Multi-level Barriers for Utilization of Youth Friendly Reproductive Health Services (YFRHS) among Youths

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Abstract

The present study aims to examine the multi-level barriers to utilize by the youth-friendly reproductive health services (YFRHS) among the school-going youths of the Surkhet valley of Nepal. This study is based on the sequential explanatory research design under mixed-method research. The quantitative data were collected using the self- administered questionnaire from the 249 youths, aged between the 15-24 years, those selected by using random sampling. The qualitative data were collected using the Focus Group Discussions (FGDs) from the 12 participants who were selected purposively. The study confirmed that school-going youths do not have appropriate utilization of YFHS due to multi-layered barriers. However, the utilization of the service was higher among females, those the older age group, studying in the upper classes, the upper castes, and married youths. The key findings and themes are recognized as multi-layered barriers including personal-level, health system-level, community-level, and policy-level on the entire socio-ecological field. Among them, the existing health system is the foremost barrier. Multi-level interventions are, therefore, required to increase the YFRHS utilization and improve concerns for school-going-youths.

Keywords: Youth-friendly services, multi-level barriers, youths, utilization, mixed-method

Introduction

There are nearly 1.2 billion youths aged between 15 to 24 years old on the planet (WHO, 2020) and mainly increased in the developing countries (United Nations, 2019). However, young populations are also increasing in Nepal. The total youth population in Nepal is 40.3% (Ministry of Youth and Sports, 2014). Similarly, the adolescents and youth population between the aged 10 to 24 years old accounted for 24.2 percent of the total population (CBS, 2012).

The adolescents and youth population in Nepal are often faced with limited access to health services and (Khanal, 2016). Due to the fast-moving lifestyles and the influence of the Western culture, the lack of information about sexual and reproduction health (SRH), traditional myths and misconceptions, the health of the youths is unprotected (Subedi & Dybedi, 2009). Young continue to face greater reproductive health risks than adults (Senderowitz, Hainsworth, & Solter, 2003). YFRHS is a rights approach for young people and an often strong focus on physical, social and mental aspects of SRH (Braeken & Rondinelli, 2012). If they utilize the YFHS promptly, lots of health problems will be reduced (The Himalaya Times, 2017).

Barriers to utilizing SRH services are multiple and relatively perceived differently in different contexts. The various studies in Nepal and other countries indicated that the diverse and multiple levels of barriers exist in YFRHS (Gombachika et al., 2012) and comes from their

socio-ecology and dynamic interrelationships that existed across contexts (Marcell et al., 2017), such as the policy-level, facility-level, health provider-level, family and community-level (UNFPA, UNICEF & the Government of Nepal, 2015). Lack of awareness about the services, socio-culture norms, confidentialities, feasible service hours, and the preferences for same-sex service providers are the factors affecting the utilization (Napit et al., 2020) are also known as cognitive accessibility barriers and psychosocial accessibility barriers preventing young people from accessing the SRH services (Thongmixay et al., 2019). The main barriers relate to low awareness of AFHS and their own embarrassment at seeking SRH services, community-level, socio-culture norms and attitudes, insufficient training, monitoring and supervision, inadequate resources to ensure privacy and poor implementation of the SRH Program (The Himalayan Times, 2015). The negative attitudes towards young clients from providers may inhibit access and reinforce young people do not receive services (WHO, 2004).

According to the above-stated literature, there are some gaps that can be seen in youth health services. Despite having the numerous national plans, policies, facilities and educational programs, knowledge and practices, YFHS seems very poor in the youth groups. The above-mentioned findings indicated that young people have faced multi-level barriers in the RH service. The YFRHS have been a major concerned in western countries. In Nepal, youth problems have largely existed but there are a few researches have been done on YFHS issue. Research, regarding the multiple barriers to utilization of YFRHS, is rarely done by any researchers in the Surkeht district. This is the main reason to carry out this study. Thus, this study aims to explore the multiple barriers to uptakes by the YFRHS within the school youths of the Surkhet valley.

Guiding Framework: Socio-Ecological Model

There are varieties of applications of ecologic perspectives, addressing different health programs in varieties of settings (Mcleroy, Bibeau, Steckler & Glanz, 1988) which recognize the intertwined relationship existing between an individual and their environment and incorporate the multiple levels of influence, dynamic interactions and multidimensional structure (Stokols, Lejano & Hipp, 2013) on health behaviour. This model provides a framework for understanding how individuals and their social environments mutually affect each other to utilize health service seeking behavior. Kenneth Mc Leroy's Ecological Model (1988) is further defined as Stokols's Social-ecological (SEM) Model of Health Promotion (Gombachika et al., 2012**)** to depict interrelated systems at the intrapersonal, interpersonal, organizational, community, and policy levels illustrated as concentric circles (Wendel & McLeroy, 2012). By using the SEM as an analytical lens, this study explores the multiple barriers to utilizing YFRS at the individual, health system, and community and policy levels (Figure 1).

