

## ORIGINAL ARTICLE

# RISK BEHAVIORS ASSOCIATED WITH HIV/AIDS AMONG UNIVERSITY STUDENTS IN KONYA

Namaitijiang Maimaiti<sup>1</sup>, Muharrem Metin Sener<sup>2</sup>, Hasan Huseyin Tekin<sup>2</sup>

<sup>1</sup>Department of Public Health, Faculty of Medicine, Ankara Yıldırım Beyazıt University, Turkey

<sup>2</sup>Department of Social Work, Faculty of Health Science, Necmettin Erbakan University, Konya Turkey

### Corresponding address

Assistant prof.Dr Namaitijiang Maimaiti

Department of Public Health, Faculty of Medicine Ankara Yıldırım Beyazıt University

Üniversiteler Mah. İhsan Doğramacı Bulvarı No:6 Ankara Atatürk Eğitim Araştırma Hastanesi Yanı, BİLKENT, ÇANKAYA / ANKARA

Turkey, Email: [nametjan@gmail.com](mailto:nametjan@gmail.com)

### ABSTRACT

*The epidemiology of sexually transmitted diseases suggests a heightened risk for young adults, especially university students. Unsafe sexual behaviors are one of the high risk factor for HIV transmissions. The study aimed to explore high risk behaviors associated with HIV/AIDS among health science student in Konya, Turkey. A cross-sectional survey was conducted in October 2016 among 246 undergraduate students in Health Science faculty, Necmettin Erbakan University. A self-administered standard questionnaire was used for data collection. Socio-demographic distribution was described using frequency and percentage and Chi-square test was used for analysis of the risk factors. Among the 246 participants in this study, the mean age of the participants was  $19.8 \pm 1.7$ , ranged from 18 to 38 years old. Majority of the respondents were female 76% (187). There were 84 (34.1%) respondents from department of nursing, 78 (31.7%) of them were from department of Health Management, 61 (28.8%) of them were from department of social work and 23 (9, 3%) of them were from department of nutrition and dietetics. 13.3% of all respondents had at least 1 risk behavior related to HIV/AIDS transmission. About 4% reported having unprotected sex (sex without condom); 2.4 % had unprotected sex more than 1 sexual partner; 1.4 % had unprotected sex with someone whose HIV status is unknown; 2.8 % had sex with sex workers, and 2.8% had sex under the influence of alcohol; 2.4% had sex by forced against their will. The study found that 13.3% of them reported having at least one high-risk behavior related to sex and unprotected sex.*

**Key words:** HIV/AIDS, Sexual Health, Risk Behaviors, Unprotect Sex, Sexual Disease, Konya Turkey.

### INTRODUCTION

HIV/AIDS remains one of the world's most significant public health challenges, particularly in low- and middle-income countries and continues to be a major global public health issue, having claimed more than 35 million lives so far. In 2015, 1.1 (940 000-1.3 million) million people died from HIV-related causes globally<sup>1</sup>. Over half of all new infections worldwide were among young people between the ages of 15 and 24 years. Every day, 6,000 young people become infected with HIV more than five every minute<sup>2</sup>. In the United States, half of all new infections are estimated to be among people under age 25 years and the majority of young people are infected sexually<sup>3</sup>. In 2013, four million young people aged 15-24 were living with HIV, with 29% aged under 19<sup>4</sup>. AIDS remains the number-one killer of adolescents in Africa and the second-leading cause of death among adolescents worldwide<sup>5</sup>. Unprotected sex is the most common cause of HIV among young people, with sharing infected needles second<sup>6</sup>. Adolescence is often associated with experimentation of risky sexual and drug-related behaviors, increasing a young person's vulnerability to HIV. For some, this is a result of

not having the correct knowledge about HIV and how to prevent it, highlighting the need for HIV and sexual and reproductive health education. For others, it is the result of being forced to have unprotected sex, or to inject drugs<sup>7</sup>.

