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Barriers and Facilitators to Accessing Maternal Health Services among Pregnant Adolescent Girls with Disabilities Aged 12–19 Years in Kirehe District, Rwanda

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Abstract: **Limited access to maternal health services remains a significant challenge for vulnerable populations, particularly pregnant adolescent girls with disabilities, whose experiences are often underrepresented in rural settings. This study examined factors influencing access to maternal health services among pregnant adolescent girls with disabilities aged 12–19 years in Kirehe District, Rwanda, focusing on individual, household, community, and health-system determinants. A qualitative descriptive design was employed to explore participants lived experiences. Data were collected through 21 in-depth interviews with pregnant adolescent girls with disabilities, three focus group discussions involving 24 participants, and 10 key informant interviews with community health workers, healthcare providers, and district health officials. Participants were selected using purposive and maximum variation sampling to capture diverse disability types, age groups, and geographical locations. Data were analyzed thematically through systematic coding, categorization, and theme development. The findings revealed that access to maternal health services was influenced by multiple interconnected barriers. Physical obstacles included long distances to health facilities, difficult terrain, inadequate transportation, and limited disability-friendly infrastructure. Economic constraints, particularly transportation costs, persisted despite community-based health insurance coverage. Social and cultural barriers such as stigma, discrimination, fear of judgment, and negative perceptions surrounding adolescent pregnancy and disability discouraged timely disclosure of pregnancy and regular utilization of antenatal care services. Health-system challenges, including inadequate provider training in disability-inclusive care, communication difficulties, staff shortages, and inconsistent implementation of adolescent-friendly services, further constrained access and quality of care. Limited access to maternal health information also affected informed decision-making. Despite these barriers, several enabling factors promoted service utilization. Family support through emotional encouragement, financial assistance, accompaniment, and participation in healthcare decisions significantly enhanced access to care. Community Health Workers played a vital role in pregnancy identification, health education, follow-up, and referrals. Additionally, respectful healthcare providers, flexible service delivery approaches, and adolescent-friendly practices strengthened trust and encouraged continued engagement with maternal health services. The study concludes that improving maternal healthcare access for pregnant adolescent girls with disabilities requires integrated, disability-inclusive, and adolescent-responsive interventions that address structural, socio-cultural, informational, and health-system barriers while strengthening family and community support mechanisms. The findings provide valuable evidence to inform inclusive maternal health policies, improve service delivery, and promote equitable maternal healthcare in rural Rwanda.**

Keywords: **Maternal Health Services, Pregnant, Adolescent Girls, Disabilities, 12–19 Years, Kirehe District.**

1. INTRODUCTION

Adolescent pregnancy remains a major public health challenge globally, particularly among girls aged 12–19 years. According to the World Health Organization (WHO, 2022), millions of adolescent girls give birth each year, with the highest burden occurring in low- and middle-income countries. Adolescent mothers face increased risks of pregnancy- and childbirth-related complications, including obstructed labor, preterm birth, and maternal mortality. Access to quality

maternal health services, such as antenatal care, skilled birth attendance, and postnatal care, is essential for reducing these risks and improving maternal and neonatal outcomes. However, many adolescents encounter barriers to accessing such services, including poverty, stigma, limited autonomy, and weak health systems (UNICEF, 2023).

The challenges are even greater for adolescents living with disabilities. Disabilities, including physical, sensory, intellectual, and psychosocial impairments, often restrict access to education, social participation, and healthcare services. Although international frameworks such as the Convention on the Rights of Persons with Disabilities (CRPD) and the Sustainable Development Goals (SDGs) emphasize equitable access to healthcare, persons with disabilities continue to face significant barriers in many health systems (United Nations, 2020; Kuper et al., 2020). Pregnant adolescents with disabilities frequently experience communication difficulties, inaccessible health facilities, discrimination, and inadequate support services, which increase their vulnerability to poor maternal and neonatal health outcomes (Bright, Wallace, & Kuper, 2022).

