EXPLORING ADOLESCENTS' EXPERIENCES OF DIGITAL SEXUAL REPRODUCTIVE HEALTH EDUCATION IN GHANA

BY

JOHN KWASI AMUZU

MADC24087

A DISSERTATION SUBMITTED TO UNIVERSITY OF MEDIA, ARTS AND COMMUNICATION, INSTITUTE OF JOURNALISM (UNIMAC-IJ); IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF ARTS (MA) DEGREE IN DEVELOPMENT COMMUNICATION

DECEMBER,2025

DECLARATION

DECLARATION BY STUDENT - PROJECT WORK

I hereby declare that this submission is my own work towards the Master of Arts in Development Communication degree and that, to the best of my knowledge, it contains no material previously published by any other person, nor material which has been accepted for the award of any other degree of this or any other university, except where due acknowledgement has been made in the text.

JOHN KWASI AMUZU MADC24087 ..... 10/12/2025.....

Student Index Signature Date

CERTIFICATION BY SUPERVISOR

This Dissertation has been prepared and presented under my supervision according to the guidelines for supervision and formatting of dissertation laid down by the University of Media, Arts and Communication UniMAC -IJ.

KODWO JONAS ANSON BOATE NG ..... 12/10/2025.....

Supervisor Signature Date

DEDICATION

This work is lovingly dedicated to my dear late mother, Roseline Mansah Sevor, whose unwavering support, prayers, and sacrifices have shaped every step of my journey until her demise. Your strength and love continue to inspire me. To my foster mother, Albertina Alipui, may God bless you for all the support and prayers.

To my family, especially my sister and my brother, thank you for your constant encouragement, understanding, and belief in my dreams. Your support has been a pillar throughout this academic pursuit.

I also dedicate this dissertation to my Head of Department at work, Mr. Frank Asiedu Danso, for his guidance, mentorship, and invaluable support throughout my Master's programme. Your leadership and dedication have contributed significantly to this achievement.

ACKNOWLEDGMENTS

I am profoundly grateful to God Almighty for His grace, strength, and guidance throughout the journey of this dissertation and my Master's programme.

My deepest appreciation goes to my supervisor, Dr. Kodwo Jonas Anson Boateng (PhD), for his exceptional guidance, constructive feedback, and unwavering support. His patience, dedication, and scholarly insight were instrumental in shaping this work.

I also extend my heartfelt thanks to all the lecturers at the UniMAC Graduate School for the knowledge, mentorship, and academic support they provided throughout my studies. Each of you has contributed significantly to my intellectual growth.

To my family, friends, and everyone who made meaningful contributions toward the completion of this dissertation - whether through encouragement, advice, prayers, or practical support - I say a sincere thank you. Your presence and support made this achievement possible.

ABSTRACT

Adolescents in Ghana face significant sexual and reproductive health (SRH) challenges, including high rates of teenage pregnancy (15.4% nationally), unsafe abortion practices, and persistently low contraceptive use (13% among 15–19-year-olds). Traditional approaches to SRH education delivered through schools, clinics, and community outreach are constrained by cultural taboos, stigma, teacher discomfort, and limited reach to vulnerable populations. Digital platforms offer promising alternatives, yet little is known about how Ghanaian adolescents actually experience and engage with digital SRH education within their specific socio-cultural contexts. This study explores the lived experiences of Ghanaian adolescents aged 15-19 with digital sexual and reproductive health education, examining their knowledge and awareness of digital platforms, perceived benefits compared to traditional methods, barriers encountered, and influence on confidence, decision-making, and health-seeking behaviors. The study employed a qualitative, phenomenological design grounded in an interpretive research paradigm. Data were collected through in-depth interviews with 20 adolescents, key informant interviews with 4 health professionals and program implementers, and document review of existing digital health interventions in the Greater Accra Region. Thematic analysis following Braun and Clarke's (2006) framework was used to identify patterns of meaning. Adolescents demonstrated high awareness of digital SRH information but primarily accessed content through general social media platforms rather than dedicated health applications. The overwhelming preference for digital platforms stemmed from their provision of privacy and anonymity, contrasting sharply with stigmatizing traditional settings. Digital platforms offered significant advantages including 24/7 accessibility, self-paced learning, and engaging multimedia content. However, major barriers included high mobile data costs, poor connectivity, concerns about misinformation, cultural mismatch with Western-centric content, and fears of family surveillance. The study concludes that digital SRH platforms represent a vital, youth-preferred alternative to traditional methods in Ghana, though their transformative potential is constrained by economic barriers and implementation gaps regarding cultural relevance and trustworthy information.