There are many studies reported on unsafe sex among youth in different parts of the world. A study from Canada reported that among the 542 male participants recruited, 27.7% reported involvement in survival sex. HIV risk factors independently associated with such involvement were injection drug using partners, unprotected oral sex with male partners, steroid injection, history of sexual abuse, and drug injection<sup>8</sup>. Another study reported that Students in the study sample engaged in various HIV risk behaviors but have a poor appreciation of their risk of HIV infection. While low rates of condom use were a problem among older students, multiple partnerships were more common among younger students, and marijuana and alcohol use were related to low condom use<sup>9</sup>. A study was conducted among sexually active student in universities in Zimbabwe and the study findings shows that a quarter of the respondents felt at risk of getting HIV due to their regular partners'

sexual behaviors and more than half felt at risk of getting HIV due to their casual partners' sexual behaviors<sup>10</sup>. Gamze and her colleagues conducted a study on HIV/AIDS among university students and they reported that half of the male students had sexual intercourse while 11% female students had sexual intercourse as well and majority who had sexual intercourse did not use condom when they had sex<sup>11</sup>. The college environment offers great opportunity for HIV high-risk behaviors, including unsafe sex and multiple partnerships. While the overall incidence of HIV infection has seen some decline in recent years, rates of HIV infection among young adults have not seen a proportionate decline<sup>12</sup>. The study aimed to explore high risk behaviors associated with HIV/AIDS among health science student in Konya, Turkey.

## MATERIALS AND METHODS

### Study design and Sample

A cross-sectional survey was conducted using self-administered questionnaires among 246 university students registered for health science degree programs in health science faculty of Necmettin Erbakan University (NEU) in Konya of Turkey.

### Data collection

Students were informed of the study prior to their class sessions and were encouraged to participate. Those who agreed to participate were asked to complete a set of questionnaires. The questionnaires were distributed to the students at the end of their scheduled class sessions with cooperation of the lecturer in charge. The questionnaires were completed in class and took an average of fifteen minutes to complete. The completed questionnaires were retrieved immediately after the sessions.

### Study location

This study was conducted in Konya city of Turkey. Konya is in the Middle of Turkey and one of the largest cities in the country. There are two public universities and two private universities in Konya. This study was carried out in Faculty of Health Science, Necmettin Erbakan University (NEU). The university has fourteen faculties with 30,351 students.

### Questionnaire

The study instrument was a self-administered questionnaire which comprised of two parts. First part was related to respondent's socio-demographic background and second part on high risk behavior or practice related to HIV/AIDS transmission. The questions on high risk behaviors had 10 items; the questionnaire was adopted from previous study<sup>13</sup>. The English questionnaire was translated into Turkish language and translated back into English. Prior to the survey, the questionnaire was pre-tested to assess its clarity, sequencing and time needed to complete. Pre-

test of questionnaire was done on twenty respondents who were chosen to ensure that the questions are easily understood. The result of the pre-test was used to improve the phrasing of questions in the questionnaire. Questionnaire validation tests showed that the Alpha Cronbach was 0.80 for risk behaviors.

### Scoring

High risk behavior or practice was assessed using a Yes/No 10- item questionnaire. If respondents say no, they were given a score of 1 while for yes response was scored 0. If the respondents report of at least one negative behavior related to HIV transmission is considered as having high risk behavior.

### Data Analysis

Descriptive statistics were used to describe the study population. Independent t-test was used to compare risk behaviors factors between different group in terms of their gender and their marital status. Anova test was used to compare risk behaviors between age groups, years of the study and department.

### Ethics consideration

We have obtained approval from the faculty to conduct the study. Prior to data collection, all study participants were given information on the study and assured that all data is confidential and will only be analyzed as aggregates. All respondents signed the informed consent form before participation.

## RESULT

Data analysis was done using Statistical Package for Social Sciences (SPSS) Version 21. We described socio-demographic distribution using frequency and percentage and for analysis of the risk factors, we used the Independent t-test and Anova test.

### Response Rate

Two hundred forty six agreed to participate and completed the questionnaire after open recruitment of students in the selected departments at the health science faculty of NEU. Thus we achieved hundred percent of the sample size we set for our study.

### Student's profile

The mean age of the 246 respondents was  $19.8 \pm 1.7$  years, and ranged from 18 to 38 years. In terms of departments, there were 84 (34.1%) participants from nursing department, 78 (31.7%) participants were from health management department, 61 (28.8%) participants were from department of social work and 23 (9, 3%) of them were from department of nutrition and dietetics. 123 (50%) of the participants were first year students, 96 (39.0%) of them second year and 27 (11.0%) of them third years students. Majority of the participants (76%) were female.