In Sub-Saharan Africa, adolescent pregnancy remains widespread, with an estimated 101 births per 1,000 girls aged 15–19 years (UNICEF, 2023). Poverty, gender inequality, early marriage, and limited reproductive health services continue to drive high adolescent fertility rates and related health risks (De Vos, Morona, & Zulliger, 2021). For adolescents with disabilities, these challenges are compounded by mobility limitations, inaccessible transportation, social exclusion, and inadequate disability-inclusive healthcare services (Devkota, Kett, & Groce, 2020; Mactaggart et al., 2018).

Rwanda has made significant progress in improving maternal and child health through expanded health insurance coverage, community health programs, and strengthened healthcare delivery systems. Nevertheless, adolescent pregnancy remains a concern. The 2019–2020 Rwanda Demographic and Health Survey reported that approximately 7% of girls aged 15–19 had begun childbearing (NISR, 2020). While national policies promote adolescent reproductive health and disability inclusion, evidence suggests that adolescents with disabilities continue to face barriers such as inaccessible facilities, inadequate communication support, and discriminatory attitudes from healthcare providers and communities (Bright et al., 2022; Devkota et al., 2020).

These challenges are particularly evident in Kirehe District, a predominantly rural district in Rwanda's Eastern Province characterized by dispersed settlements, limited transportation infrastructure, and relatively high levels of poverty. Adolescent pregnancy rates in the district remain above the national average, and pregnant adolescents with disabilities often face additional obstacles, including long travel distances to health facilities, limited access to disability-friendly services, and social stigma.

Despite government efforts to improve maternal healthcare utilization, little is known about the experiences of pregnant adolescents with disabilities in accessing maternal health services in rural Rwanda. Understanding the factors that influence their access to care is essential for designing inclusive interventions and strengthening equitable healthcare delivery. This study therefore seeks to generate context-specific evidence from Kirehe District to inform policy and practice aimed at improving maternal health outcomes among pregnant adolescents with disabilities and advancing Rwanda's commitment to universal health coverage and Sustainable Development Goal 3.

2. METHODOLOGY

2.1 Study Design

This study adopted a qualitative descriptive research design to explore the barriers and facilitators influencing access to maternal health services among pregnant adolescent girls with disabilities in Kirehe District, Rwanda.

2.2 Study Area

The study was conducted in Kirehe District in the Eastern Province of Rwanda, a predominantly rural area characterized by dispersed settlements, limited transport infrastructure, and relatively high poverty levels (NISR, 2020).

2.3 Study Population

The study population comprised pregnant adolescent girls with disabilities aged 12–19 years residing in Kirehe District, Rwanda.

2.4 Sampling Procedure

A purposive sampling technique was employed to select participants with relevant knowledge and experience regarding access to maternal health services among pregnant adolescent girls with disabilities.

2.5 Data Collection Methods

Data were collected using qualitative methods to obtain in-depth, context-specific information on barriers and facilitators influencing access to maternal health services among pregnant adolescent girls with disabilities.

3. RESULTS AND DISCUSSION

3.1 Socio-Economic and Demographic Characteristics of Study Participants

The study involved a total of 55 participants drawn from different categories, including 21 pregnant adolescent girls with disabilities who participated in in-depth interviews, 24 participants involved in focus group discussions, and 10 key informants. This composition ensured representation of both individual experiences and system-level perspectives.

Among the pregnant adolescent participants, all were aged between 12 and 19 years and were single at the time of data collection. The majority were in the late adolescent age group (17–19 years), indicating a higher prevalence of pregnancy within this age range. Educational attainment among participants was generally low, with most having either incomplete primary education or no formal education, reflecting patterns of early school dropout associated with both disability and adolescent pregnancy.

Regarding disability status, intellectual disabilities were the most prevalent among participants, followed by physical disabilities, while a smaller proportion reported hearing, visual, or multiple disabilities. Most participants came from economically disadvantaged households, primarily relying on subsistence farming and casual labor, with many reporting irregular or no stable income. Decision-making regarding healthcare was largely influenced by parents or guardians, highlighting limited autonomy among the adolescents.

