

Factors Contributing to Adolescent Sexual Reproductive Health Services Utilization among Youth People in kirehe district – Rwanda, 2026

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ABSTRACT

Adolescents and young people in rural Rwanda continue to experience barriers to sustained use of sexual and reproductive health (SRH) services. This study assessed factors associated with utilization of youth-friendly SRH services among adolescents and youth aged 10–24 years in Kirehe District, Rwanda. A descriptive cross-sectional mixed-methods design was used. Quantitative data were collected from 357 adolescents and youth using a structured questionnaire, while qualitative data were obtained through two focus group discussions involving 16 participants and 10 key informant interviews. In addition, 10 health facilities were assessed using a structured facility-audit checklist. Quantitative data were analyzed using SPSS version 27 with descriptive statistics, chi-square tests, and multivariate logistic regression; qualitative data were analyzed thematically. Overall, 90.5% of respondents reported having visited a Youth-Friendly Corner at least once, but repeat engagement was limited: 81.2% reported one to two visits during the preceding 12 months. Counselling and contraceptive services were the most frequently accessed services, reported by 174 and 164 respondents, respectively, while pregnancy testing, HIV testing, and STI treatment were reported by 80, 44, and 33 respondents. Age, occupation, and household income were associated with utilization. In adjusted analysis, respondents aged 20–24 years had higher odds of utilization than those aged 10–14 years (AOR=2.41, 95% CI: 1.02–5.67, $p=0.045$); students had lower odds than unemployed respondents (AOR=0.38, 95% CI: 0.17–0.84, $p=0.017$), while self-employed respondents had higher odds (AOR=3.15, 95% CI: 1.08–9.22, $p=0.036$). Respondents from households earning 60,000–120,000 Rwandan francs had lower odds than those earning below 30,000 francs (AOR=0.29, 95% CI: 0.09–0.91, $p=0.034$). Qualitative findings showed that stigma, community gossip, parental attitudes, confidentiality concerns, provider attitudes, school-related concerns, waiting time, transport costs, and occasional commodity stock-outs influenced service use. The findings indicate that physical availability alone does not ensure sustained engagement with youth-friendly SRH services. Strengthening confidentiality, respectful care, youth-focused outreach, school–facility referral linkages, commodity availability, and flexible service access may support more consistent utilization.

Keywords: adolescent health; sexual and reproductive health; youth-friendly services; Youth-Friendly Corners; service utilization; Kirehe District; Rwanda

1. INTRODUCTION

Adolescent and youth sexual and reproductive health (SRH) services are important for preventing unintended pregnancy, sexually transmitted infections, HIV, and other adverse health outcomes. Youth-

friendly services are intended to be accessible, acceptable, equitable, appropriate, and effective for adolescents and young people. However, availability of services does not necessarily translate into regular utilization, particularly in rural and resource-constrained settings.

In Rwanda, efforts to improve adolescent SRH have included national policy commitments and the establishment of Youth-Friendly Corners (YFCs) within health facilities. Despite these investments, rural adolescents may continue to experience stigma, concerns about confidentiality, provider-related barriers, limited privacy, economic constraints, and inadequate awareness. Evidence from the thesis underpinning this manuscript identified a need to examine both demand-side factors—such as perceptions, stigma, and demographic characteristics—and supply-side factors, including service readiness, staffing, privacy, and commodity availability.

Kirehe District provides an important rural setting for examining these issues. The study focused on adolescents and youth aged 10–24 years and considered utilization of YFC services, socio-demographic factors, perceptions and awareness, and facility readiness. The study was guided by Andersen’s Behavioral Model of Health Services Use and the Penchansky and Thomas Access Framework, which emphasize predisposing and enabling factors as well as accessibility and acceptability of health services.

The general objective was to assess factors contributing to utilization of adolescent sexual and reproductive health services among young people in Kirehe District. Specific objectives were to assess the level of utilization, determine factors associated with utilization, and explore perceptions and awareness of adolescents, youth, and health providers regarding accessibility and use of youth-friendly SRH services.

2.1.1 Availability and Quality of Youth-Friendly Sexual and Reproductive Health Services

A critical assessment of implementation of policies shows that globally, there is still a gap between the promises made to the realization of the youth-friendly sexual and reproductive health services. The results of a multi-country survey carried out in 14 low- and middle-income countries (LMICs) revealed that only 52 % of health facilities provided services that were appropriate to adolescents; poor provision was documented in provider training (68 % of facilities) and the accessibility of separate private consultation areas (57). In Tanzania, example, they created special youth corners that increased the use of contraceptives by 40 %. However, emergency contraceptives and HIV test kits were stocked out regularly, which lowered quality of service (Mkandawire et al., 2020). Similar results were obtained in Southeast Asia: 78 % of clinics did not reach the standards of World Health Organization regarding the adolescent-responsive care due to a lack of training in the confidentiality process, as well as proper age-appropriate communication (Guglielmi et al., 2020).

Shortage of infrastructural facilities is especially serious in rural areas. The volume of adolescent visits was more than twice as well in Ethiopian facilities with evening hours, peer educators, and privacy when compared to standard clinics (Tilahun et al., 2017). But even 35 % of them did not have a sufficient number of staffs; the acutest problems with the nurse shortage were in the areas of agriculture, where the staff was often switched to the workplace of maternal care. In Malawi, over 60 % of youth-friendly corners did not have distinctive access, which is the reason why adolescents avoided services due to the possibility of being recognized by community peers for youth-specific sexual and reproductive health enhancements take up just 12 % of finances in Kenyan clinics in pastoralist areas, with priorities being given to maternal health services (Wood & Hendricks, 2019).

