

Awareness and Utilization of Adolescent Sexual and Reproductive Health Services among Secondary Students

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ABSTRACT

Introduction: Adolescent sexual and reproductive health (ASRH) is a major global health concern, and neglecting it can lead to long-term negative consequences. Despite its importance, awareness and utilization of ASRH services remain low. This study aimed to assess the awareness and utilization of ASRH services among secondary school students.

Methods: A descriptive cross-sectional study was conducted among adolescent students in grades 11 and 12 at Shree Krishna Sanskrit and General Secondary School, Surkhet. A complete enumeration was conducted, and data were collected from a total of 200 students using a structured self-administered questionnaire. Descriptive and inferential statistics, including the chi-square test, were used for data analysis.

Results: The mean age of the respondents was 16.43 ± 0.888 years, with among them 53.5% male and 66% living with both parents. Almost all (97.5%) were unmarried, and 66.5% lived within a 30-minute walking distance to a health facility. More than half of the respondents (65.5%) had moderate awareness of sexual and reproductive health, among them only 10.5% had used ASRH services. A large number (86.5%) did not use ASRH services because they felt they did not need them. Awareness was significantly associated with family type ($p=0.001$) and distance to health facilities ($p=0.007$). Utilization was significantly linked to sex ($p=0.000$) and marital status ($p=0.009$).

Conclusion: It is concluded that the more than half of respondents had a moderate level of awareness about sexual and reproductive health, and one-tenth had utilized ASRH services within the past 12 months. Awareness-raising programs on ASRH could be implemented through schools to enhance both awareness and service utilization.

Keywords: Awareness, Sexual and Reproductive Health, students Utilization

INTRODUCTION

Globally, adolescents constitute approximately 1.3 billion individuals, representing 16% of the world's total population, with more than half of this population living in developing countries.¹ This transitional period from childhood to adulthood involves significant changes, placing adolescents at an increased risk for various preventable and treatable reproductive health issues.² Adolescents globally face significant challenges to their sexual and reproductive health, including sexual violence, limited access to contraception and safe abortion, early pregnancies, gender inequalities, and increased risk of STIs, including HIV.³ Despite global and national efforts,

the utilization of sexual and reproductive health (SRH) services among adolescents remains low.⁴⁻⁷⁻

Globally, adolescents and youth face a significant unmet need for sexual and reproductive health (SRH) information and services.⁸ The challenges include inadequate SRH information due to limited access to SRH education and the provision of poor-quality adolescent sexual and reproductive health (ASRH) services.⁹ Unsafe sexual practices put them higher risk of unwanted pregnancy, unsafe abortion and sexually transmitted infections including HIV/AIDS.¹⁰ A study in Nigeria found that 13.1% of adolescents were aware of adolescent reproductive health services (ARHS), with higher awareness in

urban areas. Only 7.8% had utilized ARHS, primarily due to a lack of knowledge about service locations.¹¹ Another study found that secondary school students had limited knowledge of contraception and low utilization of sexual and reproductive health services (SRHS).¹²

In Nepal, adolescents comprise approximately 19.8% of the total population and face numerous challenges, including limited awareness about sexual and reproductive health.¹³ These challenges are compounded by factors such as poverty, gender inequality, socio-economic status, and social norms, which significantly impact the awareness and utilization of adolescent sexual and reproductive health services.¹⁴ To address these issues, Nepal developed and endorsed its first National Adolescent Health and Development Strategy in 2000, which was later revised in 2018 to better address the evolving challenges faced by adolescents.¹⁵ Since 2008, the country has progressively implemented its Adolescent-Friendly Health Program, aimed at improving adolescent sexual and reproductive health services. By 2022, the program had expanded to 75 out of 77 districts, covering 1,355 public health facilities.¹⁶

