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Perception and barrier in access to sexual and reproductive health services among youth (aged 18-24) in Xiangkhuang province: A mixed-method study

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ABSTRACT

Background: Sexual activity during youthful age is common in Lao People's Democratic Republic. However, youth insufficiently use the sexual and reproductive health (SRH) services and subsequently suffer from poor sexual and reproductive health. To stimulate evidence-informed decision-making in health policies, context specific research describing the barriers preventing Lao youth from accessing sexual and reproductive health services is needed.

Objectives: To explore the barriers in access to sexual and reproductive health services among unmarried young people in Laos.

Methods: Mixed methods were employed to conduct this study in Xiangkhuang province with 444 youths. Face-to-face interviews using questionnaires classified accessibility as geographical (availability), affordability, and approachability, acceptability, and appropriateness. IDIs and FGDs were used to investigate cognitive, psychosocial, and geographic accessibility, affordability, and SRH service quality. Data were entered into Epi-data 3.1 and exported to STATA 14 for analysis. Univariable and multivariable analysis identified predictors of total accessibility, reported as Adjusted OR with a 95% CI and P-value < 0.05.

Results: The results found the mean age of the participants with 19.9 years and 68.6% were female,66.9% of them stayed in urban area, 79.9% were Lao, and 93.5% were single. More than half of the participants had poor level of perception toward accessibility of SRH services (51.4%), and 55.1% encountered barriers, highlighting significant challenges in accessing essential services. In multivariable analysis, spiritual individuals had lower odds in perceiving SRH as accessible than Buddhists (AOR = 0.4, 95%CI: 0.2-0.7, p = 0.004), but no significant difference existed among Christians. Those earning over 1,500,000 LAK were more likely to perceive SRH as accessible than those below this threshold (AOR = 2.7, 95%CI: 1.0-7.0, p = 0.041). Additionally, individuals with sexual experience had higher odds of seeing SRH as accessible compared to unexperienced (AOR = 1.9, 95%CI: 1.2-3.1, p = 0.006).

Conclusion: The study on youth's perception and barriers to accessing sexual and reproductive health services revealed unique challenges, including Lao ethnicity and Buddhism, financial obstacles, and family influence. The study suggested that targeted interventions should focus on culturally sensitive service delivery, addressing financial barriers, promoting education, and improving internet access to enhance accessibility and overall well-being among youth populations.

Keywords: Accessibility, Barrier, Lao PDR, Perception of SRH services, Youth.

1. Introduction

International effort is of foremost importance as Sexual and Reproductive Health (SRH) problems are globally one of the main causes of high morbidity and mortality rates among young people [1]. Aside from the contextual causes, the disproportionate burden of SRH issues that young people suffer is often aggravated by the lack of SRH knowledge, availability and/or accessibility of SRH services [2]. Lacking knowledge or misconceptions regarding Sexually Transmitted Infections (STIs), pregnancies, contraception and unsafe sex, causes young people to perform risk-taking sexual behaviour [3]. The accessibility of SRH services is influenced by a complex set of factors related to: youth's SRH knowledge and awareness of services, socio-cultural norms regarding sexual activity of youth, availability of services, costs of using the services and the quality the services they provide [4].

The consequences of SRH problems are potentially profound, both on the youth's health and in social-economic terms [5]. In terms of health, STIs including HIV/aids, occur most among individuals younger than 25 years [1]. Also, pregnancy at early age causes a major burden on the SRH and is associated with an increased risk of obstetric complications and increased demand for (often performed illegally) induced abortions [5].

Lao PDR has a high adolescent and youth fertility rate, with 10.9% of Lao adolescents giving birth by the age of 15-18 and 4.7% having a live birth before the age of 15 [6]. In addition, 2.9% of male and 0.5% of female young people had multiple sexual partners [6]. This is of concern as reports from the period 2010-2020 showed the incidence of HIV among 15- to 24-year-olds to be 16.7% (2010), 15.9% (2012) and 16.3% (2019) of all new cases in each respective year. It was also reported that while abortion is legally restricted, 23.2% of 15–24-year-old girls had had an abortion. Apart from these publications, there have been very few studies on adolescent and youth sexual health in Lao PDR. Furthermore, there is very little published information about the SRH knowledge of in-school adolescents in Lao PDR and its determinants [6-8].

Access to healthcare is more than availability of services. It is a comprehensive concept, influenced by numerous factors on individual, community, service provider and social development level and is related to the

ability of individuals to obtain healthcare services [9].