The focus group discussion participants further reflected diversity in age, disability type, education level, and marital status, providing broader community-level perspectives on access to maternal health services. Similarly, the key informants represented a range of professional roles, including district health officials, healthcare providers, community health workers, and social service personnel, most of whom had several years of experience in maternal health and disability-related services.

These socio-economic and demographic characteristics demonstrate the multiple and intersecting vulnerabilities faced by pregnant adolescent girls with disabilities and provide important contextual grounding for understanding the barriers and facilitators influencing access to maternal health services in Kirehe District.

Table 1. Socio-Economic and Demographic Characteristics of pregnant adolescent girls attended the study

Characteristic	Category	Frequency (n)	Percentage (%)
Age (years)	16	1	4.8
	17	6	28.6
	18	6	28.6
	19	8	38.0
Marital status	Single	21	100
Education level	No formal education	4	19.0
	Primary incomplete	12	57.1
	Primary complete	1	4.8
	Secondary incomplete	4	19.0
Type of disability	Physical	6	28.6
	Hearing	3	14.3
	Visual	1	4.8
	Intellectual	9	42.9
	Multiple/combined	2	9.5
Main household income source	Farming	10	47.6
	Casual labor	6	28.6
	No income	5	23.8
Estimated monthly household income (RWF)	0	8	38.1
	≤ 15,000	7	33.3
	15,001–30,000	4	19.0
	> 30,000	2	9.5
Healthcare decision-maker	Parent/Guardian	15	71.4
	Self	6	28.6

The Focus Group Discussions (FGDs), which included three groups of participants, gave a shared understanding of the living conditions of pregnant adolescent girls with disabilities. Most participants were aged between 18 and 19 years, showing that pregnancy is more common among older adolescents. The discussions also showed that many of the participants had only primary education or no formal education at all, which suggests limited opportunities for schooling in this group.

Participants commonly mentioned that they were single, which often meant they lacked emotional and social support during pregnancy. Across all groups, participants also shared similar experiences related to their disabilities, especially physical and intellectual disabilities. These were linked to challenges such as difficulty moving and problems in communication when seeking care.

In addition, many participants described difficult economic conditions. Most depended on low-income activities like farming and casual labor, while some had no stable source of income. They also explained that they often had little control over their own health decisions, as parents or guardians usually made those decisions for them.

Overall, the FGDs showed that participants faced multiple challenges at the same time, including low education, poverty, limited independence, and disability-related difficulties. These combined conditions help explain why accessing maternal health services can be difficult for pregnant adolescent girls with disabilities.

Table 2: Socio-Demographic Characteristics of FGD Participants (n = 24)

Characteristic	Category	Frequency (n)	Percentage (%)
Age (years)	16	1	4.2
	17	7	29.2
	18	8	33.3
	19	8	33.3
Marital status	Single	24	100.0
Education level	No formal education	5	20.8
	Primary incomplete	13	54.2
	Primary complete	2	8.3
	Secondary incomplete	4	16.7
Type of disability	Physical	7	29.2
	Hearing	4	16.7
	Visual	2	8.3
	Intellectual	9	37.5
	Multiple/combined	2	8.3
Main household income source	Farming	11	45.8
	Casual labor	7	29.2
	No income	6	25.0
Estimated monthly household income (RWF)	0	9	37.5
	≤ 15,000	8	33.3
	15,001–30,000	5	20.8
	> 30,000	2	8.3
Healthcare decision-maker	Parent/Guardian	17	70.8
	Self	7	29.2

Key Informant Interviews (KIs), which involved 10 participants from different levels of the health system, provided important professional and system-level insights into the conditions affecting pregnant adolescent girls with disabilities. The majority of key informants were female, reflecting the gender composition commonly found in maternal health services. Participants held diverse roles, including district health officials, hospital and health center managers, midwives, community health workers, and a district disability officer. This diversity allowed for a broad understanding of both policy and service delivery perspectives.

