



Sexual health behavior of adolescents: A school based study conducted in Kathmandu district of Nepal

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ABSTRACT

Adolescent (10-19 years) is a transitional phase of life marked by vulnerability to various risky sexual behaviors. The main aim of this study was to assess the sexual health behaviors of adolescent studying at grade nine and ten in a school of Kathmandu district, Nepal.

A school based, descriptive cross-sectional study was carried out among all students (n=133 adolescents) aged 14 to 18 years studying at grade nine and ten. A structured self-administered questionnaire was adopted as a data collection technique. The data was entered into Statistical Package for Social Sciences (SPSS) version 16 and analysis was done by using simple descriptive and inferential statistics. The p-value less than 0.05 (5% level of significance) was considered to be statistically significant.

Almost 66.9% of adolescents were aware about the concept of safer sex and 9% adolescents had done sexual intercourse. The median age at first sexual exposure was found to be 15.0 years. Majority (88.7%) of the respondents had no parent-child communication at home on matters related to risky sexual behavior. The late aged adolescents were more sexually exposed than the middle aged adolescents but condom use at first sexual exposure was found more among middle aged adolescents. Almost 91.66% of sexually exposed adolescents were male. The sex of the respondents, peer pressure to have risky sexual behavior, age categories were found as important factors for the sexual initiation of the adolescent groups. Therefore, peer groups approach should be designed and implemented for bringing desirable change in adolescents' sexual practice.

Keywords: Adolescents, School Based, Sexual Health Behaviour

INTRODUCTION

According to World Health Organization (WHO), adolescent is a transitional period of life ranging from 10 to 19 years.¹ While United Nations Children Fund (UNICEF), defines adolescent people in three stages: early (10-13 years), middle (14-16 years) and (17-19 years) and youth as a person aged 10-24 years. Around one in six person in the world is an adolescent that is 1.2 billion population of the world is of

adolescent groups² of which about 85% live in developing countries including Nepal.³

At present adolescent's account for 24.17% of total population of Nepal.⁴ Sexually Transmitted Infections including HIV/AIDS are increasingly victimizing young people because of their risky sexual behavior. A study revealed that the prevalence of pre-marital sex was high (18.32%) among school adolescents. The same study suggests that it was more common among

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boys (25.8%) than girls (9.2%).⁵ Another study also suggests that 39.0% of male college students of Kathmandu, Nepal had pre-marital sex. The same study had also shown that a substantial proportion of students were indulging in risky sexual activities. The study showed that less than two in five students had used condom at their first sexual exposure.⁶

The above evidence shows that adolescents have risky sexual behaviors'. Therefore, it is quite important to undertake a study for exploring their understanding about the concept of safe sexual practice, their actual sexual health behaviors so that preventive efforts can be organized for solving their sexual reproductive health problems in time. The main aim of this study was to assess the sexual health behaviors' of adolescents aged 10-19 years in Aakash Deep English Secondary School of Jorpati Village Development Committee (VDC), Kathmandu, Nepal.

MATERIALS AND METHODS

A school based, descriptive cross-sectional study was carried out over a period of 15 days from 1st to 15th March 2014. All the adolescents (n=133) studying at grade nine and ten in Aakash Deep English Secondary School of Jorpati Village Development Committee (VDC), Kathmandu, Nepal were the study population. The study area was selected purposively. Unwillingness and unavailability of students at the time of data collection were taken as the exclusion criteria for the study. A structured questionnaire consisting of socio-demographic information and HIV/AIDS related sexual behavior was developed. After the development of questionnaire, pre-testing was done among 15 secondary level students of Manakamana Higher Secondary School situated at Jorpati VDC, Kathmandu, Nepal. During pre-testing no any significant changes were observed. So, the final version of questionnaire was developed and used for data collection implementing the self-administered questionnaire technique by the co-author himself.