As described before, multiple factors aggravate the occurrence of SRH issues among young people. However, these factors also prevent youth from accessing SRH services, thereby impeding the possibility to improve their SRH [3]. So, the aims of this study to identify needs and barriers in access to sexual and reproductive health services among youth aged 18-24 in Laos.

2. Methods

2.1 Study Area

This study was conducted in Xiangkhuang Province, Laos, focusing on youth aged 18-24 to explore sexual and reproductive health (SRH) issues. The research spans Phonsavanh district (urban) and Nonghed and Kham districts (rural), providing a diverse perspective on SRH challenges and access to services. By sampling approximately 20 villages across these districts, the study aimed to capture a comprehensive view of SRH service availability and quality in both urban and rural settings.

2.2 Study Design

This study utilized a mixed-method design included collecting quantitative and qualitative data to contextualize the impact of public health challenges on SRH status and access to services among male and female youth age 18 to 24 years in different settings in Xiangkhuang province.

2.3 Sample size and sampling

Household selection targeted male and female youths aged 18-24, as individuals under 18 are excluded due to ethical concerns. Although the United Nations defines youth as 15-24 years old [16], research in Laos shows that involving minors often yields limited SRH information [17]. Selection criteria also consider legal aspects like marital status and the minimum marital age in Laos [6]. Eligible participants must be 18-24 years old, have lived in the community for at least six months [18], be in stable physical and psychological condition, provide written consent [19], and communicate in Laoloum, the national language [20]. The sample size for the qualitative component is based on purposive sampling to achieve thematic saturation, recruiting two healthcare providers per health centre for a total of four providers, following

the data saturation principle [21, 22]. For youth participants, we will recruit nine males and nine females aged 18-24 per district, total 36 participants across both districts, ensuring gender balance and diverse perspectives on SRH access [23].

We will use multi-stage random sampling to select female participants from one urban area (Phonsavanh district) and two rural areas (Nonghed and Kham districts). Approximately 20 villages with at least one youth aged 18 to 24 will be randomly selected. All eligible male youth in these villages will also be included. If participants refuse, we will continue random selection within the village to meet our target. Quantitative interviews will be conducted face-to-face or via phone if necessary.

Key informant interviews with healthcare providers and youth will be conducted face-to-face. Participants may include village health support group members, health canter staff, medical doctors from referral hospitals, district operational chiefs, and key SRH personnel from provincial health departments.

2.4 Data Collection

Data was collected via a self-administered questionnaire covering socio-demographics, accessibility, care quality, and sexual behavior. Although access to healthcare is topical under international attention, there is no unambiguous definition nor an international tool to measure access [10]. As a result, multiple researchers have proposed definitions and frameworks or models in order to conceptualize the different aspects regarding access to healthcare [11-14]. The definitions and conceptual frameworks of Bertrand, Hardee, Magnani, & Angle (1995) and Levesque et al. (2013), were used due to the appropriateness in the context of this research [15].

Accessibility questions were based on Levesque et al.'s (2013) 5A framework: Approachability, Acceptability, Availability, Affordability, and Appropriateness. Quality of care and sexual behavior inquiries followed [24].

2.5 Data Analysis

All statistical analyses were conducted using Stata version 14. Descriptive statistics included reporting group data as numbers, percentages, and continuous data, which were first grouped and then presented as mean, standard deviation, median, minimum, and maximum values.

Reference statistics (inferential statistics) tested relationships between the original variable and subsequent variables using Multiple Logistic Regression Analysis. This aimed to address the study's questions, objectives, and hypotheses through the following steps:

Univariable analysis utilized simple logistic regression statistics to explore the relationship between the original variable and the dependent variable. Results included Odds Ratio (OR) values, 95% Confidence Intervals (CI), and p-values.

Multivariable analysis using multiple logistic regressions followed, incorporating variables with a p-value < 0.25 from univariable analysis. Variables with a p-value < 0.05 were retained and Adjusted OR values with 95% CI and p-values were reported.

Qualitative data will be transcribed and analysed thematically in Excel, utilizing deductive and inductive coding methods.

2.6 Ethical Clearance

This study has been approved by the Research Ethics Committee of the University of Health Sciences Number 494/REC, 06 Apr 2023, Lao PDR. This research does not affect the physical and mental health of those who participate in the study and does not touch medical ethics. This study will indirectly benefit the general driver in the future and is an important background information for the next study in the future.

3. Results

Social demographic

Table 1 provides an overview of the socio-demographics of the 414 survey respondents. The mean age was 19.9 years, with 68.6% being female. Most participants 79.9% were Lao ethnicity. Education varied, with 60.6% enrolled in vocational school/college. A majority, 82.1% were unemployed. Most participants (93.5%) were single, and 95.6% did not specify their sexual orientation.