Keyword: adolescent sexual and reproductive health; cultural appropriateness; digital health education; health-seeking behavior; lived experiences; phenomenological research.

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CHAPTER ONE

INTRODUCTION

1.1 Background

The Adolescent stage is seen as the period where there is swift changes in the physical, mental and social make up of individuals, which tend to have an impact on the health and welfare of adolescents. According to the World Health Organization, young people between 10 and 19 years are those characterized as adolescents and that they constitute 16 of every 100 people (WHO, 2014). Key to the achievement of the SDGs, particularly the SDG 3 (thus Good Health and Well-being) and SDG 5 (Gender Equality) is the SRH of adolescents (WHO, 2014). Adolescents in Ghana alone forms 22% of the populace, of which their health concern should be considered highly as a public issue (Guttmarcher Institute, 2017).

Inasmuch as much there are advancement in the delivery of healthcare, adolescents from Ghana have numerous SRH difficulties. High rates of teenage pregnancy, unsafe abortion, HIV and other sexually transmitted infections (STIs), sexual and gender-based violence, and inadequate access to youth-friendly health services remain persistent concerns (Amo-Adjei, 2022; Tetteh-Boawolor et al., 2024). The magnitude of adolescent sexual and reproductive health challenges in Ghana is well-documented through national data sources. A survey that was done by Ahinkorah et al. in 2023 found that the combined prevalence of adolescents pregnancy is 15.4%, further indicating that there are vast disparities in the figures trickling in from the rural areas (19.5%) and the urban areas (10.6%). Between 2016 and 2020, Ghana had 542,131 pregnancies amongst adolescent girls between 15-19 years and 13,444 amongst young teenagers between 10-14 years according to the Ghana Health Service District Health Information Management System (UNFPA Ghana, 2021).

These figures underscore the persistent nature of adolescent pregnancy despite ongoing public health efforts.

The situation regarding unsafe abortion among youth is equally concerning. The self-reported abortion rate among young women aged 15-24 is 30 per 1,000, with over half of these young women using abortion methods obtained from non-formal providers (Bell et al., 2021). Among adolescents who became pregnant, approximately 26% resorted to abortion (Darteh et al., 2025), highlighting the vulnerability of this population to unsafe pregnancy termination practices. Among the one-third of young women who experienced abortion complications, 40% did not access treatment (Bell et al., 2021), pointing to critical gaps in post-abortion care access.

Contraceptive use among adolescents remains persistently low despite its potential to prevent unintended pregnancies. The contraceptive prevalence rate among women aged 15-19 is only 13% (Karim et al., 2003), and concerning trends have been observed over time. Analysis of Ghana Demographic and Health Surveys reveals that contraceptive use among adolescents actually declined from 22.1% in 2003 to 20.4% in 2014 (Aviisah et al., 2020), suggesting that existing interventions have not adequately addressed barriers facing young people. The most commonly reported barriers to contraceptive service use include embarrassment, fears about safety, and concerns about parents finding out (Bell et al., 2020), demonstrating that socio-cultural factors significantly impede adolescents' access to SRH services. Two-thirds of adolescent girls and young women aged 15-24 are currently not using modern contraceptives, and more than half already have at least one child (Aboagye et al., 2024), underscoring the urgent need for youth-centered interventions that can effectively reach this vulnerable population.

These statistics collectively paint a picture of significant unmet SRH needs among Ghanaian adolescents. While awareness of SRH issues has increased through various educational campaigns,

the translation of knowledge into protective behaviors remains limited, largely due to structural barriers, stigma, and inadequate youth-friendly services. Digital health education platforms thus represent a promising avenue for addressing these gaps by providing confidential, accessible, and stigma-free channels for adolescents to access accurate SRH information and services. Studies suggest that the lack of comprehensive sexuality education (CSE), stigma surrounding open conversations about sex, and restrictive socio-cultural norms limit young people's access to accurate SRH information (Adzovie & Adzovie, 2022). This often pushes adolescents to rely on peers, social media, or unverified sources, which may perpetuate misinformation and harmful practices. The digital era presents new opportunities to address these barriers. Digital communication platforms, such as mobile health (mHealth) tools, interactive voice response (IVR) systems, social media, mobile applications, and online learning platforms, offer adolescents private, scalable, and accessible avenues to engage with SRH information (Ackah et al., 2024). Evidence from Nigeria, for example, shows that mobile-based CSE significantly improves adolescents' knowledge and attitudes toward SRH (Ogunfowora et al., 2024). Similarly, studies across Sub-Saharan Africa highlight that digital tools can overcome barriers of stigma and limited teacher capacity while providing interactive and user-centered learning (Edeghere et al., 2022).