But prior to startup of data collection process, ethical clearance was obtained from Ethical Review Committee of Nepal Institute of Health Sciences (NIHS). And also, permission for data collection was taken from the respective school. The subjects were

oriented about the purpose and objectives of the study and verbal consent was taken from each of the subject before data collection. The subjects were further assured about the use of the information to this study only. The subject's willingness of not participating in the data collection process was respected and any kind of physical and psychological harm was not caused to them. Also the subjects were not forced to participate unwilling in the study. As a result, all of the subjects participated well in the study. Furthermore, in order to maintain the privacy and confidentiality of the respondents all the questionnaire were distributed with sealed envelopes and were instructed to return back the filled questionnaire on the same day.

The collected data was checked and organized for its completeness and consistency. The coding of the independent as well as dependent variables was done and data was entered into SPSS version 16. The analysis was done by using simple descriptive statistics like percentage, frequency, mean, standard deviations median and range. The Chi-Square and Fisher Exact Test was applied for establishing the association whereas the Odds Ratio (OR) was employed for estimating the strength of association.

The p-value less than 0.05 (5% level of significance) was considered to be statistically significant. The analyzed data was presented in tables and narrative forms.

RESULTS

Socio-demographic characteristics of the respondents

Out of 133 respondents, more than half of the respondents (52.6%) were female. The sex ratio of the respondents was 90. Majority (53.4%) of the students were of grade IX. Majority 91.7% belonged to middle aged category (14-16 years) while remaining 8.3% were late adolescent groups (17-19 years). The mean age of the respondents with SD was 15.4 ± 0.7 years. The minimum and maximum age of the respondents was 14 and 18 years respectively. Majority of the respondents (75.2%) followed Hindu religion. Regarding ethnicity status of the subjects, 36.1% were Janajati, 32.3% were Chhetri, 27.8% were Brahmin and rest 3.8 were dalit and others. (Table 1)



Table 1 Distribution of Respondents according to Knowledge on Transmission and Prevention of HIV/AIDS

| S.N. | Socio-demographic information (n=133) | Frequency | Percent |
|------|--|-----------|---------|
| 1. | Sex | | |
| | Male | 63 | 47.4 |
| | Female | 70 | 52.6 |
| 2. | Educational Grade | | |
| | Grade IX | 71 | 53.4 |
| | Grade X | 62 | 46.6 |
| 3. | Age in completed years (Mean age=15.4, SD=0.7 years and median age=15years) | | |
| | 14 | 10 | 7.5 |
| | 15 | 64 | 48.1 |
| | 16 | 48 | 36.1 |
| | 17 | 10 | 7.5 |
| | 18 | 1 | 0.8 |
| 4. | Religion | | |
| | Hindu | 100 | 75.2 |
| | Buddhist | 21 | 15.8 |
| | Christianity | 10 | 7.5 |
| | Muslim | 2 | 1.5 |
| 5. | Ethnicity | | |
| | Brahmin | 37 | 27.8 |
| | Chhetri | 43 | 32.3 |
| | Janajati | 48 | 36.1 |
| | Dalit | 3 | 2.3 |
| | Others | 2 | 1.5 |

Parent child communication on risky sexual behavior

Majority (88.7%) of the respondents had no parent-child communication at home on matters related to risky sexual behavior whereas only 11.3% used to have it. Out of these (11.3%) respondents, the subject matter discussed with their parent were about use of condoms during sexual intercourse (40.0%), Mode of transmission and prevention of STI's (53.3%) and remaining 19.5% had discussed issues related to HIV/AIDS.

Sexual health behavior related information

All of the respondents have heard about sexual intercourse. However, 66.9% of the respondents were aware about the concept of safer sex (Having sexual intercourse using condoms consistently). Of the total respondents, 9% (12 students) had done sexual intercourse. Among these 12 respondents exposed to sex, 83.3% had known about condom use while they had their first sex. The mean and median

age at first sexual exposure was 14.75 years with standard deviation of 1.86 and 15.0 years. The age at first sexual intercourse ranges from 10 to 17 years respectively. Half (50.0%) of the sexually exposed students had done sex with their girl/boyfriend. For the majority (41.6%) of the respondents curiosity and wanting to experience was the prime reason for having sex where as 33.4% were influenced by friends to have sex and among 25.0% of the respondents it happened suddenly.