# Risk Behaviors

In this study 13.3% of all participants had at least 1 risk behavior related to HIV/AIDS transmission. About 15% of respondents smoke; 6.1% go to night club regularly; nearly 10% drink alcohol; 1.2% have been treated for a sexually transmitted infection; 4.1% reported having unprotected sex (sex without condom); 2.4% had more than 1 sexual partner and had unprotected sex; 1.6% reported having sex with someone whose HIV status is

unknown to them; 2.8% reported having sex with sex workers; 2.8% reported having sex under the influence of alcohol; 2.4% reported having sex against their will. The difference by sex and age was statistically significant ( $p=0.00$ ) male group was at higher risk compare to female and elder age group was at higher risk than younger age group. We found no significant behavior difference between years of study ( $p=0.46$ ) and departments ( $p=0.07$ ).

**Table 1 Distribution of risk behaviors related to HIV/AIDS for all respondents and by sex, study major, year of study and departments**

| Factor                  | N   | Risk Behavior |        |     |        | P Value |
|-------------------------|-----|---------------|--------|-----|--------|---------|
|                         |     | Yes           |        | No  |        |         |
|                         |     | f             | %      | f   | %      |         |
| All                     | 246 | 73            | (29.7) | 173 | (70.3) |         |
| Sex                     |     |               |        |     |        |         |
| Female                  | 187 | 48            | (25.6) | 139 | (74.4) | 0.00*   |
| Male                    | 59  | 25            | (42.3) | 34  | (57.7) |         |
| Age                     |     |               |        |     |        |         |
| 18                      | 33  | 1             | (0.4)  | 245 | (99.6) | 0.00**  |
| 19                      | 84  | 31            | (12.6) | 215 | (87.4) |         |
| 20                      | 68  | 46            | (18.7) | 200 | (81.3) |         |
| 21 and above            | 61  | 41            | (16.7) | 205 | (83.3) |         |
| Year of Study           |     |               |        |     |        |         |
| First                   | 123 | 33            | (26.8) | 90  | (73.2) | 0.46**  |
| Second                  | 96  | 35            | (36.4) | 61  | (63.6) |         |
| Third                   | 27  | 5             | (18.5) | 22  | (81.5) |         |
| Department              |     |               |        |     |        |         |
| Health                  | 78  | 28            | (35.8) | 50  | (64.2) | 0.07**  |
| Management              |     |               |        |     |        |         |
| Nutrition and Dietetics | 23  | 7             | (30.4) | 16  | (69.6) |         |
| Nursing                 | 84  | 24            | (28.5) | 60  | (71.5) |         |
| Social Work             | 61  | 14            | (22.9) | 47  | (77.1) |         |

\*Independent t- test; \*\*ANOVAs test (significant at the 0.05 level)

# DISCUSSION

Finding of the study shows that around 13% of the students in the study had at least one risk behavior related to unprotected sexual exposure. The finding is similar to a study the Knowledge, attitude and practice among university students in Xinjiang made by Namaitijiang.M and his colleagues<sup>13</sup> but this is much lower that a survey reported that Two-thirds of sexually active students have had unprotected sex<sup>14</sup>. Around 4% students had sex without a condom in our study this was much lower that the study Sexual Risk Behavior among Kenyan University Students, the study reported that 76% students ever using a condom when they had sex<sup>15</sup> also another study the Knowledge about HIV/AIDS and Reported Risk Behaviors among Freshmen of the University of Port Harcourt, Port Harcourt, Southern Nigeria, the reported that 90.2% had unprotected sex<sup>16</sup>. We have also found that 2.4 % students had unprotected sex (sex without a condom) with

more than one sex partner, this is lower than a the data in cross -sectional study about sexual behaviors and associated factors among students at Bahir Dar University which reported that university students having multiple sexual partners was 48.5% and 23.5% in males and females, respectively<sup>17</sup> and another study reported that up to 30.14% of sexually experienced respondents have had sex with a person other than their current partner in the past 12 months<sup>18</sup>. The study found that 1.6% had unprotected sex with someone whose HIV status is unknown to them; this is also very much lower that a study reported that among sexually experienced respondents, 54.9% were perceived multiple partnerships as a risk of HIV infection<sup>19</sup>. The high risk sexual behaviours among university students in Konya was not very high when we compare our study studies but it does not mean that the students are safe compare to students in different parts of the world.

# CONCLUSION

About 13% of these students reported having at least 1 high risk behavior related to sex and unprotected sex. Male respondents of the study had more high risk behavior compare to female. In view of the limited extent of HIV/AIDS awareness and safe sex programme at the universities, the universities should increase their HIV/AIDS health education efforts to all students to prevent HIV/AIDS and other sexual transmission disease.

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