

Knowledge and Utilization of Sexual and Reproductive Health Services Among Secondary Level Students of Bhaktapur, Nepal

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Abstract

Introduction: According to WHO and ICPD, sexual and reproductive health is defined as “a state of physical, emotional, mental and social well-being in relation to sexuality and reproductive system”. The study aims to assess the knowledge and utilization of sexual and reproductive health services among secondary level students.

Methods: Descriptive cross-sectional study was done among 118 adolescent students from selected school by using non probability purposive sampling technique. Self-administered semi-structured questionnaire was used for data collection. Analysis was done in SPSS version 16 using descriptive and inferential statistics.

Results: 81.4% participants had adequate knowledge related to SRH services and 25.4% had utilized SRH services. Utilization was found to be associated with gender ($p = 0.000$), fathers' education ($p = 0.028$), mothers' occupation ($p = 0.001$), interaction with family ($p = 0.040$), availability of services within 30 minutes of walking distance ($p = 0.000$), sexually active in past 12 months ($p = .000$).

Conclusions: Majority of the respondents had adequate knowledge. Utilization among students was found to be low.

INTRODUCTION

Adolescents account for 16% of world's population and they are protected under the Convention on the Rights of the Child. However, their vulnerabilities and needs such as sexual and reproductive health (SRH) often remain unaddressed.¹ Adolescent sexual and reproductive health (ASRH) refers to the physical and emotional wellbeing of adolescents and includes their ability to remain free from unwanted pregnancy, unsafe abortion, STIs (including HIV / AIDS), and all forms of sexual violence and coercion.² Being a country with 24.2% of its population as adolescents,³ ASRH is one of the fundamental components of reproductive health program in Nepal⁴ and programs are implemented to address the needs of emerging issues of adolescents in the changing context.^{5,6}

Adolescents' knowledge regarding SRH services has been found to be varied in different parts of the world ranging

from only 28.1% in Ethiopia⁷ to more than half in Nigeria.⁸ In Nepal, 53.4% of adolescents had reported to have adequate knowledge on SRH services, the majority having proper knowledge about the correct meaning of reproductive health.¹ Besides, difference in knowledge related to SRH has been found as per the components like sexually transmitted infections and contraceptives.⁹ Lower even none utilization of ASRH services has also been noted in different parts of Nepal in prior studies.^{4,10} Major barriers to utilization of services was reported to be feelings of shame,¹¹ social stigma linked with sexuality, lack of privacy, lack of information, inadequate services, service inaccessibility, lack of confidentiality, absenteeism of service providers, lack of youth friendly services, economic constraints.^{3,4,11,12} As adolescents fear to talk and seek for the services due to the social cultural norms and stigma attached to SRH services, utilization among adolescents

seem to be low.¹³

The Government of Nepal has recognized adolescents as under-served and vulnerable population with specific SRH needs. However only limited number of programs have been implemented targeting these age groups. The study aims to assess the knowledge and utilization of SRH services among secondary level students.

METHODS

A descriptive cross-sectional study was conducted in Shree Mahendra Shanti Secondary School, Bhaktapur, Nepal. Non- probability purposive sampling technique was done to identify the participants. A total of 118 adolescents were distributed self- administered questionnaire for data collection. Ethical approval for data collection was obtained from Nepal Health Research Council (Ref no. 254). Written informed consent from the guardians of participant and child assent from the participants was obtained. Semi-structured questionnaire was developed to collect data where questionnaire related to knowledge and utilization of SRH services were asked. The research instrument consisted of three parts including socio-demographic information, questionnaire related to knowledge and utilization of SRH services. Content validity of the study was maintained by extensive literature review and consultation with subject experts. Consistency was maintained by pre-testing 10% of sample of questionnaire before the study. Instruction was given to students regarding how to fill the questionnaires. A total of 30 - 40 minutes time was required to complete the questionnaire. Confidentiality and anonymity of the adolescents was maintained. Collected data was coded and entered in Statistical package for social science (SPSS) software program version 16.0 for data processing. The collected data was analyzed through descriptive statistics method by using frequency distribution, mean, standard deviation and inferential statistics chi- square was used to show the association.

RESULTS

Tables 1 represents the demographic data of the students and table 2 and 3 represent knowledge and utilization of SRH services. Tables 4 and 5 depict the various factors associated with the knowledge and utilization of SRH services. Figures 1 and 2 illustrate the sources of information regarding SRH and barriers to SRH services.