The development of the National Sexual and Reproductive Health Policy (2018) in Rwanda can be taken as an example because the percentage of youth-friendly services has been increased in regional health

facilities since 2015, and nowadays it reaches 68 % (Rwanda Biomedical Centre, 2021). However, the current statistics show that the level of urban-rural disparities as regards service quality is high. In Kigali alone, there was an average of 3.2 trained providers per youth corner in urban facilities, and in comparison, rural districts only had 1.4, with a percentage of 45 of the latter indicating that no dedicated adolescent health training was done in the span of a year (Ministry of Health, 2022). The security of commodities is an issue of concern: according to national surveys, 38 % of rural facilities reported monthly stock-outs of contraceptives, versus 12 % in urban ones, forcing the youth to visit them repeatedly (National Institute of Statistics, 2022).

Structural and procedural gaps are supported by quality assessments. According to a 2022 review of 120 health facilities, none had met all the five WHO youth-friendly standards, and the key areas of weaknesses were the lack of separate waiting areas (62 % of visited facilities), not high provider communication skills (55 %), and a deficiency of adolescent targeted educational materials (71 %) (Rwanda Biomedical Centre, 2022). Notably, facilities that had community engagement programs, e.g., youth advisory boards, had 50 % higher service satisfaction scores, demonstrating the importance of participatory design that can boost acceptability (Umuhoza et al., 2022).

2.1.2 Factors Influencing Youth-friendly Sexual and Reproductive Health Service Utilization

Barriers to utilization are multidimensional phenomena that are located at socio-ecological levels. The first factor is economic limits: 42 % of rural youth in Kenya have no access to clinics, and to access one, adolescents spend 30 % of their monthly income on transportations (Wood & Hendricks, 2019). Disparities in gender are strong; in Uganda, adolescent girls were 55 % less likely than boys to access the SRH services due to the parental rejection and stigma of premarital sexuality (Nalwadda et al., 2021). A crucial role is played by provider attitudes: 63 % of adolescents do not go to clinics in Malawi because of the fear to be judged, and there is qualitative data about staff who treated patients like parents and scolded them (Barden-O'Fallon et al., 2020, p. 7).

These problems are aggravated by systemic failures. Closure of clinics at 3 PM also limited the availability of school-going youths and the number of adolescent visits decreased by 48 % in Ethiopia (Tilahun et al., 2017). In India, 67 % of the first-time users were stopped by complex navigation procedures (Sharma et al., 2021). Access is also regulated by cultural norms; research conducted in Nigeria shows that religious leaders do not support contraception, which lowered the rates of youth use to 41 % in conservative regions (Adebowale et al., 2020).

A vivid example is utilization pattern in Rwanda. Nationally, significant rural-urban gaps can be observed: in rural areas, the rate of consultation of the young population (32 %) is significantly lower than in the urban environment (58 %) (Rwanda Biomedical Centre, 2021). A key obstacle is distance; 40 % of the rural teenagers live over 10 km to the facilities facing an added challenge through annual rains, which make the roads impassable during 3 to 4 months a year (Ministry of Infrastructure, 2023). Other limitations based on culture are agaciro (regulated silence regarding sexuality) that impairs the use of services among the youth; 62 % of rural young people turn to traditional healers due to fears of being gossiped about (National Institute of Statistics, 2022).

Attitudes among the providers show mixed tendencies: although 80 % of the health personnel clinically accept the rights of the youth to SRH services in theory, 41 % of them individually disapprove of adolescent contraceptives (Ndayishimiye et al., 2020). Such economic demands are especially high in agrarian communities: the usage of adolescents drops by 40 % during harvest and planting seasons, when other farm work is prioritized by the family (Ministry of Agriculture, 2022).

2.1.3 Perceptions and Awareness of Youth-friendly Sexual and Reproductive Health Services

Perceptions make up the first level at which adolescents contact sexual and reproductive health (SRH) services. Majority of young people surveyed in Malawi claimed that 71 percent of clinics were places where pregnant women come, but not adolescents, and 68 percent did not believe there were confidentiality assurances (Barden-O'Fallon et al., 2020). The same results are found among service providers; Ethiopian care providers were 4.2 times more likely to hide contraceptives when they considered that adolescent sexuality is immoral (Tilahun et al., 2017). Such problems are worsened by differences in awareness. An example is in Tanzania who did not know what youth-friendly corners offered and 60 percent of them thought that it just tested HIV (Mkandawire et al., 2020).

