Central African Journal of Public Health
2025, Vol. 11, No. 5, pp. 261-267
https://doi.org/10.11648/j.cajph.20251105.14

Research Article

Limiting Factors in the Utilisation of the Adolescent Reproductive Health Service in Ngaoundere Regional Hospital

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Abstract

Context: In Cameroon and particularly in the Adamaoua region, young people are increasingly exposed to sexually transmitted diseases; however, according to the Third General Population Census, in 2005, young people represent at least 32.9% of the population of this region, i.e. 442,388 young people. To support these young people in the prevention and treatment of sexually transmitted diseases, the Cameroonian government created an Adolescent Reproductive Health Unit in July 2014 to facilitate adolescents' access to sexual and reproductive health care. Despite the existence of this Adolescent Reproductive Health Unit (ARHU) at the Ngaoundere Regional Hospital, Reproductive Health Services (RHS) are becoming less and less sought after by these adolescents. According to the annual report of the Adolescent Reproductive Health Unit, an average of 5 young people per week attend this service. Based on the socio-ecological model, our study found that several factors, including socio-cultural, economic and institutional barriers, influence access of adolescents' to and the use of RH services. *Methodology:* A quantitative study was conducted with 100 people, including 50 teenagers, 40 parents and 10 health professionals. Data were collected using structured questionnaires and analyzed using Excel, highlighting trends and factors associated with the use of Reproductive Health services according to the socio-ecological model. *Results:* The results reveal that 70% of teens are aware of ARHU, but only 30% have used it. The main barriers identified are: lack of information 30%, distance 20%, cost of transport 20%, stigma 20%, costs of services 10%, attitudes of staff 14% and opening hours 6%. In terms of communication channels, teenagers prefer: Social networks (40%), Awareness at school (36%), Peer discussions (14%), radio (10%), television (10%), SMS and digital platforms (5%). *Interpretation:* These results show that several social, economic and structural factors justify the low attendance of the Reproductive Health Services of the Ngaoundere Regional Hospital. To address this, it would be important to use the appropriate communication channels, such as social networks.

Keywords

Reproductive Health, Adolescents, Stigma, Access to Care

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Received: 4 August 2025; **Accepted:** 19 August 2025; **Published:** 23 September 2025

1. Introduction

Adolescent reproductive health is a major public health concern in Cameroon. Globally [2], the World Health Organization (WHO) estimates that about 16 million girls aged 15 to 19 give birth each year, with the vast majority living in sub-Saharan Africa, where the rate of access to reproductive health services remains particularly low [3, 6]. In Cameroon, the Demographic and Health Survey indicates that 25% of adolescent girls aged 15 to 19 started their reproductive life, often without appropriate medical follow-up [1, 7].

In the Adamaoua region, access to and use of youth-friendly reproductive health services are limited by multiple factors. To this end, the Cameroonian government, through the Ministry of Public Health, created in July 2014 within the Regional Hospital of Ngaoundere, an Adolescent Reproductive Health Unit in order to meet the specific needs of these young people aged 10 to 24 [4, 8]. This unit offers essential care such as prevention of sexually transmitted infections, psychological counselling, contraception and sexuality education. However, according to the institution's internal data, less than 30% of the targeted adolescents actually attend the ARHU, which reveals a worrying underuse of the services available [9].

Many studies, including those of UNFPA and Groupe URD, have explored the social, cultural and structural barriers that hinder adolescents' access to reproductive health care [8, 10]. This research highlights obstacles such as stigma, silence of families, negative perception of health workers, and lack of training of health workers. However, the majority of these studies have been carried out integrating adapted theoretical approaches for social and behavioral change. However, the socio-ecological model, which takes into account the interaction between individual, interpersonal, community and structural factors, seems particularly relevant for studying this multidimensional problem. Social and cultural barriers to access to reproductive health care for adolescents [11].

It is in this perspective that the present work aims to explore the factors associated with the low use of ARHU services by adolescents within the Ngaoundere Regional Hospital according to the socio-ecological model. The objective is to provide a local empirical basis to enlighten decision-makers, to strengthen existing interventions and above all, to propose realistic recommendations adapted to the cultural, social and institutional specificities of the Adamawa region.

2. Methods

2.1. Type of Study

This study is quantitative, based on the administration of structured questionnaires to assess the determinants of adolescents' use of RH services.

2.2. Scope of the Study

The study was conducted at the Ngaoundere Regional Hospital, a referral hospital in the Adamawa region, as well as in some surrounding communities where adolescents likely to use reproductive health services reside (residential area, Boumdjere, Mbideng).

2.3. Study Population

The study population includes:

1. Audience group: the living populations in the coverage area of the Ngaoundere Regional Hospital.
2. Priority Audiences:

1) Adolescents aged 10 to 24;
2) Parents or guardians of teenagers;
3) Health staff working at the Adolescent Reproductive Health Unit and the Regional Hospital of Ngaoundere;
4) Community and religious leaders.