Table 1: Respondent’s socio-demographic findings N = 118

Variables	Categories	Frequency	Percent (%)
Age of respondents	13 - 16	36	30.5
	16 - 19	82	69.5
Gender	Male	60	50.8
	Female	58	49.2
Ethnicity	Brahmin / Chhetri	71	60.2
	Janjati	36	30.5
	Dalit	11	9.3
Religion	Hindu	100	84.0
	Buddhist	13	10.9
	Christian	4	3.3
	Muslim	1	0.8
Mothers’ educational status	Illiterate	32	27.1
	Literate	86	72.9
Fathers’ educational status	Illiterate	19	16.1
	Literate	99	83.9
Communication with family	Poor communication	26	22.0
	Neutral	16	13.6
	Good communication	76	64.4

Table 2: Knowledge regarding SRH among students

Meaning of SRH services		
Health of people in relation to sexuality and reproductive system and its function and processes. #	99	83.9
SRH services that you heard*		
Family planning including ECP	104	88.1
Voluntary Testing and Counseling for HIV	24	20.3
STI diagnosis and treatment	77	65.3
Maternal services	60	50.8
Safe abortion	76	64.4
Menstrual problems	90	76.3
Availability of SRH services	61	51.7
If yes, Distance to SRH services (n=61)		
About 30 minutes walking distance	36	59.0
More than 30 minutes	25	41.0
Knowledge level ^a		
Adequate knowledge	96	81.4
Inadequate knowledge	22	18.6

*- Multiple response, a- Mean knowledge: 31.68 (±7.82)

Table 3: Respondent’s utilization of SRH services n = 118

Variables	Frequency	Percentage
Sexually active in past 12 months	8	6.8
Ever used any SRH services	30	25.4
Time of last visit (N = 30)		
3 months ago	4	13.3
6 months ago	20	66.7
12 months ago	3	10.0
I couldn’t remember	3	10.0
Person you went to receive SRH services (N = 30)		
Father / Mother	6	20.0
Brother / Sister	2	6.7
Friends	1	3.3
Alone	21	70.0
Number of times in last year (N = 30)		
1 time	12	40
2 times	16	53.3
3 times	2	6.7
Types of SRH services ever used (MRQ)*		
Menstrual problems	23	39.65
Family planning services	8	6.8
Emergency contraceptives	3	2.5
Voluntary counseling and testing for HIV	1	0.8
STI diagnosis and treatment	0	0
Abortion	0	0
Services received during last visit (MRQ)*		
Menstrual problems	23	74.2
Family planning services	4	12.9
Emergency contraceptive pills	3	9.7
VCT for HIV	1	3.2

Table 4: Association of socio-demographic data and knowledge level (N = 118)

Variable	Categories	Inadequate knowledge N (%)	Adequate knowledge N(%)	Chi-square value	p-value
Age	13 - 16	10 (27.8)	26 (72.2)	2.849	0.091
	16 - 19	12 (14.6)	70 (85.4)		
Gender	Male	9 (15.0)	51 (85.0)	1.069	0.301
	Female	13 (22.4)	45 (77.6)		
Fathers’ education	Illiterate	2 (10.5)	17 (89.5)	0.984	0.321
	literate	20 (20.2)	79 (79.8)		
Mothers’ education	Illiterate	5 (15.6)	27 (84.4)	0.264	0.607
	literate	17 (19.8)	69 (80.2)		
Communication with family	Poor communication	6 (23.1)	20 (76.9)	2.017	0.365
	Neutral	1 (6.3)	15 (93.8)		
	Good communication	15 (19.7)	61 (80.3)		

Significant at p < 0.05

Table 5. Association between utilization of SRH services variables (N = 118)

Variables	Categories	Utilization of SRH services		Chi-square	P value
		Yes	No		
Age	13 - 16	7 (19.4)	29 (80.6)	0.977	0.323
	16 - 19	23 (28.0)	59 (72.0)		
Gender	Male	5 (8.3)	55 (91.7)	18.805	0.000
	Female	25 (43.1)	33 (56.9)		
Fathers' education	Illiterate	1 (5.3)	18 (94.7)	4.855	0.028
	literate	29 (29.3)	70 (70.7)		
Mothers' education	Illiterate	6 (18.8)	26 (81.3)	1.031	0.310
	Literate	24 (27.9)	62 (72.1)		
Communication with family	Poor communication	7 (26.9)	19 (73.1)	6.424	0.040
	Neutral	8 (50.0)	8 (50.0)		
	Good communication	15 (19.7)	61 (80.3)		
Availability of services	within 30 minutes of walking distance	22 (61.1)	14 (38.9)	34.798	0.000
	More than 30 minutes	8 (9.8)	74 (90.2)		
Sexually active in past 12 months	Yes	8 (100.0)	0 (0.0)	25.173	0.000
	No	22 (22.0)	88 (80.0)		

