

Premarital Sexual Behaviours of College Youth of Tanahun District, Nepal

Santosh Pahari,¹ Chiranjivi Adhikari¹

¹School of Health and Allied Sciences, Pokhara University, Pokhara, Nepal

ABSTRACT

Introduction: youth are at risk of numerous health problems as they progress towards adulthood, which affect their quality of life. While sexuality remains a morality on one side, an increasing prevalence of premarital sexual activities is being reported among Nepalese youth on the other side. This study aimed to assess the premarital sexual behaviors of college-going youth in the Tanahun district.

Methods: An institution-based cross-sectional study was carried out using a pre-tested structured self-administered questionnaire among 721 youth of six undergraduate colleges of Tanahun district. The association between premarital sexual behaviours and the explanatory variables was assessed using the chi-square test and stepwise logistic regression.

Results: More than one-tenth (13.17%) of total youth reported that they had had premarital sex preceding the survey. The study also showed that substantial proportion of college youth had indulged in risky sexual behaviours. Nearly three-fourths (73.21%) of sexually active youth had their sexual debut before the age of 20 and about half (46.15%) of them did not use a condom. Similarly, more than one-third (34.62%) of sexually active respondents had multiple sex partners. Males were almost three times as likely (AOR=2.64, 95% CI; 1.26-5.51) to be involved in premarital sex compared to their counterparts. Similarly, youth having dating experience were six-fold more likely (AOR=6.4, 95% CI; 3.37-12.30) and youth who had an unmarried close friend with sexual experiences were four times more likely (AOR=3.9, 95% CI; 2.1-7.24) to indulge in premarital sex compared to their counterparts.

Conclusion: One in each 10 college youth involved in premarital sex though risky sexual behaviours were prominent. Being male, having dating experience and unmarried close friend with sexual experience were the risk factors for premarital sex. These factors have to be warranted in sex education interventions.

Keywords: *Premarital sexual behaviour, Risky sexual behaviours, Youth*

INTRODUCTION

Sexual activities performed by unmarried people are regarded as premarital sexual behaviours. These sexual behaviours may lead to serious health problems like sexually transmitted diseases including HIV/AIDS, unwanted pregnancies, unsafe abortion and maternal deaths.¹ Nepal has prioritized the sexual and reproductive health needs of young people as over one-third of the country's population is aged 10–24 and in specific, youth (15-24 years) share one-fifth (19.38%) of it.² Youth are at risks of numerous health problems along the path to adulthood affecting their quality of life.^{3,4} Among the various health issues, risky sexual behaviors developed among youth is of major concern.⁵⁻⁷

Nepalese societies often portray negative suggestions and associate immorality with young's sexuality and behaviours before marriage. Because of these social norms and values, there is a higher probability of young being involved in risky sexual behaviours.⁸⁻¹⁰ Sexual initiation

and related activities among them vary by region. Yet, the common problem of all regions is that young people are reaching puberty earlier and thereby engaging in sexual activities earlier.¹¹ Sexual initiation at an early age is more likely to have more partners.¹² World Health Organization has estimated that 50% of HIV transmission occurs among the youth of age group 15–24 years.¹³

Although premarital sexual activities are not socially and culturally acceptable in Nepal, studies reported that the proportion of young people involved in sexual activities is increasing.¹⁴ The three consecutive Nepal demographic health surveys reported that premarital sexual intercourse among young men increased from 17 in 2006 to 22 in 2011 and 25 per hundreds in 2016 while there was a steady proportion of one percentage points among unmarried

Correspondence: Chiranjivi Adhikari, School of Health and Allied Sciences, Pokhara University, Pokhara, Nepal, Email: chiranadhikari@gmail.com

female youth involving in sexual relationships. In the meantime, the median age of marriage among men was 20.2, 21.6 and 21.7 years respectively while the median age of marriage among women was 17.2, 17.5 and 17.9 years respectively.¹⁵⁻¹⁷ According to the National Adolescents and youth Survey 2011, 13% of young people had premarital sexual experience. Among them, nearly 8% had experienced oral sex and 5% had experienced anal sex. Only 46% of sexually active youth used contraceptives at first sexual intercourse; among them, 91% used a condom.¹⁸ Previous study in Kathmandu valley revealed that risky sexual behaviours like sex with commercial sex workers, multiple sex partners, and inconsistency use of a condom with a non-regular partner was common among male college youth while less than two in five male youth (57%) had used condom at the first sexual intercourse.⁹ Similarly, nearly two-thirds (60.4%) of sexually active youth had two or more sexual partners which in turn puts youth at high risk for STIs as that of sex workers.¹⁹

The objective of the study was to identify the premarital sexual behaviours among college-going youth in Tanahun.

