

Knowledge and Perceptions on Sexual and Reproductive Health of Undergraduate Students in Bhaktapur

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ABSTRACT

Introduction: Improper information or a lack of information can have a negative influence on the sexual and reproductive health of young people. Adolescents turning to the young population who do not have a medical education, and background are most of the time overlooked when it comes to their sexual and reproductive health rights. The main aim of the study was to determine the knowledge and perception of the sexual and reproductive health of undergraduate students with a non-medical background in the Bhaktapur district.

Methods: A cross-sectional descriptive study was conducted among 382 undergraduate students from 8 colleges who were currently pursuing Engineering, Management, and Humanities in the Bhaktapur area. Ethical approval was taken before the collection of data. Self-administered semi-structured questionnaire was used to maintain confidentiality and privacy. Unwilling and married populations were excluded from the study. All the extracted data were entered and analyzed from SPSS version 25.

Results: Almost 3/8th of the respondents had poor knowledge (36.9%), followed by moderate knowledge (33.8%). Similarly, more than half of the respondents (52.1%) had a positive perception while 47.9% had a negative perception. There is also an association between the dependent variables, knowledge, and perception i.e., p-value 0.023.

Conclusions: The study showed that most of the respondents had a poor level of knowledge. While more than half of the respondents had a positive perception of Sexual and Reproductive Health. Almost 1/8th of the respondents have suffered from some kind of sexual and reproductive health problems.

Keywords: Knowledge; Non-medical; Perception; Reproductive health; Sexual health; Undergraduates.

INTRODUCTION

WHO defines the age of adolescence as 10-14, late adolescence as 15-19, and post-adolescence as 20-24.¹ UNFPA describes good sexual and reproductive health as a state of complete physical, mental and social well-being in all matters relating to the reproductive system.² Knowledge and perception of SRH are crucial to improving the accessibility of reproductive health services to young people within the learning institution being a fundamental requirement.³ The reported median age for first marriage for women was 17.5 years and 21.6 years for men in Nepal.⁴ The majority of studies are

limited to pre-adolescents, and the information on post-adolescents is most of the times overlooked, resulting in a variety of negative consequences, as was evident in the Bhaktapur district; only nearly a quarter of the respondents (24.7%) had used adolescent-friendly services.⁵

The objective of this study was to determine the knowledge and perception of the sexual and reproductive health of undergraduate students of the Bhaktapur district.

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METHODS

The quantitative community-based cross-sectional study was conducted among 382 students from 8 colleges who were currently pursuing non-medical degrees in the Bhaktapur area. The ethical Approval was taken from the Institutional Research Committee (Ref no. 504/078/079) of the National Academy of Medical Science as well Permission and completion letter were obtained from all the colleges for the conduction of this study. At the time of data collection, all the students were included in the study after obtaining their informed consent, and those unwilling to participate and married young students were excluded. The inclusion of the married population might bring confounding bias, so they were excluded.

For the calculation of sample size, the formula of infinite population, $n = z^2 pq / e^2$ was used (where n= sample size) at a 95% confidence interval and taking the prevalence of knowledge of SRH among young people 47% according to the study done in Nepal.⁶

Sample size (n) = $z^2 pq / d^2$

$n = 1.96^2 * 0.47 * 0.53 / 0.05^2$

n = 382

Hence, the total sample size of the study was 382.

For the sampling technique, Colleges were selected using simple random sampling. There are 20 colleges in the Bhaktapur district and 8 colleges were recruited using the lottery method. The study was conducted at eight colleges of Engineering, Management, and Humanities faculty of Bhaktapur district. Sample populations were selected conveniently from these colleges.

Respondents were capable of understanding and answering the questions so the Self-administration technique was done to collect the data from the respondents. Semi-structured close-ended and open-ended questionnaires were used for the collection of data. Knowledge and perception were taken as the dependent variables and socio-demographic, socio-cultural factors (Cultural belief), situational factors (peer group), family support, and behavioral patterns were taken as independent variables. Various elements of sexual and reproductive health; Sexuality, sexual rights, family planning, safe abortion, Safe sexual practices, menstruation, and sexually transmitted diseases were included in the question. Before the data collection procedure, the questionnaires were created under the supervision of the supervisor with various kinds of literature reviews. Pretesting of 10% of the research

respondents assured the figure of words used, language, the quality, and the error rate of questionnaires.

The knowledge was measured in percentile scores divided into three categories by using SPSS. The knowledge score is categorized into three levels i.e. poor, moderate, and good. Those respondents who obtained less than 55% had poor knowledge, 55 to 65% had moderate knowledge, and those who obtained more than 65% had good knowledge.