Significant at p < 0.05

Table 2 shows that majority of the respondents (83.9%) knew the meaning of SRH. The knowledge level was determined using the correct response to questions related to SRH services. Adolescents supplying more than 50% of correct responses were categorized as having adequate knowledge. Majority of the respondent (81.4%) had adequate knowledge on SRH services.

Table 3 shows that 25.4% of the respondents have utilized the SRH service. Almost 40% sought services for menstrual problems while none of them had visited for STI diagnosis, treatment and abortion. Majority of them (74.2%) received the treatment for menstrual problems. Figures 1 and 2 show the sources of information regarding SRH and the barriers for utilization of SRH services.

Table 4 shows that level of knowledge is not significantly associated with age, gender, mothers' education, fathers' education and communication with family.

Table 5 shows that utilization of sexual and reproductive health services is significantly associated with gender, fathers' education, availability of services within walking distance, and sexually active in past 12 months while rest

of the socio-demographic variables such as age, mothers' education was not significantly associated with utilization of SRH services.

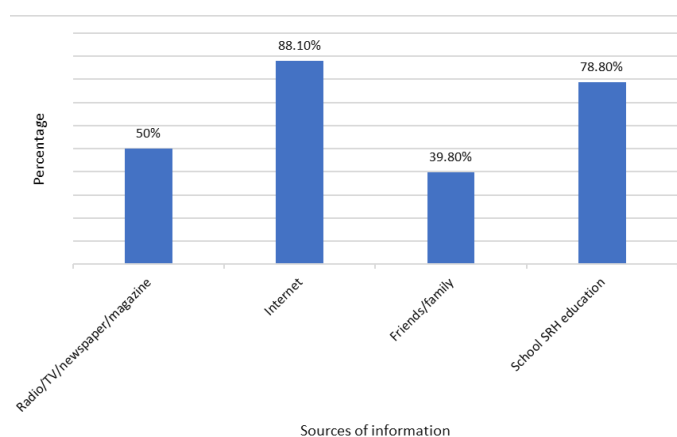


Fig 1: Distribution of source of information regarding SRH services (n=118)

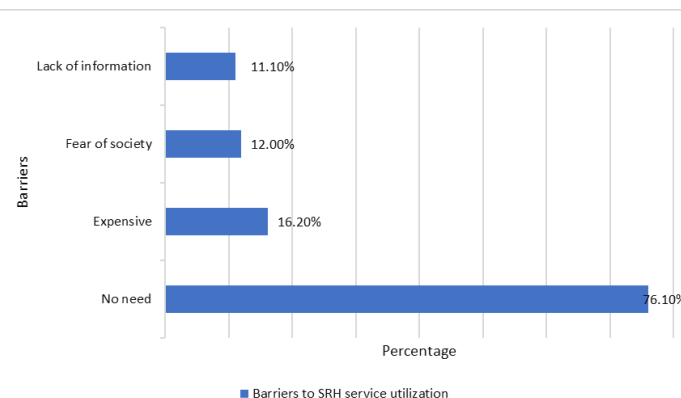


Fig 2. Barriers to SRH service utilization (n=118)

DISCUSSION

This is a descriptive cross-sectional study to find out the knowledge and utilization of SRH services among the students of grade 9 and 10. 118 students were included in the study. In this study, majority of the respondents had adequate knowledge on sexual and reproductive health services i.e. 81.4% which is higher than a study conducted among 440 adolescents of public schools of Lalitpur, Nepal, where 53.4% of adolescents had adequate knowledge about sexual and reproductive services which is contrast to the study findings.⁷ Likewise in a study conducted in India among adolescent girls, they had poor knowledge regarding meaning of reproductive health however had varied information about different components of SRH such as family planning, menstrual problems, HIV/ AIDS and STDs.¹⁴ The fragmented knowledge about components of SRH further makes adolescent prone to high risk sexual behaviors.¹⁵ Despite the place of residence, very low awareness regarding SRH services was found in Oyo state Nigeria however, this has not been sought in current study due to only one sampling area.⁸