METHODS

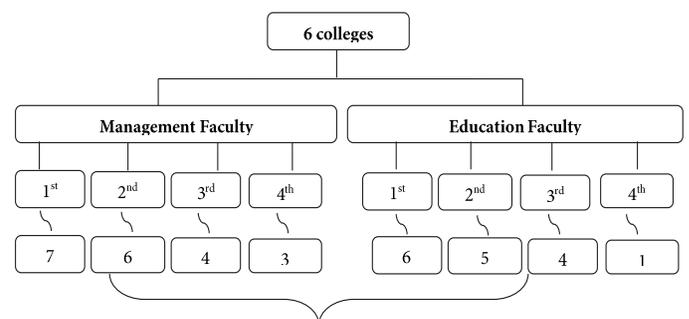
An institution-based cross-sectional study was carried out in six undergraduate colleges of Tanahun district during Jan-Apr, 2020. The youth aged between 19 and 24 years attending bachelor-level colleges in Tanahun districts were the study participants. The faculties including were Education and Management. The data were collected using a multi-stage proportionate simple random sampling method as shown in figure 1. At first, six colleges were selected randomly from the sampling frame which represents 50 percent of colleges of Tanahun. The list of colleges was obtained from Education Development and Coordination Unit, Tanahun. Second, the selected colleges were divided into two faculties (i.e. Management and Education). Third, the faculties were divided into first, second, third and fourth academic years. At last, 36 classes defined as primary sampling units (PSU) were randomly selected till reaching the desired sample size based on the proportion of students in running years. The list of sampling units was developed through visits and phone calls. All of the students from sampled classes attended on the day of data collection were requested to participate in the study from which 809 youth have participated. During data collection, male and female students were arranged in separate classrooms and distance was maintained between participants. For the sample size calculation, the reference for the proportion of the sexually active youth was taken from the previous research which was 39 percent,⁹ Permitted error of 5% was taken (CI= 95%), $q=1-p$ (1-

$0.39=0.61$) Therefore, $n=Z^2pq/d^2 = 1.96*1.96*0.39*0.61/0.05^2 = 365$. From finite population ($N=3803$), keeping the non response rate of 20% and design effect of 2 the sample to be taken was 799.

Due to the sensitive nature of the study, a self-administrated structured questionnaire was used to obtain information from the students. The questionnaire used in the article titled 'Premarital sexual behavior among male college students of Kathmandu, Nepal' and the National Adolescent and youth Survey 2011 was used as a reference for this study. The questionnaire incorporated separate questions to obtain premarital sexual behaviours from both married and unmarried youth. The questionnaire was translated into Nepali language and pre-tested on 10% of the sample population at the School of Health and Allied Sciences, Kaski and modifications were made as needed. Written informed consent was taken from students. Proper orientation and instructions were provided to participants before the data collection. None of the approached students refused to participate in the study.

Confidentiality of information had ensured by keeping the unique identity of the respondent instead of the name of the participant. Ethical approval was taken from Nepal Health Research Council. An approval letter was also taken from the Ministry of Social Development.

Data were entered in Epi data software and analyzed using SPSS software. Univariate variables were presented in frequencies and percentages. Similarly, bivariate and multivariate techniques (binary logistic regression) were applied to identify the factors associated with the likelihood of indulgence in premarital sexual behaviours.