In Ghana, however, although some digital health interventions exist, the majority of research has focused on access to SRH services or adolescents' knowledge gaps rather than their lived experiences with digital SRH education. Lived experiences refer to the first-hand accounts and subjective realities of individuals as they navigate particular phenomena in their daily lives (Van Manen, 2016). In the context of sexual and reproductive health education, lived experiences encompass how adolescents personally encounter, interpret, and make meaning of SRH information and interventions within their unique social, cultural, and relational contexts

(Shoveller et al., 2004). Unlike quantitative measures of knowledge or behavior change, lived experiences capture the nuanced, embodied, and contextual dimensions of adolescents' engagement with health information, including their emotions, relationships, power dynamics, and the practical realities that shape their health decisions. The importance of centering lived experiences in adolescent SRH research has been increasingly recognized in global health literature. Studies that prioritize adolescents' own narratives reveal critical insights that conventional outcome-focused research often misses. For instance, a phenomenological study by Ivanova et al. (2019) exploring young women's experiences with contraceptive counseling in Sweden found that even when services were technically accessible, adolescents' actual experiences were shaped by feelings of shame, power imbalances with providers, and fear of judgment, factors that quantitative surveys on service uptake would not capture. Similarly, research by Mkwananzi et al. (2019) on adolescents' experiences with HIV prevention services in Zimbabwe demonstrated that lived experiences of stigma, confidentiality concerns, and peer influence significantly mediated whether young people actually utilized available services, regardless of their reported knowledge levels.

In the African context, several studies have demonstrated the value of lived experience approaches. Aninanya et al. (2015) conducted a qualitative exploration of adolescent girls' experiences with maternal health services in Northern Ghana and found that their subjective experiences of respect, privacy, and non-judgmental care were more influential in determining service utilization than simple awareness of service availability. Similarly, Marston and King (2006), in their review of young people's sexual health interventions in Sub-Saharan Africa, argued that understanding adolescents' lived realities, including their social relationships, gender dynamics, and economic constraints, is essential for designing interventions that are not only evidence-based but also

contextually relevant and sustainable. The essence of examining lived experiences lies in recognizing adolescents as active agents in their own health journeys rather than passive recipients of interventions. Phenomenological research, as advocated by Dowsett and Aggleton (1999) in their foundational work on young people and sexual health, emphasizes that adolescents construct meanings about sexuality, risk, and health through their everyday interactions, relationships, and encounters with information sources. These constructed meanings, in turn, shape their health behaviors more powerfully than abstract knowledge alone. A study by Bantebya-Kyomuhendo et al. (2014) examining adolescents' reproductive health experiences in Uganda found that young people's decisions about contraceptive use were deeply embedded in their lived experiences of romantic relationships, family expectations, and community norms, elements that standardized health education messages often fail to address.

Furthermore, research focusing on digital health interventions has begun to recognize the importance of lived experiences. Gonsalves and Hindin (2017), in their qualitative study of adolescents' use of mobile health technologies for SRH information in Kenya, found that understanding how young people actually experienced these platforms, including their trust in the information, their concerns about data privacy, and their perceptions of cultural appropriateness, was critical for explaining why some interventions succeeded while others failed despite similar technological features. Similarly, Daher et al. (2017) demonstrated that Syrian refugee adolescents' lived experiences with digital health information were mediated by their trauma histories, displacement contexts, and changing family structures, highlighting that the same intervention can be experienced very differently depending on users' lived realities. The importance of lived experiences is also underscored in participatory and youth-centered research approaches. Flicker et al. (2008) argued that involving young people in defining and interpreting their own experiences

leads to more authentic, relevant, and ultimately more effective health interventions. Their community-based participatory research with adolescents in Canada showed that when youth were empowered to share and analyze their lived experiences, they identified barriers and facilitators to health services that researchers had not anticipated, leading to more responsive program design.