Among those respondents (12 students) who had known about condom use during their first sexual intercourse, 80.0% had actually used it at their first sex and majority 87.5% had used it for the prevention of HIV infection. When 12 respondents were asked about the number of sexual partner they have till now, 58.3% responded that they had only one sexual partner, 33.3% had two to four sexual partners and 8.3% had more than four sexual partners. Of 133



respondents, 85.7% had never been pressurized to take risky sexual behavior. (Table 2)

Table 2 Sexual Health Behavior Related Information

| S.N. | Socio-demographic information | Frequency | Percent |
|------|---|-----------|---------|
| 1. | Knowledge about Safer Sex (n=133) (Having sexual intercourse using condoms consistently) | | |
| | Yes | 89 | 66.9 |
| | No | 44 | 33.1 |
| 2. | Ever done sexual intercourse (n=133) | | |
| | Yes | 12 | 9.0 |
| | No | 121 | 91.0 |
| 3. | Known about condom during first sex (N=12) | | |
| | Yes | 10 | 83.3 |
| | No | 2 | 16.7 |
| 4. | Used condom during first sexual intercourse (N=10) | | |
| | Yes | 8 | 80.0 |
| | No | 2 | 20.0 |
| 5. | Peer-pressure to have sexual risk behavior (N=133) | | |
| | Mostly | 6.0 | 4.5 |
| | Sometimes | 13 | 9.8 |
| | Never | 114 | 85.7 |

Bivariate analysis of factors

The sex of the respondents, peer pressure to have risky sexual behavior, age categories and parent child communication about sexual behavior are considered as important factors for the sexual initiation of the adolescent groups. The sex of the respondents, peer pressure to have risky sexual behavior and age categories were found to be statistically significant factors (p-value = 0.001, 0.000 and 0.009 respectively) for doing sexual intercourse. Male adolescents were found 14.596 times more likely to be sexually exposed ($X^2=10.382$ at $df = 1$, $OR=14.596$, $P=0.001$) than the females. Likewise, adolescents having peer pressure to undertake risky sexual behavior were found 33.30 times more likely to do sexual intercourse (Fisher's Exact Test =0.000, $OR=33.30$) than those adolescents who did not have the peer pressure. Similarly, the proportion of adolescents having sexual exposure in the middle aged (6.6%) and late aged (36.4%) adolescents are significantly different. That means the late aged

groups are highly sexually exposed than the middle aged groups (Fisher's Exact Test=0.009) whereas OR is 0.123. The factor like parent child communication on sexual behavior (yes vs. no) was not found to be statistically significant (Fisher's Exact Test=0.222) with doing sexual intercourse. But the proportion of adolescent having sexual exposure was notably higher among those adolescents having no parent to child communication regarding sexual exposure (10.2%). (Table 3)

The sex of the respondents, age categories and meaning of safer sex are considered as important factors for the usage of condoms at first sexual intercourse. But all of these factors were found to be statistically insignificant (p-value= 0.800, 0.533 and 0.5333 respectively). The middle aged adolescents were 3.0 times more likely to use condom at their first sexual intercourse (Fisher's Exact test= 0.533, $OR=3.0$) than the late aged adolescents. (Table 4)



Table 3 Factors Affecting Sexual Initiation

| SN | Predictors | | Ever done sexual intercourse with anyone | | Total | Statistical Values |
|----|---|-------------------------|--|------------|-------------|---|
| | | | Yes | No | | |
| 1 | Sex of the respondent | Male | 11 (17.5) | 52 (82.5) | 63 (100.0) | X ² =10.382 df=1 P=0.001* OR=14.596 |
| | | Female | 1 (1.4) | 69 (98.6) | 70 (100.0) | |
| | | Total | 12 (9.0) | 121 (91.0) | 133 (100.0) | |
| 2 | Peer pressure | Yes | 9 (47.4) | 10 (52.6) | 19 (100.0) | **Fisher's Exact Test, p=0.000* OR= 33.30 |
| | | No | 3 (2.6) | 111 (97.4) | 114 (100.0) | |
| | | Total | 12 (9.0) | 121 (91.0) | 133 (100.0) | |
| 3 | Age categories | Middle aged adolescents | 8 (6.6) | 114 (93.4) | 122 (100.0) | **Fisher's Exact Test, p=0.009* OR= 0.123 |
| | | Late aged adolescents | 4 (36.4) | 7 (63.6) | 11 (100.0) | |
| | | Total | 12 (9.0) | 121 (91.0) | 133 (100.0) | |
| 4 | Parent child communication on sexual behavior | Yes | 0 (0.0) | 15 (100.0) | 15 (100.0) | **Fisher's Exact Test, p=0.222 |
| | | No | 12 (10.2) | 106 (89.8) | 118 (100.0) | |
| | | Total | 12 (9.0) | 121 (91.0) | 133 (100.0) | |

