

Factors affecting premarital sex among Nepalese undergraduates

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ABSTRACT

Premarital sex is considered a social taboo and an immoral act in Nepal. However, there is a widespread view that young men and women are becoming more at ease in each other's company and beginning sexual experiences prior to marriage, putting them at risk of the consequences of unsafe sex. This research aims to evaluate the factors associated with premarital sexual behavior and its consequences among Nepalese college-going adolescents and youths. This cross-sectional web-based study included 415 Nepalese students over the age of 18 who were enrolled in a bachelor's degree program in a discipline other than health science. Data was collected from students online using a self-administered structured questionnaire. Pearson's chi-square (χ^2) and logistic regressions were used to examine the relationship between the independent and outcome variables. Most participants (61.7%) had dating experience and 21.2% had premarital sex. About three-fourths (76.1%) of participants had premarital sex before the age of 20 years and the ages of sexual debut ranged from 13 to 25 years. The major reasons for sexual debut were desire, curiosity, continuation of love relationship, and peer pressure. One-third of students (33.0%) reported having more than two sex partners, and 11.4% had intercourse with commercial sex workers. Among students who had premarital sex, 13.7% of participants or their sex partners, had to undergo abortions because of unintended pregnancies. Having an illiterate parent (AOR=11.0; 95% CI=2.01-60.87), high pocket money (AOR=4.2; 95% CI=1.1-16.2), increased dating culture (AOR=18.8; 95% CI=4.8-74.2), a close friend who has experienced premarital sex (AOR=5.2; 95% CI=2.21-12.21), and exposure to pornography (AOR=97.87; 95% CI= 9.5-10001.4) were predictors of premarital sex among Nepalese college students. This demonstrates the importance of sex and relationship education programs led by qualified peer educators in educating young people about safe sexual activity.

Key words:

consequences; factors; Nepal; students; premarital sex

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INTRODUCTION

Premarital sex refers to the act of engaging in sexual intercourse prior to marriage. In Nepal, premarital sex is considered a social taboo and an abominable act.¹ However, as society and culture have modernized, the attitudes of the younger generation toward sexual relationships have also evolved. There is also a belief that young men and women in Nepal are becoming more at ease in each other's company and are initiating sexual encounters before marriage.² Many young people's living circumstances today have changed, which has also affected their sexual behavior patterns. Premarital adolescent sexual activity is more prevalent in general due to earlier puberty, later marriage, a breakdown in the family that results in less control and more autonomy, intense exposure to sexual stimuli through the mass media, and cross-cultural travel.³

Prevalence of premarital sex varies across different regions, countries, and socio-cultural traits. According to an African study on adolescent sexual behavior and sexuality, 75.6% of the 1,072 respondents had prior sexual experience and one-third had been pregnant at least once.⁴ According to a community-based study of youngsters aged 15-24 years in the Pune district of Maharashtra, 16-18% of young men had sex.⁵ According to the Adolescent Reproductive Health Communication Midline Survey, a national survey in Bangladesh, 12.8% of respondents reported having had premarital sex at some point in their lives.⁶ According to UNICEF, nearly one in every five boys and nearly one in every ten girls interviewed had had a premarital sexual experience in Nepal.⁷ According to the factory research conducted in Kathmandu, 35% of unmarried boys and 16% of unmarried girls have had sex.⁸ A study of male college students in Kathmandu, Nepal

found that nearly two-fifths (39%) had premarital sex.⁹ These figures revealed that a considerable amount of Nepalese youths are engaging in premarital sex and risky sexual behavior, such as having multiple partners or not using a condom.^{10, 11} This could lead to unwanted pregnancies, increased sexually transmitted infections such as HIV infections, early marriages, premature death, mental stress, induced abortion, maternal fatalities, abandonment of the child, and even in some cases honor killings.^{10, 12}

The young people of Nepal are modeling their lives after those of their colleagues in Western culture. Young college students compete with one another to prove that they are more trendy, impressive, and so-called high-cultured. Many extant works of literature imply that various reasons are associated with the rising trend of premarital sex. As a result, adolescents are becoming increasingly vulnerable to the consequences of it. Adolescents in Nepal are deprived of accessing comprehensive reproductive health and sex-related education and services due to a lack of proper intervention. For that reason, this study aimed to investigate premarital sex and its consequences, as well as the factors associated with premarital sex among Nepalese college-going adolescents and youths.