No. of classes (PSU) selected from each academic year

Figure 1: Sampling flow chart

RESULTS

Excluding 88 questionnaires with missing data, we analysed 721 responses. Table 1 summarizes the background characteristics of respondents. Among the

respondents, 84% were female. About two-thirds (65.33%) of respondents were in the age group 20-24 (Median=20, $Q_1=19$, $Q_3=21$). More than two-fifths (44.9%) of respondents were of 13 years of schooling. About nine in

ten respondents (90.29%) were unmarried and more than four-fifths of respondents (81.4%) were living with their parents. About half (44.5%) of respondents' family's main source of income was from agriculture.

Table 1: Background variables (n=721)

Variables			Male		Female	
	n	%	n	%	n	%
	(721)	(100)	(115)	(16.0)	(606)	(84.0)
Age in years						
< 20	250	34.67	38	33.0	212	38.0
20-24	471	65.33	77	67	394	65.0
Years of schooling						
13-14	507	70.31	90	78.3	417	68.8
15-16	214	29.69	25	21.7	189	31.2
Marital status						
Unmarried	651	90.29	113	98.3	538	88.8
Married	70	9.71	2	1.7	68	11.2
Living arrangement						
With family	587	81.4	91	79.1	496	81.8
Other than family ^a	134	18.6	24	20.9	110	18.2
Family's main source of income						
Agriculture	321	44.5	54	47	267	44.1
Other than agriculture ^b	400	55.5	61	53	339	55.9

^awith friends, with relatives, Alone, ^b Job, Business, Pension, Foreign employment

Table 2: Behavioral variables (n=721)

Variables			Male		Female	
	n	%	n	%	n	%
Ever drunk alcohol						
Yes	98	13.60	46	40.0	52	8.6
No	623	86.4	69	60.0	554	91.4
Ever watched pornographic materials						
Yes	231	32.0	102	88.7	129	21.3
No	490	68.0	13	11.3	477	78.7

Table 2 shows the behavioral characteristics of respondents. More than one in ten (13.6%) respondents had ever drunk alcohol and about one-third (32%) respondents had ever watched

pornographic materials. Males reported more drinking alcohol (40%) and watching pornographic materials (88.7%) than females (8.6% and 21.3% respectively).

Table 3: Nature of sexual activities performed

Variables			Male		Female	
	n	%	n	%	n	%
Experience of dating	317	44.0	75	65.2	242	39.9
Experience of kissing	247	34.3	70	60.9	177	29.2
Experience of hugging	236	32.7	64	55.7	172	28.4
Boy ever experienced placing his hand on a girl's breast			64	55.7	-	-
Boy ever experienced placing his hand on a girl's sex organ			41	35.7	-	-
Girl ever experienced a boy placing his hand on her breast			-	-	139	22.9
Girl ever experienced a boy placing his hand on her sex organ			-	-	47	7.8
Experience of masturbation	133	18.4	90	78.3	43	7.1
Experience of oral sex	23	3.2	19	16.5	4	0.7
Experience of anal sex	6	0.8	3	2.6	3	0.5
Experience of vaginal sex	156	21.6	52	45.2	104	17.2
Experience of premarital sex	95	13.17	51	44.3	44	7.3
Having a close unmarried friend with experience of premarital sex	119	16.5	73	63.5	46	7.6

Table 3 shows the premarital sexual behaviors of the respondents. There were gender differences in many features of sexual experiences. In aggregate, one in ten (13.17%) respondents (male 44.3% Vs female 7.3%) had experienced premarital sex. Males reported more experience of dating (65.25%), kissing (60.9%) and hugging (55.7%) than females (39.9%, 29.2% and 28.4% respectively). More than half of boys (55.7%) had experienced placing his hand on a girl's breast and more than one-fifth of girls (22.9%) had experienced boy placing their hands on their breasts. Similarly, one-third of boys

(35.7%) had experienced placing their hands on girls' sex organs while less than one in every ten girls (7.8%) had the experience of boys placing their hand on their sex organs. Similarly, differences in experiences of masturbation, oral sex, anal sex and vaginal sex between male and female youth had been observed (78.3% Vs 7.1%, 16.5% Vs 0.7%, 2.6% Vs 0.5% and 45.2% Vs 17.2% respectively). About two-thirds (63.5%) of males' close unmarried friends had experienced sexual intercourse while one in every ten females had close unmarried friends with sexual experience.

