Availability, Accessibility, and Quality of Adolescent Sexual and Reproductive Health Services in Urban Health Facilities of Rwanda: A survey among social and healthcare providers

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Abstract

Background : Access and utilization of quality and comprehensive sexual and reproductive health services (SRHS) is a very crucial point for young adolescents worldwide. This study assessed the quality of SRHS provided to Rwandan adolescents in urban health facilities in terms of availability, accessibility, cost, counseling, with particular emphasis on HIV and family planning-related cases.

Method : The study was a descriptive cross-sectional survey conducted during the year 2019 in six selected cities of Rwanda using a mixed-methods approach, including s emi-structured questionnaire administration and in-depth interviews with social and healthcare workers. The study sample consisted of 159 social and healthcare providers (54.5 % men and 45.5% women) enrolled by convenience based on their responsibilities in the selected entities. All survey tools were pre-tested. SPSS version 20 served for descriptive statistics analysis of quantitative data, whereas ATLAS TI version 5.2 helped to code and analyze the qualitative data thematically.

Results : Overall, the availability of adolescents sexual reproductive health services is satisfactory in more than 80% of health facilities surveyed, but the accessibility is a little bit low for some services. According to the respondents dire, some products available like female condoms are less demanded and often expire unused. In-depth interviews revealed that 94.3% of centers provide information to adolescents on SRHS available, and 51.6% affirmed delivering services at a low cost. One nurse clarified that they render services at a low price if an adolescent has insurance medical coverture. Private health facilities offer HIV testing for free, but for treatment and other services, they channel adolescents to public health facilities. Only 57.2% of respondents mentioned that adolescents are involved in designing the feedback mechanisms at their facilities. Religious leaders and family members may hinder adolescents from seeking behavior.

Conclusion : SRHS were generally physically available at most of the facilities but limited in access as not all facilities were allowed to deliver some services. Adolescents were said to face structural and social challenges towards accessing services. There is a need to improve the accessibility of SRH services delivery sites while considering innovative methods to broaden access to services.

Background

Globally, there are nearly 1.2 billion adolescents aged 10 to 19 years old, representing about 16% of the world’s population (3). About 789 per 100,000 adolescents suffered adverse maternal outcomes in 2015, and nearly 3000 adolescents die each day from preventable causes related to sexual reproductive health (SRH) (4). The International Conference on Population and Development (ICPD) in Cairo 1994, urged governments to make reproductive health services available, accessible, acceptable and affordable to young people. That is important to promote adolescents’ health and an essential step toward achieving Sustainable Development Goals (SDGs) (4–6). The World Health Organization (WHO) has also

introduced guidance to help governments respond to the growing health needs of adolescents and have suggested other interventions like the operation of youth-friendly clubs (7).

Despite that, adolescents from Sub-Saharan Africa (SSA) are still being affected by sexual and reproductive health problems (8). Adolescents' full access to SRH services and information essential for the promotion of their human rights still lack in many SSA countries (5); due to numerous barriers, they face in access even when the services are present (9). Various barriers faced by adolescents have been reported and include lack of youth-friendly and comprehensive SRH services at many health facilities, shortage of trained personnel, conducive environment for adolescents, shortage of information on the services provided, and provider attitudes that are not friendly to young people and adolescents (9,10).

Inadequate SRH services provided to adolescents increase the risks of unwanted pregnancies, unsafe abortion, HIV, STIs, and mental health problems in adolescents (7). The underutilization of the service package also leads to adolescents, especially girls, getting inaccurate SRH information from their peers and wrong people (11). Several factors expose adolescents to sexual and reproductive health problems such as taboos surrounding sex education and talk, early marriage, norms and tradition, lack of comprehensive knowledge of sexual and reproductive health (10,12).

In many African countries like Uganda, Nigeria, and Botswana, sexual and reproductive health services for adolescents were reported to be of low quality, citing, for example, inappropriate working hours, waiting time, and cost of the services, for adolescents (6,13 -15). Most of the African countries do not have trained/sufficient staff to provide and cater to the SRH needs of adolescents (11).