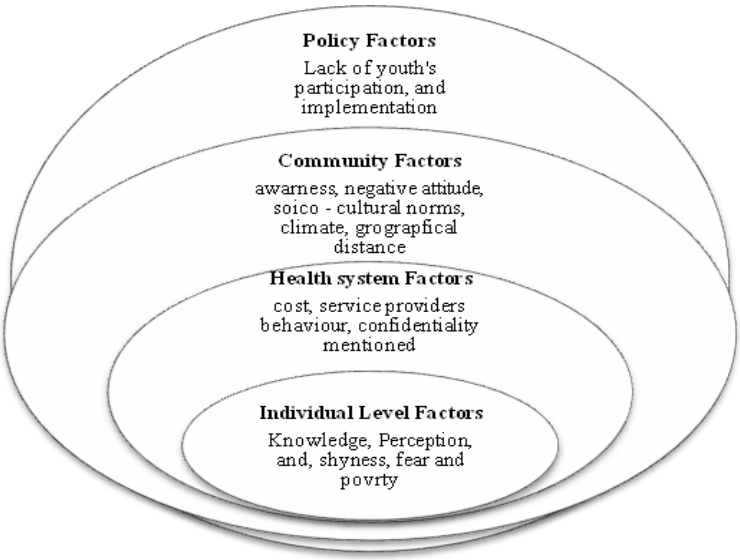

Figure 1: Socio-ecological model and multiple behaviors of YFHS adopted from UNFPA, UNICEF& the Government of Nepal, 2015)

Methods

This study was based on a cross-sectional study design under a descriptive study. In this study, quantitative data were used as primary data and qualitative data were used as supportive data. Thus, this study followed a sequential explanatory design under a mixed-methods research approach. This study was conducted in secondary schools and Family Planning Association Nepal (FPAN) of Surkhet Valley. All the school students, aged between 10 to 24 years old, studying in secondary schools were the study population for quantitative research. Likewise, for the qualitative research, the health service providers and the youth facilitators or volunteers, working in the FPAN project, were recruited as a study population.

Based on the record of the Surkhet District Education Office, the nine public secondary schools are operating up to twelve classes in the district. Out of the total secondary schools, four schools were randomly selected for the study. According to the records of selected schools, 3,109 youth students were studying during the study period. The sample size was 249 (8%) of a total population selected randomly and calculated by using the Rao soft sample size calculator. For qualitative research, twelve participants were selected purposively from health service providers and youth facilitators/volunteers from FPAN project. The quantitative study employed a self-administered structured questionnaire and the qualitative study employed FGD. All the collected data were checked carefully, arranged in order, edited, and coded before the computer entry. For qualitative data analysis, the study used descriptive statistical tools such as numbers, percentages, and cross-tabulations. Qualitative data were transcribed, interpreted, coded and thematically analyzed. Qualitative and quantitative data were triangulated, merged and presented in the appropriate headings.

The ethical permission was obtained from the District Education Office, schools and the FPAN office of Surkhet. The informed consent was sought verbally by the participants. The research

team has maintained confidentiality and anonymity where no one would force to participate in the study if they wish not to participate.

Results

The total number of participants (n=12), aged between 18 to 32 years old, male and female, were included in FGDs and half of them were males. Most of the participants (n=10) were youth facilitators and volunteers. One of them was a medical doctor and one nurse (see Table 1).

Table 1. *Characteristics of the FGD participants*

Distribution of age (in years)		Number
Age	18-21 years old	3 (female)
	20 24 years old	3 (male)
	above 24 years old	6 (3 male, 3 female)
Sex	male	6
	Female	6
Post	Medical doctor	1
	Nurse	1
	Youth Facilitator	9
	Youth volunteer	1

Respondents' Characteristics and Utilization of YFHS

The study showed poor utilization of the YFRHS services by the male group than the female group (39.59%). Likewise, the 20 to 24 years-old-age-group (youth) benefitted more than the age- group 15 to 19 years old and 10 to 14 years-old-age-group from the services (57.57%). The group of higher classes took more benefit from the YFRHS services (45.65%) than the group of the lower classes. The Chhetri caste has utilized more services than other castes. However, 77.08% of the married youths benefitted from the services than the unmarried youths (see Table 2).