METHODOLOGY

This was a quantitative web-based cross-sectional study executed among 415 Nepalese undergraduate students enrolled in any discipline except health science. The data was collected from 4th to 23rd November, 2021. Due to the rising cases of the COVID-19 pandemic and the sensitive nature of the study, the web-based survey was conducted as a self-administered structured questionnaire distributed as

Google form through Facebook, Twitter, and G-mail.

The sample size was calculated using the Cochran's formula, where the prevalence of premarital sex was taken as 0.4% from a similar study from Nepal¹³ with 5% margin of error, which gave a sample size of 369 participants. Further, considering a 10% non-response rate, the sample size was optimized to 406 but a few extra responses were also collected, leading to the final sample size of 415 for this study.

The questionnaire was developed after an extensive literature review by the research team. The tool was divided into five sections: socio-demographic characteristics, lifestyle and behavior perceptions, premarital sex experiences, and risky sexual behaviors and consequences. Following expert consultation, the generated questionnaire was used for pretesting in 10% of the total sample size, i.e., 42 participants. One college in Kathmandu was selected for pretesting and not included in final analysis. Pretesting was carried out among bachelor-level students from non-health streams to ensure the reliability of the developed instruments.

The data collected from the online survey was transferred to Microsoft Excel and exported to IBM SPSS Statistics

version 20 for further analysis. To describe each questionnaire response, simple descriptive statistical measures such as percentages, frequencies, and arithmetic means were performed. To analyze the association between the independent and the outcome variables, Pearson's chi-square (χ^2) and logistic regressions were done. Variables with p -values <0.05 in bivariate analysis were further entered into multiple logistic regression models and odds at 95% confidence interval were considered statistically significant.

RESULTS

Background characteristics of Participants

The age of the participants ranged from 18 to 26 years with a mean age of 21.3 ± 2.0 years. Of the participants, almost half (53.3%) were female. It was noted that business was the main source of income for most of the participants (40.2%) followed by service (21.7%). In the context of parental education, only 30.6% of the participants reported their father having higher education, whereas only 13.7% reported their mothers having higher education. (Table 1)

Table 1 Background characteristics of participants

Characteristics	Number (%)
Age	
≤20 years	152 (36.6)
>20 years	263 (63.4)
Mean age	21.29 (± 1.98) years
Minimum- maximum	18 to 26 years
Sex	
Male	194 (46.7)
Female	221 (53.3)
Religion	
Hinduism	391 (94.2)
Buddhism	17 (4.1)

Characteristics	Number (%)
Others	7 (1.7)
Caste	
Brahmin/ Chhetri	289 (69.6)
Janajati	92 (22.2)
Dalit	12 (2.9)
Others	22 (5.3)
Family income (monthly)	
< 10 thousand	23 (5.5)
10-20 thousand	80 (19.3)
20-50 thousand	175 (42.2)
> 50 thousand	137 (33)
Source of income	
Farming	81 (19.5)
Business	167 (40.2)
Service	90 (21.7)
Foreign employment	30 (7.2)
Daily wages	47 (11.3)
Father's education	
Illiterate	19 (4.6)
Primary level	59 (14.2)
Secondary level	111 (26.7)
Higher secondary level	99 (23.9)
Higher education	127 (30.6)
Mother's education	
Illiterate	59 (14.2)
Primary level	92 (22.2)
Secondary level	141 (34)
Higher secondary level	66 (15.9)
Higher education	57 (13.7)
Faculty of respondents	
Science and technology	188 (45.3)
Applied science	21 (5.1)
Management	139 (33.5)
Humanities	20 (4.8)
Education	47 (11.3)
Self-rated academic performance	
Excellent	78 (18.8)
Good	257 (61.9)
Fair	76 (18.3)
Poor	4 (1)

Characteristics	Number (%)
Accommodation style	
With family	283 (68.2)
With friends	41 (9.9)
Hostel/alone	91 (21.9)
Relationship with family	
Satisfactory	144 (34.7)
Good	264 (63.6)
Family dispute	7 (1.7)
Relationship with friends	
Good	331 (79.8)
Satisfactory	77 (18.6)
Poor	7 (1.7)
Pocket money (per day)	
< 100 Rs	164 (39.5)
100-300 Rs	186 (44.8)
300-500 Rs	30 (7.2)
>500 Rs	35 (8.4)
Smoking habit	
Yes	63 (15.2)
No	352 (84.8)
Alcohol consumption	
Yes	103 (24.8)
No	312 (75.2)