A study in Kathmandu, Nepal reported that 73.2% of adolescents had a high level of knowledge, and 70.9% had good practices regarding reproductive and sexual health.¹⁷ Another study in Nepal concluded that almost half of the respondents had some knowledge about sexual and reproductive health, but effective educational interventions are still needed to enhance their understanding.¹⁸ A study in Nepal also showed that awareness and utilization of adolescent-friendly services were low, highlighting the need for increased government efforts to improve SRH awareness and access in collaboration with schools and local organizations.¹⁹ Awareness of the importance of healthcare services and their availability is crucial for adolescents.²⁰

Despite efforts to improve sexual and reproductive health services, their utilization remains limited worldwide, including in Nepal, due to complex social, cultural, economic, and psychological factors.⁹ Global studies show varying results on the awareness and utilization of adolescent sexual and reproductive health services, but research in Nepal remains

limited. This study seeks to assess the awareness and utilization of these services among secondary school students in Nepal.

METHODS

A descriptive cross-sectional research design was used. The study was conducted at Shree Krishna Sanskrit and General Secondary School, Birendranagar Municipality, Surkhet. The study population consisted of grade 11 and 12 students from the school, with a total of 200 students. There were 90 students in grade 11 and 110 students in grade 12. Adolescents (male and female) in grades 11 and 12 at Shree Krishna Sanskrit and General Secondary School, who were present and willing to participate, were included in the study. A complete enumeration of all students in grades 11 and 12 was used to select the samples.

A structured self-administered questionnaire was developed by the researchers based on an extensive literature review. The first part included questions about the adolescents' background information, including details about their siblings and parents. The second part consisted of questions regarding awareness of Adolescent Sexual and Reproductive Health. For the awareness questions, one point was awarded for each correct answer and zero for incorrect answers. For multiple-response questions, one point was given for each option selected, with zero points for no response. The scores were then summed to obtain an overall score for each respondent. The level of awareness was categorized into adequate, moderate and inadequate by taking reference of Shrestha and Awale.¹⁸ Awareness scores of 75% and above were considered adequate, 50% to 75% were considered moderate, and below 50% were considered inadequate. The third part included questions related to utilization of ASRH services. Utilization of adolescent health services refers to the use of any sexual and reproductive health services in the twelve months preceding the survey. It was measured based

on self-report, with a yes or no response to a single question, as referenced by Sharma et al.²¹ A value of 1 was assigned for the utilization of AFHS and 0 for non-utilization.

Data was collected after getting ethical approval from Institutional Review Committee of Institute of Medicine and Shree Krishna Sanskrit and General Secondary School. The IRC approval reference number was 101(6-11) E2 080/081. Purpose of the study was explained to the students. Students aged 18 and younger were provided with a parent's consent form and asked to return the form with the parent's signature. Afterward, assent was obtained from students in this age group. Informed consent was obtained from students above the age of 18. The participants were assured voluntary participation. Confidentiality of the information was maintained by not disclosing the information and using the obtained information for the study purpose only. The data was collected from 17/10/2023 to 13/11/2023 using a self-administered questionnaire at a convenient time for the students in the classroom.

The collected data was edited, organized, coded and analyzed using computer package with SPSS (Statistical Package for Social Science) software version 16. Data was analyzed by using descriptive and inferential statistics. Descriptive statistics i.e, frequency, percentage, mean, range, standard deviation was computed for the study variables. Inferential statistics i.e, Chi square test were used to find out the association. A p value of less than 0.05 was considered significant.

RESULTS

Out of 200 adolescents, 56.5% of the adolescents were 16 and below age group. The mean age was 16.43 ± 0.888 years. Regarding ethnicity, 59% of the respondents were Brahmin/Chhetri. Most of the respondents (84.0%) were Hindu. More than half (55.0%) belonged to grade 12. Among them (97.5%) were unmarried and 45.5% were living with nuclear family. Regarding living status, 66.0 %

were currently living with parents. Majority of the adolescent's mothers (72.2%) were able to read and write. Most of the adolescent's father (91.5%) were able to read and write and 44.3% had secondary level of education. More than half of the adolescent's mother (53.5%) were homemaker and 31.5% of the adolescent's father had own business. Almost all (99.5%) of the adolescents had siblings and 66.5% were living 30 minutes and less walking distance from health facility.

