

Inclusive sexual and reproductive health services for teenage mothers: a qualitative study in a Rwandan district

Vedaste Bagweneza , ¹ Joselyne Rugema , ¹ Innocent Twagirayezu , ¹, ² Bellancille Nikuze, ¹ Alice Nyirazigama, ^{1,2} Marie Laetitia Ishimwe Bazakare, ¹ Gerard Kaberuka, ¹ Alice Muhayimana, ^{1,3} Jacqueline Mukakamanzi , ¹ Madeleine Mukeshimana , ¹

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¹School of Nursing and Midwifery, College of Medicine and Health Sciences, University of Rwanda, Kigali, Rwanda ²Arthur Labatt Family School of Nursing, Western University, London, Ontario, Canada ³Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa

Correspondence to Mr Vedaste Bagweneza; vedavich1@yahoo.fr

ABSTRACT

Background Sexual and reproductive health (SRH) plays a crucial role in overall well-being, and there is a concerning rise in teenage pregnancies globally, particularly evident in Rwanda according to the Demographic and Health Survey. These pregnancies result in serious consequences, impacting the health of teenage mothers and various aspects of their lives. Lack of accessibility to inclusive SRH services among adolescents was documented in different studies and deters them from using SRH services. To date, no studies have explored how teenage mothers access inclusive SRH services in Rwanda.

Purpose This study aimed at exploring the accessibility to inclusive SRH services among teenage mothers. The focus was on exploring the understanding of teenage mothers about SRH services; exploring their inclusiveness to SRH services and identifying their suggestions to improve their inclusiveness in SRH services.

Methods A qualitative descriptive design was used. 50 teenage mothers from 5 health centres of a Rwandan district participated. They were recruited using purposive sampling and interviewed in five focus group discussions. Before participation, the participants provided their consent. For participants who were minors, consent was obtained from their legal guardians in addition to the participants' assent. The discussions were audio-recorded, transcribed and thematically analysed.

Results Some participants had limited knowledge of certain aspects of SRH and reported difficulties accessing inclusive SRH services, while others mentioned receiving unfriendly SRH services. Participants suggested flexibility in policies related to providing SRH services to teenage mothers, as well as the assignment of specific healthcare providers to address their SRH needs.

Conclusions This study revealed knowledge gaps among participants in SRH and limited accessibility to inclusive SRH services among teenage mothers, due to policy and negative attitudes of some healthcare providers. This highlights the need to educate these professionals in offering inclusive and quality SRH services to teenage mothers.

WHAT IS ALREADY KNOWN ON THIS TOPIC

Limited access to sexual and reproductive health (SRH) services for youth is a global challenge, despite the need for tailored services. However, evidence on teenage mothers' access to inclusive SRH services remains scarce.

WHAT THIS STUDY ADDS

⇒ This study revealed limited accessibility to inclusive SRH services for teenage mothers, attributed to healthcare policies and healthcare providers' attitudes.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

The findings underscore the need for healthcare providers and policy-makers to ensure inclusive SRH services for teenage mothers.

INTRODUCTION

Sexual and reproductive health (SRH) and well-being play an integral role for individuals' development and realisation of their potential. SRH stands as a key objective among the Sustainable Development Goals (SDGs), particularly the third SDG of 'good health and well-being.' This emphasises the significance of SRH well-being for health, development and women's empowerment as it was stipulated by the United Nations Population Fund, an agency which cares about Maternal and Child Health. Issues related to SRH can affect other aspects of an individual's overall well-being.

The WHO has reported a significant increase in teenage pregnancies, particularly in the developing countries of the Latin American and Caribbean and sub-Saharan Africa (SSA) regions, with almost half of pregnancies in adolescents aged 15–19 being unintended. The WHO estimated that as of 2019, 21 million pregnancies were occurring each



year among adolescents in that age range in low-income and middle-income countries (LMICs), more than half of them ending in abortion, usually under unsafe conditions.²³

This increase has also been identified in Rwanda where statistics in the Demographic and Health Survey (DHS) 2019-2020 revealed that unintended pregnancies among adolescents increased from 6.3% in 2010 to 7.3% in 2015. Teenage pregnancy refers to the condition in which a female aged 13–19 becomes pregnant while still in the developmental stage of adolescence. This typically involves not having completed secondary school, possessing few or no marketable skills, being financially dependent on parents, continuing to reside at home and experiencing mental immaturity.