Experience of premarital sexual activities

In terms of participants' premarital sexual activities, more than half (61.7%) of the students reported having a dating experience. The majority (81.9%) claimed to be serious about relationships and 12.3% of students often practiced masturbation. Almost half of respondents (49.4%) had close friends who had experienced

premarital sex. Almost a quarter of the undergraduate students reported having experienced premarital sex, signifying its prevalence to be 21.2%. The age of sexual debut ranged from 13 to 25 years with more than three-fourths (76.1%) of participants having had premarital sex before the age of 20 years. (Table 2)

Table 2. Experience of premarital sexual activities

Variables	Male n (%)	Female n (%)	Total (%)
Experience of dating			
Yes	131(67.5)	125 (56.6)	256 (61.7)
No	63 (32.5)	96 (43.4)	159 (38.3)
Experience of kissing with opposite sex			
Yes	132 (68)	99 (44.8)	231 (55.7)
No	62 (32)	122 (55.2)	184 (44.3)
Practice of solitary sexual behavior (masturbation)			
Often	43 (22.2)	8 (3.6)	51 (12.3)
Sometimes	118 (60.8)	39 (17.6)	157 (37.8)
No	33 (17)	174 (78.7)	207 (49.9)
Have close friends who has experienced premarital sex			
Yes	123 (63.4)	82 (37.1)	205 (49.4)
No	71 (36.6)	139 (62.9)	210 (50.6)
Watch pornography related films/videos			
Often	12 (6.2)	1 (0.5)	13 (3.1)
Sometimes	153 (78.9)	64 (29)	217 (52.3)
No	29 (14.9)	156 (70.5)	185 (44.6)
Engaged in premarital sex			
Yes	66 (34)	22 (10)	88 (21.2)
No	128 (66)	199 (90)	327 (78.8)
Age at sexual debut (n=88), Age range 13 to 25 yrs.			
≤20	51 (77.3)	16 (72.7)	67 (76.1)
> 20	15 (22.7)	6 (27.3)	21(23.9)
Reasons for sexual debut*			
Desire/pleasure	25 (37.9)	4 (18.2)	29 (33)
Curiosity/interest of experience	34 (51.5)	8 (36.4)	42 (47.7)
Continuation to love relationship	18 (27.3)	11 (50)	29 (33)
Peer pressure	1 (1.5)	6 (27.3)	7 (8)
First sexual intercourse partner			
Girlfriend/boyfriend	54 (81.8)	19 (86.4)	73 (83)
Close friend	9 (13.6)	3 (13.6)	12 (13.6)
Commercial sex workers (CSWs)	3 (4.6)	0	3 (3.4)

*Multiple responses were allowed

Risky sexual behavior

One in three students (33%) had more than two sex partners among those who engaged in premarital sex, and 11.4%

had intercourse with commercial sex workers, all of whom were male participants. More than three-fourths of participants or their partners (76.1%)

reported using a contraceptive during intercourse, with condoms (56.8%) and

Table 3. Risky sexual behavior

emergency contraceptive pills (13.6%) being the most common methods. (Table 3)

Variables (n=88)	Male (%)	Female (%)	Total (%)
Number of sex partners			
One	32 (48.4)	13 (59.1)	45 (51.1)
Two	10 (15.2)	4 (18.2)	14 (15.9)
More than 2	24 (36.4)	5 (22.7)	29 (33.0)
Intercourse with CSWs			
Sometimes	10 (15.2)	0	10 (11.4)
Never	56 (84.8)	22 (100)	78 (88.6)
Use of contraceptive during sex			
Yes	49 (74.2)	18 (81.8)	67 (76.1)
No	17 (25.8)	4 (18.2)	21 (23.9)
Type of contraceptive used			
Condom	41 (62.1)	9 (40.9)	50 (56.8)
Pills	2 (9.1)	3 (13.6)	5 (5.7)
Emergency contraceptive pill (I pills)	6 (9.1)	6 (27.3)	12 (13.6)
Withdrawal	17 (25.8)	4 (18.2)	21 (23.9)

Consequences of premarital sex

Among students who had premarital sex, 21.6% had suffered the consequences of premarital sex, which included unwanted pregnancy (63.1%), regrets and guilt (73.7%), loss of respect (57.9%), and stress

and depression (31.6%). As a result of unwanted pregnancies, 12 (13.7%) participants or their spouses had to undergo abortions. Only half (50%) of those who had abortions did so in the presence of medical personnel. (Table 4)