Table 4: Sexual behaviours

Variables			Male		Female	
	n	%	n	%	n	%
Age at sexual debut	156	100				
< 20 years	115	73.72	48	92.31	67	64.42
20-24 years	41	26.28	4	7.69	37	35.58

(Md;Q₁;Q₃ = 20;19;21)

Relationship with the first sexual partner

Girlfriend/Boyfriend	84	53.84	43	82.7	41	39.4
Husband/wife	59	37.82	1	1.9	58	55.8
Causal friend	13	8.33	8	15.4	5	4.8
Use of condom at first sexual intercourse						
Yes	72	46.15	32	61.5	40	38.5
No	84	53.87	20	38.5	64	61.5
No. of sexual partners						
One	102	65.38	14	26.92	88	84.61
≥2	54	34.62	38	73.08	16	15.39

Table 4 reveals that most sexually active males (92.31%) had sexual debut before 20 years while about two in three (64.42%) sexually active females had debut before 20 years. More than half (53.84%) of respondents had their first sexual intercourse with their girlfriend or boyfriend.

It is quite interesting that nobody had sexual intercourse with commercial sex workers at sexual debut however only half (46.15%) of sexually active youth had used condoms for the first time. Similarly, more than one-third (34.6%) of respondents had two or more sexual partners.

Table 5: Factors associated with premarital sexual behaviours of college youth

Variables	Premarital sex		χ^2 statistics	p-value	UOR at 95% CI	AOR at 95% CI
	Yes	No				
Sex of respondents						
Male	51 (44.3)	64 (55.7)	116.21	<0.001*	10.17 (6.3-16.43)	2.64(1.26-5.51)**
Female	44 (7.3)	562 (92.7)			1	
Age group						
< 20	36 (14.4)	214 (85.6)	0.50	0.47	1	1
20-24	59 (12.5)	412 (87.5)			0.85 (0.54-1.33)	1.67(0.9-3.11)
Years of schooling						
13-14	67 (13.2)	440 (86.8)	0.002	0.96	1	1
15-16	28 (13.1)	186 (86.9)			0.98 (0.61-1.58)	0.62 (0.32-1.2)
Living arrangement						
with family	72 (12.3)	515 (87.7)	2.28	0.13	1	1
Other than family ^a	23 (17.2)	111 (82.8)			1.48 (0.88-2.47)	1.15 (0.6-2.18)
Family main source of income						
Agriculture	41 (12.8)	280 (87.2)	0.08	0.77	1	1
Other than agriculture ^b	54 (13.5)	346 (86.5)			1.06 (0.69-1.64)	0.8 (0.46-1.37)
Ever drunk alcohol						
Yes	37 (37.8)	61 (62.2)	59.89	<0.001*	5.9 (3.62-9.64)	1.59 (0.84-3.01)
No	58 (9.3)	565 (90.7)			1	1
Ever watched pornographic materials						
Yes	66 (28.6)	165 (71.4)	70.42	<0.001*	6.35 (3.96-10.18)	1.93 (0.99-3.78)
No	29 (5.9)	461 (94.1)			1	1

Unmarried close friend having experience of premarital sex						
Yes	55 (46.2)	64 (53.8)	136.01	<0.001*	12.07 (7.45-19.56)	3.9 (2.1-7.24)**
No	40 (6.6)	562 (93.4)			1	1
Experience of dating						
Yes	81 (25.6)	236 (74.4)	75.74	<0.001*	9.56 (5.30-17.24)	6.4(3.37-12.30)**
No	14 (3.5)	390 (96.5)			1	

^awith friends, with relatives, Alone, ^b job, Business, Pension, Foreign employment, *Statistically significant at $p < 0.05$ in bivariate analysis, **Statistically significant at $p < 0.05$ in multivariate analysis, Figures inside parenthesis show percentage.

Table 5 shows the variables that were significantly associated with premarital sexual behaviours were the sex of respondents, an unmarried close friend having premarital sexual experience and individuals having experience of dating. Male youth were 2.64 times more likely to have premarital sex (AOR=2.64, 95% CI; 1.26-5.51) than females. Similarly, youth who had a close unmarried friend with premarital sexual experience were 4 times more likely to indulge in premarital sex than their counterparts (AOR=3.9, 95% CI; 2.1-7.24). youth experiencing dating were 6.4 folds more likely to be involved in premarital sex than those who didn't experience (AOR=6.4, 95% CI; 3.37-12.30).