The major source of information regarding SRH services vary around the globe. Radio / TV like mass media are found to be most common sources. In this study majority of source of information was school sexual and reproductive health education i.e. 78.8% whereas in a study conducted in Lalitpur, Nepal 77.9% of adolescents had used radio to obtain information which is contrast to study findings.⁷ The most common sources are found to be mass media (Radio / TV), internet, health personnel, school, parents, friends and others such as clubs, workshop, internet. The use of internet to receive information is also increasing^{8,10,14,16} however interpersonal communication like with teachers, parents is found to be comparatively low.¹⁴

Communication with parents plays a vital role in expressing

the conflicting emotions of SRH needs. In this study, the communication was found to be good with parents in majority of cases. No any association between knowledge level and communication was found which was similar to a study from Malaysia.¹⁷ However, those adolescents with good communication with parents have utilized SRH services in this study which is in contrast to a study from Ethiopia where the communication was found to be relatively lower with parents and no association between communication with parents and utilization was found.⁷

In a study conducted in urban Nepal, most of the adolescent knew that SRH services are available in hospital and health facilities whereas least knew that it was available in I / NGOs¹⁰ however only half of the adolescent respondents had such information about availability of SRH services nearby in the current study. Similarly in Ethiopia, three quarter of respondents knew about the facilities where SRH services are available.¹⁸

In this study, there was insignificant association between socio-demographic findings and level of knowledge of the respondent whereas a study conducted among adolescents in Lalitpur, Nepal showed significant association between adolescents age. In Kuwalalampur, Malaysia, 19 years old had higher knowledge¹⁷ which is contrast to study findings. However, gender, mothers' education, fathers education were not found to be associated which is similar to current study.⁵

In this study utilization of SRH service was 25.4% which is higher than similar studies conducted among adolescents of Kathmandu district, Nepal (9.2%¹⁰, 17.2%¹³). In this study, 6.8% of respondents had utilized service related to family planning whereas in a study conducted among adolescents of Northern Ethiopia showed that 77.4% used family planning services.¹⁶ Also , majority of respondents in this study obtained services for menstrual problems followed by family planning which is similar to the findings from another study in Kathmandu.¹³ In this study, 2.5% have utilized services related to emergency contraceptive, 0.8% have utilized service related to voluntary counselling and testing on HIV whereas in a study conducted among adolescents in central Ethiopia majority had utilized voluntary counselling and testing for HIV which was not evident in this study.⁷

In this study, there was significant association between socio-demographic findings and utilization of SRH services such as gender, fathers' education, mothers' education, communication with family and selected variables such as availability of services within 30 minutes walking distance, sexually active in past 12 months which is similar to findings from a previous study from Kathmandu, Nepal which

showed significant association between interaction with family, availability of services within 30 minutes walking distance, sexually active within 12 months.⁶ This study has several limitations being a small sized sample conducted in a single centre. This study recommends to organize various school-based awareness programs to enhance knowledge and utilization of SRH services and emphasis can be given to continue the curriculum even in the future.

CONCLUSIONS

Majority of the respondents have adequate knowledge but poor utilization of SRH services. Gender, fathers' education, mothers' education, communication with family members, availability of services within 30 min walking distance and sexually active in past 12 months were factors found to be associated with the utilization of SRH services.