2.4. Participants and Sampling

Sampling was conducted using a non-probability method based on the availability and willingness of participants [12]. The sample is composed of 100 participants, distributed as follows: 50 adolescents (68% girls and 32% boys) aged 10 to 24 years, 40 parents/guardians, and 10 health professionals working at the Ngaoundere Regional Hospital.

2.5. Data Analysis

The data were analyzed using Excel software to generate descriptive statistics (frequencies, percentages) [5].

2.6. Theoretical Reference

The theoretical model used in this study is the socio-ecological model.

2.7. Ethical Considerations

The informed consent of the participants, guaranteed confidentiality of the data and the approval of the Adamawa Regional Delegation of Public Health of the Ethics Committee of the Regional Hospital of Ngaoundere.

3. Results

3.1. Socio-demographic Characteristics of Participants: 100 People Participated in the Study

The distribution by sex, age and religion shows that the majority of adolescents surveyed are girls (68%), compared to 32% boys. This may indicate a greater availability or open-

ness of girls to participate in the study. The majority of the parents surveyed are men (60%), and most are aged between 30 and 49 (65%). 60% of the health workers surveyed are predominantly male and are between the 30-39 and 40-49 age groups (30% each).

Table 1. *Socio-demographic characteristics of participants.*

Participants	Variables		Number	Percentage
Teenagers	Sexe	Girls	34	68%
		Boys	16	32%
	Age	10-14 years old	10	20%
		15-19 years old	25	50%
		20-24 years old	15	30%
	Religion	Christian	25	50%
		Muslim	20	40%
		Others	5	10%
Parents	Sexe	Male	24	60%
		Female	16	40%
	Age	Less than 30 ans	6	15%
		30-39 years old	14	35%
		40-49 years old	12	30%
		50 years and older	8	20%
Health workers	Sexe	Male	6	60%
		Female	4	40%
	Age	20-29 years old	2	20%
		30-39 years old	3	30%
		40-49 years old	3	30%
		more than 50 years old	2	20%

3.2. Knowledge of the RS and Services

70% of adolescents are aware of the ARH unit, and 45% of the parents surveyed have low knowledge of reproductive health, and 70% of these parents do not discuss reproductive health with their child. This could be justified by their low level of knowledge on adolescent reproductive health issues. With regard to the training and knowledge of health personnel, the majority have not received specific training in adolescent reproductive health (70%) and rate their level of knowledge at 50%.

Table 2. *Level of knowledge.*

Participants	Knowledge of service	Answers	Number	Percentage
Teenagers	Knowledge of USRA?	Yes	35	70%
		No	15	30%
	Knowledge/religion	Christian	20	80%
		Muslim	12	60%
		Autres	3	60%
Parents	Do you know the USRA?	Yes	9	22.5%
		No	31	77.5%
	Do you discuss about their productive health with your children?	Yes	12	30%
		No	28	70%
	Level of knowledge of the parents on USRA	Very good	5	12,5%
		Good	7	17.5%
		Medium	10	25%
		Weak	18	45%

Participants	Knowledge of service	Answers	Number	Percentage
Health workers	Have you received specific training in SRA	Yes	3	30%
		No	7	70%
	Level of knowledge	Very good	1	10%
		Good	2	20%
		Medium	2	20%
		Weak	5	50%

3.3. Use of Services

Only 30% of teenagers use USRA's services and are mostly Christians (40%).

Table 3. Use of services.

Use of services	Number	Percentage
Yes	15	30%
No	35	70%

Table 4. Service Utilization by Age (among those who use services).

Age	Use of service (yes)	Percentage
10-14 years old	2	20%
15-19 years old	10	40%
20-24 years old	3	20%

Table 5. Use of Services by Religion (Among Those Who Use Services).

Religion	Use of service (yes)	Percentage
Christian	10	40%
Muslim	4	20%
Others	1	20%

3.4. Reason for Non-utilization of Services

Lack of information 30%, distance 20%, cost of transport 20%, stigma 20%, costs of services 10%, attitudes of staff 14% and opening hours 6%.

Table 6. Reasons for non-use (among those who did not use the services).

Reason for non-use of services	Number	Percentage
Lack of information	10	30%
Distance	7	20%
Cost of transport	7	20%
Stigma	7	20%
Costs of services	5	10%
Attitude of health staff	6	14.1%
Opening hours	3	6%

3.5. Communication Channels

School is the main source of information on reproductive health, followed by friends and traditional media (radio, television, print). The data collected reveals that teenagers prefer to receive information via social networks (40%) and awareness at school (20%).

Table 7. Reproductive Health Information Channels.

How did you hear about Reproductive Health?	Number	Percentage
School	18	36%
Friends	10	20%
Family	5	10%
Mediaş (radio and TV	7	14%
Social networks	5	10%
NGOs/Associations	3	6%
None	2	4%

Table 8. Preferred channels to receive information.