Like other most SSA countries, adolescents in Rwanda still face various challenges while seeking or trying to access SRH services such as limited availability or no specialized trained health care provider capable of catering adolescents' needs (16). The government of Rwanda has been putting mechanisms and policies in place that would enable access to sexual and reproductive services for young since 2010 (17). However, there is still evidence of increasing unwanted teen pregnancies, risky sexual behaviors, lack of comprehensive knowledge of SRH, and HIV risks among adolescents (16,18,19). There is a gap in knowledge about SRH services provision to adolescents in urban settings in Rwanda, such as views and understanding of availability, accessibility, and the quality of SRH services provided to adolescents for service providers. Therefore, this study aimed at understanding the SRH services providers’ view on accessibility, availability and quality of SRH services provision among adolescents in selected cities of Rwanda.

Methods

Study settings

Administratively, Rwanda is structured in different districts within the four provinces and Kigali city (Fig.1). For the study, we considered six sites, including Kigali, Nyanza, Huye, Rwamagana, Musanze, and Rubavu, based on their population size. Each district has specialized youth-friendly health centers

delivering Adolescent Sexual and Reproductive Health Services (ASRHS). The study took place in some of those ASRHS settings.

Figure 1. Administrative map of Rwanda

Study design,

The study was a prospective, descriptive, cross-sectional, mixed-methods survey conducted between May 2018 and May 2019 among social and healthcare providers in charge of ASRHS in the selected centers. The mixed-methods approach consisted of administering written semi-structured questionnaires to the respondents, followed by in-depth interviews.

Study participants

The study enrolled 159 social and healthcare providers (54.5% men and 45.5% women), selected by convenience based on their responsibilities in the selected entities.

Data collection

Health providers who agreed to participate self-answered both written and verbal questions. All survey tools were pre-tested. The questionnaire was adapted from the Pathfinder International (PI) checklist composed of questions designed to align with the World Health Organization (WHO)'s expectations on the provision of Youth Friendly Health Services (YFHS) and Quality of Care Standards (20). The researcher and three trained research assistants from the University of Rwanda, College of Medicines, and Health Science (CMHS) conducted the data collection. Research assistants were all fluent in Kinyarwanda and English. Interviews typically lasted between 1h30min to 2:00 hours.

Study variables

Respondents' variables: including demographics, affiliation, responsibilities, and continuous training;

Services provided: including Youth-friendly services related to HIV, Youth-friendly services related to family planning, Youth-friendly services on education, and information;

Adolescent involvement in services;

Management of confidentiality;

Barriers to access services.

Ethics

The protocol obtained Ethical clearance from the University of Rwanda, College of Medicine and Health Sciences Institutional Review Board with reference number: CMHS/IRB/370/2018. Interviewees signed a consent form before being interviewed.

Data analysis

Data collected were cross-checked for completeness. Logical techniques were employed to identify errors during data transcription, cleaning, and analysis. The Statistical Package for the Social Sciences (SPSS) version 20.0 served for descriptive statistical analysis of quantitative data. The availability of services corresponded to the physical presence list. Accessibility indicated the effective delivery of the service as affected by different barriers. Quality measured elements such as adolescents' involvement in SRH, management of confidentiality, and satisfaction of Adolescents. The qualitative responses from the interviews were transcribed in the English language while maintaining the contexts of the reactions. ATLAS TI version 5.2 was used to code and analyze the data thematically.

Results

Sociodemographic Profile of participant ASRHS providers

Table 1 shows the sociodemographic characteristics of the 159 respondents. There were 54.5% males and 45.5% females, aged 15-65 years old, whose majority (43.1%) was between 26 and 35 years old.

Most of the respondents were nurses (80%), followed by general medical practitioners (6.3%); 57.8% had a diploma (A1) level.