In this study, 14.5% of adolescents had inadequate, 65.5% had moderate, and 20.0% had adequate levels of awareness about sexual and reproductive health services. There was a statistically significant association between the level of awareness of adolescent sexual and reproductive health services and both the type of family ($p = 0.001$) and the distance to health facilities ($p = 0.007$). Additionally, a significant association was found between the utilization of ASRH services and the sex ($p < 0.001$) and marital status ($p = 0.009$) of the respondents.

Table 1: Adolescent Awareness of Age Group, Challenges, and ASRH Information and Services n= 200

Correct Responses	Number	Percentage
Age groups of adolescent refer to 10-19 years	125	62.5
Challenges faced during adolescent period*		
Suicide	136	68.3
Injuries	129	64.8
Tobacco use	129	64.8
Trafficking	124	62.3
Early pregnancy and child birth	119	59.8
Violence	109	54.8
Mental health	82	41.2
Drowning	76	38.2
Abortion	69	34.7
HIV/AIDS	66	33.2
Malnutrition	57	28.6
Key ASRH Information for adolescent*		
Marriage, pregnancy and abortion	172	86.0
Sexual and reproductive health rights	168	84.0
STI, HIV and AIDS	151	75.5
Cigarette, alcohol and drugs	144	72.0
Sex and sexual relationship	141	70.5
Menstruation	107	53.5
Growing up and puberty	52	26.0
Friendship and love	47	23.5
Available of ASRH services in Nepal*		
Prevention of STIs	138	69.7
Safe abortion services	136	68.7
ANC, childbirth and PNC	123	62.1
Counseling	105	53.0
Comprehensive sexuality education	94	47.5
Prevention of gender based violence	93	47.0
IEC on SRHR services	93	47.0

Multiple Responses*

A majority of adolescents (62.5%) were aware of adolescent age groups. Regarding challenges during adolescence, most were aware of issues such as suicide (68.3%), injuries (64.8%), tobacco use (64.8%), trafficking (62.3%), early pregnancy and childbirth (59.8%), and violence (54.8%). In terms of necessary information, adolescents showed high

awareness of marriage, pregnancy, abortion, and sexual and reproductive health rights (86.0% and 84.0%, respectively). Additionally, adolescents were aware of available ASRH services in Nepal, including STI prevention (69.7%), safe abortion (68.7%), and ANC, childbirth, and PNC (62.1%) (Table 1).

Table 2: Adolescent Awareness of Marriage, Pregnancy, Abortion and Family Planning n =200

Correct Responses	Number	Percent
The legal age for marriage is 20 years and above	171	85.5
Consequences of early marriage*		
Unsafe abortion	174	87.0
Discontinuity in education	173	86.5
Financial difficulties	168	84.0
Teenage pregnancy	147	73.5
Increase chance of STI	92	46.0
The appropriate age for first pregnancy is 20-34 years	187	93.5
Abortion is legalized in Nepal	148	74.0
Meaning of safe abortion	137	68.5
Performed by a trained health worker in a government certified facility with the woman's consent.		
Consequences of unsafe abortion*		
Heavy bleeding	174	87.0
Trauma to reproductive organ	158	79.0
Infection	132	66.0
Infertility	93	46.5
Methods of family planning*		
Condom	197	98.5
Depo-Provera	171	85.5
Implant	87	43.5
Copper T	86	43.0
Vasectomy	113	56.5
Minilaprotomy	100	50.0
Emergency contraceptives should be taken within 120 hours of unprotected sex	25	21.0

Multiple Responses*

Most adolescents (85.5%) were aware that the legal age of marriage is 20 years. Regarding the consequences of early marriage, many were aware of unsafe abortion, discontinuation of education, and financial difficulties, with awareness rates of 87.0%, 86.5%, and 84.0%, respectively. Nearly all adolescents (93.5%) correctly identified that the appropriate age for the first pregnancy is between 20-34 years. The majority (74.0%) were aware of the legal conditions surrounding abortion, while 68.5%

understood the correct meaning of safe abortion, and 87.0% identified heavy bleeding as a consequence of unsafe abortion. Almost all adolescents (98.5%) were aware of condoms, and 85.5% were aware of Depo-Provera as methods of family planning. Regarding emergency contraception, 21% correctly identified the appropriate time frame for its use, which is within 120 hours (Table 2).