Which channel do you prefer for information?	Number	Percentage
Social networks	20	40%
School	10	20%
Friends	7	14%
TV	5	10%
Radio	5	10%
Phone message	3	6%

3.6. Perceived Barriers

The main barriers identified by adolescents are lack of information (30%), distance and transportation (20%), and stigma (20%). The 22 parents with a relatively good knowledge of reproductive health noted the lack of financial resources (40.90%), social stigma (18.18%), and distance to the hospital (27.27%). For those who do not discuss SR with their child, religion (39.29%) is one of the main reasons, followed by culture and tradition (28.57%) and shame (25%).

Table 9. Perceived Barriers for Adolescents.

Perceived barriers	Number	Percentage
Lack of information	15	30%
Distance and transport	10	20%
Stigma	10	20%
lack of financial resources	5	10%
Health Staff attitudes (lack of confidentiality)	7	14%
Opening hours	3	6%

Table 10. Reasons why parents do not discuss reproductive health with their children.

Why don't you talk about sexuality with your children	Number	Percentage
I just don't want to	2	7.14%
My religion	11	39.28%
My culture	8	28.57%
Shame	7	25%
Others	0	0%
Total	28	100%

3.7. Factors for Improvement

6% of teenagers find opening hours inadequate, which indicates that services need to be adapted to school schedules and teenagers' availability. The main recommendations to improve access to services, according to parents, include reducing the costs of services (22.72%), raising awareness and education (45.45%), and creating specific programs for adolescents (9.09%). Health personnel mention the continuous training of personnel (90%), awareness and education (70%), and the creation of specific programs for adolescents (90%).

Table 11. Factors that may improve adolescents' use of reproductive health services.

Factors	Number	Percentage
Reduced service costs	5	22.72%
Sensitisation and education	10	45.45%
Adapted opening hours	3	13.63%
Continuous training of health staff	1	4.54%
Improved privacy	2	9.09%
Creation of specific programs for teenagers	1	4.54%
Total	22	100%

4. Discussion

The objective of this study was to analyze the factors associated with the low utilization of reproductive health (RH) services by adolescents attending the Adolescent Reproductive Health Unit of the Regional Hospital of Ngaoundere. The results highlighted several barriers limiting access, including social stigma, lack of confidentiality, cultural and religious barriers, as well as structural factors such as distance and lack of adequate information. Although 70% of adolescents reported being aware of the existence of these services, only 30% actually use them. This low utilization is largely explained by the fear of being judged, the lack of training of health workers and the still too low involvement of parents in their children's sex education.

Our findings are consistent with and confirm observations made in several previous studies. Groupe URD's operational report [10] also highlights the impact of social and cultural norms on access to RH services, particularly in rural areas where taboos and religious norms severely limit adolescents' autonomy in terms of reproductive health. Our study revealed that 20% of the adolescents surveyed fear being judged if they go to a reproductive health service, an observation in line with the work of the URD Group. In addition, this report emphasizes the role of parents and guardians, whose involvement is

often limited by patriarchal beliefs and social prohibitions: this is confirmed by our results, as 70% of parents say they never discuss reproductive health with their children, and only 25% believe they have sufficient knowledge of RH services.

These findings are also consistent with the study conducted in Ethiopia by Melese et al. (2024), which showed that the lack of dialogue within families, due to cultural taboos and parents' lack of knowledge, is a major obstacle to adolescents' access to reproductive health services [13].

However, by relying solely on a quantitative approach, it does not allow us to grasp the full complexity of the socio-ocultural, psychological and relational barriers that influence young people's behaviours towards RH services. It would be relevant for future research to integrate qualitative methods, such as interviews or focus groups, in order to better understand the realities experienced by adolescents and the obstacles perceived by parents and professionals. This additional analysis could help design more tailored interventions, inform public policies, and sustainably improve young people's access to reproductive health services in the Adamawa region.

5. Limitations

Reduced sample size, limiting generalizability of Results. The absence of a complementary qualitative survey.

6. Conclusion

Reproductive health occupies a central place in the prevention of communicable diseases. In Cameroon, the Adamawa region, given its geographical location, has obtained the creation of a reproductive health unit within the regional hospital [14]. However, the use of this unit remains below expectations, which leads us to conduct a study on the factors that may justify this situation. Through quantitative research with 100 participants, including parents, health workers and community leaders, we have identified factors limiting the lack of information, distance, transport costs, stigma, service costs, health workers' attitudes and hours of operation. Then we identified motivating factors that can improve the use of services, such as cost reduction, opening hours and awareness. The results of this research, although specific, could contribute to the improvement of the use of health services dedicated to young people. As a result, it remains limited as regards the generalization of results.

Abbreviations

ARHU	Adolescent Reproductive Health Unit
DHS	Demographic and Health Survey
RH	Reproductive Health
RHS	Reproductive Health Services
URD	Urgence Rehabilitation Development
WHO	World Health Organization

Author Contributions

Bangai Tizi Nasser: Conceptualization, Methodology, Project administration, Supervision Validation, Writing – review & editing

Fadimatou Baba Djoulde: Conceptualization, Data curation, Investigation, Resources, Writing – original draft

Tagne Nossi Alain: Data curation, Formal Analysis, Methodology, Software, Supervision, Validation, Visualization, Writing – review & editing

Conflicts of Interest

All the authors declare no conflicts of interest.

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