Table 4. Consequences of premarital sex

Variables	Number (%)
Faced consequences	
Yes	19 (21.6)
No	69 (78.4)
Type of consequences faced* (n=19)	
Unwanted pregnancy	12 (63.1)
Loss of respect	11 (57.9)
Regrets and guilt	14 (73.7)
Stress and depression	6 (31.6)
Management of abortion (for those who aborted) n=12	
Abortion at home with abortion pills	4 (33.3)
Medical abortion in presence of medical professional	6 (50)
Traditional method	2 (16.7)

* Multiple answers were allowed

Association of premarital sex with socio-demographic characteristics

Bivariate analysis using the chi-square test between socio-demographic factors and premarital sex revealed that age, gender, monthly family income, and father's education were significantly

associated with premarital sex. However, other characteristics like religion, caste, mother's education, academic discipline, and performance did not show any significant relationship with premarital sex. (Table 5)

Table 5. Association between premarital sex and socio-demographic characteristics

Variables	Premarital sex		p-value
	Yes n (%)	No n (%)	
Age (Years)			
≤20	17 (11.2)	135 (88.8)	<0.001
>20	71 (27)	192 (73)	
Gender			
Male	66 (34)	128 (66)	<0.001
Female	22 (10)	199 (90)	
Religion			
Hindu	84 (21.5)	307 (78.5)	0.575
Non-Hindu	4 (16.7)	20 (83.3)	
Caste			
Brahmin/Chhetri	62 (21.5)	227 (78.5)	0.607
Janajati	19 (20.7)	73 (79.3)	
Dalit	4 (33.3)	8 (66.7)	
Others	3 (13.6)	19 (86.4)	
Monthly family income			
Less than 10 thousand	3 (13)	20 (87)	0.036
10-20 thousand	12 (15)	68 (85)	
20-50 thousand	33 (18.9)	142 (81.1)	
More than 50 thousand	40 (29.2)	97 (70.8)	
Father's education			
Illiterate	9 (47.4)	10 (52.6)	0.002
Secondary and below secondary level	26 (15.3)	144 (84.7)	
Higher education	53 (23.5)	173 (76.5)	
Mother's education			
Illiterate	15 (25.4)	44 (74.6)	0.408
Secondary and below secondary level	44 (18.9)	189 (81.1)	
Higher education	29 (23.6)	94 (76.4)	
Academic Discipline			
Science and technology	44 (23.4)	144 (76.6)	0.583
Applied science	2 (9.5)	19 (90.5)	
Management	30 (21.6)	109 (78.4)	

Variables	Premarital sex		p-value
	Yes n (%)	No n (%)	
Humanities	3 (15)	17 (85)	0.137
Education	9 (19.1)	38 (80.9)	
Academic performance			
Excellent	23 (29.5)	55 (70.5)	
Good	49 (19.1)	208 (80.9)	
Poor	16 (20)	64 (80)	

Association of premarital sex with student's attributes

Under bivariate analysis, factors such as pocket money, smoking habits, alcohol consumption, perception of premarital sex, opinion towards virginity, dating experience, having a close friend

who had experienced premarital sex, and exposure to pornography were significantly associated with premarital sex. However, among Nepalese students, accommodation style and family relationship did not appear to be associated with premarital sex. (Table 6)

Table 6. Association of premarital sex with student's attributes

Variables	Premarital sex		p-value
	Yes n (%)	No n (%)	
Accommodation style			0.121
Alone	22 (24.2)	69 (75.8)	
With friends	13 (31.7)	28 (68.3)	
With family	53 (18.7)	230 (81.3)	0.317
Relationship with family			
Good	62 (23.5)	202 (76.5)	
Satisfactory	25 (17.4)	119 (82.6)	<0.001
Family dispute	1 (14.3)	6 (85.7)	
Pocket money (NRs)			
<100	23 (14)	141 (86)	<0.001
100-300	40 (21.5)	146 (78.5)	
300-500	8 (26.7)	22 (73.3)	
>500	17 (48.6)	18 (51.4)	<0.001
Smoking habit			
Yes	33 (52.4)	30 (47.6)	
No	55 (15.6)	297 (84.4)	0.023
Alcohol consumption			
Yes	30 (29.1)	73 (70.9)	
No	58 (18.6)	254 (81.4)	<0.001
Perception on premarital sex			
Liberal	52 (39.4)	80 (60.6)	
Really don't know	22 (10.1)	195 (89.9)	<0.001
Conservative	14 (21.2)	52 (78.8)	