In terms of experience, most key informants had between 6 and 10 years of professional experience, while others had either fewer or more years in service. This indicates that the respondents had sufficient practical knowledge and exposure to maternal health service delivery and disability-related issues within the district.

Key informants consistently highlighted that pregnant adolescent girls with disabilities often face multiple challenges in accessing maternal health services. These include limited education, low economic status, and dependency on family members for decision-making. They also emphasized that disability-related barriers, such as communication difficulties and lack of accessible infrastructure, further complicate access to care.

In addition, key informants pointed out that although efforts have been made to improve maternal health services, gaps still exist in terms of disability-inclusive care, provider training, and availability of appropriate support systems. They stressed the importance of strengthening community-based support, improving health worker capacity, and ensuring that health facilities are more accessible and responsive to the needs of adolescents with disabilities.

Overall, the KIs provided a system-level perspective that confirms and complements the experiences shared by participants in the FGDs and IDIs. Their insights highlight that improving access to maternal health services requires coordinated efforts at community, facility, and policy levels to address both structural and social barriers.

Table 3: Socio-Demographic Characteristics of Key Informants (n = 10)

Characteristic	Category	Frequency (n)	Percentage (%)
Gender	Male	4	40.0
	Female	6	60.0
Position	District Health Officer	1	10.0
	Hospital Director	1	10.0
	Head of Health Center	2	20.0
	Midwives	2	20.0
	Community Health Workers	2	20.0
	Sector Health and Sanitation Officer	1	10.0
	District Disability Officer	1	10.0
Experience (Years)	1–5 years	3	30.0
	6–10 years	4	40.0
	Above 10 years	3	30.0

3.2 Presentation of Findings

This section presents the qualitative findings of the study on factors influencing access to maternal health services among pregnant adolescent girls with disabilities aged 12–19 years in Kirehe District, Rwanda. The findings are organized in a clear and logical manner to show how different factors influence access to and utilization of maternal health services.

The section begins with an overview of the socio-demographic characteristics of participants to provide context for understanding their experiences. This is followed by a detailed presentation of the key themes, structured according to the study objectives, including barriers to accessing services, factors that facilitate service utilization, and the influence of demographic characteristics such as age and type of disability.

The findings are drawn from multiple data sources, including in-depth interviews (IDIs), Focus Group Discussions (FGDs), and Key Informant Interviews (KIs). The use of these different methods allows for triangulation of data, where individual experiences, group perspectives, and system-level insights are integrated to provide a more comprehensive and credible understanding of the factors affecting access to maternal health services (Creswell & Poth, 2018; Patton, 2015).

3.2.1 Barriers Restricting Access to Maternal Health Services

Analysis of findings related to the first objective revealed that access to maternal health services among pregnant adolescent girls with disabilities in Kirehe District is constrained by multiple, interconnected barriers. Evidence from in-depth interviews (n = 21), Focus Group Discussions conducted in three groups (n = 24), and Key Informant Interviews (n = 10) consistently indicated that these barriers do not occur in isolation but interact and reinforce one another, resulting in cumulative challenges that hinder timely and consistent utilization of antenatal care and skilled delivery services.

Across all data sources, four major categories of barriers were identified: physical barriers, financial constraints, socio-cultural challenges, and health system–related barriers. These barriers were experienced at different levels—individual, household, community, and health system—and collectively limited access to and continuity of maternal health services among the study population.

a) Physical Barriers

Physical barriers were consistently identified as a major obstacle to accessing maternal health services across all data sources, including in-depth interviews (IDIs), Focus Group Discussions (FGDs), and Key Informant Interviews (KIs). Participants commonly reported living far from health facilities, often at distances exceeding five kilometers, with walking as the primary means of reaching care.

Across both individual interviews and group discussions, adolescents explained that these long distances were especially difficult for those living with physical, intellectual, or multiple disabilities. Poor road conditions, rugged terrain, and limited transport options further worsened the situation, making travel to health facilities physically demanding and, at times, unsafe. Participants described feelings of exhaustion, discomfort, and fear of falling or injury during the journey, which discouraged them from attending antenatal care regularly.