Figures in parenthesis indicate percent value of corresponding frequencies: OR=Odds Ratio, df=degree of freedom, * indicate highly significant and ** indicate the expected count in one of the cell is <5. So Fisher's Exact Test is applied.

Table 4 Factors Affecting Condom Use at First Sexual Intercourse

| SN | Predictors | | Used condom at first sexual intercourse | | Total | Statistical Values |
|----|-----------------------|-------------------------|---|----------|------------|--|
| | | | Yes | No | | |
| 1 | Sex of the respondent | Male | 7(77.8) | 2 (22.2) | 9 (100.0) | P=0.800 |
| | | Female | 1 (100.0) | 0 (0.0) | 1 (100.0) | |
| | | Total | 8 (80.0) | 2 (20.0) | 10 (100.0) | |
| 2 | Peer pressure | Middle aged adolescents | 6 (85.7) | 1 (14.3) | 7 (100.0) | **Fisher's Exact Test, p=0.533* OR= 3.0 |
| | | Late aged adolescents | 2 (66.7) | 1 (33.3) | 3 (100.0) | |
| | | Total | 8 (80.0) | 2 (20.0) | 10 (100.0) | |
| 3 | Meaning of safer sex | Yes | 2 (66.7) | 1 (33.3) | 3 (100.0) | *Fisher's Exact Test, p=0.533 |
| | | No | 6 (85.1) | 1 (14.3) | 7 (100.0) | |
| | | Total | 8 (80.0) | 2 (20.0) | 10 (100.0) | |

Figures in parenthesis indicate percent value of corresponding frequencies: OR=Odds Ratio, ** the expected count in three of the cell is <5 and *the expected count in one of the cell is <5. So Fisher's Exact Test is applied.

DISCUSSION

This study showed that majority (88.7%) of the respondents had no parent-child communication at home on matters related to sexual behavior. This might be because of the fact that the issue of sexuality still remains a taboo in Nepal so Nepalese parent could be reluctant to talk about sexual matters

with their children. However, the peer pressure to undertake risky sexual behavior among adolescents was found to be statistically significant with having sexual exposure. As peer influence plays an important role in shaping the sexual behavior of adolescents and youths.



All of the respondents have heard about sexual intercourse. However, 66.9% of the respondents were aware about the concept of safer sex (Having sexual intercourse using condoms consistently). A study conducted in 2012, by Sah et al.⁷, found that only 26% of adolescents believe that safer sex is having sex with a single partner which is much lower than the findings of present study. Perhaps this might be because of the availability of varieties of technologies in the city like Kathmandu for updating one's knowledge.

The present study showed that 9% adolescents had done sexual intercourse which is lower than the findings of Paudel and Paudel⁸, (22.9% of adolescents were involved in pre-marital sex) and higher than the findings (4.2% had previous sexual intercourse) of Jaiswal et al.⁹ Similarly, Shrestha et al.¹⁰ found that involvement of almost 20% of adolescents in sexual activity. Likewise, prevalence of 19% and 18.3% was noticed from the findings of Alemayehu and Assefa¹¹ and Tekletsadik et al.¹² respectively. Furthermore, 39% of male college students of Kathmandu, Nepal had done pre-marital sex.⁶ The lower prevalence of pre-marital sex in this study could be due to involvement of adolescents studying at grade nine and ten whereas in other studies respondents were taken from grade 11 and 12.