Table 1: Social demographic characteristics of respondents

Variables		Total N	Percent
Gender	Female	70	45.5
	Male	84	54.5
Age years			
	15-25	5	3.1
	26-35	69	43.1
	36-45	56	35.0
	46-55	26	16.3
	56-65	3	1.9
Education			
	Secondary (A2)	23	14.9
	Diploma (A1)	89	57.8
	Bachelors (A0)	37	24.0
	Masters	5	3.2
Qualification			
	Medical doctor	10	6.3
	Nurse	129	80.6
	Midwife	3	1.9
	Social worker	3	1.9
	Public health specialist	6	3.8
	Clinical specialist	1	0.6
	Psychologist	1	0.6
	Lab technician	4	2.5
	Management officer	2	1.3
Total		159	100

Quality of services

Table 2 shows that a higher proportion of the respondents (56.3%) were working with private health facilities, mainly form Nyarugenge district health facilities (28.8%). The least number of participants was in Huye 9(5.6%). The number of staff on board varied from 0 to 7 people, of which 46%) spend less than 8 hours/day, and 54% more than 8 hours per day. Table 3 shows the competencies of SRHS providers. About half (58%) of respondents declared having received essential training; 73.4% beneficiated from continuous learning; 77.8% learned about confidentiality on services. More than 90% of respondents found themselves friendly, respectful, excellent listeners, and nonpartisan workers. Table 4 shows some elements of the quality management of confidentiality.

Table 2: Percentage of staff and time hours spent on SRHS per district

Workplace		Respondents	
		N	%
	Musanze	13	8.1
	Huye	9	5.6
	Rubavu	16	10.0
	Rwamagana	16	10.0
	Gasabo	30	18.8
	Nyarugenge	46	28.8
	Kicukiro	28	17.5
Affiliation			
	Government	66	41.3
	Private	90	56.3
	Religious	3	1.9
Total		159	100

Table 3: Staff characteristics and competencies in SRH service provision

Measurement outcomes	Total	Yes		No	
	N	N	%	N	%
Health care providers receive essential training	157	91	58	66	42
Use of written guideline	154	49	31.8	105	68.2
Continuous learning	158	116	73.4	42	26.6
Staff oriented to provide confidential AFS	158	123	77.8	35	22.2
Staff are non-judgmental, friendly, welcoming, good listeners	157	149	94.3	8	5.1
Staff demonstrate respect when interacting with adolescents	155	144	92.3	11	7.1

Table 4: Management of Confidentiality at health facilities

Services	Total N	Yes		No	
		N	%	N	%
Discreet entrance	157	56	35.7	101	64.3
Privacy in services provision	156	148	94.9	8	5.1
Confidentiality in accessibility	156	98	62.8	58	37.2
Privacy of the rooms	157	139	88.5	18	11.5
Comfortable waiting area	158	127	80.4	31	19.6

Availability and accessibility of services

Table 5 presents the available services related to HIV and STDs themes. STDs testing is available in 92.3% of facilities, but only 64.8% of health facilities surveyed give treatment HIV testing is available in 86.2% of facilities, but self-testing and self-testing kits were available in only 25% and 19.7% of facilities. However, only 42% of facilities give HIV treatment on the same day of diagnosis or 32.6% facilities in general. More than 80% of facilities offer HIV-counseling, and 64.2% practice circumcision.

Table 5: HIV related SRHS Available at the surveyed health facilities

Variable	Total N	Available	
		N	Valid %
STDs testing	159	145	91.2
STDs treatment	159	103	64.8
HIV testing	159	137	86.2
HIV self-testing	156	39	25.0
HIV Self-testing kits	157	31	19.7
HIV same-day therapy initiation	157	66	42.0
HIV treatment	158	50	31.6
HIV counselling	158	127	80.4
Circumcision	159	102	64.2

Table 6 presents the available services related to family planning. In general, 85.5% of facilities may offer contraceptive methods, including combined oral pills(78.3%), progesterone pills (75.5%), the male condoms (73.6%), female emergency contraceptives (63.9%), Depo-Provera injection (66%), the implant (53.6%), IUD (49%), female condom (21%), lubricants (14.1%), vasectomy (11.5%), and tubule ligation (21.8%). Fertility awareness, antenatal counseling, and postnatal care may be available in 45-52% of facilities.