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REFERENCES

1. United Nations Population Fun. Sexual and reproductive health. UNFPA, <https://www.unfpa.org/sexual-reproductive-health> (2022, accessed 2 November 2022).
2. Open Learn Create. Introduction to adolescent and youth reproductive health (AYRH). Open Learn Create, <https://www.open.edu/openlearncreate/mod/oucontent/view.php?id=62> (2022, accessed 14 November 2022).
3. Upadhyay P. Sexual and reproductive health services: Utilization pattern of adolescents in Nepal. *NEHU J.* 2016; 14: 55-67.
4. Khanal P. Adolescents knowledge and perception of sexual and reproductive health and services- A study from Nepal. University of Eastern Finland, Faculty of Health Sciences, <https://erepo.uef.fi/handle/123456789/16627> (2016, accessed 31 October 2022).
5. Khanal C, Gautam S, Acharya S, Pandey L, Mahara G. Knowledge and attitude on sexual and reproductive health among adolescents in Lalitpur, Nepal. *World J Adv Res Rev.* 2020; 7: 282-290.
DOI: [10.30574/wjarr.2020.7.1.0267](https://doi.org/10.30574/wjarr.2020.7.1.0267)
6. Government of Nepal, Ministry of Health and Population, Department of Health Services, Kathmandu. Annual Report, Department of Health Services 2076/77 (2019/20). Government of Nepal, Ministry of Health and Population, Department of Health Services, <https://dohs.gov.np/wp-content/uploads/2021/07/DoHS-Annual-Report-FY-2076-77-for-website.pdf> (accessed 2 November 2022).
7. Tlaye KG, Belete MA, Demelew TM, Getu MA, Astawesegn FH. Reproductive health services utilization and its associated factors among adolescents in Debre Berhan town Central Ethiopia: a community- based cross- sectional study. *BMC Health Serv Res* 2018; 15: 217.
DOI: [10.1186/s12978-018-0659-4](https://doi.org/10.1186/s12978-018-0659-4)
PMID:30587220 PMCID:PMC6307180
8. Ilori OR, Awodutire PO, Ilori OS. Awareness and utilization of adolescent reproductive health services among in-school adolescents in urban and rural communities in Oyo state. *Niger Med J* 2020; 61: 67-72.
DOI: [10.4103/nmj.NMJ3819](https://doi.org/10.4103/nmj.NMJ3819)
PMID:32675897 PMCID:PMC7357806
9. Andemeskel YM, Weldegiorgis GG, Bekit BZ, Gebresilassie EG, Gebreab GH, Gebresilassie TY, et al. Reproductive health knowledge, attitude and practice among adolescents attending secondary schools in Asmara, Eritrea. *Res Sq.* 2021.
DOI: [10.21203/rs.3.rs-958951/v1](https://doi.org/10.21203/rs.3.rs-958951/v1)
PMID:33662096
10. Bam K, Haseen F, BC RK, Newman MS, Chaudhary AH, Thapa R, et al. Perceived sexual and reproductive health needs and service utilization among higher secondary school students in urban Nepal. *Am J Public Health Res.* 2015; 3: 36-45.
DOI: [10.12691/ajphr-3-2-1](https://doi.org/10.12691/ajphr-3-2-1)
11. Tamang L, Raynes-Greenow C, McGeechan K, Black KI. Knowledge, experience, and utilisation of sexual and reproductive health services amongst Nepalese youth living in the Kathmandu valley. *Sex Reprod Health Care.* 2017; 11: 25-30.
DOI: [10.1016/j.srhc.2016.09.002](https://doi.org/10.1016/j.srhc.2016.09.002)
PMID:28159124
12. Regmi P, Simkhada P, Teijlingen EV. 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: 1-5.
13. Pokhrel S, Nepal S, Mali P, Baskota S, Aryal R, Thapa A. Utilization and associated factors of sexual and reproductive health services among adolescents of Kathmandu district, Nepal. *Int J Community Med Public Health.* 2020; 7: 4737-4744.
DOI: [10.18203/2394-6040.ijcmph20205143](https://doi.org/10.18203/2394-6040.ijcmph20205143)
14. Patanwar P, Sharma K. Awareness of reproductive health among the kurmi adolescent girls of Raipur city, Chhattisgarh, India. *Int J Res Health Sci.* 2013; 1: 126-133.
15. Mengistu TS, Melku AT. Sexual and reproductive health problems and service needs of university students in south east Ethiopia: Exploratory qualitative study. *Sci J Public Health.* 2013; 1: 184-188.
DOI: [10.11648/j.sjph.20130104.13](https://doi.org/10.11648/j.sjph.20130104.13)

16. Gebreyesus H, Teweldemedhin M, Mamo A. Determinants of reproductive health services utilization among rural female adolescents in Asgede- Tsimbla district Northern Ethiopia: a community based cross- sectional study. *BMC Health Serv Res*; 16. 2019.
DOI: [10.1186/s12978-019-0664-2](https://doi.org/10.1186/s12978-019-0664-2)
PMID:30634991 PMCID:PMC6330493
17. Ujang MF, Sutan R. Knowledge on Sexual and Reproductive Health among Adolescents in a College at Seremban, Negeri Sembilan. *Int J Public Health Res*. 2014; 4: 500-509.
18. Binu W, Marama T, Gerbaba M, Sinaga M. Sexual and reproductive health services utilization and associated factors among secondary school students in Nekemte town, Ethiopia. *Reprod Health*; 15.
DOI: [10.1186/s12978-018-0501-z](https://doi.org/10.1186/s12978-018-0501-z)
PMID:29665831 PMCID:PMC5904970