Variables	Premarital sex		p-value
	Yes n (%)	No n (%)	
Opinion towards girl's/boy's virginity			
Liberal	85 (23.2)	282 (76.8)	0.007
Conservative	3 (6.3)	45 (93.8)	
Dating experience			
Yes	85 (33.2)	171 (66.8)	<0.001
No	3 (1.9)	156 (98.1)	
Have close friend who has experienced premarital sex			
Yes	75 (36.6)	130 (63.4)	<0.001
No	13 (6.2)	197 (93.8)	
Exposure to pornography			
Often	9 (69.2)	4 (30.8)	<0.001
Sometimes	74 (34.1)	143 (65.9)	
Never	5 (2.7)	180 (97.3)	

Factors associated with premarital sex of Nepalese college going students

In the multivariate analysis, adjusting all the factors that were found to have a statistical significance with premarital sex in the bivariate analysis, it was observed that student's parental educations, pocket money, being in a relationship, peer influences, and exposure to pornography were found to be the important predictors of premarital sex among students. It was observed that students with an illiterate father were about 11 times more likely to have sex before marriage than those with higher levels of education (AOR=11.0; 95% CI=2.0-60.8). The amount of daily pocket money for students was revealed to be significantly associated with premarital sex, as students who receive more than 500 rupees were 4 times more likely to engage in premarital sex (AOR=4.2; 95% CI=1.1-16.2) than

those who receive less than 100 rupees. Premarital sex is more likely to occur when there is a higher dating culture, as seen by the higher likelihood of premarital sex among students who were in relationships (AOR=18.8; 95% CI=4.8-74.2). Another factor that was discovered to increase students' tendency to have premarital sex was peer influence. Students with close friends who had experiences of premarital sex were 5.2 times more likely to have premarital sex than those who did not have friends with such experiences (AOR=5.2; 95% CI=2.2-12.2). Exposure to pornography was also a predictor of premarital sex, with those who watched such films more often (AOR=97.8; 95% CI= 9.5-10001.4) and sometimes (AOR=7.6; 95% CI=2.5-23.3) were having premarital sex more frequently than those who did not watch it. (Table7)

Table 7. Factors associated with premarital sex of Nepalese college going students

Variable	UOR (95% CI)	<i>p</i> -value	AOR (95% CI)	<i>p</i> -value
Age				
≤20	0.341 (0.192-0.604)	<0.001	0.51 (0.23-1.14)	0.105
>20	Ref.		Ref.	
Gender				
Male	4.66 (2.74-7.93)	<0.001	1.45 (0.67-3.14)	0.343
Female	Ref.		Ref.	
Monthly family income				
Less than 10 thousand	Ref.		Ref.	
10-20 thousand	1.17 (0.30-4.58)	0.815	0.72 (0.11-4.35)	0.72
20-50 thousand	1.54 (0.43-5.52)	0.500	1.76 (0.336-9.293)	0.50
More than 50 thousand	2.74 (0.77-9.77)	0.118	1.53 (0.28-8.37)	0.62
Father's education				
Illiterate	2.93 (1.13-7.61)	0.026	10.97 (1.98-60.78)	0.006
Secondary and below secondary level	0.58 (0.35-0.99)	0.046	0.87 (0.417-1.827)	0.719
Higher education	Ref.		Ref.	
Pocket money (NRs)				
<100	Ref.		Ref.	
100-300	1.68 (0.95-2.94)	0.071	0.88 (0.39-2.00)	0.769
300-500	2.22 (0.88-5.60)	0.088	1.85 (0.53-6.42)	0.329
>500	5.79 (2.61-12.83)	<0.001	4.22 (1.10-16.23)	0.036
Smoking habit				
Yes	5.94 (3.35-10.52)	<0.001	2.12 (0.93-4.84)	0.074
No	Ref.		Ref.	
Alcohol consumption				
Yes	1.80 (1.07-3.01)	0.024	0.71 (0.33-1.53)	0.389
No	Ref.		Ref.	
Perception on premarital sex				
Liberal	2.41 (1.21-4.79)	0.012	1.667 (0.67-4.13)	0.270
Really don't know	0.41 (0.20-0.87)	0.021	0.61 (0.23-1.62)	0.323
Conservative	Ref.		Ref.	
Opinion towards girls/boy's virginity				
Liberal	4.521 (1.37-14.91)	0.013	0.668 (0.150-2.981)	0.597
Conservative	Ref.		Ref.	
Ever been in relationship				
Yes	25.848 (8.01-83.42)	<0.001	18.82 (4.77-74.16)	<0.001
No	Ref.		Ref.	