Table 6: HIV related SRHS Available at the surveyed health facilities

Family planning Services	Total	Available	
	N	N	%
Contraceptives	159	136	85.5
Combined oral contraceptive	157	123	78.3
Progesterone contraceptive	155	117	75.5
Emergency contraception	158	101	63.9
Depo Provera injection	150	99	66.0
Implant	153	82	53.6
IUD	155	76	49.0
Male condom	159	117	73.6
Female condoms	157	33	21.0
Lubricants	156	22	14.1
Vasectomy	157	18	11.5
Tubal ligation	156	34	21.8
Fertility awareness	158	82	51.9
Antenatal counselling (ANC)	157	75	47.8
Post-natal care	157	70	44.6

Youth-friendly services related to education and information and involvement of adolescents

Table 7 demonstrates the extent and quality of knowledge and information provided alongside HIV and Family planning issues.

Table 7: Information on SRHS at the surveyed facilities

Information accessible	Total N	Accessible N %	
More information provided on services provided	159	150	94.3
More information on general health	154	132	85.7
Time for interaction	155	92	59.4
Referral mechanism	159	123	77.4
Job description and responsibilities	147	69	46.9
Info spread on services	158	98	62
Staff supervisor	156	62	39.7
Time for results provision	157	148	94.3
Non-discrimination in terms of educational materials	157	64	40.8
Non-discrimination in terms of service provision	158	107	67.7
Involvement in Feedback provision	159	86	54.1
Involvement in the availability of peer educators	159	53	33.3
Involvement in designing the feedback mechanism	158	67	42.1

Barriers and obstacles to access services

Table 8 gives multiple factors that can impact on the accessibility and quality services. Only 5% of the respondents could not list any barriers. Only half of the adolescents have their needs completely satisfied, meaning the other half encounter some obstacles to access the services available. The most significant obstacles come from a family interdiction (68.2%), Religion (65%), suitable operating time (78.3%), access to medical records (91.1%).

Table 8. Barriers or obstacles to access services

Any Barriers to SRHS	Total N	N	%
None	157	8	5.1
Needs of adolescents satisfied	156	79	50.6
Community	157	71	45.2
Family	157	107	68.2
Friends	157	27	17.2
SRHS staff	157	23	14.6
Adolescents	157	16	10.2
Policymakers	157	16	10.2
Religious beliefs	157	102	65
Social media usage	155	31	20
Waiting time	156	93	59.6
Service cost	155	80	51.6
Suitable operational hours	157	123	78.3
Access to medical records	158	144	91.1
Age at which young should access the service	96	48	50
Accessibility to location Less than 30 min	156	98	62.8
Accessibility in location 30 minutes-1 hours	156	53	34
Accessibility in location 1 hours-2 hours	156	5	3.2

Qualitative data

About availability of SRH services for adolescents

In-depth interviewees agree with the descriptive quantitative data, saying the majority of SRH services are available at the health facilities. Surprisingly, they mentioned that some of their products and services made available are often under-utilized, end-up expired, which leads to wastage of scarce health resources.

"The male's condoms are available, but there is the stock-out of the female's condoms. The previous females' condoms expired because the clients did not request them. The females say that they do not use

*female condoms because of the difficulty with the insertion of during sex. The participants also do not like using them because of the difficulties in using them during sexual intercourse" — n*urse _in Gasabo District.

We also aimed to document the package of SRH services available at health facilities, and the respondents expressed that some services are not available at their facilities, due to the predetermined SRH health care package for health facilities that are set by the Ministry of Health guidelines. The respondents feel that if they were allowed to provide some services in their health facility, they would have had all the SRH services needed by the adolescents.

"This private institution provides the tests and treatments of STIs such as Syphilis, Trichomoniasis, Candidiasis, Chancroid. It also provides HIV counseling. For HIV treatments, HIV patients are transferred to public institutions for ART. We also have some contraceptive methods, but people who need family planning are also transferred to the hospital or health center where the governmental institutions provide these services for free. Moreover, pregnant women in our institution are cared for, for example, on echography, ANC and PNC care, and partial health interventions are provided. The challenge at our facility is a lack of rights to deliver all the SRH services, but we need to create a strong partnership with the Ministry of Health for us to provide them. A medical doctor at a private clinic_Kicukiro.

Accessibility of SRH Services to adolescents

The majority of the respondents expressed that their facilities have been providing more information on SRH services 94.3% and general health 85.7% after they have provided a specific SRH service to an adolescent. (59.4%) respondents only reported that they provided more time for interaction with adolescents, whereby also few staff had a job description to guide SRH services provision to adolescents 46.9%.