Table 2. *Respondents' profile and utilization of YFRHS*

Description	Category	Utilized (%)	Not utilized (%)	Total
Sex	Female	59 (39.59)	90 (60.40)	149
	Male	34 (34)	66 (66)	100
Age Group	10-14	19 (32.75)	39 (67.24%)	58
	15- 19	55 (34.81)	103 (65.18%)	158
	20- 24	18 (57.57)	15 (45.45%)	33
Class	9- 10	39 (33.62)	77 (66.38)	116
	11-12	53 (38.09)	80 (61.90)	133
Ethnicity	Chhetri	67 (50.37)	66 (49.62)	133
	Brahmins	20 (30.30)	46 (69.69)	66
	Janajati	6 (24.13)	23 (79.31)	29
	Dalit	4 (23.08)	17 (80.95	21
Marital status	Married	37 (77.08)	11 (22.91)	48
	Unmarried	55 (27.26)	146 (72.63)	201
Religion	Hindu	87 (37.70)	150 (63.29)	237
	Others	5 (41.66)	7 (58.33)	12

Barriers to Utilization of YFRHS

Youths have observed many barriers affecting the access and utilization of the YFRHS. Nearly 80% of the participants have said that the existing healthcare system is the main barriers and about half of the respondents showed the community level barrier. However, 42.57 percent of the respondents indicated the individual level and some (21.68%) said policy level barriers.

Table 3. *Perceived multi-level barriers to utilize YFRHS displayed by youths*

Description	Categories	Numbers	Percentage
Barriers	Individual-level barriers	139	42.57
	Community-level barriers	124	49.79
	Policy-level barriers	54	21.68
	Health system-level barriers	199	79.91

Individual-level barriers. From the analysis of the study findings, it came to know that most of the adolescents do not utilize the facilities despite the impressive picture of awareness that became evident. Out of the total, 42.57% of youths said that they have a little knowledge of the YFRHS and the information made felt them ashamed as the most significant barrier of the YFRHS.

Table 4. ***Individual-level barriers of YFHS reported by youths***

Description	Categories	Number	Percentage
Individual-level barriers	Lack of information about YFRHS	39	24.84
n=139	Little knowledge of the availability of YFRHS	106	42.57
	Fear of being recognized by parents or people	31	19.74
	Not faith in treatment	33	23.74
	No money for the service	27	19.42
	Felt ashamed	42	30.21

This study shows that the existing reasons of the youths are the barriers themselves to utilize SRH. Some of the FG participants said that the youths have insufficient knowledge and information about the SRH services and they have a great feeling of shyness and fears and the poor economic status of the youths are also some personal-level barriers.

> *There is an insufficient knowledge found about SRH services amongst the* youths' *(*The married male youth facilitator- *FGD).*
>
> *There is education literacy but not the health literacy for the youths. So, they are still illiterate about the SRH services (*The married female youth facilitators- FGD*).*
>
> *The service provider is a male as a result the girl feels shy* (Medical Officer- FGD).
>
> *They laugh and shy while there is a demonstration of the use of male condoms. They ask several SRH related questions like can we do the condom demonstration session on a real penis… (*Female youth facilitator- FGD*).*
>
> *It will be best to provide economic support like as the government provides an incentive to the pregnant women (The u*nmarried female youth facilitator*).*

Health system-level barriers. Availability, affordability, client-provider interaction, education materials available, conveniency of operating time/visiting day/ hour, the behavior of the health care provider, privacy and confidentiality maintain at the YFRHS are included in this section. According to quantitative data, two-third of the respondents claimed that the healthcare system constraints, regarding the YFRHS, were most significance barriers.

Table 5. *Health system-level barriers o YFHS reported by youths*

Description	Category	Number	Percentage
Health system-level barriers (199)	Operational Barriers	50	25.12
	Inconvenient service	31	15.57
	High cost	46	23.11
	Time constraint	24	12.06
	Lack of privacy	18	9.04
	Unwelcoming/judgmental behavior	43	21.60
	poor quality service, infrastructure and facilities	119	59.79
	Providers are older and opposite gender	20	10.05

Table 5 showed that poor quality service and poor infrastructure and facilities (59.79%) were noted by youths as an important barrier. Only a few (10.05%) youths have agreed that the opposite-sex and old person as a service provider also was a major barrier for the utilization of the YFRHS.