FGD participants also shared similar experiences, emphasizing that the physical effort required to reach health facilities often led to missed or delayed visits. Key informants supported these findings, noting that distance and geographical barriers disproportionately affect adolescents with disabilities, particularly those who require assistance or accompaniment to travel.

In addition to distance-related challenges, participants highlighted issues related to the physical accessibility of health facilities. Many reported that health centers lacked disability-friendly infrastructure, such as ramps, accessible toilets, and suitable waiting areas. Older facilities were described as particularly difficult to navigate. These conditions compromised privacy, comfort, and dignity, making adolescents feel unwelcome and discouraged from seeking care.

Overall, these physical barriers contributed to delayed initiation of antenatal care, irregular attendance, and in some cases, avoidance of health facilities or reliance on alternative delivery options outside formal health services.

b) Financial Barriers

Financial constraints were identified as a significant factor limiting access to maternal health services across all data sources, including in-depth interviews (IDIs), Focus Group Discussions (FGDs), and Key Informant Interviews (KIs). Although many adolescents were enrolled in community-based health insurance, participants consistently reported that transport costs remained a major challenge.

Both individual participants and FGD groups explained that reaching health facilities often required money for transport, especially for those who could not walk due to their disability. Adolescents who needed motorized transport or assistance from others faced even higher expenses, making regular visits to health facilities difficult to sustain.

Most participants indicated that they depended on parents or guardians for financial support. However, many of these households relied on unstable sources of income such as subsistence farming and casual labor. As a result, limited financial resources were often directed toward basic needs like food, leaving little or no money available for healthcare-related expenses.

Participants reported that, due to lack of transport money, they sometimes missed scheduled antenatal care (ANC) visits or delayed seeking care. Key informants confirmed these challenges, noting that financial hardship not only limits access directly but also worsens the effects of other barriers, such as distance and physical accessibility, ultimately reducing the overall utilization of maternal health services.

c) Social and Cultural Barriers

Social and cultural factors were also found to strongly influence access to maternal health services across all data sources, including in-depth interviews (IDIs), Focus Group Discussions (FGDs), and Key Informant Interviews (KIs). Participants described experiencing negative attitudes from family members and the wider community, including disapproval, embarrassment, and, in some cases, discrimination. Pregnancy among adolescents with disabilities was often viewed negatively, leading to blame, neglect, or reduced support.

Across both individual interviews and group discussions, adolescents shared that fear of being judged or stigmatized made them reluctant to seek care, especially during the early stages of pregnancy. Many expressed feelings of shame and anxiety, which led some to hide their pregnancies or delay visiting health facilities. Younger adolescents were particularly affected, as they were more dependent on parents or guardians for disclosure and decision-making, and often feared negative reactions from them.

Key informants reinforced these findings by explaining that prevailing community beliefs often portray girls with disabilities as unfit for motherhood. As a result, pregnancy in this group tends to attract stronger stigma compared to other adolescents. This social pressure discourages timely health-seeking behavior and limits adolescents' willingness to engage with maternal health services.

Overall, these social and cultural barriers contributed to delayed care-seeking, reduced confidence in using health services, and, in some cases, complete avoidance of formal maternal healthcare.

d) Health-System–Related Barriers

Health system–related challenges were also identified as important barriers to accessing maternal health services across all data sources, including in-depth interviews (IDIs), Focus Group Discussions (FGDs), and Key Informant Interviews (KIs). Participants and key informants highlighted several limitations within the health system that affected both access to and the quality of care provided to pregnant adolescent girls with disabilities.

Key informants explained that many health workers have limited training in disability-inclusive care, which affects their ability to respond effectively to the specific needs of adolescents with disabilities. They also noted the absence of clear guidelines or standardized procedures for managing maternal health services for this group. Communication was reported as a major challenge, particularly for adolescents with hearing or intellectual impairments, due to the lack of sign language skills among providers and the absence of adapted communication tools.