In-depth interviews show that interviewees were providing information on the availability of SRH services and their location to adolescents but not on a routine basis. SRH Services providers felt that all the required information by the adolescents on SRH services are made available when they are ongoing campaigns organized by different institutions.

*"Health providers spread the awareness about available friendly Adolescents' SRH services; when there is the campaign because adolescents attend it". N*urse_ Huye.

The interviewees also lamented being over-worked with other health care services while providing SRH services. They are scared that the lack of detailed information about their responsibility at work affects the time spent providing such services to adolescents.

"*No organogram presents here because we have other responsibilities within other units or departments……*" Nurse _Gasabo.

Table 4 shows that the service providers believe that only 62.8% of the adolescents use less than 30 minutes walking distance to reach the venue for accessing SRH services, while the use of social media for education and information provision on SRH, were not commonly used 72.2% by the health facilities. Respondents feel that close to half of the services are provided at a low cost 51.6% and almost half of the study respondents reported that the needs of the adolescents were not being met in their facilities 49.4%. Furthermore, most of the study respondents responded that they do not provide SRH information to adolescents through social media platforms like Facebook, Whatsapp, and Twitter.

"*Social media are not used at the health center because our health center still has the barriers to having required equipment and resources needed for providing the education and information using the social media platforms…….* " Midwife _Rubavu.

The respondents believed that it is only at public facilities that adolescents can access SRH services at an average cost. They further said that for those who had access to any medical insurance, access to services is at a price worth seeking for them again.

"The services are provided at low cost, and the moderator ticket is paid by those who have health insurance. The patient with no health insurance must pay 100% of the treatments,", Nurse _Nyarugenge. "*Our institution provides various services for private clients, that is why the services we provide, including SRH services for adolescents, are paid 100%, but we accept the health insurance when it is relevant"* Nurse _Rwamagana.

Quality of SRH Services provided to adolescents

Tables 5, 6, and 7, demonstrate the perceived quality of SRH services by services providers provided to adolescents within the urban health facilities in Rwanda. In table 5, it was found that health facilities did not separate entrance for adolescents to use while they visit the health facility to access SRH services 64.3%, but respondents expressed that health facilities have private rooms for consultations 88.5%.

"*The providers give SRH services to adolescents in privacy and confidential manners. The socio-demographic and patients' status are kept in privacy*." Medical Doctor _Musanze.

Table 6 shows that 68.2% of respondents did not present to the interviewer any written guidelines used for SRH services provided to adolescents. Additionally, the respondents felt that only 58.0% had accessed some training on providing SRH services to adolescents, while only 73% had continuous access to adolescent SRH education. They added, however, that in-service training and documentation are conducted to provide services to adolescents, whereby they said that they provide SRH services adolescents without any prejudices and stigmatization and that room for improvement is needed.

"The clinic does not have a trained health provider about the SRH services and there is no specific health provider for adolescents seeking SRH services" Nurse _Rubavu. *"The staff involve themselves in the continuous learning and online courses".* Nurse _Gasabo. "*Although the clients are received without*

judgment, well welcoming and respectful manners, there is a need for more efforts especially counseling where some fear about coming to seek for the services". Social worker_Huye.

Table 7 reported adolescent involvement in services provision. A total of 45.9% respondents said that they do not have formal mechanisms to receive feedback from the adolescents on services provided, and only 57.2% of respondents acknowledged to involve adolescents in designing the feedback mechanisms, while only 33.3% of the facilities make use of the adolescents peer educators in SRH services and information provision to adolescents. Respondents expressed respect for privacy and confidentiality while providing SRH services to adolescents.

The respondents said that adolescents do not have a suitable means to provide feedback on the services being provided. This is coupled with the fact that they are less involved in suggesting ideas towards the services that should be provided to them. These made the respondents feel that the sexual and reproductive health needs of adolescents might not be met in several facilities. "*There is no transparent and confidential mechanism for adolescents to submit complaints or feedback about SRH services at the facility, but the adolescents receive results or feedback from the services delivered*". Nurse _Huye.