Table 1: Social demographic characteristics of the participants

Variables	Number	Percentage (%)
Age		
18-19 years	181	43.7
20-21 years	177	42.8
21-24 years	56	13.5
Mean (±SD)		19.9(±1.42)
Min: Max		(18:24)
Gender		
Female	284	68.6
Male	130	31.4
Area		

Variables	Number	Percentage (%)
Urban	277	66.9
Sub-urban	96	23.2
Rural	41	9.9
Ethnicity		
Lao (Lao-Tai, Tai-Dam, Tai-Dang, Leu, Poun…)	331	79.9
Hmong-Hmiyn (Hmong, Hmiyn)	65	15.7
Keummu-Mon (Keummu, Kataire, Mangkhor, Tri…)	18	4.3
Shino-Tibad (Akhar, Lahou…)		
Religion		
Buddhism	321	77.5
Spiritual Belief	92	22.2
Christian	1	0.2
Current education		
Not schooling	8	1.9
Primary school	3	0.7
Lower Secondary school	12	2.9
Upper secondary school	37	8.9
Vocational school/college	251	60.6
Higher education (applied univ./univ.)	103	24.9
More occupation		
No job	340	82.1
Yes, fulltime (more than 30 hours a week)	19	4.6
Yes, part-time, less than 30 hours a week	33	8.0
Yes, part-time, less than 15 hours a week	22	5.3
If have job		
Staff gov./private	6	8.1
Labor	23	31.1
Farmer	27	36.5
Merchant	10	13.5
Other	8	10.8
Marital status		
Single	387	93.5
In a relationship/in union	5	1.2
Married	21	5.1
Divorced/separated/ widow	1	0.2
Sexual orientation		
Heterosexual	396	95.6
Bisexual	12	2.9
Homosexual/lesbian	33	0.7

Barrier of accessing SRH

In a sample of 414 individuals, 44.9% (186) reported no barriers to accessing SRH services, while 55.1% (228) encountered barriers, highlighting significant challenges in accessing these essential services (Table 2).

Table 2: Barrier of accessing SRH (n = 414)

Barrier of accessing SRH	Number	Percentage (%)
No	186	44.9
Yes	228	55.1

Perception toward accessibility of sexual and reproductive health services

In a survey 414 participants, the data reveals varying perceptions regarding the accessibility of sexual and reproductive health services. Approximately 51.4% of respondents expressed a perception of poor accessibility (Table 3).

Table 3: Perception toward accessibility of sexual and reproductive health services (n = 414)

Perception towards accessibility of sexual and reproductive health services	Number	Percentage (%)
Poor	213	51.4
Good	201	48.6

Multiple logistic regression

Perceptions of SRH accessibility vary across different factors. Individuals with spiritual beliefs have significantly lower odds of perceiving SRH as accessible compared to Buddhists (AOR = 0.4, 95% CI: 0.2-0.7, p = 0.004), with no significant difference among Christians. Those earning more than 1,500,000 LAK have higher odds of perceiving SRH as accessible compared to those earning less (AOR = 2.7, 95% CI: 1.0-7.0, p = 0.041). Additionally, individuals with sexual experience have higher odds of perceiving SRH as accessible than those without (AOR = 1.9, 95% CI: 1.2-3.1, p = 0.006). These findings suggest that religious beliefs, income level, and sexual history influence perceptions of SRH accessibility (Table 4).

Table 4: Factors associated with perception toward accessibility of SRH

Factors	Perception toward accessibility of SRH						
	COR	95% CI		AOR	95% CI		p -value
		Lower	Upper		Lower	Upper	
Religion							
Buddhism	1			1			
Spiritual Belief	0.3	0.2	0.6	0.4	0.2	0.7	0.004
Income							
≤ 1.500.000 LAK	1			1			
> 1.500.000 LAK	3.0	1.3	6.9	2.7	1.0	7.0	0.041
Ever had sex							
No	1			1			
Yes	1.4	1.0	2.2	1.9	1.2	3.1	0.006

Qualitative Results

Characteristics of participants

Finally, 23 youth people and 3 health providers (from 2 district and 1 provincial hospital) were included in the study. Among the young people, 14 had no experience with SRH services, two had experience with general SRH services from a public hospital,

and six were recruited. The mean age of youth participants was 21.9 years (range 18 to 24, over 24 years old was include health care provider). Approximately two-third of the youth was in high school graduated; (Table 5.1). Half of the 23-youth people reported being sexually active, some of whom were married (Table 5).