Most of the FG participants stated that the poor quality and inappropriate facilities, high cost of the services, misbehaviour, time-consuming and lengthy processes are the main barriers for the YFRHS. Furthermore, participants said no YFRHS facilities available in the school. The above-mentioned results showed that the limited services are available for the youths in the study location.

There is no service available for sexual health diseases, abortion and reproductive health at the community level except the temporary family planning such as a condom, Dipo (Married male youth facilitator-FGD).

Offering separate space and special time is needed during client-provider interaction (FRESH Tools of Effective School Health, 2004). Three out of 12 participants of the FG quoted that others could see them from outside during the consultation with the providers. Two participants said that the support staffs or other visitors present in the room during the consultation. This fact raises the question on ensure of privacy and confidentiality. Qualitative data showed the low availability of educational materials in health institutions and schools. The youth desire to learn sensitive issues on their own through sorts of materials (FRESH Tools, 2004). The majority of FG participants reported that some visual materials on SRH are available in the waiting room but the recreational activities, peer-discussions and audio-video materials are not available in a health institution.

> *We only provided some text-books for the reading related to SRH to adolescents for information (*Unmarried male youth facilitator, age 23-FGD*).*

The SRH services must be provided free or at a low cost, including credit and flexible payment options (FRESH Tools of Effective School Health, 2004). The majority of the FGD participants pronounced that the marginalized youth group cannot afford the cost of the SRH services.

One of the unmarried youth female facilitators said that *the treatment process* of *one service provider is not acceptable to the other service providers. Re-treatment from the beginning becomes costly. So, the service seems to be business-oriented rather than the service-oriented* (age 19, Surkhet, FPAN*).*

The opening time of health institutions should be flexible and conveniently accessible (late afternoons, evenings and weekends) (FRESH Tools, 2004). Most of the FG participants claimed that working hours, visiting day and operating time of the health service centre was very inconvenient. All the FG participants said that health services are operated from Sunday to Friday from 10.00 am to 4.00 pm daily in the government organization. The opening time of schools and health organizations are the same while young people need speedy care, those may have to leave their classes for the treatment or consultation. There is no provision of any alternative way out for this and a separate time arrangement system for the youths. Due to such an operating system, youths from 9 and 10 classes cannot conveniently attend the service.

> *Health centres open from 10:00 am to 3:00 pm and for 4 to 6 days in a week (*Married Female volunteer, age 32- FGD).

Young people must feel at comfort and have no worries about talking about their needs and concerns. The service providers and staffs must have interpersonal skills, non-judgmental and effective counselling and communication skills with confidentiality (FRESH Tools, 2004). All participants of the FG have commonly complained that the service providers did not pay attention to youth concerns, they always present with judgmental behaviour. All members of FG described that youths assert for unfriendly and judgmental behaviour of service providers. Most have reported that they would be instructed and asked unnecessary questions with proud nature and dominating style. They try to arouse an embarrassed feeling for being sexually active and would think that they had STI or pregnant.

> *Providers do not motivate the youths to come at the clinic. The clinic does not create the environment to attract the youths. The clinic should make a policy to visit the clinic, again and again, as a businessman does (*Unmarried Female youth facilitator, age 19-FGD).
>
> *There is a lack of youth-friendly behaviour in government health services. The service providers are very aggressive* (Married male youth facilitator, age 32-FGD).
>
> *We have an alternative way to provide the services (*A medical Officer-FGD).

Young people must feel confident that their concerns will not be spoken to anyone (FRESH Tools, 2004). All participants of FG indicated that young people usually come to providers with huge fear and worries about their privacy and confidentiality. Most of them highlighted that they worry of spilling out the information about their health issues, for a case, they had attended the SRH services and anxious of being stigmatised or provoked and being famous within the society and the friends. The 3 out of 12 FG participants stated that in such a case a whole family will be blamed and the girl may get a bad name within the society. Most of the FG participants claimed that the health service providers do not show any respect to youths during the visit. They always misbehave and dominate the poor and marginalized youths and rather think of bad smelling and dirty guys. The majority of them stated that the waiting time

to meet the service providers was too long and the interactions were too short. It indicates that privacy and confidentiality are under-maintained by service providers.

> *While service providers see backward and poor youths with the dirty clothes who came to take service were misbehaved by saying bad smelling and dirty guys by the providers (*Unmarried Female youth facilitator, age 19-FGD).
>
> *They have to be in the queue to take the service (*Unmarried male youth facilitator, age 20-FGD).