"*The peer's educator or counselors are not involved in the SRH services offered to adolescents. There is no well-organized system to receive and provide SRH care to adolescents by peers. The SRH department is not active/operative because of the lack of resources. Therefore, the people who were peer educators or peer counselors among adolescents are no longer working. Almost all of the adolescents who were in charge are students. Besides, most of the adolescents in the area surrounding this health center are the students who become available on the weekend and holidays*" Nurse _Musanze.

Respondents added that the adolescents' needs are not being met within most of the facilities "*The needs of adolescents seeking for SRH services are not met at the health center because the services are not specific and there are insufficient resources including equipment materials, medical drugs, tests and insufficient providers*" Nurse_Rubavu.

Barriers to SRH Services accessibility and provision to adolescents

This study also documented the obstacles that the SRH service providers perceive to limiting seeking to access SRH services for adolescents. Table 8 shows perceived barriers by SRH service providers that adolescents face while seeking for SRH services. Major obstacles that interviewed health providers recognized were religious leaders, 65.0% and family members 68.2% limiting adolescents to request or access the SRH services. The in-depth interview states that the respondents' efforts to provide adolescents with SRH services are often shattered by either religious members, community members, policies in place, and family members that limit access or seeking behaviors by adolescents.

"The facility faces challenges including the community, family and religious leaders who influences SRH services seeking by adolescents at the facility". Midwife _Gasabo.

Respondents added that "*The barriers happen at our health facility because of the cultural influence, religious determinants. For example, church leaders do not accept family planning and circumcision. These barriers increase the rate of low accessibility to SRH services at the health center".* Social worker_Ruvabu

Discussion

The provision of youth-friendly sexual and reproductive health services by ensuring availability, accessibility and quality are eminent for adolescents to live healthy lives and thrive (21,22). Quantitative and qualitative data were needed to communicate SRH service provision for adolescents in Rwanda, whereby the services provided to adolescents is not yet well documented. Understanding views of health care providers on SRH services provided to adolescents were emphasized in this study. The study was conducted within selected cities of Rwanda and therefore, may not be generalized to all health settings in Rwanda.

Most of the health facilities do not provide all SRH services that ought to be provided at their level as reported by the interviewed SRH services providers. Based on the study results, Rwanda is doing well in availing SRH services to help adolescents access them, but our results revealed that the SRH services provision were designed for the general population, without specialized adolescents SRH health providers and this comprehensive limit accessibility. Our results agree with previous studies conducted in Nigeria, Rwanda, and Kenya that also reported that SRH services were not mainly designed for adolescent's use (9,14,23). The study data reveals that some of the services are not available in health facilities due to being underutilized, such was the case with female condoms. In addition to that, a predetermined health service package that is offered at a health facility as defined by the Rwanda Ministry of Health limit facilities at offering some SRH services. These results differ from findings in Nigeria, where they reported that female condoms were available in almost all health facilities included in their study (14).

Furthermore, geographical accessibility of SRH services, especially when it came to distance, was not seen to be a negative factor to access among adolescents' in this study. The respondents reported that adolescents needed to walk approximately 30 minutes to reach a health facility. These findings may be a result of the decentralization of health systems in Rwanda for the attainment of Universal Health Coverage (UHC) (24). Our results were different from what other studies have reported (3,25).

Our respondents brought to light that limited time to interact with adolescents during SH services provision is still challenging and constitutes a significant setback to SRH services accessibility. This can be explained by the fact that a shortage of the number of staff providing SRH services might be affecting the time spent providing the services. Lack of specialized Adolescents SRH courses, capacity building in Adolescents SRH services provision, full job description and organogram for SRH units' staff might additionally explain a shortage of SRH staff due to having responsibilities within other departments. Some service providers suggested that it would be inappropriate for primary school adolescents to access SRH services irrespective of being between 10-19 years because they are not matured. These

findings are similar to what was found by other studies that adolescents less than 12 or 14 years old cannot access SRH services without the consent of their parents, or services were rejected to be provided by healthcare providers, especially when it comes to HIV related services (3,26).

The results demonstrate that the SRH services cost is near the standard of what was highlighted by ICPD +5 in Beijing to promote adolescents' access to health services (27). This is owed to the fact that the Rwandan government has put efforts in community health insurance scheme whereby, close to all Rwandans are enrolled and insurance accepted in all public health facilities. However, a higher proportion of study respondents came from private facilities, whereby it was found that most of the services are not provided or not provided for free. This would limit adolescents who wish to access SRH services without the consent of their parents or guardians.