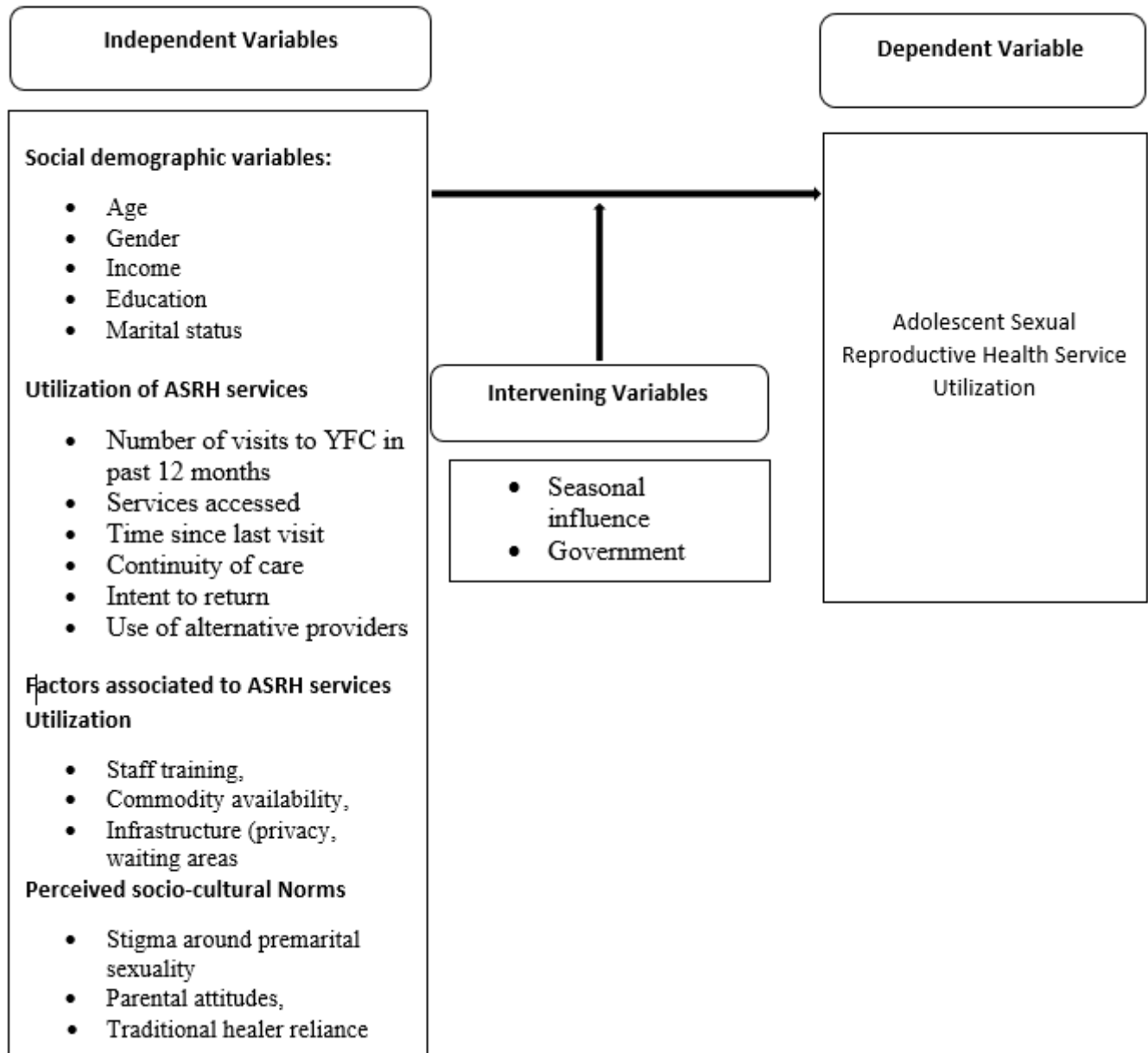
Through digital modalities, there have been indications of the possibility of overturning loopholes in awareness. In one South African SMS program, the knowledge of SRH expanded by 35 percent and the number of patients visiting the facility rose by 22 percent (Harichund et al., 2021). However, those are contextual factors: the initiative in conservative areas was faced with the opposition of the community leaders who believed that it encouraged promiscuity.

The qualitative data on service delivery in Rwanda show that there is a preference of discreet service delivery. Anonymity was listed as a noteworthy benefit used by 67 percent of the youth instead of visiting the clinics when taking part in community-based SRH outreach (Umuhoza et al., 2022). In reality, nonetheless, it was found, during the national cross-sectional surveys, that merely 38 percent of adolescents were well able to list three SRH services that exist and are distributed locally, whereas 52 percent felt that parental consent was required, which is the wrong perception, especially in rural settings (Rwanda Biomedical Centre, 2022).

Patients-physician discrepancies are severe. The youth claim that they fear clinics because they come with shame (72 percent) and judgment (65 percent), but the providers place the lack of youth responsibility (55 percent) and cultural resistance (48 percent) as the three most important barriers (Ministry of Health, 2023). The volunteers in communities' health workers, also called *Accoucheuses Communautaire*, are decisive: the districts with peer educators used to show 28 percent greater youth awareness. However, such programs are sustained by only 33 percent of facilities at the rural level compared to 75 percent of facilities in the urban setting (RBC, 2021).

2.4: Conceptual Framework

Figure 2.1 Conceptual Framework



3.1 Methods 3.2 Study Design

This study adopted a cross-sectional descriptive study design using a mixed-methods approach was used to examine factors influencing the utilization of youth-friendly sexual and reproductive health (SRH) services among adolescents and youth in Kirehe District. The cross-sectional nature of the design allowed the researcher to assess service utilization and associated determinants at a specific point in time, while the descriptive and analytical components enabled both documentation of patterns and examination of relationships between variables. Combining quantitative and qualitative methods strengthened the study by allowing measurable trends to be interpreted alongside personal experiences and contextual realities. The dependent variable in this study was utilization of youth-friendly SRH services. Utilization was assessed through indicators such as whether respondents had visited a Youth-Friendly Corner, the number of visits in the past twelve months, types of services accessed, time since last visit, and intention to return.

Independent variables were grouped into socio-demographic factors (age, gender, education, marital status, occupation, income), structural and health system factors (distance to facility, service readiness, availability of trained staff and commodities), and socio-cultural factors (stigma, parental attitudes, perceived confidentiality, and awareness). These variables were selected to reflect both demand-side and supply-side influences on adolescents' health-seeking behavior.

Quantitative analysis involved examining associations between independent variables and service utilization using chi-square tests and logistic regression to identify significant predictors. The qualitative component complemented these findings by exploring how adolescents and providers described barriers, facilitators, and cultural influences shaping SRH service use. By integrating both strands of data, the study design provided a more complete and context-sensitive understanding of why some young people utilize youth-friendly services while others do not within the rural setting of Kirehe District, which is in accordance with the Behavioral Model by Andersen (1995) and the Access Framework by Parkenchesky (1981), which focus on multi-level determinants of health access.