In this study, inclusive SRH services for teenage mothers are defined as comprehensive and accessible healthcare services that address their specific SRH needs. These services involve providing information, support and nursing care that respect their rights and autonomy. Additionally, it includes ensuring that teenage mothers are informed about available services and empowered to access and use them. Knowledge transfer is key for helping teenage mothers understand what services are available, when and where to access them, and how to make informed choices. Inclusiveness in SRH services means non-discriminatory access to family planning, sexual health education, prenatal and postnatal care, as well as support for social and psychological needs.

Teenage mothers usually are at risk of subsequent pregnancies because of diverse factors like poverty, lack of childcare knowledge, school dropouts and insufficient support from the child's father, their families and their communities. The impact of teenage motherhood extends beyond social and psychological consequences to also include obstetric complications such as hypertensive disorders of pregnancy, puerperal endometritis and systemic infections, significantly affecting teenage mothers' health.

Furthermore, the teenage mothers are at an elevated risk of requiring episiotomies during the delivery process.² Teenage childbearing also has tremendous effects for both mothers and babies, such as preterm or post-term deliveries, long-term effects on children as well as limitations to the job market among teen mothers. Similarly, discrimination against these young mothers further deters them from accessing and using inclusive SRH services, including family planning methods, which may end in additional unintended pregnancies. ⁶ ¹¹

In line with this poor access to reproductive health services, a systematic review carried out in SSA highlights that people with vulnerabilities have many challenges in accessing the SRH services due to multiple factors including poor health and poverty. Another study also reported similar challenges to vulnerable females, which may cause consequences on the future of these females. Vulnerability can be defined as a state of high exposure to certain risks and uncertainties, in

combination with a reduced ability to protect or defend oneself against those risks and uncertainties and cope with their negative consequences. ¹⁴ This is particularly true for adolescent girls in general, and teenage mothers in particular, as they are often at risk of harm due to their socioeconomic status and may not access services that others with greater resources or support can access. It was even reported that unmarried adolescents are vulnerable individuals, ¹⁵ which is the case for this study where most participants were unmarried. The WHO identifies adolescent mothers as a vulnerable group, particularly in LMICs, due to factors such as low education, economic challenges, pressure to marry and have children, limited employment opportunities, and restricted access to contraceptives. ¹⁶

A study in Ethiopia found limited availability and use of SRH services among secondary school adolescents, leading to unintended pregnancies.¹⁷ In Rwanda, teenage mothers face challenges accessing comprehensive SRH services, particularly when services require the presence of husbands, which may limit their ability to seek care. For example, pregnant women are often required to attend antenatal care (ANC) with their husbands, but many teenage mothers may not live with their husbands. Despite these challenges, there is limited information on how teenage mothers access SRH services and whether these services are inclusive.

A study in Rwanda revealed that adolescents face challenges in accessing comprehensive SRH services, which are not tailored to their unique needs. While general SRH services are available, they often fail to meet adolescents' specific requirements, resulting in insufficient care. Healthcare providers identified obstacles such as limited demand for adolescent-specific products, cost issues for those without insurance and a lack of adolescent involvement in feedback mechanisms. The study emphasised the need for targeted improvements to make SRH services more accessible and better engage adolescents in Rwanda. 18 This barrier contributes to the lack of inclusive SRH services for adolescents, which should address their unique needs. This study, which only included healthcare providers and social workers, did not gather insights from adolescents themselves to explore their unique challenges.

There is limited information regarding accessibility to inclusive SRH services specifically for teenage mothers in Rwanda. Therefore, this study sought to fill this research gap by exploring the accessibility to inclusive SRH services among teenage mothers in a designated district in Rwanda. This study provided insights that can benefit healthcare practitioners, policymakers, educators and researchers in the SRH field for teenage mothers. The findings will also highlight areas that need attention to meet the unique SRH needs of teenage mothers and serve as a reminder to healthcare providers about inclusive practices in addressing SRH needs.