Community-level barriers. The majority of youths (51.61%) reported that poverty was the most significant barrier. Likewise, lack of education and information, fear and shyness, etc. regarding SRH were the other most important barriers to utilize the YFRHS (see table 6).

Table 6. *Community level barriers of YFRS reported by youths*

Description	Category	Num	Percentage
Community level barriers (n=124)	Lack of awareness	57	45.96
	Poverty	64	51.61
	Parental negative attitude and beliefs	27	21.77
	Lack of transportation	20	16.13
	Need to travel due to long distance	25	20.16
	Unfavorable Climate	27	21.77

The majority of FG participants expressed that the lack of awareness of communities, existing socio-cultural and religious beliefs, shyness of local people about the SRH issues, lack the focus of the media on SRH related issues are the main community-level barriers.

> A*ll of the local radio, FM and newspapers mainly focus on the entertaining programs. It is good to run the YFRHS activities incorporating with the entertaining programs in local media and social networks regularly (*unmarried female youth facilitator, *a*ge 19-FGD).
>
> *The local and famous local network and radio programs feel uneasy and shy to broadcast such services* (a medical officer-FGD).

Policy-level barriers. Table 7 also displays the various policy-related barriers of the YFRHS. Most of the youths (61.11%) suggested whereas poor implementation of the policy. The majority (53.70%) suggested as lack of youth participation in the policy construction is the main policy-level barriers of YFHS.

Table 7. *Policy level barriers of YFHS reported by youths*

Description	Category	Num	Percentage
Policy-level Barriers (n= 54)	Lack of contextualization	21	38.88
	Lack of youth participation	29	53.70
	Lack of parental and community participation	11	20.37
	Lack of supervision	9	16.66
	Poor implementation	33	61.11

Most FG participants pointed out that the target people have not participated in the policy formation. Three participants have blamed that there is no strong policy to include the SRH services in the school curriculum. A female participant stated that there is no policy for the

same-sex service providers and some male facilitators also had an agreement with these views. All have strongly claimed the involvement of youths is lacking in the program design and formulation of the policy at the national level which will enhance their ownership for the program. The FG participants emphasized on identifying the needs and the problem of youths as a fundamental task for designing policy for the youth-friendly services which seemed to be massively lacking.

> *All the health education teachers of school should be trained on YFRHS and included it in the school curriculum and ECA program (*A married male youth facilitator, age 32, FGD).
>
> *Awareness about available services should be advertised in the local communication network and* at *the same time, attitudes and behavior between marginalized service users have to be highlighted. The service provider must be from the same sex (*A medical officer-FGD).

Discussion

This study showed that only one-third (36.94%) of youths utilized YFRH service. This is slightly higher than the figure (24.7%) demonstrated in the study conducted by Napit et al., (2020) in Bhaktapur Nepal. Another similar study showed that almost half of the AFHS levels of adolescents utilized the services which were not merely low but completely declined (Pandey, 2019). In Ethiopia, the low level of RH service utilization amongst adolescents is also documented (Tlaye, Belete, Demelew, Gitu, & Astawesegn, 2018). However, this study showed that the utilization of AFS service by a female is likely to be more than the Ethiopian study documented that of males. This is the disagreement with the study conducted by Teijlingen, Simkada & Acharya (2012). They further revealed that the service utilization proportion was lower in females than males. The present study showed that older youth in the 20-24 years old age-group utilized the YFRHS more than by those who were younger because of youths, aged between 20-24 years; the former age group are matured. Consequently, they are free from parental control and also are sexually active, hence, the reason for a higher likelihood of being utilized of the YFHS. This study has also revealed that educated youths are more likely to utilize youth-friendly reproductive health services as they possess a better understanding of their health requirements. It is also found that lack of understanding of SRH service may discourage young people from using service and therefore, health education is a major component to convey health information and which, in turn, can increase the utilization of services (Khanal, 2016).

The findings of this mixed-methods study provide insights into multilevel barriers of the YFH services related to the individual-level, health-system level, community-level and the policy level amongst the school-going youths in the study area. The youths had the individual-level barrier that restricted them from utilizing the YFH services. According to the AYSRH Toolkit (n.d.), lack of access to information about what SRH services are available, myths and misconceptions, and limited self-efficacy are found under the individual-level barriers. The findings of the current study showed that the lack of knowledge and information, fear and shyness about the AFHS and low-economic-status were the foremost barriers to service utilization by the youths at the individual-level.