3.3 Location of the study

The current study was conducted in Kirehe District, which is in the Eastern Province of Rwanda. The district is estimated to have around 460,000 peoples, with about 30 % of the population, or about 138,000 young people aged between 10 and 24 years, having access to health service delivery in seventeen facilities (which have youth-friendly corners), where Partners In Health and the National SRH Policy (2018) operate in a mutually supportive manner (NISR, 2022). Eternal spatial limitations are also distinguished by a high level of seasonal unavailability of roads (about three to four months annually) and spreading settlements over huge areas of the region; 40 % of young people live beyond 10 kilometers of such facilities. The stratification of the health facilities was based on the distance to a trading center and the size of the health facilities (health posts versus health centers) in order to achieve representativeness.

3.4 Target Population

This study aimed at exploring the use of sexual and reproductive health (SRH) services among adolescents and youth between the age of 10-24 years old and living in Kirehe District, Rwanda concerning the following three key stakeholders: (1) those the services are intended to address (10-24 year old adolescents and youth currently living in the district); (2) those providing the services (nurse and community health-worker-level practitioners within the Youth Friendly Corners (YFCs); and (3) In order to maximize the representativeness of those who take part, the following exclusion criteria are going to be implemented:

3.5 Sampling techniques and Sample size

3.5.1 Sampling Technique

This study employed a multistage sampling approach that combined probability and non-probability sampling techniques to ensure adequate representation of adolescents and youth from different settings within Kirehe District. The approach was considered appropriate because the study involved both quantitative and qualitative components and sought to capture diverse experiences related to accessibility and utilization of youth-friendly sexual and reproductive health services.

For the quantitative component, health facilities offering Youth-Friendly Corner services were first categorized into rural and semi-urban settings based on population characteristics, geographical location, and level of access to health and social services. A total of six health centers were selected purposively, including three rural health centers and three semi-urban health centers.

The rural health centers included Nyarubuye Health Center, Musaza Health Center, and Nyabitare Health Center. These facilities were selected because they serve predominantly rural communities where adolescents may face challenges related to long distances, cultural norms, limited awareness, and economic constraints affecting utilization of SRH services.

The semi-urban health centers included Kirehe Health Center, Kigina Health Center, and Mahama Health Center. These facilities were chosen because they are located in relatively more populated and accessible areas with higher interaction between adolescents and health services. Mahama Health Center was also included due to its unique context of serving both host and refugee populations, which provided broader perspectives on youth-friendly service utilization.

The inclusion of both rural and semi-urban facilities was important in order to compare differences in service accessibility, utilization patterns, awareness, stigma, and health-seeking behaviors among adolescents and youth across different settings within Kirehe District. This approach strengthened the representativeness and comprehensiveness of the study findings.

After selecting the health centers, proportionate allocation was used to determine the number of participants to be recruited from each facility based on adolescent and youth attendance records. Systematic sampling was then applied to recruit eligible adolescents and youth attending Youth-Friendly Corners during the data collection period. This technique minimized selection bias and ensured that all eligible participants had an equal chance of being selected.

For the qualitative component, purposive sampling was used to select participants who were knowledgeable and directly involved in youth-friendly SRH service delivery. Key informants included nurses, midwives, social workers, health facility managers, and local health leaders from the selected health centers. Focus Group Discussion participants were selected according to age categories and willingness to participate to encourage open discussion and obtain diverse views and experiences.

The selected sampling techniques were considered appropriate because they enabled the study to obtain both statistically representative quantitative data and detailed qualitative insights. In addition, the inclusion of rural and semi-urban health centers allowed the study to reflect different contextual realities affecting utilization of youth-friendly sexual and reproductive health services in Kirehe District.

3.5.2 Sample Size

We estimated the minimum sample size for a single population proportion using Cochran's formula:

$Z=1.96$ for 95% confidence,

p = expected prevalence of YFC/SRH service utilization,

$d=0.05$ margin of error.

$Z^2p(1-p)$

$n_0 = \frac{\quad}{\quad}$

d^2

$1.96^2 \times 0.35 \times 0.65$

$n = \frac{\quad}{0.05^2} = 350$

For the qualitative part of this study, 10 Key Informant Interviews (KIIs) were selected purposively, these includes nurses and midwives working in youth friendly corners at health facilities plus local health leaders.

3.6 Research instruments

In the study, several data-collection instruments were used to achieve a triangulated and all-inclusive data. Methods of quantitative assessment of the youth sample were based on the structured questionnaire. Information is solicited in four major domains by means of this instrument: the demographic factors (age, gender, income, and educational level); knowledge on SRH (awareness of the available services and the sources of information); utilization patterns (the frequency and the types of services used) as well as the perceived barriers of accessibility (distance, cost, and stigma). At the same time, the research also compares health-facility infrastructure and resource access by using a standardized Facility Audit Tool corresponding to the WHO Global Standards of Youth-Friendly Centers (YFCs) (2016), that is, evaluating privacy, adequacy of staffing, and availability of commodities. Qualitative data were collected by using semi-structured Key Informant Interview (KII) guides to understand the opinion of the provider related to the attitude to training gaps and resource limits in operational contention.

3.7 Piloting of Research instruments

Before the main data collection was conducted, a pilot study was carried out in selected health facilities with Youth-Friendly Services in Ngoma District. Ngoma District was chosen because it shares similar social and health service characteristics with Kirehe District, making it suitable for testing the study tools and procedures. The pilot study helped determine whether the research instruments were clear, understandable, and appropriate for the target population.

A total of 35 adolescents and youth aged 10–24 years participated in the pilot survey, representing approximately 10% of the intended quantitative sample size. In addition, two health care providers working in Youth-Friendly Corners participated in pilot Key Informant Interviews. None of the individuals involved in the pilot study were included in the final study sample to avoid influencing the actual findings.