METHODS

The methods section of this study was developed in accordance with the Consolidated criteria for Reporting Qualitative research Checklist for Reporting Qualitative Research, which is provided as online supplemental material.¹⁹

Study design and study setting

This study involving 50 teenage mothers was conducted in 5 health centres within Rwamagana District, located in the Eastern Province of Rwanda. This district includes both urban and rural areas. The selection of this district was based on a higher prevalence of adolescent pregnancies in the Eastern Province compared with other Rwandan provinces, as indicated by the DHS of 2019-2020.²⁰ All 50 participants agreed to participate in the study voluntarily, and nobody refused to participate before or during the focus group discussion (FGD). The authors aimed to evaluate teenage mothers' access to inclusive SRH services, focusing on information provision, SRH knowledge, availability of adolescent-friendly services, motivations for seeking services, understanding of pregnancy risks, and social and psychological support. They also explored factors influencing service utilisation, barriers to access and suggestions for improvement. A qualitative descriptive design with phenomenological elements was used to capture participants' lived experiences regarding accessibility to SRH services.

Recruitment of participants

Participants were recruited using the purposive sampling method in collaboration with community health workers and health centre leaders. The eligibility criteria included having conceived after the age of 13 but delivered before turning 20, residing within the catchment area of the target health centre, and having no intellectual disability that would impede their ability to make appropriate decisions or contribute to the FGDs. To capture a variety of perspectives, the researchers ensured that participants had varied sociodemographic characteristics, including different levels of education, ages, occupations and a representation of urban and rural backgrounds, as it appears in table 1. While most participants were from rural areas, attended primary school, were aged 18, and were unemployed, there was still some representation across other categories. FGDs were held in person at the health centres within the participants' catchment areas.

Data collection procedure

The data collectors introduced themselves to study participants, stating their professional background, purpose of the study and motivation to choose the topic being explored. The data collectors obtained consent from participants before conducting the FGDs, and since the discussions were audio-recorded, they also sought permission to record them. For participants who were minors, legal guardians provided consent in addition to the participants' assent.

| Age of participants 15 years 4 8 16 years 9 18 17 years 14 28 18 years 22 44 19 years 1 2 Total 50 100 Level of education | Table 1 Participants' sociodemographic characteristics | | |
|---|--|----|------------|
| 15 years 4 8 16 years 9 18 17 years 14 28 18 years 22 44 19 years 1 2 Total 50 100 Level of education | Sociodemographic characteristics | n | Percentage |
| 16 years 9 18 17 years 14 28 18 years 22 44 19 years 1 2 Total 50 100 Level of education | Age of participants | | |
| 17 years 14 28 18 years 22 44 19 years 1 2 Total 50 100 Level of education | 15 years | 4 | 8 |
| 18 years 22 44 19 years 1 2 Total 50 100 Level of education | 16 years | 9 | 18 |
| 19 years 1 2 Total 50 100 Level of education | 17 years | 14 | 28 |
| Total 50 100 Level of education | 18 years | 22 | 44 |
| Level of education | 19 years | 1 | 2 |
| | Total | 50 | 100 |
| Primary education 32 64 | Level of education | | |
| 1 fillary education 32 04 | Primary education | 32 | 64 |
| Secondary education 18 36 | Secondary education | 18 | 36 |
| Total 50 100 | Total | 50 | 100 |
| Marital status | Marital status | | |
| Single 49 98 | Single | 49 | 98 |
| Separated 1 2 | Separated | 1 | 2 |
| Total 50 100 | Total | 50 | 100 |
| Type of residence | Type of residence | | |
| Urban 14 28 | Urban | 14 | 28 |
| Rural 36 72 | Rural | 36 | 72 |
| Total 50 100 | Total | 50 | 100 |
| Occupation of participants | Occupation of participants | | |
| Student 3 6 | Student | 3 | 6 |
| Farmer 9 18 | Farmer | 9 | 18 |
| No employment 38 76 | No employment | 38 | 76 |
| Total 50 100 | Total | 50 | 100 |

A semistructured interview guide with seven openended questions, developed based on a literature review, was used for data collection. Each question included additional probing questions. The interview guide is available as online supplemental material.²¹ Prior to the final data collection, an FGD was conducted as a pilot study to refine the tool. Data were collected through 5 FGDs, each with 10 participants. The FGD method was effective in encouraging shy participants to share their experiences, as peer sharing stimulated others. All participants were teenage mothers, creating a comfortable environment where no one felt ashamed. Sociodemographic forms were completed before each FGD to ensure eligibility, capturing details such as age, education, marital status, residence type and occupation. Data collection was done confidentially, adhering to ethical principles, with only the participants and researchers present during the discussions. Saturation was reached after five FGDs.