DISCUSSION

This study attempted to identify premarital sexual behaviours of college youth of Tanahun and is the first of its kind in the context of Tanahun district. Though sex before marriage is socially and culturally unacceptable in Nepalese society, it showed that 13.17 percent of college youth were found to be involved in premarital sexual practice. It is believed that- this proportion may still be underreported due to the sensitive nature of the issue. The finding is consistent with the nationally representative data of Nepal Adolescent and youth Survey 2011 where a 13 percent point prevalence of premarital sex had been reported.¹⁸ Similarly, the finding is in line with the study conducted in Jamnagar city of Gujarat in which 13.78 percent of youth had premarital sexual relationships.²⁰ However, this study reported a lower prevalence than the study conducted among college youth of Kathmandu valley where one-fifth (19.56%) of them had reported experience of premarital sex.²¹ This difference might be due to rural-urban variation. Similarly, the prevalence of premarital sex among college youth was lower than the similar study conducted in North West Ethiopia (22.5%).²² This might be due to cultural differences among the countries.

However, the prevalence of 13.17% (44.3% of boys Vs 7.3 % of girls) was higher than the study conducted in Hefei, china where 12.6% of respondents (14.4% of boys Vs 8.6% of girls) had reported sexual experiences before marriage.²³ This difference might be due to effective youth-targeted health promotion programs in China. The reported lower prevalence among Nepalese girls may be associated with prevalent social norms that advocate keeping girls' virginity until their marriage.

The study also showed that risky sexual behaviours are found common among college youth. A substantial proportion (92.31% of boys Vs 64.42% of girls) of sexually active youth had sexual debut before 20 years. More than half of sexually active youth (82.7% of boys Vs 39.4% of girls) had a sexual debut with their girlfriend-boyfriend whereas less than half (61.5% of boys Vs 38.5% girls) hadn't used a condom for the first time. This indicates that youth are vulnerable to unwanted pregnancy and the consequences of induced abortion practices. The study finding of the use of a condom at the sexual debut among male college youth is moderately higher than the similar study conducted in Kathmandu (61.5% Vs 57% respectively).⁹ More than one third (34.62%) sexually active youth had two or more sexual partners which are slightly higher than studies from Baitadi, Nepal and Debre Berhan University, Ethiopia where the prevalence of having two or more sexual partners were 28.2 and 21.6 percent respectively.^{24,25} Conversely, it is much higher among male youth compared to studies from Kathmandu and Pokhara (73.08% Vs 55% and 60.4% respectively).^{9,19} The difference might be associated with greater sexual desires and readily available girlfriends as a sexual partner.

The rise in premarital sex among youth who are attending colleges may be due to readily access to have interaction with young partners and they have greater independence (not living with family). The bivariate analysis showed that some of the background variables; Sex of respondents, behavioral characteristics such as drinking alcohol, watching pornographic materials, the experience of dating and peer characteristics such as peer sexual behaviours had a significant association with the likelihood of involvement in premarital sex among college-going

youth. The multivariate analysis corroborated some of the findings of the bivariate analysis. In the multivariate analysis, sex of respondent, experience of dating and peer sexual behaviours were found to have a statistically significant association with the likelihood of involvement in premarital sex after controlling other variables.

The association between the sex of youth and premarital sex is substantial. A majority of male youth were indulging in premarital sex compared with their female counterparts. This finding is consistent with other studies conducted in Nepal where only a few proportions of females had experienced premarital sex.^{21, 26} Similarly, a significant association had been observed between youth experiencing dating and his/her indulgent in premarital sex. This finding is supported by other studies conducted in Nepal where dating was linked with sexual desires among youth.^{26, 27} Peer's role is significant in determining personality, attitude and behavior of persons. There is further evidence that in all societies, peer behavior is a model for individual behavior, and this was found consistently true in this study in matters of sexuality among adolescents and youth.²⁸ Even in the present study, the sexual behavior of the peer was associated with premarital sex.

