

Undergraduate students Knowledge on AIDS/HIV and It's associated factors in Eastern University, Sri Lanka

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Abstract- Acquired immune deficiency syndrome (AIDS) has a great impact on society, both as an illness and as a source of discrimination. Numerous social and behavioral factors are involved in the spread of HIV/AIDS such as prostitution, broken homes, sexual disharmony, easy money, emotional immaturity, urbanization and industrialization, changing behavioral patterns, social stigma and alcoholism. Most of the infected people are not aware about their HIV status. Social stigma and discrimination towards HIV infected people adversely affect voluntary testing for HIV. Lack of information about the causes and risk factors of AIDS can place a large number of young people at the risk of acquiring Human Immunodeficiency Virus infection (HIV). Therefore, knowledge regarding AIDS is an essential precursor of sexual risk reduction. The aim of the study was to assess the influence of socio demographic and educational related factors in the knowledge of HIV/AIDS among first year students of the Eastern University, Sri Lanka. This was a descriptive cross-sectional study carried out among 300 first year students of the Eastern University. Stratified random sampling method was used to select sample. Self-administered questionnaire was used to collect data. Among the 300 participants, 36.3 % were male and 63.7 % were female. 46.7 % of them were Tamil, 30 %, 20.7% and 2.7% were Sinhalese, Muslims and Burgers respectively. The mean knowledge score regarding HIV/AIDS among first year students of the Eastern University was 43.7%. Female students had higher knowledge than male students. Health care students had higher knowledge than other faculties' students. All male and female participants were aware that AIDS is a sexually transmitted disease. There was a significant association between mean knowledge scores of HIV/AIDS and gender, ethnicity, faculty, stream of A/L study, and source of information obtained ($p < 0.05$). The knowledge regarding AIDS was average among majority of first year students of the Eastern University. Knowledge about transmission methods, signs and symptoms and preventive measures of AIDS was good among all students exception in some response.

Index Terms- AIDS, Factors, Knowledge, Transmission methods, Preventive methods

I. INTRODUCTION

Acquired immune deficiency syndrome (AIDS) has a great impact on society, both as an illness and as a source of discrimination (Kumar & Clark, 2009). It has become a pandemic disease and threatens the world population. It affects all body systems as well as mental health and social relationship of carriers and asymptomatic patients. Numerous social and behavioral factors are involved in the spread of HIV/AIDS such as prostitution, broken homes, emotional immaturity, and industrialization, changing behavioral patterns, social stigma and alcoholism (Park, 2003). At the end of year 2015, total 36.7 million people living with HIV in the world. Of these 2.1 million are newly infected in 2015. In 2015 nearly 1.1 million AIDS related deaths occur in worldwide (UNAIDS, 2016). The first case of HIV and AIDS in Sri Lanka was reported in 1987 and in 2015 the total number of cumulative cases reported had increased to 2308. In 2015, 235 new HIV cases reported to the national STD/AIDS control programme in Sri Lanka. This is the highest number reported in a year and this amounts to about 4.5 new HIV cases per week. Majority of the patient are age between 25-34 and 35-49. The number of cases reported in the age category 15-24 has been increased recently. Most of the infected people are not aware about their HIV status. Social stigma and discrimination towards HIV infected people adversely affect voluntary testing for HIV. Sexual transmission accounted for 86% of all cases reported during 2015 (Ministry of Health, 2015). Lack of information about the causes and risk factors of AIDS can place a large number of young people at the risk of acquiring Human Immunodeficiency Virus infection (HIV) (UNAIDS, 2010). Therefore, knowledge regarding HIV/AIDS is an essential precursor of sexual risk reduction. The aim of the study was to assess the influence of socio demographic and educational related factors in the knowledge of HIV/AIDS among first year students of the Eastern University, Sri Lanka. In this study the common knowledge about HIV/AIDS transmission, signs and symptoms and preventive methods had been evaluated among first year students of Eastern University, Sri Lanka.