In Ghana specifically, while quantitative studies have documented gaps in adolescent SRH knowledge and service uptake (Ninsiima et al., 2021), there remains limited qualitative research that deeply explores how Ghanaian adolescents subjectively experience, interpret, and navigate digital SRH education within their specific cultural and social contexts. Understanding these lived experiences is essential because digital interventions do not operate in a vacuum; their effectiveness depends on how they intersect with adolescents' everyday realities, including family surveillance of phone use, peer influence, religious values, economic constraints, and gendered expectations (Svanemyr et al., 2015). By foregrounding lived experiences, this study recognizes that adolescents are not merely data points in health statistics but individuals with complex social lives, competing priorities, and contextual knowledge that must inform how digital SRH education is designed and implemented. This approach shifts the research focus from "what works" in a technical sense to "what works for whom, in what contexts, and why", questions that are fundamental to developing truly youth-centered, culturally responsive, and sustainable digital health interventions.

Recent work by Afeadie and Appiah (2025) highlights how out-of-school adolescents face structural barriers to CSE, but there is still little exploration of how digital tools are received, trusted, and used by young people in diverse Ghanaian contexts. This knowledge gap is critical because digital interventions are not neutral; their effectiveness depends on how adolescents perceive their privacy, relevance, and cultural sensitivity. Understanding these experiences is

therefore key to designing context-appropriate interventions that empower adolescents and improve health outcomes.

1.2 Statement of the Problem

Numerous studies indicate that, although digital platforms present opportunities for improved access to SRH information, they also come with inherent challenges. Alhassan et al. (2025) carried out a systematic review that highlights the effectiveness of digital educational tools to improve SRH knowledge among young people in sub -Saharan Africa. However, they warn that this effectiveness can be undermined by problems such as inappropriate connectivity on the Internet, digital literacy deficit and cultural stigmas surrounding sexual health discussions. In Ghana, adolescents often face barriers that restrict their access to comprehensive SRH information, particularly in rural areas where digital infrastructure is limited (Okyere et al., 2024).

In addition, qualitative research underlines the importance of context and culture in the configuration of adolescents' perceptions about SRH digital education. Adzovie and Adzovie (2022) explored the various sources of SRH information for Ghanaian adolescents, revealing a preference for the figures of the trusted community on digital platforms. This suggests that even as digital tools become more frequent, traditional information sources retain considerable influence, which can further complicate adolescents' commitment to SRH digital content.

Digital platforms, while offering anonymity and ease of access, can inadvertently perpetuate the wrong information. John et al. 2025 highlights how women's experiences with digital health services reveal erroneous concepts with respect to contraception and SRH problems exacerbated by online information not verified. This raises concerns about the quality of the information that

adolescents are consuming and underlines the need for educational programs to guarantee the accuracy and reliability of the content provided.

Adolescent literacy levels play an important role in determining their ability to effectively participate with digital SRH materials. Nkrumah et al. (2024) emphasize the need for personalized education that addresses adolescents' literacy needs to improve their SRH decision -making skills. They argue that without adequate literacy and critical thinking skills, adolescents may have difficulty discerning valuable information on deceptive content online. Consequently, the effectiveness of digital SRH programs may decrease whether these educational components are not integrated.

In addition, accessibility does not simply refer to the availability of technology, but also to the cultural relevance of the content. Agbenyo and Nzengya (2023) conducted a qualitative study that reveals a significant gap to meet the specific needs and preferences of young people with respect to the SRH content delivered through mobile platforms. Its findings indicate that although access to the mobile phone is increasing, the content must resonate culturally and be identifiable to be effective.

As the programs evolve, political leaders must consider the unique context of Ghanaian adolescents. Nkrumah et al. (2025) explored interventions that improve SRH decision -making skills in unattended communities, arguing multifaceted approaches that incorporate digital platforms along with traditional educational methods. These approaches can address disparities in knowledge while promoting a support environment for open discussions about SRH.

In view of this, the research explores the experiences of Ghanaian adolescents with education on digital sexual health (SRH), addressing health challenges and access barriers.

1.3 Aim of the Study

The study is to explore the experiences of Ghanaian adolescents with digital sexual and reproductive health (SRH) education. Specifically, the study seeks to examine how cultural, social, and technological factors shape adolescents' engagement with digital SRH platforms, the challenges they encounter in accessing reliable information, and the extent to which these platforms influence their knowledge and decision-making about sexual and reproductive health.