The total perception-related answers were calculated using SPSS then, the score is measured in the mean score using SPSS. The perception was measured in mean score into two categories i.e. Positive- ≥ 34 mean score and Negative- < 34 mean score.

The information gathered was entered into Epidata version 3.1, which was entered systematically and amended and rectified as needed. The data was then imported to SPSS (Statistical Package for Social Science) version 25, where it was statistically analyzed. Finally, the quantitative information was presented in the form of a table. Various descriptive statistics like frequency, percentage, and other inferential statistics like the chi-square test were used in the analysis.

RESULTS

Among 382 respondents 36.9% had poor knowledge, 33.8 % of respondents had moderate knowledge and 29.3 % of respondents had good knowledge. The results demonstrate that more than half of the respondents (52.1%) had a positive attitude toward sexual and reproductive health, despite the fact that, less than half of the respondents (47.9%) had a negative attitude toward sexual and reproductive health.

Table 1. Knowledge and perception score (n= 382)

Characteristics	n(%)
Knowledge Score	
Poor	141(36.9%)
Moderate	129(33.8%)
Good	112(29.3%)
Perception score	
Negative	183(47.9%)
Positive	199(52.1%)

Table 2 shows that there was an association of Knowledge with Sex of the participant (0.00), Religion (0.016), Ethnicity (0.01), and Employment (0.010) of the respondents.

Table 2. Association of knowledge with different variables

Knowledge				
Characteristics	Poor	Moderate	Good	P-value
Sex of the participant				
Male	101(26.4%)	77(20.1%)	50(13.0%)	0.000
Female	40(10.4%)	52(13.6%)	62(16.2%)	
Religion of the Participant				
Hindu	128(33.5%)	122(37.1%)	98(25.6%)	0.016
Buddhist	12(3.1%)	6(1.5%)	7(1.8%)	
others	1(2.6%)	1(2.6%)	7(1.8%)	
Ethnicity of the participant				
Brahmin	33(8.6%)	37(9.6%)	34(8.9%)	0.010
Chhetri	47(12.3%)	37(9.6%)	29(7.6%)	
Janajati	37(9.6%)	45(11.7%)	44(11.5%)	
Madhesi	16(4.1%)	8(2.0%)	5(1.3%)	
others	8(2.0%)	2(0.5%)	0(0%)	
Employment				
yes	28(7.3%)	13(3.4%)	9(2.3%)	0.010
No	113(29.6%)	116(30.3%)	103(26.9%)	

Table 3 shows that there was an association of Perception with Religion (0.045) and Ethnicity (0.007) of the respondents.

Table 3. Association of perception with different variables

Perception			
Characteristics	Negative	Positive	P-value
Religion Of the Participant			
Hindu	173(45.2%)	175(45.8%)	0.045
Buddhist	6(1.5%)	19(4.9%)	
others	4(1.0%)	5(1.3%)	
Ethnicity of the participant			
Brahmin	51(13.3%)	53(13.8%)	0.007
Chhetri	52(13.6%)	61(15.9%)	
Janajati	51(13.3%)	75(19.6%)	
Madhesi	22(5.7%)	7(1.8%)	
others	7(1.8%)	3(0.7%)	

The table shows that there was an association between perception and knowledge with a p-value of 0.023 which signifies that there is significance between Knowledge and Perception.

Table 4. Association of knowledge and perception

		Knowledge			P-value
		Poor	Moderate	Good	
Perception	Negative	77(20.1%)	64(16.7%)	42(10.9%)	0.023
	Positive	64(16.7%)	65(17.0%)	70(18.3%)	

Table 5 shows the socio-demographic characteristics of the respondents, more than half of the respondents (58.4%) belong to the age group 20-22 years. The study shows that the majority were (59.7%) male respondents and the rest of them were female respondents (40.3%). The majority of the respondents follow Hinduism (91.1%). It also shows that two third of the respondents belong to Janajati (33%). Moving towards the residence of the respondent's majority (73.9%) of respondents live with their parents. A minority (13.1%) of respondents are involved in some kind of job while the majority (86.9%) of the respondents were not currently involved in any kind of job.