Table 5: Socio-demographic characteristic of the interviewed key informants

Types of key information	Youth girl	Youth boy	Health provider
Age			
18-20	7	4	-
21-24	4	5	-
>24	-	-	3
Gender			
Male			1
Female	11	12	3
Education			
Primary	0	0	0
Lower SS	2	2	0
Upper SS	7	8	0
College/University	2	2	3
Experience with SRH services			
Yes	4	4	-
No	6	8	-
Providers' Work place			
Kham district hospital	-	-	1
Nonghed district hospital	-	-	1
Xiangkhuang province hospital	-	-	1

Brief descriptions of youth participants

The respondents, aged 18 to 24, predominantly live in urban areas of Xiangkhuang, Kham, and Nonghed districts. Most have completed high school or secondary school, with a few attending or graduating from college. Their occupations range from students and general workers to grocery shop owners and government staff. Relationship statuses vary, with many having boyfriends or being married, while some are single. Sexual activity is common, though a few have no sexual experience. SRH service usage is generally low, with some using services for STI testing, MCH reasons, or post-delivery care. Notably, one respondent had an unplanned pregnancy at 15 and another used condom purchased from a drug store.

Current sexual and reproductive health and behaviour

Most of the youth were positive about sexual activity at their age, found it acceptable. However, three male and four female

participants indicated that they wanted to postpone sexual activity at least until they finished schooling. Not feeling ready, fear of health risks, consequences for school and future life, and the fear of disappointing their parents were frequently mentioned reasons to postpone sexual activity.

Sexual behaviour

Half of the youth people reported being sexually active. Four male participants indicated that they had more than one sexual partner, but said their partners were not aware of that fact. Subsequently, several female participants noted their uncertainty about the loyalty of their partner.

Comprehensive Sexual Health Education

Individuals gather knowledge about birth control methods, including condom usage, and awareness of sexually transmitted diseases (STDs) like HIV/AIDS from diverse sources such as family, friends, and educators.

Access to Contraceptive Resources

Individuals recognize various avenues for obtaining condoms, whether from pharmacies, clinics, or other outlets, ensuring accessibility to protection.

Personal Commitment to Health

Despite limited sexual experience, individuals prioritize safeguarding their health by adhering to preventive measures, including the consistent use of condoms.

Supportive Dialogue and Awareness

Open discussions with trusted individuals foster a supportive environment for addressing sexual health matters without stigma, enhancing awareness and facilitating informed decision-making.

Advocacy for Accessible Healthcare

Efforts are made to ensure accessible sexual health services and educational initiatives, advocating for counselling services, and dissemination of information through various channels to empower individuals with accurate resources.

4. Discussion

The study's findings on youth perceptions and barriers to accessing sexual and reproductive health (SRH) services with previous research reveals both alignment and divergence in key areas. Our research, which involved 414 respondents with a mean age of 19.9 years, predominantly female (68.6%), and mostly urban (66.9%), reflects the unique challenges faced by young individuals in

accessing SRH services. These demographics are consistent with [25], who also identified age and gender as significant factors influencing healthcare access. However, our study's emphasis on the high prevalence of Lao ethnicity (79.9%) and Buddhism (77.5%) highlights the necessity for culturally sensitive service delivery, a point also stressed by the Ministry of Health [26] but not as prominently in some other studies.

Our data shows significant educational diversity, with many respondents in vocational or higher education, aligning with UNESCO finding that education impacts SRH access [27]. Despite this, the high unemployment rate (82.1%) among respondents suggests that financial barriers, as noted by Bryant et al. (2020), remain a critical issue [28]. This contrasts with some studies that did not highlight unemployment as a primary barrier, possibly due to different regional economic contexts.

The study reveals that religious beliefs, income, and sexual history significantly influence SRH accessibility perceptions. Spiritual beliefs are perceived as less accessible than Buddhists, and higher income correlates with better accessibility. Sexual experience is perceived as more accessible, aligning with UNESCO's 2021 findings [27]. However, there are gaps in support for those without sexual experience. These findings highlight the need for tailored interventions to improve SRH access effectively.

A limitation was that respondents were only recruited from three districts, all major urban areas, which affected the representativeness and applicability of the results to youth in other parts of Lao PDR, where conditions may differ. We did not include youth from non-randomized districts, missing insights from more remote villages.

5. Conclusion

The study on youth's perception and barriers to accessing sexual and reproductive health services revealed unique challenges, including Lao ethnicity and Buddhism, financial obstacles, and family influence. The study suggested that targeted interventions should focus on culturally sensitive service delivery, addressing financial barriers, promoting education, and improving internet access to enhance accessibility and overall well-being among youth populations.

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