Variable	UOR (95% CI)	<i>p</i> -value	AOR (95% CI)	<i>p</i> -value
Has close friend who has experienced premarital sex				
Yes	8.743 (4.66-16.40)	<0.001	5.157 (2.17-12.211)	<0.001
No	Ref.		Ref.	
Exposure to pornography				
Often	81 (18.52-354.19)	<0.001	97.779 (9.54-1001.38)	<0.001
Sometimes	18.629 (7.33-47.30)	<0.001	7.598 (2.47-23.32)	<0.001
Never	Ref.		Ref.	

DISCUSSION

This study examined the nature and degree of sexual behavior among college students, as well as the association between premarital sexual behaviors and other socio-demographic factors. According to this study, one in every five (21.2%) students engaged in premarital sex. This proportion is lower than that found in a comparable study done in Kathmandu, Nepal, where it was found to be 39%.⁹ However, another study conducted in Jhapa, Nepal among upper secondary students revealed a consistent outcome at 25%.¹⁴ This might be as a result of the participants in this study being older than those in the prior study, as well as the sensitive nature of the subject, which resulted in underreporting.

According to our findings, more than three-fourths of respondents had their first sexual encounter before the age of 20. Similar findings were observed in a study conducted by the Center for Research on Environment, Health, and Population Activities (CREHPA) among young factory workers in Nepal, which found that the average age of first sexual experience among sexually active people was 15.6 years.¹⁵

We found that curiosity, peer pressure, pleasure, continuance of a love relationship, were the reasons for the students and their first sexual relationship.

Similar reasons were also shared by the study conducted among Indian college youth.¹⁶ We also observed that adolescents are participating in risky behavior, such as having multiple sex partners, with 11% of respondents having sex with commercial sex workers. This is consistent with another study of a similar nature from Pokhara, Nepal which revealed that 13.4% of male respondents had sex with female sex workers.¹⁷

Among the students who had experienced premarital sex, 12 (13.7%) participants/their partners had to undergo abortions because of unintended pregnancies. Among those who have undergone abortion, only 50% had a medical abortion in the presence of medical personnel. This was in line with a previous study from Nepal that found 16% of all respondents who engaged in premarital sex had to deal with an unwanted pregnancy. Of them, 53.8% underwent a surgical abortion method, while the remaining 46.2% underwent medical abortion.¹⁴ Similarly, a study conducted among university students from Ethiopia revealed that 15 (53.6%) of respondents had an abortion as a result of unwanted pregnancy.¹⁸

A previous study from Kathmandu¹⁹ discovered that late youths aged 20-24 years were more likely to engage in premarital sex than early youths of 18-19 years. However, in our study, bivariate analysis revealed a relationship

between the student's age and premarital sex (i.e., students under the age of 20 years seemed to be less engaged), but multivariate analysis did not reveal this relationship to be a protective factor.

In our study, bivariate analysis showed that males were more engaged in premarital sex than females. However, the results of the multiple logistic regression model did not show that gender differences had a role in young people's tendency for premarital sex. This outcome was in contrast with various previous studies from Nepal^{13, 17} and Ethiopia^{20, 21} which concluded that males were more likely than females to have premarital sex. This could be due to a shift in Nepalese attitude, since restrictions on girls hanging out with guys are being eased. Students with illiterate fathers were about 11 times more likely to have sex before marriage than those whose fathers had higher levels of education. This was consistent with a survey on Filipino adolescent attitudes toward premarital sex, which found that youth whose parents had no formal education were more likely to engage in premarital sex than those whose parents had at least some formal education.²² This could be as a result of the fact that educated fathers are more likely to educate their children about healthy sexual behavior and sex education than uneducated fathers because they themselves lack such knowledge.

The amount of daily pocket money for students was revealed to be significantly associated with premarital sex, as students who received more than 500 rupees were more likely to engage in premarital sex than those who received less than 100 rupees. This was consistent with earlier research from eastern Ethiopia which found that premarital sexual relation was more common among adolescents who received higher pocket money per month.²³ This is most likely due to the fact that young people with high pocket money have more opportunities to date girls and boys, party

all the time, and thereby increase their likelihood of having premarital sex.