During the pilot exercise, attention was given to how participants interpreted the questions, the flow and sequencing of the questionnaire, and the time required to complete the interviews. Most participants were able to understand the questions without difficulty. However, a few items required adjustment to improve clarity, particularly questions related to confidentiality, utilization patterns, and perceptions toward youth-friendly services. Some wording was simplified further to ensure that younger adolescents could easily understand the questions and respond comfortably.

The pilot study also helped assess the reliability of the quantitative tool. Cronbach's Alpha coefficient was calculated, and the questionnaire achieved a reliability score above 0.78, indicating good internal consistency. Feedback from participants and supervisors further helped improve the wording of qualitative interview guides and refine probing questions used during discussions and interviews.

In addition to testing the tools, the pilot study provided practical experience regarding participant recruitment, organization of interviews, and management of field activities. The lessons learned from this process were used to improve the final research instruments and data collection procedures, thereby strengthening the quality, reliability, and validity of the main study findings.

3.8 Testing for validity, reliability and establishment of trustworthiness

3.8.1 Validity

In this study, deliberate steps were taken to ensure that the research instruments accurately measured the intended constructs. Content validity was achieved by developing the questionnaire, interview guides, and facility audit checklist directly from the study objectives, conceptual framework, and existing literature

on adolescent sexual and reproductive health service utilization. The tools were reviewed by academic supervisors and public health experts to ensure that the items were relevant, comprehensive, and contextually appropriate. Expert review is widely recommended as a key strategy for strengthening content validity in health research (Polit & Beck, 2017).

Construct validity was enhanced by aligning questionnaire items with clearly defined study variables. For example, service utilization was measured through multiple indicators including frequency of visits, types of services accessed, time since last visit, and intention to return rather than a single question. This multi-item approach reduced measurement error and improved conceptual clarity (Creswell & Creswell, 2018). Furthermore, triangulation of quantitative findings with qualitative data from Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) strengthened overall validity by allowing cross-verification of results across different data sources.

3.8.2 Reliability

Reliability refers to the consistency of a research instrument in measuring a concept over time (Polit & Beck, 2017). In this study, internal consistency of scaled items—particularly those measuring perceptions and attitudes—was assessed during the pilot phase using Cronbach’s Alpha. A coefficient of 0.7 and above was considered acceptable for reliability. Items that did not meet this threshold were revised or removed to enhance coherence.

Standardization of data collection procedures further strengthened reliability. Research assistants received training on uniform administration of questionnaires, maintaining neutrality, and handling sensitive discussions professionally. Electronic data collection tools were programmed with logical checks to reduce entry errors and incomplete responses. These measures ensured consistency across participants and minimized procedural variation, thereby enhancing the dependability of quantitative findings (Creswell & Creswell, 2018).

3.8.3 Ethical Considerations

Ethical principles guided every stage of this study, particularly because it involved adolescents and addressed sensitive topics related to sexual and reproductive health. The research was conducted in line with institutional and national ethical standards, ensuring respect for participants’ rights, dignity, and well-being.

4.0 RESEARCH FINDINGS AND DISCUSSION

The study on the utilization of Youth-Friendly Sexual and Reproductive Health (SRH) services among adolescents and youth aged 10–24 years in Kirehe District. The results are organized according to the specific objectives of the study and include both quantitative and qualitative findings. It begins with the response rate and socio-demographic characteristics of respondents, followed by findings on service utilization patterns and the association between socio-demographic factors and utilization. The chapter then presents qualitative findings from Focus Group Discussions and Key Informant Interviews, and concludes with a comprehensive discussion integrating all results in relation to existing literature and the study framework.

4.1 Response rate

Table 4.1 Participants respondent rate

Category	Target (n)	Actual (n)	Response Rate (%)
Youth Survey	350	357	101.4%

Key Informant Interviews	10	10	100%
FGDs (Participants)	16	16	100%
Facility Audits	10	10	100%

The study achieved a very high response rate across all categories of participants and data collection activities, indicating strong participation and cooperation from respondents. For the quantitative component, a total of 357 adolescents and youth participated in the survey against the targeted sample of 350, resulting in a response rate of 101.4%. The slightly higher number of respondents was due to the inclusion of additional eligible participants who were available and willing to participate during data collection.

For the qualitative component, all targeted Key Informant Interviews and Focus Group Discussions were successfully completed, achieving a response rate of 100%. Similarly, all planned facility audits were conducted across the selected health facilities. The complete participation of key informants, FGD participants, and health facilities strengthened the comprehensiveness of the study findings and minimized the likelihood of non-response bias.

Overall, the high response rate suggests good acceptability of the study among participants and enhances the credibility, reliability, and representativeness of the findings. It also indicates that the topic was considered relevant and important by both adolescents and health service providers in Kirehe District.

4.2 Demographic details

Table 4.2: Socio-demographic Characteristics

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	10–14	37	10.4
	15–19	158	44.3
	20–24	162	45.4
Gender	Female	208	58.3
	Male	149	41.7
Education Level	Primary	174	48.7
	Secondary & tertiary	156	43.7
	No formal education	27	7.6
Marital Status	Single	317	88.8
	Married	40	11.2
Distance to Youth-Friendly Corner	< 1 km	232	65.0
	≥ 1 km	125	35.0
Occupation	Unemployed	181	50.7
	Student	150	42.0
	Self-employed	26	7.3
Household Income (Frw/month)	< 30,000	114	31.9
	30,000–60,000	212	59.4
	60,000–120,000	24	6.7
	> 120,000	7	2.0

Table 4.2 outlines the background characteristics of the 357 young people who participated in the study. The distribution shows that most respondents were older adolescents and young adults. Nearly half (45.4%) were aged 20–24 years, while 44.3% were between 15–19 years. Only a small proportion (10.4%) were in the 10–14 age group. This pattern suggests that older youth were more accessible or more engaged in issues related to sexual and reproductive health.