Each FGD session involved a data collector and a note-taker, with assignments based on gender to ensure participant comfort. The research team, comprising five members (three females and two males), prioritised assigning female data collectors, when possible, with male team members serving as note-takers if present. In all-female teams, one member collected data while



the other took notes. Note-takers documented participant reactions and data collection procedures but did not alter the transcript content. The data collectors, aged between 34 and 37 years, along with the inclusion of female team members, facilitated open expression among the teenage mothers. The gender similarity and relatively younger age of the data collectors helped build trust and ease communication with participants. All data collectors were master's degree holders with a nursing background and were serving as academic faculty in the University of Rwanda for a period ranging between 9 and 11 years. There was no relationship established between data collectors and participants prior to data collection.

The discussions were conducted in Kinyarwanda, the local language that all participants could easily understand. This choice was influenced by the expected variation in participants' educational levels and the use of technical terminology related to SRH. Conducting interviews in Kinyarwanda helped participants to express their opinions comfortably and provided the opportunity to capture relevant information. The interview guide was translated from English to Kinyarwanda by the research team, all of whom are nurses experienced in SRH issues and familiar with Kinyarwanda equivalents of technical terms. To ensure quality and accuracy, a back translation process was employed: one team member translated the guide from English to Kinyarwanda, and another team member back-translated it into English to verify the accuracy of the final version.

Data were collected over a 5-week period in October and November 2022, given the manageable size of the sample. The average duration for each group discussion was one and a half hours. One FGD was conducted per week, transcribed and the data collectors returned to the study setting for other FGDs. No repeat interviews were conducted because the information gathered from the conducted FGDs was comprehensive and sufficient. FGDs were conducted in private rooms at health centres to ensure participants' privacy and confidentiality. Participants were informed that their participation was entirely voluntary and that they could withdraw from the study at any time without any consequences for themselves or their relatives. To maintain anonymity, participants were assigned numbers to use when sharing their ideas, and no identifying information was retained in the audio recordings.

Data analysis

Two researchers, one female and one male, performed thematic data analysis using Atlas.ti V.22 software. During this process, they followed the six steps of thematic analysis outlined by Braun and Clarke, as described by David Byrne. ²²

Step 1: familiarisation with the data

This step involved becoming deeply familiar with the data through repeated reviews. All five transcripts were read attentively several times to identify initial patterns

| Table 2 Themes and subthemes reported in the study | | | |
|---|--|--|--|
| Themes | Subthemes | | |
| | Knowledge of teenage mothers about the menstrual cycle | | |
| Theme 1: Knowledge of teenage mothers about fertility cycle and reproduction | Knowledge of teenage mothers about the ways in which a woman/girl can become pregnant | | |
| Theme 2: Teenage mothers' accessibility to inclusive SRH services | Unfriendly SRH services for teenage mothers | | |
| | Struggles to bring husbands to healthcare facilities | | |
| | Busy healthcare providers with other duties | | |
| Theme 3: Suggestions to improve accessibility to inclusive SRH services for teenage mothers | Removing the barrier of bringing husbands to healthcare facilities | | |
| | Assigning specific healthcare providers to teenage mothers and youth | | |
| SRH, sexual and reproductive health. | | | |

and gain an understanding of the content, which laid the groundwork for generating codes.

Step 2: generating initial codes

The initial codes were broad and included 'knowledge of teenage mothers about sexual and reproductive health, accessibility of SRH services and rights to access them, motivations to seek sexual and reproductive health services, challenges to access sexual and reproductive health services and suggestions to improve accessibility and inclusiveness of teen mothers on sexual and reproductive health services.'

Step 3: generating themes

After assessing the initial codes, the focus shifted from individual data items to identifying broader patterns across the dataset. Codes were aggregated based on shared meanings to create themes and subthemes. This implies that the themes derived from the data were not identified in advance. The emerging themes and subthemes are presented in table 2.

Step 4: reviewing potential themes

Emerging themes and subthemes were reviewed for coherence and relevance. Themes requiring merging were consolidated, and irrelevant ones were excluded. At this stage, three themes and seven related subthemes were finalised, as detailed in table 2.