While smoking and alcohol consumption were linked to premarital sex in our study's bivariate analysis, multivariate analysis did not identify them as predictors. This result is consistent with studies of a similar nature from Nepal¹³ and Cambodia²⁴, which found that adolescents who smoked and drank were more likely to have premarital sex than those who did not. In our study's bivariate analysis, participants who had a liberal attitude towards premarital sex were more likely to have premarital sex. This is consistent with earlier research, which showed that young people with negative attitudes toward premarital sex were more likely to engage in it than those with positive attitudes.¹⁹ Participants in this study who had a liberal opinion towards virginity appeared to be associated with premarital sex. This was corroborated by the findings of a different study, which found that men with liberal attitudes on male virginity at marriage were more likely to have engaged in premarital sex than their counterparts with conservative attitudes.⁹

Premarital sex is more likely to occur when there is a higher dating culture, as seen by the increased likelihood of premarital sex among students who were in relationships. According to a World Health Organization (WHO) report, adolescents who perceive that their friends or peers are sexually active are significantly more likely to have sex.²⁵ One study from Bangladesh concluded that peer influence plays an important role in encouraging youngsters to engage in premarital sex.⁶ Changes in personality, attitude, and individual behaviors can be attributed to peer influence. There is additional evidence that in all communities, peer behavior serves as a model for individual behavior. This is undoubtedly true when it comes to issues of sexuality among teenagers and young people.²⁶ This is consistent with our study

as peer influence is positively associated with premarital sex.

Heavy consumption of pornography was found to increase the students' odds of getting involved in premarital sexual activity. This finding was supported by research from Ethiopia²¹, India¹⁶, and Nepal^{2, 17}, which concluded that exposure to pornography was positively related to premarital sex. This could be because such films/videos stimulate adolescents' sexual desire, and they start dreaming of experiencing such pleasure through sexual intercourse.²¹ Adolescent sexual behavior is influenced by the quality of their relationship with their parents.²⁵ But contrarily, this study did not find any association between premarital sex and students' relationship with their families.

Despite being one of the few studies assessing premarital sex and risky sexual behavior in Nepal where these topics are still taken as taboo, this study is not free from its limitation and all its interpretations should be in light of these shortcomings. Aiming to ensure the generalizability of our study, we tried to circulate the online questionnaire to all Nepalese undergraduate students regardless of any geographic location and socio-demographic characteristics. However, as it was an online survey, the participants who did not have access to smartphones and internet were not able to be a part of this study, since they couldn't be included.

CONCLUSION

One in every five undergraduate students was reported to have experienced premarital sex in this study. The main reasons for the first sexual relationship were discovered to be curiosity, the desire to continue a love relationship, and pleasure. This study also found that adolescents were engaging in risky behavior, such as having multiple sexual

partners, and engaging in sexual activities with commercial sex workers. This study also showed that a significant proportion of participants were compelled to have an abortion due to unintended pregnancy, with just half having their medical abortions performed in the presence of a medical professional. Furthermore, father's education, high pocket money, dating experience, pornographic exposure, and having a friend who had experienced premarital sex were revealed to be the major factors for premarital sex among Nepalese undergraduates. This demonstrates the necessity of premarital sex and relationship education programs led by trained peer educators in order to teach young people about safe sexual behavior. It is also recommended to intensify advocacy for safe abortion and for the government sector to comply with policy implications to encourage young people to access health facilities for safe abortion services. Additionally, it is necessary to launch social and behavior change communication (SBCC) intervention focused on adolescent reproductive health.

ETHICAL APPROVAL

The institutional review committee of the Central Institute of Science and Technology (CiST) granted ethical approval for this study [Ref no: 01/077/078]. Before taking part, participants gave their informed consent to take part in the study. Participant's confidentiality was strictly maintained.

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CONFLICT OF INTEREST

The authors declared that there is no conflict of interest.

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AUTHOR'S CONTRIBUTIONS

AP generated concept, developed proposal, collected data and assisted in preliminary preparation of manuscript, AN developed proposal, collected data and assisted in preliminary preparation of manuscript, SK proposal finalization, helped with data collection and quality control, manuscript writing, LA cleaning, result preparation, supported manuscript preparation, SP coordinated with the college prior to data collection, analyzed data, review manuscript, MK finalized proposal, analyzed data, prepared and reviewed manuscript, all authors read and finalized the manuscript.