Table 5. Socio-Demographic Characteristics of respondents (n=382)

Characteristics	n (%)
Age	
17-19	117(30.6%)
20-22	223(58.4%)
23-25	42(11.0%)
Sex	
Male	228(59.7%)
Female	154(40.3%)
Religion	
Hindu	348(91.1%)
Buddhist	25(6.5%)
Others	9(2.4%)
Ethnicity	
Brahmin	104(27.2%)
Chhetri	113(29.6%)
Janajati	126(33.0%)
Madhesi	29(7.6%)
Residence	
Alone/hostel	42(11.0%)
Friends	30(7.9%)
Parents	279(73.0%)
Relatives	31(8.1%)
Employment	
Yes	50(13.1%)
No	332(86.9%)

Regarding sexual and reproductive health, 17.8% respondents define sexual and reproductive health as having pleasurable and safe sexual experiences, 17% respondents define SRH as something that concerns contraception measures, and 3.9% respondents define SRH as a state of being free of coercion, discrimination, and violence. Even so, nearly 2/3rd of the respondents (61.3%) knew that all of the above definitions were

correct. Most of the respondents (94%) believe that family planning includes not only contraception but also the promotion of family health. About 64.1% of respondents assume that there is a chance of pregnancy even after having a menstrual period. Only 35.9% of respondents disagree with the statement. Almost 5/6th of the respondents (82.2%) understand menstruation as the beginning of women's reproductive years. Still, 15.7% and 2.1% of respondents think menstruation is the beginning of child-bearing age and the beginning of marriageable age.

About 32.7% claim that there is a possibility of transmission of HIV/AIDS from droplets or physical touch. More than 2/3rd of the respondents (69.1%) feel comfortable sharing their curiosity about SRH with their parents while 30.9% of respondents don't feel comfortable sharing it with their parents. When asked who they share it with, almost 57.2% of respondents answered their partner/lover. Finally, 47.9% of respondents think that the knowledge provided to them about SRH is not adequate. They consider hesitation and ignorance (64.5%) to be the cause.

DISCUSSION

About 61.3% gave the correct definition of sexual and reproductive health while the rest of the respondents were not clear about the concrete definition of SRH. The overall knowledge regarding contraception seems to be satisfactory. Almost 94% of respondents believe that family planning includes family health promotion along with contraceptive devices which seems to be high from the study conducted on High school students, "Out of 200 respondents, 77.5% responded correctly, that family planning is a way of thinking and living that promotes health and welfare of the family, While a study conducted among high school 200 students in Kathmandu shows, 74.5% stated maintaining the health of mother and baby by control of birth, 53.5% reported bringing wanted birth only and 1.0% didn't know the meaning of family planning".⁶ Both studies imply that students understand the need of family planning for not only contraception but also the wellbeing of the entire family.

More than half 75.4% think abortion was bad practice while 10.7% believe it to be good practice. Among 10.7% who believe it to be good practice, some of them believe it is needed during the time of emergencies. Only 16.8% of the respondents have an idea that safe abortion is provided free of charge in Primary health care and Health post. 59.4% of the respondents have an idea about the legalization of safe abortion in Nepal whereas, The NDHS 2011 study shows a similar study conducted in Nepal; which shows that 60% (15-19) and 42% (20-24) women do not know that abortion is legal in Nepal.⁷ These findings demonstrate that young people in Bhaktapur are more knowledgeable about safe abortion procedures and laws than young people nationally.

Nearly 5/6th of the respondents (82.2%) have the idea that menstruation indicates the beginning of women's reproductive years. About 44.5% of the respondents think that animal food products should be avoided during the menstrual period similarly, the NDHS 2016 study about perception and practice on menstruation among adolescents shows that "Not touching plants/ fruits/ vegetables during menstruation was reported by 47.8% of the participants; 38.4% avoided entering the kitchen and 30.5% avoided eating with family members while menstruating."⁸ The results show that the untouchability of the specific food items was still found to be almost similar at both the national level and Bhaktapur, respectively. Caffeine-containing drinks were harmful during menstruation, while 36.1% of respondents think that caffeine-containing tea and coffee drinks are good during menstruation flow, and only 22.3 % think that it was not good practice.

The majority of the respondents have an idea that sexually transmitted infections transmit through penetrating sexual activities while among 382 respondents, 21.2% respondent believe that STIs can get transmitted through mosquito bites. When compared to the results of a research article conducted on high school students of Kathmandu in 2017, it was discovered that only 0.5 percent had a misperception regarding STIs, which was a disease spread by mosquito bites, which is still very low when compared to this study.⁶ In comparison to adolescents in Kathmandu, the results indicate that young people of Bhaktapur have less information about the spread of STDs. A high number of respondents (32.7%) believe that HIV/AIDS can get transferred from droplets and other forms of physical touch besides sexual activities and infected blood transfusion likewise; The NDHS 2011 shows the data of Nepal where only 26 percent of females and 34 percent males (15-24) have comprehensive knowledge on HIV/AIDS .⁷ According to the results, respondents from Bhaktapur are more knowledgeable about HIV/AIDS transmission than respondents from other parts of the country, which highlights the urgency of providing proper knowledge to young people.