Step 5: defining and naming themes

The themes and subthemes were defined and named in alignment with the research objectives. Specific



content from the dataset was assigned to each theme and subtheme to ensure alignment with the study's goals. These final themes and subthemes formed the basis for the report and manuscript preparation.

Step 6: producing the report

A detailed findings report was prepared, structured according to the research objectives and the final themes and subthemes. The report underwent multiple adjustments and revisions to achieve a polished final document suitable for manuscript submission.

Participants' inclusiveness

In this study, participants were not included in the initial phases of it, namely the design, conduct, reporting or dissemination plans. This study was designed and conducted by the research team who referred to prior literature and expert consultations. Even if the participants were not directly involved in this study, the authors really acknowledge the importance of their perspectives during data collection and recognise this gap which will be addressed in future research.

FINDINGS

This section will present the key findings of the study.

Sociodemographic characteristics of participants

Table 1 displays the sociodemographic characteristics of the participants. Most participants were 18 years old, with 22 (44%) out of the 50 interviewed participants falling into this age group. The majority of participants (64%, n=32) had completed only primary education and were single mothers (n=49, 98%), with one having separated from her partner. Residence and occupation data reveal that 72% (n=36) of participants were from rural areas, while 76% (n=38) were unemployed.

Themes

Three main themes were identified during thematic analysis: (a) Understanding of teenage mothers about SRH services; (b) Teenage mothers' accessibility to SRH services and rights to access them and (c) Suggestions to improve inclusiveness of teen mothers in SRH services as it appears in table 2.

Theme 1: knowledge of teenage mothers about fertility cycle and reproduction

The first theme highlights the essential knowledge teenage mothers should possess to avoid unintended pregnancies and access SRH services tailored to their unique needs. This theme focuses on teenage mothers' understanding of the fertility cycle and reproduction, which forms the foundation for assessing their awareness of these critical topics related to pregnancy and reproductive health. Identifying knowledge gaps in these areas is paramount for identifying strategies that encourage teenage mothers to use SRH services, in order to prevent

subsequent pregnancies, educate their peers, or seek support before, during, or after pregnancy.

Participants shared their insights, revealing significant knowledge gaps that require targeted interventions to ensure teenage mothers access inclusive SRH services. In some cases, teenage mothers may fail to access inclusive SRH services because they lack information about when, where, how and why to access these services. ²³ Addressing these gaps is crucial for improving inclusiveness and ensuring teenage mothers can make informed decisions about their reproductive health. Two subthemes emerged from the first theme: (a) Knowledge of teenage mothers about the menstrual cycle and (b) Knowledge of teenage mothers about the ways in which a woman/girl can become pregnant.

Knowledge of teenage mothers about the menstrual cycle

Most participants could not clearly exhibit knowledge of the menstrual cycle, as even those who gave partly correct answers also included incorrect information. This was mainly identified in the teenage mothers who believed that women who practise sex on a day close to the menstrual period are prone to getting pregnant, which is not correct. Some participants mentioned that teenagers may get pregnant even when they engage in sexual intercourse during menses.

What I know is that when a girl has sexual intercourse during the menstrual period, she can't get pregnant. Another thing is that when a girl approaches the menstrual period and has sexual intercourse, she will get pregnant. Participant 2, Rural health center 1.

I think that someone with a regular monthly period who has sexual intercourse before the release of the menses, like 3 days before, may get pregnant or even a few days, like 11 days or 14 days after the release of menses, she may get pregnant. **Participant 2, Rural health center 2**.

For those ladies with a regular menstrual period, when they are into the menstrual period and have sexual intercourse, they get pregnant. **Participant 6, Rural health center 2**.

Knowledge of teenage mothers about the ways in which a woman/girl can become pregnant

The findings revealed that some participants were knowledgeable about the ways a teenage girl can become pregnant, emphasising that it can occur without penetration by the male sexual organ. They stipulated that if the male ejaculates and sperm reaches the female genital organ, there is a risk of pregnancy.

It is indeed possible to conceive without penile penetration. Refusing sexual intercourse with a partner and engaging in a struggle may result in ejaculation, causing semen to come into contact with the thighs or underwear, thereby becoming pregnant. **Participant 5, Urban health center 1**.

However, a few respondents appeared less knowledgeable about the various ways a girl or woman can become pregnant, as they mentioned that pregnancy can only



occur when the male genital organ is introduced into the female's reproductive system.

