Who's at Risk? Factors Associated to Risky Sexual Behaviour among College Students in Kathmandu, Nepal

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Abstract

Due to sensitivity of sexuality issue, students receive inadequate education, guidance and services on reproductive health. The paper aimed to determine the prevalence and investigate the factors associated to risky sexual behavior. A self-administered questionnaire was filled by the 1137 students. The observed associations with risky sexual behavior in bivariate analysis were reassessed in multivariate analysis. A higher proportion of sexually active boys (64%) than girls (21%) are involved in risky sexual behavior. Study found that more than half sexually active boys had sexual intercourse with multiple sex partners. Similarly a fifth boy had ever had sex with commercial sex worker. Condom use is very low among students. The study found that sex, level of education, marital status, working status, and parental status are the main predictors of risky sexual behavior. Male students were about 5 times (OR=4.6) more likely to be involved in risky sexual behavior than female students. Students who were studying Bachelor and Master degree education were 76 and 83 percent respectively less likely to be ever involved in risky sexual behavior than those who were studying intermediate level indicating that more educated students or an increased awareness about risky sexual behavior resulting in a lesser likelihood of involved in risky sexual behavior. Unmarried students were about 7 times more likely to be engaged in risky sexual behavior than married. College students are exposed to health hazards through their sexual behavior. The need for concerted efforts to educate students about sexuality education of all the aspects relating to HIV/AIDS with focus on safe sex practices including reduction of sexual partners, consistent condom use etc. This problem should be addressed early by targeting these groups of high risk students.

Background

The first case of HIV was reported in Nepal in 1988 and less than 20 years more than 70,000 adult and children became infected (NCASC, 2006). Increasing opportunities of sexual intercourse and non-use of contraceptives has increased the risk of unwanted pregnancy, abortion and STDs including HIV/AIDS. Due to sensitive issues adolescents and youth are not getting appropriate sexual education from their parent as a result they seek this knowledge from alternative sources such as friend and media that might not be accurate.

Educational level of parents, quality of parent child relationships, parent-child communication about sex and sexuality, and employment status of parent are family

characteristics that are found to have their influence on adolescent and youth sexual behavior (Jaccard, et.al.,1996; Black, et.al, 2001; Bakkend and Winter, 2002; Deleire and Kalil, 2002; Kalmus, et.al., 2003 and Markham, et.al., 2003). While children of better-educated parent can receive more knowledge on sexuality and postpone sexual intercourse, parent's supervision reduces when there is only one parent in house or when parent go out to work.

Other important factors that have been associated with risky sexual behaviors are socio-economic status. Adolescent having parent with lower socioeconomic status and living in single parent family were found to have high-risk behavior (Kalmus et.al., 2003). It was also seen that youths with few economic resources and those with less stable living environment were more likely than other youths to engage in sexual behaviors (Rwenge, 2000).

Peer, neighbor and schoolmates are also influential factors for adolescent development. A study in United States showed that the correlation of adolescent behavior with siblings was larger than with grade mate and neighbor correlations. Peer based correlations were also larger than grade mate and neighbor correlations. Thus the family and peer factors were more important than neighborhood and school contexts in affecting adolescent's achievement and behavior (Duncan et.al., 2001).Using contraceptive, becoming pregnant and bearing child were also directly influenced by peer norms and behavior (Kirby, 2001).Despite being an important determinant, the influence of family, peer on the youth risk behavior is least researched area in Nepal.

Thus it is desirable to know about their influence on students' sexual behavior in the Nepalese context so that it would be easier to set the priorities for intervention to prevent the high risk sexual behavior. The objective of this article is to analyze the prevalence and investigate the factors associated to risky sexual behavior among college students. More especially we hypothesized that level of education, living condition, use of substance, parent status and peers sexual behavior are associated with risky sexual behavior. This study population has been singled out for two reasons. First, students' sexual behavior is least researched area in Nepal. Second, the result could be useful to design appropriate college based interventions.

Data source and analytical approach

This is a cross sectional study that was carried out in April-May 2006. A self-administrated structured questionnaire was used to get reliable information due to sensitive nature of the study. Two stages of random sampling technique were used in the study. At the first stage 12 colleges located in Kathmandu district were selected randomly. At the second stage, from the each sampled college, two classes were selected randomly. All the students in the sampled class were requested to participate in the study. The survey collected information successfully from 1137 students (573 boys and 564 girls).

The questionnaire was first developed in English and then translated into Nepali language. It was pre-tested among the college students in non-selected college and necessary modifications were made. Most of the questions were closed, although a few open ended question were used.

All completed questionnaire were entered into a database immediately after they had been manually coded and validated. In the case of open-ended questions, coding was done after the completion of fieldwork. All the responses in open ended questions were listed for 100 randomly selected individual questionnaires and a code book was prepared. Data entry and validity checks were performed for all the questionnaires by using computer software dBase IV. After cleaning, the data was transferred into the SPSS statistical software package for further processing and analysis.