II. METHODOLOGY

This was a descriptive cross sectional study carried out to assess the influence of socio demographic and educational related factors in the knowledge of HIV/AIDS among 300 first year students of the Eastern University, Sri Lanka. The students selected from six faculties for this study. The first year students selected for this study because they were just passed their advanced level and entered to the university systems. Therefore they have lack of chance to socialize with other university students to obtain knowledge about HIV/AIDS and had less exposure to academic activities such as lectures and workshop regarding HIV/AIDS and this age group is more sexually active group also. Stratified random sampling method was used to select sample. Data were collected from students those who was willing to participate in the study. Respondents, who were not present at the time of study; who refused to participate in this study were excluded from the study. The respondents were thoroughly explained about the study and verbal informed consent was obtained before the data collection. The ethical clearance was obtained from the ethical review committee Faculty of Health-Care sciences, Eastern University, Sri Lanka. The written permission was obtained from the Head of the institution. Anonymity was ensured throughout the study. Data were collected by investigators through a structured self-administered questionnaire. The pretest was carried out among 15 students to validate the questionnaire for accountability and accuracy. These students were excluded from this study. The questionnaire was modified based on finding of the pretest with the help of the experienced clinicians and health academics. The study instrument initially was developed in English. Then it translated in to Tamil and Sinhala. The questionnaire was distributed for the students in their own language as Tamil and Sinhala. The original questionnaire contained 15 questions including demographic information, Sources of information and disease knowledge including mode of transmission, signs and symptoms and preventive methods. The knowledge questions were answered using “Yes”, “No” and “Do Not No”. A total score for knowledge was obtained by adding the points for given each answer. For each correct answer 01 points, incorrect answer zero points were assigned. The total score were ranged between 0-20. Then it converted into 100 percentages. Collected data were transferred to Statistical package for social sciences (SPSS) version 16 and analyzed based on the research problem, objectives and variables. The Chi-squared test and cross tabulation were performed to analyze the data. P-value for statistical significant was set to 0.05.

III. RESULTS AND FINDINGS

Table 1: Socio-demographic data of participants

Variables (n=300)	Number	Percentage (100%)
Sex		
Male	109	36.3
Female	191	63.7
Ethnicity		
Tamil	140	46.7
Sinhala	90	30.0
Muslim	62	20.7
Burger	08	2.6
Religion		
Hindu	134	44.7
Buddhist	80	26.7
Islam	62	20.6
Christian	24	8.0
Faculty		
FHCS	22	7.3
Science	70	23.3
Agriculture	20	6.7
Commerce & Management	54	18.0
Arts & Culture	72	24.0
SVIAS	62	20.7
Source of information		
Books	219	73.0
Newspaper	228	76.0
Television	192	64.0
Health related poster	183	61.0

Among the 300 participants, 36.3 % were male and 63.7 % were female. 46.7 % of them were Tamil, 30 %, 20.7% and 2.7% were Sinhalese, Muslims and Burgers respectively. Majority of the students were Hindu. The sources of information books, newspaper and television 73%, 76% and 64% were respectively. Table 1 gives the percentage distribution of participants' socio demographic characteristics.

Table 2: Knowledge about mode of transmission, Signs & symptoms and prevention of HIV/AIDS

Variables (n=300)	Yes (%)	No (%)	Don't know (%)
Transmission			
Sex with infected person	83.1	4.3	12.5
Blood transfusion	74.4	8.4	17.2
Mother to child	71.1	7.1	21.2
Mosquito bites	19.9	49.8	30.3
Kissing	23.1	53.8	23.1
Breast feeding	53.8	7.7	38.5
Signs & Symptoms			
Purulent discharge from genitalia	83.0	10.7	6.3
Burning sensation during urination	51.4	24.1	24.5
Redness in genitalia	66.7	12.3	21.0
Swelling of genitalia	68.3	15.2	16.5
Ulcers in genitalia	70.4	11.3	18.3
Sub fertility	31.2	35.8	33.0
Preventive methods			
Avoid sex with			
-Sexual workers	69.7	7.6	22.7
-Multiple partners	80.6	6.0	13.4
Avoid Homosexual	46.3	18.4	35.3
Using condom	73.1	6.0	20.9
Avoid kissing	20.5	38.6	40.9
Using antibiotics before sex	30.2	34.4	35.4

All male and female participants were aware that AIDS is a sexually transmitted disease. Most of the participants were aware of sex with infected person (83.1%), blood transfusion (74.4%) and mother to child through placenta (71.1%) as the mode of HIV/AIDS transmission. Majority of the participants were aware purulent discharge from genitalia (83%), Redness in genitalia (66.7%) and ulcers in genitalia (70.4%) as the signs and symptoms of HIV/AIDS. Most of the participants were aware of preventive methods of HIV/AIDS such as avoid sex with sexual workers (69.7%), using condom (73.1%). Nearly half of the participants were aware avoid homosexual as preventive method. Table 2 gives the detail response of participants about mode of transmission, Signs & symptoms and prevention of HIV/AIDS.