Table 3: Adolescent Awareness of Sexually Transmitted Infections and Sexual Violence n=200

Correct Responses	Number	Percentage
Common sexually transmitted infections (STIs)*		
HIV/AIDS	192	96.0
Syphilis	132	66.0
Gonorrhea	117	58.5
Vaginitis	81	40.5
Candidiasis	56	28.0
Symptoms of STIs*		
White discharge from genitalia	166	83.0
Lower abdominal pain	155	77.5
Genital itching	150	75.0
Pain during urination	120	60.0
Genital lesion	70	35.0
Mode of transmission of STIs *		
Unsafe sexual intercourse	183	91.5
Sharing of infected needles	177	88.5
Infected blood transfusions	171	85.5
Mother to childhood transmission	123	61.5
Preventive measures of STIs*		
Use of condoms	193	96.5
Avoid multiple sexual partners	183	91.5
Safe blood transfusions	165	23.2
Proper handling of infected needles	88	44.0
Vaccinations	82	41.0
Forms of sexual violence*		
Rape	194	97.0
Forced prostitute	140	70.0
Trafficking	123	61.5
Sexual harassment	94	47.0
Consequences of sexual violence*		
Unwanted pregnancy	167	83.5
STIs	150	75.0
Mental illness	143	71.5
Physical disability	133	66.5

*Multiple Responses**

Almost all adolescents (96.0%) were aware that HIV/AIDS is a sexually transmitted infection. Similarly, 83.0% were aware that white discharge from the genitals is a sign of STIs, and 91.5% recognized unsafe sexual intercourse as a mode of STI transmission. Nearly all respondents (96.5%) knew that condom

use and avoiding multiple sexual partners (91.5%) are preventive measures for STIs. Regarding sexual violence, 97.0% were aware that rape is a form of sexual violence, and 83.5% understood that unwanted pregnancy is a consequence of sexual violence (Table 3).

Table 4: Utilization of Adolescent Sexual and Reproductive Health Services

n=200

Utilization of Services	Number	Percentage
Utilization of ASRH service in last 12 months	21	10.5
Types of ASRH service utilized in last 12 months (n=21)*		
Information about menstrual problems	18	85.7
Information related to pubertal change	10	47.6
Information on safe sex practices/STIs	4	19.0
Information on adolescent pregnancy	2	9.5
Counseling related to family planning.	4	19.0
Used Emergency contraceptives	2	9.5
Used FP related services	2	9.5
Used Safe abortion services	2	9.5
Place of utilization of ASRH services(n=21)*		
Government health center	19	90.5
Private hospital	10	47.6
Youth club	3	14.3
Medical shop	2	9.5
Reason for not utilizing ASRH Services (n=179)*		
Don't need services	154	86.5
Embarrassed for ASRH services	132	74.2
Lack of confidential services	87	48.9
Behaviors of health worker	47	26.4
Unconventional time	45	25.3
Long waiting hours	45	25.3
Don't know place	35	19.7
Sex of service providers	34	19.1

*Multiple Responses**

Out of total adolescents, only 10.5% utilized ASRH services. Among them, 85.7% received information on menstrual-related problems within the last 12 months, and 90.5% accessed services at government health centers. The majority of adolescents (86.5%) did not utilize ASRH services, primarily because they felt they did not need the services, followed by 74.2% reported embarrassment regarding ASRH (Table 4).