Participants' full verbal informed consent was obtained before their participation in the study. Consent form, written in the local language and using simple terms, was used. It describes the study objective, nature of the participant's involvement, risk and benefits and confidentiality of the data. Students were requested to read out consent form carefully. Participants were given clear options on whether to participate or not. It was also made clear that they could refuse to answer any question during the interview and terminate the interview at any time.

Confidentiality of information was ensured by removing personal identifiers from questionnaire. The names of sampled college were not made public and it is not possible for

anyone outside the research team to trace reported incidents of sexual behavior. In these ways, respondents were protected against any possible adverse repercussions of the study.

For the purpose of the present analysis, if any of the following criteria was met then it was considered as risky sexual behavior.

- Any sexual relationship with non-regular partners, or
- Sex with multiple partners, or
- Had sex with commercial sex workers, or
- Involved in male to male sex

Both bivariate and multivariate techniques were applied to identify the factors associated with the likelihood of having premarital sexual intercourse. Chi-square test was used to test an association. The variables that were significant at the bivariate level were re-examined in the multivariate analysis (Binary logistic regression) in order to identify the significant predictors after controlling other variables. During the process of analysis, multicollinearity among the variables was assessed and the least important variables were removed from logistic model.

Sexual Activities

A series of sexual behavior related questions were asked to the respondents. There was significant difference between boys and girls in reporting that they have ever had girl/boyfriend, kissed and dated. It is found that nearly three-fifths of the boys (56%) ever had girlfriend. While only about one-fourth of girls reported that they ever had boyfriend. More than half boys (57%) and one-fourth of girls (25%) had ever experienced of kissing. Similarly, as twice boys (46%) than girls (21%) reported that they ever experienced dating. About two fifths said that they ever had sexual intercourse. Nearly half of boys (47%) had sexual intercourse while only over a fourth girls (28%) reported so.

Risky sexual behavior

Sexual relationship with non-regular partners was quite high (30%) among the male than female students (6%). Condom use at first premarital sex was very low for both male (57%) and female students (45%). It is surprising to note that about half sexually active boys (47%) and a third sexually active girls (32%) reported that they had multiple sex partners. It is notable that about one third sexually active boys (31%) and about a fifth (18%) sexually active girls had three or more sex partners. The range of sexual partners for boys is 1 to 15.

Sexually active students were further asked whether they ever had sex with commercial sex worker or not and their condom use status. It is surprising to note that a fifth sexually active boy (20%) had ever had sexual intercourse with commercial sex worker. Consistence condom use is very low among these boys. Only less than a half boy (49%) who had sexual intercourse with CSW had reported that they used condom at every act of sexual intercourse. It is found that nearly one out of fourteen sexually active boys (7.1%) had sexual intercourse with boys.

Table 1   Risky sexual behavior

Indicators of Risky Sexual behavior	Male	Female
	% (n)	% (n)
Sexual relationship with non-regular partners	30.0 (269)	5.8 (159)
Use of Condom at the First Sexual Intercourse (all sexually active)	52.0 (269)	40.3 (159)
Use of Condom at the First Sexual Intercourse (Those who have premarital sex)	57.1 (224)	44.9 (69)
Number of sex partners (Range 1-15) (all sexually active)		
One	53.5	68.0
Two	20.1	14.5
Three and more	26.4	17.5
Average number of sex partners	*2.1*	*1.1*
Sex with Commercial sex workers (all sexually active)	**20.0 (269)**	**0.6 (159)**
Frequency of condom use with Commercial Sex Worker (CSW)		
Every act of sexual intercourse	49.0	100
Sometimes	45.5	-
Never	5.5	-
Men having sex with Men (Male=269)	7.1	na

Socio-demographic correlates with risky sexual behavior

A higher proportion of sexually active boys (64%) than girls are involved in risky sexual behavior. Table 2 shows clear relationship between ever involved in risky sexual behavior and students' current age, caste, level of education, marital status, permanent place of residence, types of current accommodation, working status, alcohol consumption, smoking habits, and parents status. For example, younger students (15-19 years) than older (20 and above years) were more likely to be ever involved in risky sexual behavior. Similarly, those who were studying intermediate level of education (69%) were more likely as the students who studying masters level (32%) to have involved in risky sexual behavior. Comparatively unmarried students were more likely to be engaged in risky sexual behavior. For example, nearly two thirds of the unmarried (66%) reported that they had ever involved in risky sex while the proportion was less than a fifth (19%) for married students. Those whose permanent residence was outside Kathmandu valley were more (50%) involved in risky sexual behavior then those whose permanent residence is Kathmandu valley. Similarly those students who live in Kathmandu without family member were more (56%) involved in risk behavior than those who live with their family members. In regard to smoking and alcohol consumption, those who have ever smoked and ever drunk were more involved in risky behavior than those who do not smoke and consume alcohol. Unlike other findings, the higher percentages of the students were involved in riskier sexual behavior who have both parents than those who have single/no parents.