This study only incorporates the youth who were available on the day of data collection at colleges of Tanahun district. So the findings may warrant the generalization to other settings and sub-populations. In addition, a lower proportion of male youth in the classes results in less participation of male respondents in the study. Furthermore, sexual behaviours may not be fully responded to in classroom settings.

CONCLUSION

Our study concluded that a significant proportion of college youth were involved in sexual behaviours before marriage. Although the prevalence is satisfactory to previous similar studies conducted in Nepal, youth indulged in risky sexual behaviours are found common among college youth. About three-quarter of sexually active youth have their sexual debut before the age of 20 and half of them didn't use a condom for the first time of sexual intercourse. Moreover, more than one-third of sexual youth had two or more sexual partners. Being male, having dating experience and unmarried close friend with sexual experience are the risk factors for sex before marriage. Sex education interventions are recommended before the adolescents enter 20 and debut. More importantly, males with prior dating experience, and having unmarried close friends with sexual experience should be tailored for interventions.

CONFLICT OF INTEREST

Authors declare that they have no conflict of interest.

ACKNOWLEDGEMENT

Authors are thankful to the chiefs of colleges for giving permission and provided valuable hours to conduct the study. Their gratefulness thank go to the study participants.

REFERENCES

1. Sujay R. Premarital sexual behaviour among unmarried college students of Gujarat, India 2009. Available from https://knowledgecommons.popcouncil.org/departments_sbsr-rh [Accessed 6th June 2020]
2. Ministry of Population and Environment. National Population Report 2016. Singadurbar, Kathmandu: MOPE; 2017.
3. Ding R, Guo C, Song X, Zheng X. Male knowledge, attitude and practice and partner pregnancy among Chinese unmarried youth. *PloS one*.2019 03[cited 2020 08 08];14(3):e0214452. Available from <https://doi.org/10.1371/journal.pone.0214452>
4. Vinh NT, Tuan PC. Factors influencing unintended pregnancy and abortion among unmarried youth in Vietnam: A literature review. *Pubmed Central*. 2015[cited 2020 12 28];3(2):3. Available from: www.ncbi.nlm.nih.gov/pmc/articles/PMC5327353/
5. Eaton DK, Kann L, Kinchen S, Ross J, Hawkins J, Harris WA, et al. youth risk behavior surveillance—United States, 2005. *Journal of school health*.2006 09[cited 2020 11 09];76(7):353-72. Available from <https://doi.org/10.1111/j.1746-1561.2006.00127.x>
6. Madise N, Zulu E, Ciera J. Is poverty a driver for risky sexual behaviour? Evidence from national surveys of adolescents in four African countries. *African journal of reproductive health*.2007[cited 2020 09 16];11(3):83-98. Available from <https://journals.co.za/content/ajrh/11/3/EJC134435>
7. Murphy DA, Brecht M-L, Herbeck DM, Huang D. Trajectories of HIV risk behavior from age 15 to 25 in the national longitudinal survey of youth sample. *Journal of youth and Adolescence*.2009 10[cited 2020 11 03];38(9):1226. Available from <https://doi.org/10.1007/s10964-008-9323-6>
8. 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 Science Journal*.4(3):162-74. Available from <http://eprints.bournemouth.ac.uk/15719/>