The fact that more than 50% of health facilities in Rwanda are affiliated to the Roman Catholic Church or other faiths who refuse to offer various SRH services including contraception and pregnancy termination. If no other insurance scheme owned by adolescents, then adolescents will need to pay fully for SRH services as it was observed in similar studies (13). Our results also indicate that there is no sufficient publicity to make adolescents fully access SRH services. These results are similar to what was reported in Tanzania, whereby, SRH services for adolescents were found to be poorly publicized (28).

The current health care services provided to adolescents lag behind, especially when it concerns involving adolescents in the overall service provision process. SRH service providers did not prefer to include adolescents in serving their peers in addition to not engaging them in designing feedback mechanisms for services rendered to them or their peers. The findings align with existing knowledge that reported that SRH services provided to adolescents' in Rwanda are not yet of the desired standard, and need multi-sectoral approaches and strong coordination between and within agencies to enhance their provision (19,23) innovatively.

A safe and supportive environment for adolescents' health Agenda, as highlighted on the Action in adolescent health and development by the WHO, UNICEF, and UNFPA, needs to be implemented and followed up in urban health settings that offer SRH services, especially for providing services to adolescents (22). Therefore from the availability to the quality of the service, adolescents were said to face several barriers mostly posed by community members, family members, and religious leaders. These barriers play a role in affecting the general quality of services. The findings are consistent with those from other Low- and Middle-Income Countries (LMICs) regarding the numerous barriers adolescents face while accessing SRH services (3,25). This calls for policymakers, activists and the community to formulate methodologies of ensuring the SRH services accessibility, availability as well as the quality of services provided, considered while designing health services provision, to ensure leaving no one behind principles to achieve sustainable development goal 3.

Conclusions

The study concludes that the majority of SRH services are geographically available with financial accessibility constraints in the urban health facilities of Rwanda in case there is no insurance. There are still challenges related to low-quality services, accessibility, and barriers to utilizing SRHs services utilization among adolescents in urban health facilities of Rwanda. These SRH services are seen not to meet the needs of adolescents fully and seem to be designed to meet the needs of the general population according to the SRH services providers. Therefore, there is a need to improve the present quality of these services to meet adolescents' needs in an urban setting. Adolescents' peers would also be of great support and efforts should be made to give health care providers specific tasks on Adolescent SRH accompanied by specialized training/education on the services.

Abbreviations

SRH:	Sexual and Reproductive Health
ICPD:	International Conference on Population and Development
SDGs:	Sustainable Development Goals
WHO:	World Health Organization
SSA:	Sub-Saharan Africa
HIV/AIDS:	Human Immuno Virus/Acquired Immune Deficiency Syndrome
YFHS:	Youth Friendly Health Services,
CMHS:	College of Medicines and Health Science
SPSS:	Statistical Package for the Social Sciences
UNICEF:	United Nations Children's Fund
UNFPA:	United Nations Population Fund
PI:	Pathfinder International
LMICs:	Low and Middle Income Countries

Declarations

Ethics approval and consent to participate

The study received ethical clearance from the University of Rwanda, College of Medicine and Health Sciences Institutional Review Board. District authorities provided permissions to conduct data collection in their districts and health facility leaders approved the agreements to perform data collection within their facilities. Participants were informed about the aim of the study and gave written consent before participating in the study. Confidentiality was maintained by ensuring that in-depth interviews were done in private rooms. Numeric identification codes were used to conceal individual identities and the researcher securely handled all records.

Competing interests

The authors declare that they have no competing interests.

Consent for publication

All the others gave verbal consent to publish this paper.

Availability of data and materials

All data and materials used while putting together this paper are available on request.

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Authors' contributions

PN, IK, and RU participated in conceptualizing, design of the study, data collection, analysis, and interpretation. DRD and IK participated in data analysis and interpretation. JBN, and JKN participated in revising the manuscript. All authors participated in drafting and revising the manuscript. All authors read and approved the final version of the paper.

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Figures

Figure 1

Administrative map of Rwanda