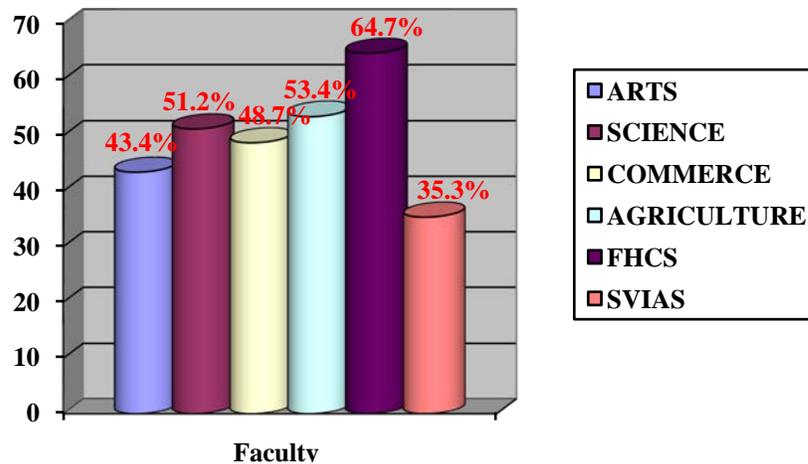


Figure 1: Mean HIV/AIDS knowledge score in different faculties

The mean knowledge score regarding AIDS among first year students of the Eastern University was 43.7%. Mean percentages of HIV/AIDS knowledge score were in different faculties as follows: Arts (43.4), Science (51.2), Commerce (48.7), Agriculture (53.4), Faculty of Health-Care Sciences (FHCS) (64.7) and Swami Vipulananda Institute of Aesthetic Studies (SVIAS) (35.3). FHCS students had more knowledge than other faculties' students. Figure 1 shows the mean HIV/AIDS knowledge in different faculties.

Table 3: Significance levels for significant variables

Significant variables	P-Value
Gender	0.007
Ethnicity	0.004
Faculty	0.027
Stream of A/L study	0.049
Source of information	0.037

There was a significant association between mean knowledge scores of AIDS and gender, ethnicity, faculty, stream of A/L study, and source of information obtained ($p < 0.05$).

IV. DISCUSSION

The present study evaluated the socio-demographic factors influence on knowledge of HIV/AIDS among first year Eastern University students. The increasing number of reported HIV/AIDS positive cases in Sri Lanka became a major health issue and negatively affected public health. This emerging spread pushed the students to learn more about HIV/AIDS. The Americans and Europeans investigators also found that students are more interested to know about HIV/AIDS when AIDS epidemics occur before one decade ago (Herlitz & Brorsson, 1990; Rich, Holmes, & Hodges, 1996; Gallup Organization, 1988). In this study, all the students were aware that HIV/AIDS is a sexually transmitted disease and a threat to society, but a considerable proportion of the students answered that HIV/AIDS is a curable disease, consistent with Agrawal et al. (1999) study and can be attributed to the many false claims published in media and other modes of advertisements. Misinformation concerning a "cure" for AIDS is one of the risk factors for contracting the disease. The present study revealed that the mean knowledge score regarding HIV/AIDS was average, but Nasir et al. (2008) study claimed that moderate to good overall knowledge. This study found that female students had more knowledge than male students; the difference is small, similar to reports from Tavosi et al. (2004), Brook (1999) and Green (1991). However, Agrawal et al. (1999) found that boys had better knowledge than female students and their explanation for this finding was that boys feel free than girls to talk about matters relating to sex and HIV/AIDS. The media is the important source to obtain the knowledge regarding the disease, but the information should be accurate and easily understandable by all levels of the public. It was noticed that books (73%) and newspaper (76%) played a major role as the sources of information about AIDS. In addition, many of them gathered knowledge by watching television (64%). In a similar study, they found that the main sources of knowledge were lectures (61%), media (44%), and health care workers (39%) (Nasir et al., 2008). According to the data from this study, most of the students were aware of transmission methods of AIDS such as "Sex with infected person" (83.1%), "Blood transfusion" (74.4%), "From mother to child" (71.1%). Majority of them answered as "Yes". But they were not aware about "homosexual" (30.3%). In a similar study, it was found that "Blood transfusion" (96.1%), "contaminated sharp instruments" (93.9%) were the transmission methods for HIV/AIDS (Nasir et al., 2008). In this study, the preventive methods of HIV/AIDS were "abstain from sex" (69.7%), "usage of condom during intercourse" (73.1%) and

“having sex with one partner” (80.6%). In a similar study found that nearly half of adolescents were aware that using condoms could minimize the risk of contracting HIV/AIDS (Nasir et al, 2008). In general, awareness on preventive mechanisms increased with age. More boys than girls aware of these methods overall knowledge on preventive methods improved with rising socio economic status.

V. CONCLUSION AND RECOMMENDATION

The knowledge regarding HIV/AIDS was average among majority of first year students of the Eastern University but need improvement in some aspects especially some transmission methods of AIDS such as homosexual. The students should be instructed all the aspect of AIDS by media. Most of the student knew common symptoms of AIDS and preventive methods but they are lack knowledge in some specific areas. The students who studied science stream in their advanced level they had better knowledge than other streams because they learned some knowledge about AIDS. There are considerable rationales to include HIV/AIDS education as an integral part of the school curriculum as well as university curriculum (Krasnik&Wangel, 1990; DiClemente, 1993; Holtzman et al,1994). Health education programs have to be done for students regarding the primary prevention and consequences of AIDS, especially students who are studying at faculty of arts, SVIAS and commerce by physicians, Nurses and Educational advisors.

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