Adolescents, both in individual interviews and group discussions, shared similar experiences, reporting that they often felt misunderstood or not adequately supported during their visits to health facilities. Some indicated that communication difficulties made it hard to express their concerns or understand medical advice, which reduced their confidence in the services provided.

In addition, participants and key informants pointed out that health facilities often face staff shortages and heavy workloads. As a result, healthcare providers may have limited time to offer individualized attention, especially to clients who require additional support. This situation further discourages adolescents from returning for follow-up visits. Overall, these health system–related challenges limit both the accessibility and quality of maternal health services, contributing to reduced utilization among pregnant adolescent girls with disabilities.

3.2.2 Factors Facilitating Utilization of Maternal Health Services

Despite the multiple challenges identified, the study also revealed several factors that support access to and utilization of maternal health services among pregnant adolescent girls with disabilities in Kirehe District. Findings from in-depth interviews (IDIs), Focus Group Discussions (FGDs), and Key Informant Interviews (KIs) consistently highlighted the presence of enabling conditions that help adolescents overcome some of the barriers they face.

Across all data sources, family support emerged as a key facilitator. Adolescents who received emotional, financial, or physical support from parents or guardians were more likely to attend antenatal care services and seek delivery at health facilities. Participants explained that assistance with transport, accompaniment to health facilities, and encouragement from family members played an important role in improving service utilization.

Community health workers (CHWs) were also identified as a strong support system. Both adolescents and key informants reported that CHWs helped by providing health education, conducting follow-ups, and facilitating referrals to health facilities. Their close connection with the community made them accessible and trusted, which encouraged adolescents to seek care.

In addition, the availability of community-based health insurance was mentioned as an important enabling factor. Although it did not fully eliminate financial challenges, it reduced the direct cost of services at health facilities, making maternal healthcare more affordable for many participants.

Supportive attitudes from some healthcare providers were also noted as a facilitator. Adolescents who experienced respectful care, clear communication, and understanding from health workers reported feeling more comfortable and confident in using maternal health services.

Overall, these findings indicate that while barriers exist, the presence of supportive family structures, community-based health systems, financial protection mechanisms, and positive provider attitudes can significantly improve access to and utilization of maternal health services among pregnant adolescent girls with disabilities.

a) Family Support

Family support emerged as one of the most important factors facilitating access to maternal health services across all data sources, including in-depth interviews (IDIs), Focus Group Discussions (FGDs), and Key Informant Interviews (KIs). Adolescents who received encouragement, financial assistance, and physical support from parents or caregivers were more likely to attend antenatal care (ANC) and continue with follow-up visits. Participants explained that family members often played a key role in providing transport money, accompanying them to health facilities, and supporting them in making healthcare decisions. These forms of support were especially important for adolescents with disabilities who required assistance to move or communicate effectively.

FGD participants also highlighted that when families were supportive and understanding, adolescents felt more confident and motivated to seek care. In contrast, lack of family support was associated with missed appointments and delayed care.

Key informants further emphasized that family involvement is particularly critical for younger adolescents and those with intellectual disabilities, who often depend on caregivers for guidance and decision-making. They noted that consistent family support improves continuity of care and adherence to recommended maternal health services. Overall, the findings show that strong family support plays a central role in enabling pregnant adolescent girls with disabilities to access and utilize maternal health services effectively.

b) Contribution of Community Health Workers

Community Health Workers (CHWs) were widely recognized as key facilitators of access to maternal health services across all data sources, including in-depth interviews (IDIs), Focus Group Discussions (FGDs), and Key Informant Interviews (KIs). Participants described CHWs as approachable, trusted, and closely connected to the community.

Adolescents explained that CHWs played an important role in conducting home visits, identifying pregnancies early, and providing basic maternal health education. They also supported referrals to health facilities and followed up to ensure that adolescents attended antenatal care (ANC) services.