9. Adhikari R, Tamang J. Premarital sexual behavior among male college students of Kathmandu, Nepal. *BMC public health*.9(1):241. Available from <https://doi.org/10.1186/1471-2458-9-241>
10. Haffner D. Toward a new paradigm on adolescent sexual health. *SIECUS report*.1993 09[cited 2020 10 09];21(2):26. Available from <https://pubmed.ncbi.nlm.nih.gov/12344740/>
11. Hindin MJ, Fatusi AO. Adolescent sexual and reproductive health in developing countries: an overview of trends and interventions. *International perspectives on sexual and reproductive health*.2009 06[cited 2020 07 25];35(2):58-62. Available from <https://www.jstor.org/stable/40233805>
12. United Nations Population Fund, Save the Children. *Adolescent Sexual and Reproductive Health Toolkit for Humanitarian Settings*. New York: UNFPA, Save the Children; 2009 September.
13. Gillespie S, Kadiyala S, Greener R. Poverty, HIV and AIDS: Vulnerability and Impact in Southern Africa. *AIDS*; 2007 11 07. 0269-9370
14. Regmi PR, Van Teijlingen E, Simkhada P, Acharya DR. Barriers to sexual health services for young people in Nepal. *Journal of health, population, and nutrition*.2010 12 28[cited 2020 11 09];28(6):619. Available from <https://dx.doi.org/10.3329%2Fjhpn.v28i6.6611>
15. Ministry of Health and Population Nepal, New ERA, Macro International Inc. *Nepal Demographic and Health Survey 2006*. Kathmandu: MOHP; 2007 May.
16. Ministry of Health and Population Nepal, New ERA, ICF. *Nepal Demographic and Health Survey 2011*. Kathmandu: Ministry of Health and Population Nepal; 2012 March.
17. Ministry of Health Nepal, New ERA, ICF. *Nepal Demographic and Health Survey 2016*. Kathmandu: Ministry of Health Nepal; 2017 November.
18. Ministry of Health and Population Nepal. *Nepal Adolescents and youth Survey 2010/11*. Kathmandu: MOHP; 2012 March.
19. Parajuli B, Adhikari C. Sexual Behavior and Its Associated Factors among Male College youth of Pokhara, Nepal. *Journal of Health and Allied Sciences*.2010 02 11[cited 2020 06 10];417(2):75-80. Available from [doi:10.37107/jhas.134](https://doi.org/10.37107/jhas.134)
20. Dave VR, Makwana NR, Yadav BS, Yadav S. A study on high-risk premarital sexual behavior of college going male students in Jamnagar city of Gujarat, India. *International journal of high risk behaviors & addiction*.2013 12 12[cited 2020 09 21];2(3):112. Available from <https://dx.doi.org/10.5812%2Fijhrba.11855>
21. Basel P. Premarital sex behaviors among college youth of Kathmandu, Nepal. *Kathmandu University medical journal*.2013 03[cited 2020 10];11(1):27-31. Available from <https://doi.org/10.3126/kumj.v11i1.11019>
22. Arega WL, Zewale TA, Bogale KA. Premarital sexual practice and associated factors among high school youth in Debretabor town, South Gondar zone, North West Ethiopia, 2017. *BMC research notes*.2019[cited 2020 07 01];12(1):314. Available from <https://doi.org/10.1186/s13104-019-4348-3>
23. Chi X, Yu L, Winter S. Prevalence and correlates of sexual behaviors among university students: a study in Hefei, China. *BMC public health*.2012[cited 2020 11 03];12(1):972. Available from <https://doi.org/10.1186/1471-2458-12-972>
24. Paudel M, Mehata S, Subedi N, Paudel BA, Paudel S. Sexual Behaviour among School youth in a Rural Far-western District of Nepal. *Health Prospect*.2013 12[cited 2020 09 01];12(2):37-41. Available from <https://doi.org/10.3126/hprospect.v12i2.9873>
25. Akibu M, Gebresellase F, Zekarias F, Tsegaye W. Premarital sexual practice and its predictors among university students: institution based cross sectional study. *Pan African Medical Journal*.2017 11 05[cited 2020 10 10];28(1):Available from <https://doi.org/10.11604/pamj.2017.28.234.12125>
26. Adhikari N, Adhikari S, Sulemane NI. Premarital sexual behaviour among higher secondary students in Pokhara Sub-Metropolitan City Nepal. *Sexual health*. 2018[cited 2020 12 28];15(5):403-7: Available from <https://doi.org/10.1071/SH17210>
27. Regmi PR, Van Teijlingen ER, Simkhada P, Acharya DR. Dating and sex among emerging adults in Nepal. *Journal of Adolescent Research*.2011[cited 2020 07 26];26(6):675-700. Available from <https://doi.org/10.1177%2F0743558410384735>
28. Cernada GP, Chang M-C, Lin H-S, Sun T-H, Cernada C-CC. Implications for adolescent sex education in Taiwan. *Studies in Family Planning*.1986 08[cited 2020 08 19];17(4):181-7. Available from <https://doi.org/10.2307/1966935>