3	37.9
Pain during intercourse	27.3	34.5
Do not know	52.2	42.0

A majority of the respondents (94.79%) expressed their willingness to take care of relatives or friends who are HIV positive. Furthermore, they (95.83%) also favored to accept the PLWHAs in their society and community. Almost 68% were in favor of sharing food with or served by the AIDS patients. The attitude to accept treatment of HIV patients in the same hospital, same ward next to their bed was shown by 89.58% of the respondents.

Discussions

Social and cultural norms can serve as both protective factors and risk factors for youth reproductive health. Youth in Nepal are very dependent on the consent and approval of

adults—parents, teachers, relatives, and community elders—in many aspects of their lives, including access to sexual and reproductive health (SRH) information and services, particularly those that require financial resources. Early marriage and childbearing continues to be the norm, although the average age of marriage is increasing over the years. From the findings, it would be an overestimation to conclude that current fertility levels are ingrained and represent the whole country scenario. Income generation opportunities to young people are often cited as protective factors for youth reproductive health in Nepal and elsewhere. This is because poverty and the lack of income lead to undesirable outcomes such as engaging in transactional sex or full-time prostitution, and using illicit drugs.⁵

The continued increase in prevalence of HIV in Nepal has become a threat, particularly among adults. The study shows that all the respondents were aware of HIV/AIDS. As a general rule, university students have a relatively high level of general knowledge, so the knowledge about HIV/AIDS transmission and prevention also⁶. Since the university was situated in urban area, all the students were informed about HIV/AIDS. Daily exposure to mass media varies considerably by media type and location. The major source of information to most of the participants was the electronic media especially television (95.8%) and radio (91.7%). It reveals that electronic media play the leading role⁷ and to use the mass media to reach a large population with information about HIV/AIDS, it is important to consider the media channel carefully, since they use information that convince their addressees in content. But there is a lack of knowledge about VCT sites; this lack of information defer the voluntary practice of HIV testing and counseling which may in turn victimize innocent lives; however, NCASC claims that most of the reported HIV+ cases were from hospitals and VCT sites.³ So, monitoring frequently counts the number of people receiving VCT programme services (such as the number of people receiving pretest counseling) will evaluate the use of service.

VCT allows receiving appropriate counseling and referral to other sexually transmitted diseases. It also can be a factor in reducing stigma and encouraging community support.¹⁰

Among participants who reported that they had had sexual intercourse, the median age at first intercourse was 22 for both men and women.

The strongest predictor of condom use for safe sex for both men and women was whether they had used a condom at first intercourse. This effect was particularly evident for married couples: For women and men, only one other

variable—attitudes toward condoms for protection against HIV—were significant. Several studies, including a study of Croatian high-school students,⁸ have found that previous condom use—especially at first sexual intercourse—is a strong predictor of consistent condom use.⁹

Access to HIV/AIDS information and services is considered to be a contextual factor that affects health outcomes because of the obvious links between information, and services with the behavior. In fact, just because information and services are available does not guarantee they will be acted upon. The belief that healthy-looking person cannot be HIV+ is a common misconception that can result in unprotected sexual intercourse. Similarly, transmission of HIV by bites of mosquitoes, hugging, and kissing are false beliefs of possible modes of HIV transmission—so the correct knowledge is as important as correct knowledge of true modes of transmission. These beliefs can weaken the motivation to adopt safe sexual behaviour, while the belief that HIV can be transmitted through sharing food reinforces the stigma towards PLWHAs.¹⁰ The adverse impacts of stigma and discrimination are being increasingly recognized as key barriers to combating the epidemic.

Conclusions

The KAP of university students towards HIV/AIDS is impressive. The study has resulted in varied range of knowledge, attitude and vulnerability of young people, finding high levels of HIV awareness. Yet HIV prevalence is in increasing trends, indicating that awareness and knowledge among adults alone are somehow misleading.

Establish VCT services in the public sector and in youth centers with promotion of social and familial discussion about the service. It is also recommendable that VCT services to be established in a public-private sector mixed approach, with close coordination and referrals between government health facilities, youth centers and youth serving NGOs.

The “KAP gap,” or discrepancy between knowledge, attitudes and practices, has been well documented in public health literature, particularly those that purport to serve young people, are often underutilized; marked by increased incidence of HIV among reproductive age group. However, the high level of general knowledge about AIDS-related risky behaviors, including knowledge about the effectiveness of condom use, as well as concern about being at risk for HIV infection, are often reported to be unrelated to safe sexual behaviour.¹¹ In view of the reported variability in AIDS-related knowledge, beliefs and behaviour among various social groups, conducting basic research,

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intervention and evaluation studies on specific groups, who are concentrated in a defined social setting, such as university students, might be very efficient.¹².

References

1. International Crisis Group. HIV/AIDS as a Security Issue. ICG. Washington/ Brussels. 2001
2. National Centre for AIDS and Sexually Transmitted Infection Control (NCASC) Nepal's- National HIV/AIDS Strategy, Ministry of Health, GoN, Nepal. 2002.
3. National Centre for AIDS and Sexually Transmitted Infection Control (NCASC) Monitoring and Evaluation Guidelines for HIV and AIDS in Nepal, NCASC, GoN, Nepal, December 2006
4. www.unaids.org (accessed 11/1/2007)
5. Youthnet- Assessment of Youth Reproductive Health/ HIV Programs In Nepal, 2004; 8-10
6. Green, M. S., Carmel, S., Tsur, S., Slepon, R. and Vardi, D. Differences in general knowledge of AIDS, its transmission and prevention among Israelis aged 18-19 years. *European Journal of Public Health*. 1993;1: 75-78.
7. Rahman MS, Rahman ML, Media and education play a tremendous role in mounting AIDS awareness among married couples in Bangladesh. *AIDS Res Ther* 2007;4:10. [PubMed]
8. Hirsig-Hecej V and Stulhofer A, Urban adolescents and sexual risk taking, *Collegium Anthropologicum*, 2001, 25:195-212.
9. Sheeran P, Abraham C and Orbell S, Psychosocial correlates of heterosexual condom use: a meta-analysis, *Psychological Bulletin*, 1999, 125: 90-132.
10. National Centre for AIDS and Sexually Transmitted Infection Control (NCASC) Indicator Definitions Annex III, Monitoring and Evaluation Guidelines for HIV and AIDS in Nepal, NCASC, 2006
11. Greenlee, S. P. and Ridley, D. R. AIDS and college students: a survey of knowledge, attitudes and beliefs. *Psychological Reports*. 1993; 73: 490.
12. Svenson L W, Carmel S, Varnhagen KC., A review of the knowledge, attitudes and behaviours of university students concerning HIV/AIDS. *Health Promotion International*, Oxford University Press, 1997; 12: 1: 6