FGD participants emphasized that CHWs were particularly helpful for adolescents facing mobility challenges or social stigma, as they provided support within the community and reduced the need for frequent facility visits. Their presence helped build confidence and encouraged adolescents to seek care despite existing barriers.

Key informants confirmed that CHWs act as a critical link between households and the formal health system. They noted that CHWs contribute to early identification of pregnant adolescents, improve communication between clients and health providers, and promote continuity of care through regular follow-up.

Overall, the findings show that CHWs play a vital role in bridging gaps in access to maternal health services, especially for pregnant adolescent girls with disabilities, by promoting early engagement, improving follow-up, and strengthening the connection between communities and health facilities.

c) Health Facility Practices and Provider Attitudes

Positive experiences within health facilities were identified as an important factor encouraging the use of maternal health services across in-depth interviews (IDIs), Focus Group Discussions (FGDs), and Key Informant Interviews (KIs). Participants reported that when health facilities applied adolescent-friendly practices, such as giving priority to young mothers and offering flexible appointment schedules, it became easier for them to access care.

Adolescents explained that respectful, patient, and supportive behavior from healthcare providers made them feel comfortable and valued. This positive interaction increased their confidence and motivated them to return for follow-up visits and continue using maternal health services. FGD participants similarly emphasized that kind and understanding providers reduced fear and stigma, making it easier to seek care.

Key informants confirmed that provider attitudes play a critical role in influencing service utilization. However, they also noted that such positive practices are not consistently implemented across all health facilities. As a result, adolescents may have different experiences depending on where they seek care. Overall, the findings indicate that respectful and adolescent-friendly service delivery within health facilities can significantly improve access to and continued use of maternal health services among pregnant adolescent girls with disabilities.

3.2.3 Influence of Demographic Characteristics on Access

The findings further demonstrated that individual demographic characteristics played an important role in shaping access to maternal health services among pregnant adolescent girls with disabilities. Evidence from in-depth interviews (IDIs), Focus Group Discussions (FGDs), and Key Informant Interviews (KIs) showed that factors such as age, level of education, type of disability, and marital status influenced how adolescents accessed and utilized maternal health services.

Across all data sources, these characteristics were found to affect adolescents' ability to make informed decisions, seek care independently, and overcome barriers related to distance, cost, and social stigma. Variations in these demographic factors resulted in different levels of access and utilization, highlighting that not all adolescents experienced the same challenges or opportunities when seeking maternal healthcare. Overall, the findings suggest that demographic characteristics interact with other structural and social factors to either limit or support access to maternal health services, emphasizing the need for targeted and inclusive approaches that respond to the specific needs of different groups of adolescents.

a) Age-Related Differences

Age was found to influence access to maternal health services across all data sources, including in-depth interviews (IDIs), Focus Group Discussions (FGDs), and Key Informant Interviews (KIs). Adolescents aged 12–15 years faced greater challenges in accessing services compared to those aged 16–19 years.

Younger adolescents were more dependent on parents or guardians for financial support, movement, and decision-making, which limited their ability to seek care independently. They also reported higher levels of fear related to disclosing their pregnancy, particularly due to concerns about negative reactions from family members and the community.

Across both individual and group discussions, participants explained that this fear and dependence often led to delays in initiating antenatal care (ANC) and irregular attendance of scheduled visits. Key informants confirmed that younger adolescents are generally less likely to seek care early and consistently, mainly due to their limited autonomy and increased vulnerability.

Overall, the findings indicate that younger age is associated with reduced independence and greater social pressure, which negatively affects timely and consistent utilization of maternal health services.

b) Type of Disability

The type of disability was found to significantly influence access to maternal health services across in-depth interviews (IDIs), Focus Group Discussions (FGDs), and Key Informant Interviews (KIs). Participants reported different experiences depending on the nature of their disability.

Adolescents with intellectual or multiple disabilities faced the greatest challenges. They often had difficulties understanding health information, communicating with healthcare providers, and actively participating in decisions about their care. These challenges were highlighted in both individual interviews and group discussions, where participants explained that communication barriers and dependence on others limited their ability to fully engage with health services.