A study conducted by Kennedy et al. (2013) in Vanuatu and Regmi, Teijlingen, Simkhada, & Acharya (2010) found similar that a lack of knowledge about SRH which, in turn, lead to poor SRH service-utilizations. Napitet et al. (2020) found that more than half (56.7%) of the respondents felt fear of being seen as getting SRH services. Shyness and fear also restrict youth to utilizing the SRH services. Another study conducted by Abuosi & Anaba (2019) in Ghana also found that the fear of not being welcomed by health service providers, the lack of information and the financial challenges also discouraged them from accessing the SRH services.

The current study further highlighted another barrier to the utilization of the YFS. This barrier includes the health system factors such as a lack of availability of service, lack of interactions between the service providers and the patients' cost, education materials available, affordability, inconvenient service operating time, unfriendly behaviors of the service providers and poor privacy and confidentiality systems. A study carried out by Abuosi & Anaba (2019) in Ghana demonstrated that the youth are being disrespected by the health-service-providers having negative attitudes. They judged youth girls negatively and called them bad girls (Kennedy et al., 2013). The present study also found that the operating time of the service center is not convenient mainly for students of classes 9 and 10. Teijlingen, Simkhada & Acharya (2012) reported that about one-third of urban and rural youths had abandoned the school to access reproductive services. A study that was conducted in an urban area of Nepal by Bam et al. (2015) complained that a lack of confidential services was the biggest barrier. Mbeba et al. (2012) showed that the services were difficult to access due to the lack of confidentiality maintain of the service providers. The findings of the present study suggested an urgent need that supports the rights of adolescents to the confidential practice of SRH services which are sensitive to the local culture and religion.

Community-level factors have vital roles in the utilization of AFS (Napit et al., 2020). This study highlighted poverty as a crucial barrier. Likewise, lack of education, fear and shyness in the community, negative parental attitudes and religious-beliefs and socio-cultural norms are the main constraints of YFS at the community level. A study stated that the majority of the youth fear of sharing their SRH concerns with their parents and others (Tamang, Tamang, Nepal & Adhikari, 2006) due to restricted socio-cultural norms and taboo which have made a barrier to the utilization of these services (Napit et al., 2020). Similarly, a school-based study conducted in Bhaktapur in 2015 revealed that the closer distance, the higher utilization of the services (Bam et al., 2015). Young girls were excessively affected by such attitudes, particularly in rural settings. Concerning this, socio-cultural constraints have contributed to a fear of consequences from the parents and community people. These may hinder for further development of the SRH services (UNFPA, UNICEF & the Government of Nepal, 2015). The present study mentioned it as one of the foremost challenging barriers to increasing the ASRH programme at the community level and however, giving these services to girls are indeed more challenging. So, youths are reluctant to seek the RH services.

The current study also identified the policy-related barriers of YFRS. It includes proper rules, regulations, policies, consents, distance and costs of the services long wait times for the services, inconvenient opening times and poor privacy and confidentiality system (AYSRH

Toolkit, n.d.). This study suggested poor implementation of the policy and poor access by the youth policy construction as the key barriers. Similarly, the study identified the other policy-related barriers like lack of contextualization of policy, lack of parental and community participation and poor supervision system. Proper rules and regulations including appropriate guidelines, policies and actions are needed to improve access for the marginalized and underserved young population. Lack of clarity concerning the informed-consent and confidentiality for young adolescents are existed (UNFPA, UNICEF & Government of Nepal, 2015). The national policy concerning the involvement of men in the SRH did not take into account the social and cultural expectations which they faced (Gombachika, et al., 2012). It is further revealed that to promote the use of YFRHs, young health policy is needed (Khanal, 2018) and needs to incorporate adolescent-friendly health services in all the health institutions under its policy. It is yet to be integrated into education curricula and policy (Pandey, 2019). The government should exercise for the accountability and responsibility to run such programs targeting for youths (The Himalayan Times, 2017).

There is a need to formulate the policy on a central, provincial and local level. The present study provides a foundation for a better understanding of young men's use of SRH services. The findings of this study discuss and provide useful information that will support to the health-service providers, policy-makers, donor-agencies and the academicians/planners to understand a real scenario and shortfalls of YFRS. These extracted scenarios from this study will help to understand the science of SRH, review and revise the existing policy and design the appropriate strategy on the YFRHS.