More females than males took part in the study, with women representing 58.3% of the sample. This may reflect greater interaction of young women with health services, particularly reproductive health services, or a greater willingness to participate in discussions related to sexual health matters.

In terms of education, most respondents had attained at least primary or secondary education. Almost half (48.7%) had completed primary school, while 43.7% had reached secondary level or beyond. Only a small fraction (7.6%) reported having no formal education. This indicates that the majority of participants had basic literacy skills, which is important when considering the delivery of health information and communication materials.

The study population was largely unmarried, with 88.8% reporting that they were single. This aligns with the age profile of the respondents and is relevant when interpreting patterns of service use and perceived barriers related to stigma or confidentiality.

Geographical access to services appeared generally favorable. About two-thirds (65.0%) lived within one kilometer of a Youth-Friendly Corner, and the remaining 35.0% resided one kilometer or more away. Although proximity does not automatically guarantee utilization, the data suggest that physical distance may not be the primary structural barrier for most respondents.

Looking at occupation, half of the respondents (50.7%) were unemployed, and 42.0% were students. This indicates that a large proportion of participants were financially dependent, either on family support or informal income sources.

Household income levels further highlight the modest economic background of the study population. The majority (59.4%) reported monthly household earnings between 30,000 and 60,000 Frw, while 31.9% earned below 30,000 Frw. Only a small percentage reported income above 60,000 Frw. This distribution suggests that economic vulnerability remains an important contextual factor that may influence health-seeking behavior.

Generally, the findings portray a predominantly young, unmarried, and economically modest population with relatively good physical access to health facilities. These characteristics provide important context for understanding patterns of youth-friendly service utilization discussed in subsequent sections.

4.3 Findings for objective 1: Utilization of Youth-Friendly SRH Services

Figure 4.1 Utilization of Youth-Friendly SRH Services

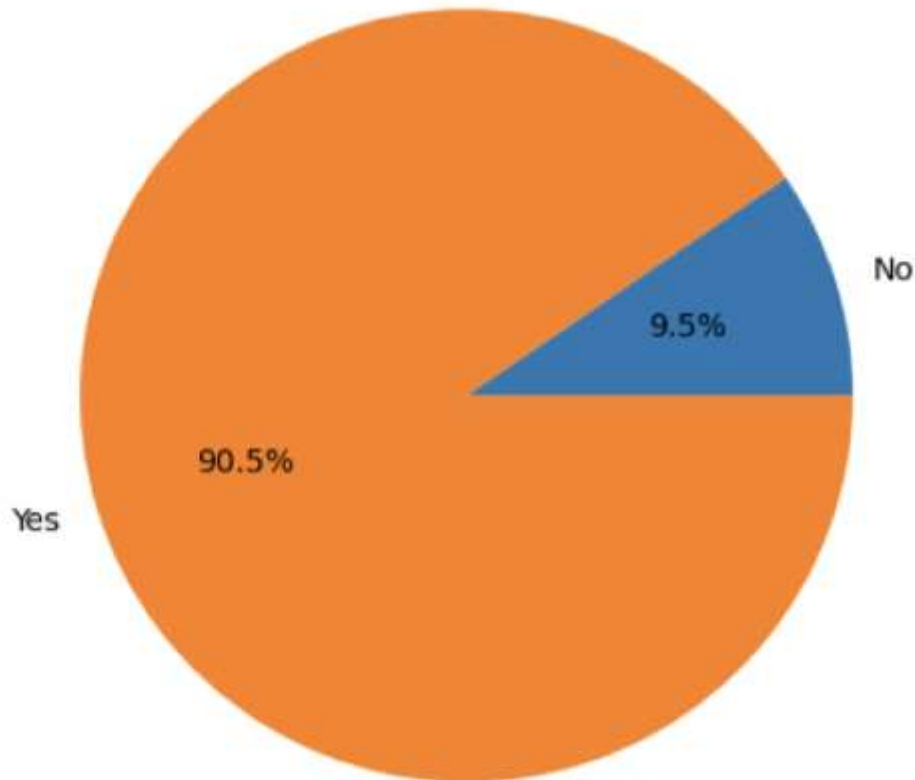


Figure 4.1 illustrates the proportion of youth who reported having visited a Youth-Friendly Corner. The findings show that 90.5% of respondents had accessed the services, while only 9.5% had never utilized them. This indicates a high level of engagement with youth-friendly SRH services within the study area. Although overall utilization appears strong, further analysis is necessary to understand how frequently services are used and which factors influence continued access.