Key informants supported these findings, noting that health facilities often lack specialized support services, such as trained personnel and appropriate communication tools, to effectively serve adolescents with these types of disabilities.

As a result, these adolescents frequently experienced gaps in care, including poor understanding of medical advice, irregular follow-up, and reduced continuity of care. Overall, the findings suggest that the type of disability plays a critical role in shaping access to and the quality of maternal health services, with those having intellectual or multiple disabilities being the most disadvantaged.

4. DISCUSSION

This study explored the barriers and facilitators to accessing maternal health services among pregnant adolescent girls with disabilities aged 12–19 years in Kirehe District, Rwanda. The findings revealed that access to maternal healthcare is influenced by a complex interplay of socio-demographic, economic, disability-related, socio-cultural, and health system factors. Most participants were characterized by low educational attainment, limited financial resources, and dependence on family members or caregivers for decision-making and support. These circumstances reduced their ability to independently seek and utilize maternal health services. The findings are consistent with previous studies indicating that adolescents with disabilities often experience multiple and overlapping vulnerabilities that negatively affect healthcare access and utilization.

The study identified several barriers that hindered access to maternal health services. Disability-related challenges, including physical inaccessibility of health facilities, communication difficulties, and inadequate disability-friendly infrastructure, limited participants' ability to obtain appropriate care. Financial constraints and transportation difficulties further restricted access, particularly for adolescents from low-income households. In addition, stigma and discrimination associated with both disability and adolescent pregnancy discouraged some participants from seeking care and contributed to delayed utilization of maternal health services. These findings align with existing literature from low- and middle-income countries, which highlights disability, poverty, and social stigma as significant obstacles to maternal healthcare access among vulnerable populations.

Health system factors also emerged as important determinants of service utilization. Participants reported challenges related to long distances to health facilities, insufficient disability-responsive services, and limited capacity among some healthcare providers to address the unique needs of adolescents with disabilities. Communication barriers, particularly for adolescents with hearing impairments, were frequently mentioned as obstacles to receiving quality maternal healthcare. These findings suggest that despite ongoing efforts to improve maternal health services, important gaps remain in ensuring that healthcare systems are fully inclusive and responsive to the needs of pregnant adolescents with disabilities.

Despite these barriers, the study identified several facilitators that enhanced access to maternal health services. Family support, assistance from Community Health Workers (CHWs), health insurance coverage, and positive interactions with healthcare providers were found to promote healthcare utilization. Emotional, financial, and logistical support from family members helped adolescents overcome many access-related challenges, while CHWs played a critical role in health education, referral, and follow-up services. Furthermore, respectful and supportive care from healthcare providers encouraged continued engagement with maternal health services. These findings underscore the importance of strengthening disability-inclusive health systems, expanding community-based support mechanisms, and addressing socio-economic barriers to improve maternal healthcare access and outcomes among pregnant adolescent girls with disabilities in Rwanda.

5. IMPLICATIONS FOR POLICY AND PRACTICE

The findings highlight the need for integrated, disability-inclusive, and adolescent-responsive maternal health strategies. At the policy level, disability considerations must be systematically mainstreamed into maternal and adolescent health planning. Rwanda's RMNCAH policy emphasizes equity but requires stronger operationalization for adolescents with disabilities (Ministry of Health [MoH], 2025). At the practice level, health facilities require infrastructure upgrades, continuous disability-inclusive training, and improved communication support. Community-based interventions, particularly CHW-led follow-up and family-centered counseling, offer promising pathways to reduce barriers and improve continuity of care.

This study demonstrates that access to maternal health services among pregnant adolescent girls with disabilities in Kirehe District is shaped by intersecting socio-economic, physical, social, and health-system factors. While significant barriers persist, strong family support, active CHW engagement, and respectful provider practices present important opportunities for improving access. Addressing these challenges is essential to ensuring that adolescent girls with disabilities are not left behind in efforts to achieve equitable maternal health outcomes.

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