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Table 2 Socio-demographic variables correlates with risky sexual behavior

	Sexual behavior		Number
	Risky	Not risky	
Sex of the respondents*			
Female	20.8	79.2	159
Male	64.3	35.7	269
Age group*			
Less than 20	62.9	37.1	116
20 and above	42.6	57.4	312
Caste/Ethnicity*			
Brahmin/Chhetri	43.6	56.4	243
Other	54.1	45.9	185
Level of education*			
Intermediate	69.3	30.7	88
Bachelor	47.6	52.4	233
Master degree	31.8	68.2	107
Marital Status*			
Married	19.4	80.6	165
Unmarried	66.2	33.8	263
Permanent place of residence*			
Outside valley	50.0	50.0	378
KTM valley	34.0	66.0	50
Type of current accommodation **			
With family members	40.6	59.4	224
Without family members	56.4	43.6	204
Working status*			
Not working	44.6	55.4	314
Working	57.9	42.1	114
Alcohol consumption*			
Never drunk	41.3	58.7	283
Ever drunk	61.4	38.6	145
Smoking habits*			
Never smoked	41.5	58.5	337
Ever smoked	72.5	27.5	91
Mass media exposure			
Low exposure	50.3	49.7	290
High exposure (all three medias)	43.5	56.5	138
Received RH education in school			
No	43.6	56.4	39
Yes	48.6	51.4	389
Parent status*			
Have single/no parents	28.0	72.0	25
Have both father and mother	49.4	50.6	403
Total	48.1	51.9	428

Note: ***= p<.001, **=p<.01, *=p<.05

These relationships observed in bivariate analysis were reassessed by logistic regression to identify adjusted association with the probability of involving in risky sexual behavior. The results are presented in Table 3. As can be seen in the table, sex of the student, level of education, marital status, working status and parent status were statistically significant predictors after controlling for other variables. Male students were about 5 times (OR=4.6) more likely to be involved in risky sexual behavior than female students. Students who were studying Bachelor and Master degree education were 76 and 83 percent respectively less likely to be ever involved in risky sexual behavior than those who were studying intermediate level indicating that more educated students or an increased awareness about risky sexual behavior resulting in a lesser likelihood of involved in risky sexual behavior (Table 2).

Unmarried students were about 7 times more likely to be ever engaged in risky sexual behavior than married students. Those students who have worked were 2 times more likely to be involved in risky sexual behavior than those who were not working. Those students who have both parents were more likely to be involved in risky sexual behavior then those who don't have both parents.

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Table 3   **Odd Ratio and 95% CI for having risky sexual behavior among college students**

Selected Predictors	OR	95% CI
Sex of the respondents		
Female (Ref.)	1.00	
Male	4.56***	2.48-8.41
Age group		
15-19 (Ref.)	1.00	
20 and above	1.12	0.55-2.27
Caste/Ethnicity		
Brahmin/chhetri (Ref.)	1.00	
Other	1.43	0.87-2.35
Level of education		
Intermediate (Ref.)	1.00	
Bachelor	0.24***	0.11-0.53
Master degree	0.17***	0.06-0.45
Marital Status		
Married (Ref.)	1.00	
Unmarried	7.44***	4.21-13.14
District		
Outside valley (Ref.)	1.00	
KTM valley	1.06	0.46-2.40
Type of current accommodation		
With family members (Ref.)	1.00	
Without family members	0.89	0.49-1.58
Working status		
Not working (Ref.)	1.00	
Working	2.24**	1.23-4.09
Alcohol consumption		
Never drunk (Ref.)	1.00	
Ever drunk	1.19	0.66-2.14
Smoking habits		
Never smoked (Ref.)	1.00	
Ever smoked	1.79	0.91-3.56
Parent status		
Have single/no parents (Ref.)	1.00	
Have both father and mother	11.43***	3.56-36.69
Constant	.018***	
-2 Log likelihood	406.2	
Cox & Snell R Square	0.353	

*Note: ***= p<.001, **=p<.01, *=p<.05*

Discussion and Conclusions

Objective of the paper was to examine the prevalence and investigate the factors affecting risky sexual behavior among college students in Nepal. The study found that some variables have significant effect on risky sexual behavior. This paper tried to shed light in this regard.

The findings of the study have some important programmatic implications. The result found that only about half of sexually active unmarried students used condom while having their first premarital sexual intercourse. This can increase negative consequences such as unwanted pregnancy, abortion and STDs including HIV/AIDS. It is important to provide information to these people with a school based family life education course that addresses their reproductive health needs, in a holistic manner.

Study found that more than half sexually active boys had sexual intercourse with multiple sex partners (more than one sex partners). Similarly a fifth boy had ever had sex with commercial sex worker. So program should focus to reduce partners and reduce having sex with commercial sex worker. The study also found that peer role is important to change attitude and behavior of persons. So the program should cover not only college students but also their peer out side of college youth.

The results highlight the need for concerted efforts to educate the students about all the aspects relating to HIV/AIDS with focus on safe sex practices including reduction of sexual partners, consistent condom use etc. Hence, there is need to plan and implement specific intervention program for the college students. Traditionally the focus of awareness and prevention program has been on high risk groups such as sex workers, truckers, IDUs, migrant workers etc. The evidence from our study highlights the need for expanding the scope of awareness and prevention program to include college students.

Acknowledgement

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