The median age at first sexual exposure was 15.0 years which is consistent with the findings of Shrestha et al.¹⁰ As per that study, the median age of first sexual contact of adolescents aged 15-19 years was 15.35 years. While Adhikari and Tamang⁶ reported that the first sexual contact of male students ranged from 10 to 25 years. Similarly, Nepal Demographic and Health Survey¹⁴ have shown that median age at first sexual contact among men and women was 20.5 years and 17.7 years respectively. Kigombolar and Gotora¹⁵ have found that most (65.7%) pupils started to engage in sexual activities between the ages of 11 to 14 years. The finding of the present study is more or less consistent with the findings of Shrestha et al.¹⁰, lower than the NDHS statistics and higher than the Kigombolar and Gotora¹⁵ results. The late aged adolescents were more sexually exposed ($p=0.009$) than the middle

aged adolescent which is in line with the findings of Adhikari and Tamang.⁶ According to that study, older students aged 20 years and above were more likely to have pre-marital sex than compared with younger students aged 15 to 19 years.

Almost 91.66% of sexually exposed adolescents (12 students) were male which was also supported by the Chi-Square and Odds Ratio's findings; male adolescents having sexual exposure was significantly higher ($P=0.001$) than that of females. Shrestha et al.¹⁰ reported that 30.33 % male students were found to be sexually active compared to 3.70% of female students. This may be because of the cultural ideology of masculinity and what it means to be a 'man'. In Nepali culture men are not only encouraged to actively engage in sexual activity in order to prove their sexual capacity but also they are always considered good character person (even if they are engaged in pre-marital and extramarital affairs).

This study showed that half (50.0%) of the sexually exposed students had done sex with their girl/boyfriend which is supported by the findings of Kigombolar and Gotora.¹⁵ According to that study, 57.1% of adolescent students studying at grade six and seven were involved in sex with their fellow pupils. Similarly, another study done in Nepal by Jaiswal et al.⁹ revealed that 64.2% had sexual intercourse with friend and 35.17% had sexual intercourse with commercial sex workers. For the majority (41.6%) of the respondents curiosity and wanting to experience was the prime reason for having sex where as 33.4% were influenced by friends to have sex and among 25.0% of the respondents it happened suddenly.

Among those respondents (12 students) who had known about condom use during their first sexual intercourse, 80.0% had actually used it at their first sex which is acknowledged as safe sexual behavior. Alemayehu and Assefa¹¹ showed that 28.7% of sexually active in-school youths had used condom during their first sexual intercourse which is much lower than the result of present study. Yet, another study shows that almost 57% of male college students had used condom during their first sexual intercourse.⁶



In this study, 58.3% of the sexually exposed adolescents reported having only one sexual partner, 33.3% had two to four sexual partners and 8.3% had more than four sexual partners. However, Paudel and Paudel⁸ research showed that 85.2% had only one sexual partner and 14.8% had two and more partners whereas Shrestha et al.¹⁰ revealed that 46.49% had single sexual partner and 40.35% had two to five sexual partners when they had sex in the last one year.

Regarding association between sex of the respondents, age categories (middle aged vs. late aged adolescents) and meaning of safer sex with condom use at the first sexual exposure, these factors were found to be statistically insignificant (p -value=0.800, 0.533 and 0.5333 respectively) in this study. Perhaps, this may be because of lower sample sizes.

CONCLUSION

Almost seven (out of ten) adolescents were aware about the concept of safer sex and less than one adolescents out of ten had done sexual intercourse. The median age at first sexual exposure was found to be 15.0 years. The late aged adolescents were more sexually exposed than the middle aged adolescents but condom use at first sexual exposure was found more among middle aged adolescents. Nine out of ten sexually exposed adolescents (12 students) were male. Among those respondents (12 students) who had known about condom use during their first sexual intercourse, four-fifth of adolescents' had actually used it at their first sex which is acknowledged as safe sexual behavior. The sex of the respondents, peer pressure to have risky sexual behavior, age categories were found as important factors for the sexual initiation of the adolescent groups. Therefore, peer groups approach should be designed and implemented for bringing desirable change in adolescents' sexual practice.

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