You can't get pregnant without sexual intercourse with a man. A girl gets pregnant when she has sexual intercourse with a man or a boy. She can't get pregnant without penile penetration. **Participant 4, Urban health center 1**

Theme 2: teenage mothers' accessibility to inclusive SRH services

The second theme highlights participants' insights regarding their inclusiveness in SRH services. Three subthemes emerged from this theme: (a) unfriendly SRH services for teenage mothers, (b) struggles to bring husbands to healthcare facilities and (c) busy healthcare providers with other duties.

The interviews conducted with participants revealed that the majority generally access SRH services. Furthermore, they reported that their rights to access these services are respected, and healthcare providers create a conducive atmosphere, ensuring the confidentiality of their information.

Healthcare providers do not abuse us. They provide us with sexual reproductive health (SRH) services as they give to adults, and they follow us up just like they follow up adults. Participant 1, Urban health center 1.

We are well received, there is no marginalization. For example, if you attend the health center to receive family planning services. The HCP you told that you came for family planning keeps it a secret and it stays between both of you. **Participant 6, Rural health center 1**.

However, some participants stipulated that there are times the teenage mothers are not well received at the healthcare facility, and SRH services they get do not adequately address their unique needs. They give an example of when they may go to health centres, and because they appear less valued due to their status, the care is first delivered to others, then teenage mothers get services later.

Sometimes, marginalization may occur because we gave birth, and we seem to be devalued. They ignore us and assist the ones they know and so, they isolate you. **Participant 8, Urban health center 3**.

They treat us differently and seem not to take care of us; in case you are waiting for them, they just get busy with something else and tell you to wait, and we can wait for a very long time. One day I went to the healthcare facility to see the healthcare provider because I wanted to ask him something about reproductive health and he said that he was attending to other patients, and he kept me waiting until it was night. The next day I went back, and it was the same thing. Participant 8, Urban health center 1.

Another participant added that their marital status does not enable them to receive proper care when they come to healthcare facilities for SRH services such as antenatal consultation because they need to come with their husbands, which they do not have. This then brings

a kind of discrimination for teenage mothers who need care, as it appears in the quote below:

I have a concern that I consider to be discrimination against teenage girls who come for antenatal consultation (ANC). When we come for ANC without a husband, it becomes a problem; if we had husbands, we would bring them. For us who do not have husbands, we are cast away and sent back or we are charged money. That hinders good service. **Participant 4, Rural health center 2**.

Another participant added that this requirement to go to the healthcare facility with the husband usually leads to delays in seeking care: "When I come for ANC after 4 months of pregnancy sometimes, I may find a healthcare provider who is rude, and she may ask me why I did not come with my husband. Because I had some other issues, at that moment, I turned and went back home. ... I was not able to follow medical instructions about ANC visits. We request that they advocate for us because most of times teenage mothers go there alone; parents cannot follow us, the husband who impregnated me cannot come with; many times, I come by myself and when I reach there late, they charge me money and I don't have it." Participant 2, Rural health center 1.

Theme 3: suggestions to improve accessibility to inclusive SRH services for teenage mothers

The participants provided different ideas about how their accessibility to inclusive SRH services may be improved. Two subthemes emerged from this theme: (a) removing the barrier of bringing husbands to healthcare facilities and (b) assigning specific healthcare providers to teenage mothers and youth.

The participants suggested ensuring that teenage mothers are facilitated to access SRH services like the general population because their status does not always allow them to have all the requirements to get health-care services. They emphasised that requesting teenage mothers to go with their husbands when seeking ANC should not be a requirement because most of the time, they do not have the legal husbands, which may result in discriminatory SRH services delivery to teenage mothers.

They should not oblige us to get husbands and not blame us for delaying going for ANC visits. They should not charge us money for delaying attendance at ANC visits because it was not our fault. **Participant 4, Rural health center 2**.

Other participants suggested that there should be healthcare providers assigned to caring for teenage mothers and youth in general because they sometimes go to the healthcare providers to seek care for the youth and realise that there is no staff assigned to the service, as it appears in the following quotes:

My suggestion is that they can assign different responsibilities to each healthcare provider because sometimes, you may go to request for a health service in our youth corner for teenage mothers and the health provider tells you that he/she is not working from there today, as his time is over. And they tell you to wait because the healthcare provider has been assigned in other services. Each healthcare



provider can be assigned a specific service. Participant 1, Urban health center 2.