DISCUSSION

In the present study, it was found that 20% of respondents had adequate awareness, 65.5% had moderate awareness, and only 14.5% had inadequate awareness regarding adolescent sexual and reproductive health (ASRH). These findings align

with a study conducted in Kathmandu, Nepal, which reported that 34% of respondents had high, 58% had moderate, and 8% had low levels of knowledge about sexual and reproductive health.²² However, a study by Shrestha and Awale in Nepal revealed a slightly different distribution, with 21% of respondents having adequate knowledge, 49.5% having moderate knowledge, and 29.5% having inadequate knowledge regarding sexual and reproductive health.¹⁸ In contrast, the current level of awareness differs from studies by Poudel and Nepal¹⁷ and Munikar et al.²³ which found that 73.2% and 81.4% of respondents, respectively, exhibited a high level of knowledge regarding sexual and reproductive health.

This study found that only 10.5% of respondents had utilized adolescent sexual and reproductive

health (ASRH) services. This finding is consistent with studies conducted in Nigeria and Nepal, where utilization rates were 7.8% and 9.2%, respectively.^{11,24} Other studies conducted in Ethiopia and Nepal reported slightly higher utilization rates of 23.5% and 12.8%, respectively, over the past 12 months.²⁵⁻²⁶ However, the utilization rate in the current study was lower compared to previous studies in Dang and Jumla, where utilization rates were 48.7% and 67.05%, respectively.^{27,21} Differences in utilization rates are influenced by factors such as awareness, social stigma, availability of services, and educational campaigns, all of which impact adolescents' willingness to seek ASRH services.

The current study found a significant association between awareness of adolescent sexual and reproductive health (ASRH) services and family type ($p = 0.001$) and distance to health facilities ($p = 0.007$). However, no significant association were found with other variables. The studies conducted in Bhaktapur and Kathmandu found a statistically significant association with the distance to health facilities ($p = 0.007$ and $p = 0.001$, respectively), which aligns with the findings of the current study.^{24,28} This finding contrasts with a study from Lalitpur, Nepal, which identified that adolescents' education ($p = 0.010$) and attitude ($p = <0.001$) were significantly associated with knowledge of sexual and reproductive health.²⁹ Another study conducted by Shrestha et al.¹⁸ in Kathmandu, Nepal, found a significant association between the level of knowledge and area of residence ($p = 0.002$). However, a study by Shrestha et al.²² showed no significant association between the level of knowledge and sociodemographic variables. The variations in findings may be due to differences in demographic characteristics, including education, socioeconomic status, and geographic location.

The present study found a significant association between the utilization of ASRH services and both sex ($p < 0.001$) and marital status ($p = 0.009$) of the respondents. No significant association was observed with other variables. In contrast, a study in Dang showed that the educational status of mothers was significantly associated with the utilization of adolescent-friendly health services ($p = 0.022$), while the father's education did not show a significant association.²⁷ Additionally, the current study did not find a significant relationship between parental

occupation and the utilization of AFHS by their children, which aligns with findings from a similar study conducted in Nepal³⁰ This contrast may be attributed to differing social and cultural dynamics across regions, where mothers often have a more direct influence on their children's health-seeking behavior.

CONCLUSION

The study concluded that more than half of respondents had a moderate level of awareness on sexual and reproductive health, with one-tenth having utilized ASRH services in the past 12 months. A significant association was found between the level of awareness and factors such as the type of family and the distance to health facilities. Additionally, utilization of ASRH services was associated with the sex and marital status of the respondents.

ACKNOWLEDGEMENT

We acknowledge and thank Pokhara Nursing Campus, the Research Committee, Institutional Review Committee, Tribhuvan University, Institute of Medicine, Shree Krishna Sanskrit and General Secondary School, Birendranagar Municipality, Surkhet, and the parents who provided consent for their children's participation. We also extend our sincere gratitude to the students who participated in this study.

CONFLICT OF INTERESTS: no conflict of interest.

SOURCE OF FUNDING: Self-funded study

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