REFERENCES

1. Regmi P, Simkhada P, Van Teijlingen E. Sexual and reproductive health status among young peoples in Nepal: opportunities and barriers for sexual health education and services utilization. *Kathmandu Univ Med J*. 2008;6(2 (Iss):1-5.
2. Regmi P, Simkhada P, van Teijlingen E. "There are too many naked pictures found in papers and on the net": Factors encouraging pre-marital sex among young people of Nepal. *Health Sci J*. 2010;4(3):162-74.
3. Friedman HL. Changing patterns of adolescent sexual behavior: consequences for health and development. *J Adolesc Health*. 1992;13(5):345-50.
4. Buga GA, Amoko DH, Ncayiyana DJ. Adolescent sexual behaviour, knowledge and attitudes to sexuality among school girls in Transkei, South Africa. *East Afr Med J*. 1996;73(2):95-100.
5. Alexander M, Garda L, Kanade S, Jejeebhoy SJ, Ganatra B. Formation of partnerships among young women and men in Pune district, Maharashtra. 2006.
6. Li N, Boulay M. Individual, familial and extra-familial factors associated with premarital sex among Bangladeshi male adolescents. *Sex Health*. 2010;7(4):471-7.
7. UNICEF. A survey of teenagers in Nepal for life skills development and HIV/AIDS prevention. 2001.
8. Puri M, Cleland J. Sexual behavior and perceived risk of HIV/AIDS among young migrant factory workers in Nepal. *J Adolesc Health*. 2006;38(3):237-46.
9. Adhikari R, Tamang J. Premarital sexual behavior among male college students of Kathmandu, Nepal. *BMC public health*. 2009;9:241.
10. Adhikari R. Are Nepali students at risk of HIV? A cross-sectional study of condom use at first sexual intercourse among college students in Kathmandu. *JIAS*. 2010;13(1):7.
11. Upreti YR, Acharya D. Premarital Sexual Behaviours among Secondary School Adolescents: A Cross-sectional Study in Kathmandu. *Journal of Health Promotion*. 2020;8:39-52.
12. Sujay R. Premarital sexual behaviour among unmarried college students of Gujarat, India. 2009.
13. Dahal M, Subedi RK, Khanal S, Adhikari A, Sigdel M, Baral K, et al. Prevalence and Possible Risk Factor of

- Premarital Sexual Behaviour among Nepalese Adolescents. 2020.
14. Bhatta DN, Koirala A, Jha N. Adolescent students' attitude towards premarital sex and unwanted pregnancy. *Health Renaissance*. 2013;11(2):145-9.
 15. Puri M. Sexual risk behaviour and risk perception of unwanted pregnancies and sexually transmitted diseases among young factory workers in Nepal. Center for Research on Environment Health and Population Activities (CREHPA), 2001.
 16. Ghule M, Donta B. Correlates of sexual behaviour of rural college youth in Maharashtra, India. *East J Med*. 2011;16(2):122-32.
 17. Adhikari N, Adhikari S, Sulemane NI. Premarital sexual behaviour among higher secondary students in Pokhara Sub-Metropolitan City Nepal. *Sex Health*. 2018;15(5):403-7.
 18. Abdisa B, Addisie M, Seifu W. Premarital Sexual practices, consequences and associated factors among regular undergraduate female students in Ambo University, Oromia Regional State, Central Ethiopia, 2015. *Health Sci J*. 2017;11(1):0-.
 19. Gyan Bahadur BC, Basel PL. Premarital sex behaviors among college youths of Kathmandu, Nepal. *Kathmandu Univ Med J (KUMJ)*. 2013;11(41):27-31.
 20. Sendo EG. Premarital sexual practice among unmarried first year undergraduate students in Alkan University College in Addis ababa, Ethiopia. *GJMEDPH*. 2014;3(2):1-10.
 21. Akibu M, Gebresellasie F, Zekarias F, Tsegaye W. Premarital sexual practice and its predictors among university students: institution based cross sectional study. *PAMJ*. 2017;28(1).
 22. Zablan Z. Filipino Youth's Views on Pre-Marital Sex and Unmarried Parenthood. Manila: UPPI. 2008.
 23. Oljira L, Berhane Y, Worku A. Pre-marital sexual debut and its associated factors among in-school adolescents in eastern Ethiopia. *BMC public health*. 2012;12(1):1-5.
 24. Mai V, Kittisuksathit S. Factors influencing pre-marital sexual intercourse among unmarried young individuals in Cambodia. *Makara Journal of Health Research*. 2019;23(3):4.
 25. Organization WH. Risk and protective factors affecting adolescent reproductive health in developing countries. 2005.
 26. Cernada GP, Chang M-C, Lin H-S, Sun T-H, Cernada C-CC. Implications for adolescent sex education in Taiwan. *Stud Fam Plann*. 1986;17(4):181-7.