I think they can give one healthcare provider in charge of our services or better still 2 or 3 healthcare providers, because sometimes, we may meet there in a large number and some of us go back home without receiving the service for which they came. **Participant 1, Urban health center 3**.

DISCUSSION

This study sought to explore accessibility to inclusive SRH services among teenage mothers. One of the key components explored was teenage mothers' knowledge of certain aspects of SRH before assessing their access to inclusive SRH-related services. Some participants showed limited knowledge about the menstrual cycle, with some believing that pregnancy can occur if sexual intercourse happens during menstruation. This lack of understanding presents a risk for unintended pregnancies. Despite having previous healthcare contacts during pregnancy and childbirth, these teenage mothers missed opportunities for SRH education, suggesting potential issues in the quality of SRH services provided to adolescent girls. This finding is consistent with other studies that also highlight knowledge gaps among young women regarding the menstrual cycle. 24-26 This highlights the need to educate teenage mothers about SRH and the available services to ensure they can access them.

Another explored area was the knowledge of teenage mothers regarding pregnancy. Some participants were aware that pregnancy could occur with sperm contact during ovulation without genital penetration. Factors contributing to this knowledge include decentralised SRH services, diverse pregnancy experiences, insights from peers and further exploration after unplanned pregnancies these teenage mothers had. These findings suggest that many participants may take measures to prevent subsequent unplanned pregnancies. However, there were other participants who had less knowledge about ways a female may get a pregnancy, and as they had already delivered in the past, this negative finding portends the need to reinforce awareness of the young female population. This limited knowledge may be attributed to illiteracy among some teenage mothers, lack of educational sessions from parents toward their children, as well as limited accessibility to SRH services from health centres to get more information. These findings are supported by studies conducted in other developing countries, such as Iran and Cameroon, which also indicate that young females have limited knowledge about the ways they may become pregnant.²⁷ ²⁸ A study conducted in South Africa among adolescents also pointed out deficient knowledge among that population, and less than 50% of the knowledge questions were answered correctly by the participants, despite having had repeat pregnancies.²⁹ Young people require appropriate social support including SRH information and emotional support from people including parents. With

such support, adolescent girls have a greater likelihood of receiving the information and assistance they need for safe SRH choices.

However, limited knowledge among teenage mothers is influenced by many factors, with sociocultural norms being among the most significant. In Rwandan culture, as in many parts of Africa, discussing sexuality between parents and children is often considered taboo. Adults typically avoid addressing sexual matters openly, and children, in turn, refrain from asking questions about the topic. As a result, girls are left to navigate aspects of sexuality on their own. Even teachers, influenced by these cultural norms, tend not to discuss sexuality openly. Evidence from various African countries highlights that proscriptive sociocultural factors and mothers' discomfort with the topic contribute significantly to this lack of open dialogue about sexuality. ^{30–32}

This lack of communication contributes to knowledge gaps among teenage mothers, placing them at risk of subsequent pregnancies due to inadequate information and sociocultural barriers. These factors also hinder the full utilisation of SRH services tailored to their unique needs. To address this, there is a critical need to emphasise the proper utilisation of youth corners established in health centres across Rwanda and explore alternative approaches to equip young people with adequate SRH knowledge, so that they access inclusive SRH services. These findings of limited knowledge among teenage mothers in this study oppose those from a study conducted in Nigeria which revealed that young female students had adequate knowledge about teenage pregnancy.³³ This discrepancy may be attributed to differences in the study populations. The study conducted in Nigeria focused on senior secondary school girls, who are likely to have greater knowledge, whereas this study included all teenage mothers, where the majority only attended primary education.

Regarding the accessibility to inclusive SRH services among teenage mothers and their rights to access them, it was identified that some teenage mothers complained of not fully accessing inclusive SRH services. Instances of being offered inadequate SRH services or being denied some SRH services like ANC because they are not with their husbands were attributed to the healthcare providers' personalities and the healthcare system policy which requires pregnant mothers to go with their husbands for ANC visits. This weakness on the part of healthcare providers and a national policy requiring the presence of husbands to seek ANC are considered a lack of inclusiveness in SRH service delivery to teenage mothers, as many do not have husbands to accompany them. Ideally, they should be offered non-discriminatory, inclusive SRH services, irrespective of having legal husbands or not. This could negatively impact the overall outcome of teenage mothers' SRH services, potentially leading to repetitive unplanned pregnancies and other consequences related to issues in SRH services among teenage mothers.