Almost half of the respondents (52.1%) believe that they have been adequately provided with knowledge on sexual and reproductive health while 47.9% of respondents believe that the knowledge provided to them was inadequate. As for the reason, 42.6% think it was cultural taboos, 25.7% think it was family restrictions, 64.5% believe it was hesitation and 32.8% think that their lesson regarding SRH was skipped during school level.

Almost 5/7th of the respondents (69.1%) feel comfortable sharing their curiosity regarding SRH with their parents, while 30.9% don't feel comfortable. Among the 30.9% of respondents, Almost 3/5th of them feel comfortable sharing it with their lovers (57.2%), 53.8% feel

comfortable with their friends, 15.5% feel comfortable with siblings and 8.7% share it with others as well.

More than half of the respondents agree that abusing a partner who refuses to have sex is inappropriate, and that having several sexual partners, whether male or female, is also inappropriate. In order to understand the perception of respondents regarding women who use contraception, only 3.4% believe that they can have multiple sexual partners or can be promiscuous. However, NDHS data still suggests having poor results. "The NDHS 2011 shows that one in 10 youth (15-24) believe contraceptive is women's business while two in 10 believe using contraception may make women promiscuous. These attitudes prevent women from enjoying sexual and reproductive health rights".⁷ The results of Bhaktapur demonstrate that the respondents were appropriately informed on the significance of contraception and how it directly affects the sexual and reproductive rights of women.

Most of the respondents have mixed reactions about the premarital sexual relationship however, nearly 1/3rd of the respondents have chosen neutral (29.3%) and 13.9% of respondents strongly agree with the statement related to it. A similar study by NDHS 2011 shows that (17%) of the respondent of age (20-24) perceives premarital sexual relationship to be acceptable.⁷ When asked about the acceptability of premarital sexual activity, respondents in Bhaktapur were found to be neutral, and there were fewer respondents who agree with the statement than were found in the national data.

Regarding the question, the intention was to know whether respondents have the idea that there was no chance of pregnancy once the women have menstruation. Almost 2/3rd of them perceive differently (64.1%) i.e. they believe that women can get pregnant even after having menstruation.

The knowledge was calculated in percentile score, where almost 3/8th of the respondents have poor knowledge (36.9%), followed by 33.8% who had moderate knowledge and 29.3% who had good knowledge. While the research conducted on higher secondary schools in Kathmandu, Nepal shows that, nearly half of the respondents (49.5%) had moderate knowledge followed by 29.5% had poor knowledge and only 21.0% had good knowledge among 200 respondents.⁶ The number of respondents with poor knowledge was found to be higher among young people of Bhaktapur as compared to Kathmandu while the number of respondents with good knowledge was higher in Bhaktapur as compared to Kathmandu.

Similarly, Perception was calculated in the mean score, where more than half of the respondents (52.1%) have a positive perception while 47.9% have a negative perception. The result of the study shows that the knowledge of the majority of respondents was

found to be inadequate even though there were many respondents who have positive perceptions of sexual and reproductive health.

The Chi-square test from inferential statistics was used to observe the association of dependent variables with various independent variables related to research. It was found that there was an association of Knowledge with sexes (p-value 0.00), religion (p-value 0.016), ethnicity (p-value 0.01), and employment (p-value 0.010) of the respondents. The research conducted on the higher secondary schools of Kathmandu Nepal shows that there was a statistically significant association of level of knowledge at a 5% significance level with residence (p-value 0.002) but no association with religion (p-value 0.082), and ethnic group (p-value 0.114).⁶

Similarly, there was an association of perception with religion (0.045) and ethnicity (0.007) of the respondents. There was also an association between the dependent variables, knowledge, and perception i.e. 0.023.

CONCLUSIONS

The study showed that the knowledge level of respondents was found to be poor following moderate and good. Knowledge related to various terminologies, Family planning, and contraception, menstruation was found to be poor overall while Knowledge related to abortion practices and sexually transmitted infections was found to be relatively good. Variables like sex, religion, ethnicity, and employment of the respondents were found to be associated with the level of knowledge of the respondents.

More than half of the respondents have a positive perception of Sexual and Reproductive Health while the rest of them had a negative perception of sexual and reproductive health. Religion and Ethnicity were found to be associated with both the negative and positive perceptions of the respondents. Perception regarding multiple sex partners, abuse, and menstruation was found to be positive while perception and understanding related to pregnancy were found to be comparatively negative. Likewise, Almost 5/7th of the respondents feel comfortable sharing their curiosity regarding SRH with their parents and almost half of the respondents believe that they have been adequately provided with knowledge on sexual and reproductive health.

The level of both knowledge and perception was mutually associated with each other which was identified using inferential statistics i.e. Chi-square test.

CONFLICT OF INTEREST

None

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