Despite some strength, this study has a few limitations. Due to the limit of time and resources, the study only selected four secondary schools which are located in the Surkhet district. Similarly, the focus group discussion was used to collect qualitative data. It is felt that it was also necessary to have an in-depth interview. The result was, therefore, insufficient for defining distinctive patterns of the problems. This study was also limited to school-going youths of urban areas of the Surkhet valley and, therefore, may not be sufficient to generalize to all youths of rural areas in Nepal.

Conclusion

This study reports that school-going-youths do not have appropriate utilization of the YFHS due to multi-layered barriers. This mixed-method study presents the multi-level barriers over the whole socio-ecological arena such as an individual, health system, community and policy level that discourage to utilize YFRHS among the respondents. Among the barriers, health system-level affects mostly to restrict the services. Multi-level interventions and supports are, therefore, required to increase the YFSRH utilization and advance concerns for school-going-youths and adolescents.

References

Abuosi, A. A., & Anaba, E. A. (2019). Barriers on access to and use of adolescent health services in Ghana. *Journal of Health Research 33* (3), 197-207. https://doi.org/10.1108/JHR-10-2018-0119

AYSRH Toolkit (n.d.). *Adolescent & youth-friendly services.* Retrieved from https://tciurbanhealth.org/courses/adolescent-youth-sexual-reproductive-health-services-supply/lessons/adolescent-and-youth-friendly-services-3/

Bam, K., Haseen, F., B C., R. K., Newman, M. S., Chaudhary, A. H., Thapa, R., & Bhuyia, I. (2015). Perceived sexual and reproductive health needs and service utilization among higher secondary school students in urban Nepal. *American Journal of Public Health Research*, *3*(2), 36-45. doi: 10.12691/ajphr-3-2-1

Braeken, D., & Rondinelli, I. (2012). Improving reproductive: Health sexual and reproductive health needs of young people: Matching needs with systems. *International Journal of Gynecology and Obstetrics 119,* 60–63. Retrieved from https://www.ippf.org/sites/default/files/matching_needs_with_systems.pdf

CBS (2011). *Statistical packet book*, Kathmandu: CBS.

FRESH Tools for Effective School Health (2004). *Characteristics of youth-friendly services*. Retrieved from http://www.educan.org/sites/educan.org/files/Characteristics_Youth_Friendly_Services.pdf

Gombachika, B. C, Fjeld, H., Chirwa, E., Sundby, J., Malata, A., & Maluwa, A. (2012). A social ecological approach to exploring barriers to accessing sexual and reproductive health services among couples living with HIV in southern Malawi. *ISRN Public Health (3)* doi:10.5402/2012/825459

Kennedy, E. C., Bulu, S., Harris, J., Humphreys, D., Malverus, J., & Gray, N. J. (2013). Be kind to young people so they feel at home: A qualitative study of adolescents' and service providers' perceptions of youth-friendly sexual and reproductive health services in Vanuatu. *BMC Health Serv Res 13:* 455. https://doi.org/10.1186/1472-6963-13-455

Khanal, S. (2018). Health service providers' behaviors toward youth clients. *Journal of Health Promotion 6*, 60-69. https://doi.org/10.3126/jhp.v6i0.21805

Khanal, S.P. (2016). *Determinants of utilization of youth friendly reproductive health services among school and college youth*. A Mini Research Report, Submitted to University Grants Commission, Sanothimi, Bhaktapur, Nepal.

Marcell, A. V., Morgan, A. R., Sanders, R., Lunardi, N., Pilgrim, N. A., Jennings, J. M., ….Dittus, P. J. (2017). The socio-ecology of sexual and reproductive health care use among young urban minority males. *The Journal of Adolescent Health 60*(4), 402–410. https://doi.org/10.1016/j.jadohealth.2016.11.014

Mbeba, R. M., Mkuye, M. S., Magembe, G. E., Yotham, W. L., Mellah, A. O., & Mkuwa, S.B. (2012). Barriers to sexual reproductive health services and rights among young people

in Mtwara district, Tanzania: A qualitative study. *The Pan African medical journal, 13 Suppl 1(Suppl 1), 13.* Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3589247/

Mcleroy, K. R., Bibeau, D., Steckler, A., & Glanz, K., (1988). An ecological perspective on health promotion programs. *Health Eduatio Quartrly 15*(4), 351-377. https://pubmed.ncbi.nlm.nih.gov/3068205/

Ministry of Youth and Sports (2014). *Nepali youth in figures.* Retrieved from https://nepal.unfpa.org/sites/default/files/pubpdf/Nepali%20Youth%20in%20Figures.pdf