This finding is supported by other studies, including one conducted in Uganda, which revealed that teenage mothers often encounter unfriendly health services, including stigma and inappropriate inclusiveness.^{34–36} Similarly, a study conducted in South Africa found that adolescent girls and young women reported hostile attitudes from healthcare providers offering SRH services.³⁷ Healthcare providers, on the other hand, acknowledged that issues within the healthcare system are impeding the delivery of quality SRH services to this group.³ Another study conducted in Ethiopia also revealed different challenges to accessing inclusive SRH services among adolescents, including stigma, discrimination and institutional-related challenges.³⁸ This points to a lack of accessibility to inclusive SRH services for young individuals such as teenage mothers, highlighting the urgent need for changes in the healthcare system policy and change of healthcare providers' attitudes to address unique SRH needs of teenage mothers.

On the component of suggestions to improve inclusiveness of teenage mothers in SRH services, the participants emphasised the need to make it easier for teenage mothers to access SRH services. This included ensuring that services are provided without requiring them to be accompanied by legal husbands, which they often do not have. They also suggested assigning specific healthcare providers to cater to teenage mothers and youth. This approach could enhance accessibility to inclusive SRH services and help reduce subsequent unplanned pregnancies or other consequences that teenage mothers may face. This is important because teenage mothers may have different schedules than the general population. For instance, some may be attending school and unable to adhere to the general population's schedules. The findings of this study corroborate those from a study conducted in South Africa which indicated that adolescent girls and young women could only access contraception services twice a week before 16:00. This posed a challenge as many were unable to adhere to the set schedule due to school commitments, potentially resulting in dropping out of family planning if they missed their allocated dates and times. They then suggested looking for ways contraception services may be decentralised to meet the specific schedules of this population.³⁷ These findings underscore the importance of healthcare policies being flexible enough to address the unique needs of adolescent girls and young women, including teenage mothers.

Participants suggested assigning dedicated health-care providers to offer inclusive SRH services tailored to their unique needs. They noted a shortage of health-care providers at facilities, which may result from a general workforce shortage and a lack of trained professionals specifically equipped to provide SRH services to teenage mothers. These findings are in line with the evidence which revealed the shortage of trained health-care providers to offer SRH services to the youth. ²³ This underscores the urgent need to train enough personnel in SRH for the youth, including teenage mothers.

Study strengths

The study's strengths are rooted in its comprehensive representation, as it captures the perspectives of teenage mothers from both rural and urban areas. The utilisation of 5 FGDs involving 50 participants ensures a thorough exploration of their experiences, reaching saturation in data collection. The study sheds light on the oftenoverlooked unique needs of teenage mothers.

Study limitations

The study's limitations include the inability to involve participants at different stages, particularly during the early stages and after data collection, to confirm the findings. The researchers did not consult teenage mothers before data collection or return to participants to validate the findings afterwards. Additionally, while FGDs encouraged shy participants to share their ideas, ensuring complete confidentiality outside the group was challenging, despite the researchers' adherence to ethical principles in conducting interviews and managing data.

CONCLUSIONS

This study in a Rwandan district explored teenage mothers' access to inclusive SRH services. While some participants demonstrated good knowledge, significant gaps highlighted the need for targeted SRH education for youth, especially teenage mothers. Barriers such as healthcare policies and provider attitudes were noted, potentially worsening SRH outcomes for this group. Participants suggested improving access by assigning dedicated providers to address their unique needs. The study emphasises the need for government and partner collaboration to educate healthcare providers and enhance inclusive, quality SRH services for teenage mothers.

X Alice Muhayimana @hayiali1 and Madeleine Mukeshimana @MadeleineMukes2

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ORCID iDs

Vedaste Bagweneza http://orcid.org/0009-0005-7034-2983
Joselyne Rugema http://orcid.org/0000-0002-5200-0278
Innocent Twagirayezu http://orcid.org/0009-0003-6811-3984
Jacqueline Mukakamanzi http://orcid.org/0000-0001-7194-7320
Madeleine Mukeshimana http://orcid.org/0000-0001-6983-5434

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