Figure 4.4: Utilization of Youth-Friendly SRH Services

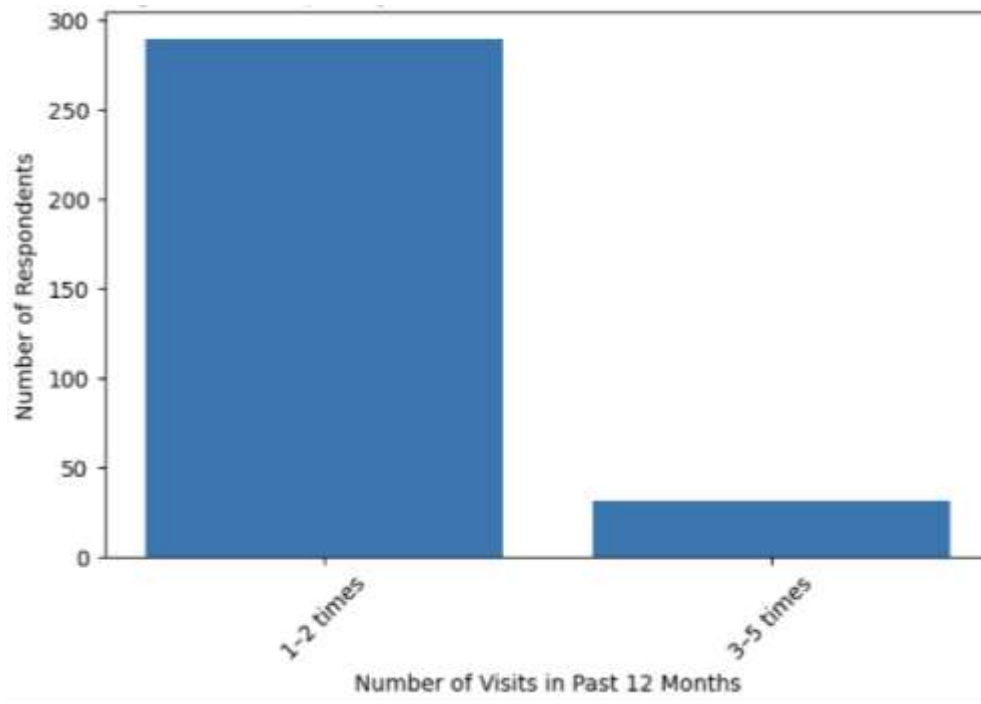


Figure 4.2 shows how often respondents visited a Youth-Friendly Corner within the past 12 months. The majority of youth (81.2%) reported visiting the facility one to two times during the year. A smaller proportion (8.7%) reported more frequent visits (three to five times). A small percentage did not clearly indicate their frequency of visits.

These findings suggest that while overall service utilization is high, repeat engagement appears limited. Most youth access services occasionally rather than regularly, which may reflect episodic health needs such as pregnancy testing or short-term counselling rather than continuous service engagement.

Figure 4.5: Types of SRH Services Accessed

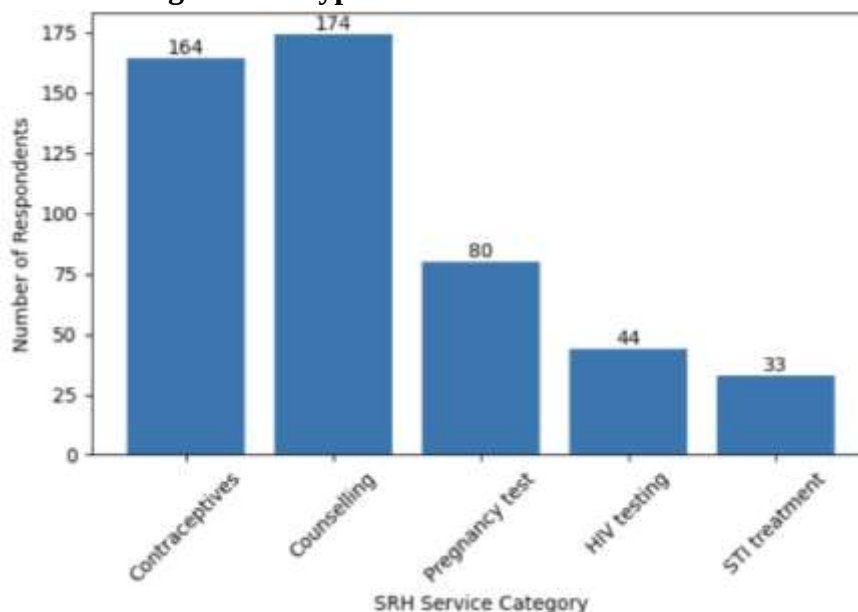


Figure 4.3 illustrates the types of sexual and reproductive health services accessed by youth respondents. The findings show that counselling was the most frequently utilized service, reported by 174 respondents. This suggests that young people are not only seeking clinical interventions but are also looking for guidance, information, and supportive conversations related to their sexual and reproductive health.

Contraceptive services were also widely accessed, with 164 respondents reporting their use. This high uptake reflects a significant demand for pregnancy prevention and family planning support among youth in the study area. The close pattern between counselling and contraceptive uptake indicates that many young people may be receiving these services together, highlighting the integrated nature of youth-friendly service delivery.

Pregnancy testing was accessed by 80 respondents, making it another commonly utilized service. This may reflect concerns about unintended pregnancy or a desire for reassurance and early detection. In contrast, HIV testing (44 respondents) and STI treatment (33 respondents) were accessed less frequently. The comparatively lower uptake of these services may be influenced by factors such as perceived risk, stigma, fear of positive results, or limited awareness of symptoms.

Overall, the pattern of service use suggests that youth primarily engage with Youth-Friendly Corners for preventive and advisory services, particularly counselling and contraceptive support. Diagnostic and treatment services, while available, appear to be accessed by a smaller proportion of respondents. These findings provide important insight into the priorities and health-seeking behaviors of young people in the district.