Napit, K., Shrestha, K. B., Magar, S. A., Paudel, R., Thapa, B., Dhakal, B. R., & Amatya, A. (2020). Factors associated with utilization of adolescent-friendly services in Bhaktapur district, Nepal. *Journal of Health, Population and Nutrition 39*(2). https://doi.org/10.1186/s41043-020-0212-2

Pandey, P. L., (2019). *Utilization of sexual and reproductive health services from adolescent-friendly health services in Nepal.* Unpublished PhD thesis, Retrieved from http://unsworks.unsw.edu.au/fapi/datastream/unsworks:60121/SOURCE02?view=true

Regmi P. R, Teijlingen, E.V., Simkhada, P., & Acharya, D. R. (2010). Barriers to sexual health services for young people in Nepal. *Journal of Health, Population and Nutrition 28* (6):619-627. doi: 10.3329/jhpn.v28i6.6611

Senderowitz, J., Hainsworth, G., & Solter, C. (2003**).** *A rapid assessment of youth friendly reproductive health services.* Pathfinder International. Retrieved from http://www2.pathfinder.org/site/DocServer/YFS_TG_Final_web_version.pdf?docID=762

Stokols, D., Lejano, R. P., & Hipp, J. (2013). Enhancing the resilience of human–environment systems: A social-ecological perspective. *Ecology and Society 18*(1). http://dx.doi.org/10.5751/ES-05301-180107

Subedi, G., & Dwivedy, R. K. (2009). *Adolescent girls' reproductive health situation in Nepal: A case study from Mahottari district.* Retrieved from http://library.nhrc.gov.np:8080/nhrc/bitstream/handle/123456789/48/560.pdf?sequence=1

Tamang, A., Tamang, J., Nepal, B., & Adhikari, R. (2006). Adolescent girls' perspectives on sexual and reproductive health illnesses and their care seeking behavior in rural Nepal. *Nepal Journal of Obstetrics & Gynecology 1*(1):41-51

Teijlingen, E. V., Simkada, P., & Acharya, D. R. (2012). *Sexual and reproductive health status and health service utilization of adolescents in four districts in Nepal.* Kathmandu Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ, Health Sector Support Programme Department of Health Services, Retrieved from http://eprints.bournemouth.ac.uk/20421/1/Final%20Baseline%20August%202012%20ASRH.pdf

The Himalayan Times. (2015). *Adolescents not getting friendly health services* (July 10). Retrieved from https://thehimalayantimes.com/kathmandu/adolescents-not-getting-friendly-health-services/

The Himalayan Times. (2017). *Friendly health services for adolescents (*May 15). Retrieved from https://thehimalayantimes.com/opinion/friendly-health-services-adolescents/

Thongmixay, S., Essink, D. R., Greeuw, T. de, Vongxay, V., Sychareun, V., & Broerse, J. EW (2019). Perceived barriers in accessing sexual and reproductive health services for youth in Lao People's Democratic Republic. *PLoS ONE 14*(10). https://doi.org/10.1371/journal.pone.0218296

Tlaye, K. G., Belete, M. A., Demelew, T. M., Gitu, M.A., & Astawesegn, F. H. (2018). Reproductive health services utilization and its associated factors among adolescents in Debre Berhan town, Central Ethiopia: A community-based cross-sectional study. *Reprod Health 15*, 217. https://doi.org/10.1186/s12978-018-0659-4

UNFPA, UNICEF & Government of Nepal (2015). *Assessing supply side constraints affecting the quality of adolescent friendly services (AFS) and the barriers for service utilization.* Retrieved from https://nepal.unfpa.org/sites/default/files/pub-pdf/AFS.pdf

United Nations (2019). *International youth day*, 12 August. https://populati https://www.un.org/en/observances/youth-day

Wendel, M. L., & Mcleroy, K. R. (2012). *Ecological approaches.* Oxford Bibliographies. doi: 10.1093/OBO/9780199756797-0037

WHO (2004). *Key issues in the implementation of programmes for adolescent sexual and reproductive health*. Retrieved from https://apps.who.int/iris/bitstream/handle/10665/69695/WHO_FCH_CAH_04.3_eng.pdf?sequence=1&isAllowed=y

WHO (2020). *The changing world of adolescent sexual and reproductive health and rights.* Retrieved from https://www.who.int/news-room/detail/03-02-2020-the-changing-world-of-adolescent-sexual-and-reproductive-health-and-rights