4.6 Findings for objective 2: Factors contributing to utilization of Sexual Reproductive Health services among youth and adolescents

Table 4.7 Association Between Socio-Demographic Characteristics and YFC Utilization

Variable	Category	Utilized n (%)	Not Utilized n (%)	p-value
Age Group	10–14	34 (91.9%)	3 (8.1%)	0.013
	15–19	135 (85.4%)	23 (14.6%)	
	20–24	154 (95.1%)	8 (4.9%)	
Gender	Male	138 (92.6%)	11 (7.4%)	0.325
	Female	185 (88.9%)	23 (11.1%)	
Education Level	Primary	151 (86.8%)	23 (13.2%)	0.062
	Secondary (incl. tertiary)	146 (93.6%)	10 (6.4%)	
	No formal education	26 (96.3%)	1 (3.7%)	
Marital Status	Single	284 (89.6%)	33 (10.4%)	0.187
	Married	39 (97.5%)	1 (2.5%)	
Distance to Facility	< 1 km	215 (92.7%)	17 (7.3%)	0.082
	≥ 1 km	108 (86.4%)	17 (13.6%)	

Occupation	Student	126 (84.0%)	24 (16.0%)	0.001
	Self-employed (Employed)	26 (100%)	0 (0%)	
	Unemployed	171 (94.5%)	10 (5.5%)	
Income Level	< 30,000	109 (95.6%)	5 (4.4%)	0.002
	30,000–60,000	191 (90.1%)	21 (9.9%)	
	60,000–120,000	17 (70.8%)	7 (29.2%)	
	> 120,000	6 (85.7%)	1 (14.3%)	

Table 4.5 presents the relationship between selected socio-demographic characteristics and utilization of Youth-Friendly Corner (YFC) services. The Chi-square test was used to examine whether differences in utilization across categories were statistically significant.

The analysis indicates that age group was significantly associated with YFC utilization ($\chi^2 = 8.68$, $p = 0.013$). Utilization was highest among youth aged 20–24 years (95.1%), followed by those aged 10–14 years (91.9%), while respondents aged 15–19 years reported comparatively lower utilization (85.4%). This suggests that older youth may have greater autonomy, awareness, or perceived need for SRH services compared to younger adolescents.

Occupation also demonstrated a strong association with service utilization ($p = 0.001$). All self-employed respondents reported using YFC services (100%), and unemployed youth showed high utilization (94.5%). In contrast, students had comparatively lower utilization (84.0%). This difference may reflect varying levels of independence, time availability, or health-seeking behavior across occupational groups.

Household income was another significant factor ($p = 0.002$). Interestingly, youth from households earning less than 30,000 Frw showed high utilization (95.6%), while those in the 60,000–120,000 Frw category reported lower utilization (70.8%). This pattern suggests that service uptake does not increase linearly with income and may be influenced by other contextual factors such as perceived need, program outreach, or reliance on public health services among lower-income households.

In contrast, gender was not significantly associated with utilization ($p = 0.325$). Although males reported slightly higher utilization (92.6%) compared to females (88.9%), the difference was not statistically meaningful. Similarly, marital status ($p = 0.187$), education level ($p = 0.062$), and distance to the facility ($p = 0.082$) did not show statistically significant associations at the 5% level, although education and distance approached significance and may warrant further exploration in multivariate analysis.

The findings suggest that age, occupation, and household income are important socio-demographic factors influencing youth engagement with YFC services in the study area. These variables may therefore be considered in subsequent multivariate modelling to determine their independent effects.

Table 4.8 Multivariate Logistic Regression Analysis of Factors Associated with YFC Utilization (N = 357)

Variable	Category	AOR	95% CI	p-value
Age Group	15–19 (Ref: 10–14)	0.62	0.15–2.53	0.514

	20–24	2.41	1.02–5.67	0.045
Gender	Female (Ref: Male)	0.71	0.31–1.64	0.420
Occupation	Student (Ref: Unemployed)	0.38	0.17–0.84	0.017
	Self-employed	3.15	1.08–9.22	0.036
Household Income	30,000–60,000 (Ref: <30,000)	0.84	0.29–2.40	0.745
	60,000–120,000	0.29	0.09–0.91	0.034
	>120,000	0.63	0.05–7.80	0.721

A multivariate logistic regression analysis was conducted to identify independent predictors of Youth-Friendly Corner (YFC) utilization after controlling for potential confounding variables. Variables that were statistically significant at the bivariate level, along with theoretically relevant factors, were entered into the model. The outcome variable was utilization of YFC services (Yes/No).

The results indicate that age group remained a significant predictor of YFC utilization after adjustment. Respondents aged 20–24 years were significantly more likely to utilize YFC services compared to those aged 10–14 years (AOR = 2.41, $p = 0.045$). This finding suggests that older youth may have greater decision-making autonomy, higher exposure to sexual and reproductive health information, or increased perceived need for services. However, respondents aged 15–19 years did not show a statistically significant difference when compared to the reference group.

Occupation also demonstrated a significant independent association with service utilization. Students were less likely to utilize YFC services compared to unemployed youth (AOR = 0.38, $p = 0.017$). In contrast, self-employed respondents were more likely to utilize services (AOR = 3.15, $p = 0.036$). These findings suggest that socio-economic engagement and level of independence may influence health-seeking behavior among youth. Students, despite being within the target age group, may face institutional, time-related, or stigma-related barriers that reduce service uptake.

Household income showed a partial association with utilization. Youth from households earning between 60,000 and 120,000 Frw were significantly less likely to utilize services compared to those earning less than 30,000 Frw (AOR = 0.29, $p = 0.034$). Other income categories did not demonstrate statistically significant differences. This pattern suggests that income may influence service utilization in a non-linear manner and that youth from lower-income households may rely more heavily on public youth-friendly services.

Gender was not significantly associated with YFC utilization after controlling for other variables ($p = 0.420$), indicating that the observed differences at descriptive level were not independently predictive when other socio-demographic factors were considered.

Overall, the multivariate analysis confirms that age and occupation are key independent determinants of YFC utilization in the study area, while specific income categories also play a role. These findings provide important evidence for targeted interventions, particularly among younger adolescents and students, who appear comparatively less likely to access services.

5 ACKNOWLEDGMENTS

The authors acknowledge Kirehe District Hospital, Partners In Health management and ASRH staff for facilitating data collection and thank all participants for their time and contributions.

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