This study adopts an interpretive research paradigm grounded in phenomenological inquiry. The research is exploratory and descriptive in nature, seeking to understand the lived experiences of Ghanaian adolescents rather than test predetermined hypotheses. The study operates from the ontological assumption that reality is socially constructed and that adolescents' experiences with digital SRH education are shaped by their cultural, social, and personal contexts. Epistemologically, the study assumes that knowledge about these experiences is best generated through direct engagement with adolescents themselves, recognizing them as experts on their own realities. This philosophical stance justifies the use of qualitative methods and directs the research toward understanding 'how' and 'why' rather than measuring 'how much' or testing causal relationships.

This research employs an inductive approach, whereby themes, patterns, and insights emerge from the data rather than being predetermined by existing theories. While the study is informed by theoretical frameworks such as the Health Belief Model and Theory of Planned Behavior (discussed in Chapter Two), these serve as sensitizing concepts rather than rigid hypotheses to be tested. The inductive approach aligns with the study's phenomenological orientation, allowing adolescents' voices and experiences to shape the findings organically. Data collection and analysis

proceed iteratively, with emerging themes informing subsequent data collection—a hallmark of inductive qualitative research.

1.4 Research Objectives

The study seeks to explore adolescents' experiences of digital sexual and reproductive health education in Ghana. The specific objectives are to:

1. Find out the level of knowledge, awareness and impressions about digital SRH education platforms in Ghana
2. Explore the benefits adolescents associate with digital SRH education compared to traditional methods.
3. Identify barriers and challenges adolescents face in accessing and using digital SRH platforms.
4. Investigate how digital SRH education influences adolescents' confidence, decision-making, and health-seeking behaviors.

1.5 Research Questions

1. What is the level of knowledge, awareness, and impressions adolescents in Ghana have about digital SRH education platforms?
2. What benefits do adolescents associate with digital SRH education compared to traditional forms of SRH learning?
3. What barriers and challenges limit adolescents' access to and use of digital SRH tools?
4. In what ways does digital SRH education influence adolescents' confidence, decision-making, and health-seeking behaviors?

1.6 Significance of the Study

The study is significant for research, practice, and societal development. Focusing on development communication viewpoint, this study throws more light on comprehending the operationalization of participatory, bottom-up communication approaches can improve SRH targeting adolescent in minimal-resource areas. Development Communication promotes dialogue over monologue, appreciates cultural-relevance discussions, and empowerment from the base rather the traditional top-down approach. In line with that, as the study seeks to focus on the lived experiences of adolescents who have interacted with digitally-powered SRH platforms, it will contribute empirical evidence on how society can leverage digital technologies as tools for participatory health messaging that respects local context, cultural values, and youth as agents. The study advances scholarship in development communication through the assessing the interface between digital media, youth contribution and behavioral change communication in SRH – a narrowly explored area even in the ear of health digitalization in the Sub-Saharan Africa.

On the side of academic, the study addresses an important gap in the current knowledge by exploring, in depth how adolescents in Ghana are involved in digital SRH interventions. While most previous research works have focused heavily focused on access and knowledge, the current study goes beyond to gain understanding on the lived experiences of young people. From a development communication practice perspective, the study's findings will assist in shaping more effective, culturally relevant, and youth-centered SRH communication strategies. It offers practical guidance for the Ghana Health Service, Ministry of Health, and youth-focused organizations seeking to move beyond one-way, information-based approaches toward more dialogic and empowering communication models. By bringing attention to key issues such as adolescents' privacy concerns, their trust in digital platforms, and their views on cultural sensitivity, the study

provides valuable direction for program designers and communicators. This will help ensure that interventions truly engage young people as active participants rather than as passive recipients of information—aligning with global efforts to advance the Sustainable Development Goals, especially SDG 3 (Good Health and Well-being) and SDG 5 (Gender Equality).

Practically, the research also offers useful lessons for NGOs and practitioners who work directly with adolescents. Understanding how young people engage with digital SRH communication will help these actors apply development communication principles—like audience segmentation, formative research, and culturally sensitive messaging—more effectively in online and digital settings. These findings are particularly important for reaching marginalized groups such as out-of-school youth, rural adolescents, and young girls who face multiple challenges. By identifying what helps or hinders effective communication, the study will support implementers in refining their approaches to better meet the needs of diverse adolescent audiences.

1.7 Scope of the Study

The focus of this study is confined to evaluating the encounters of Ghanaian adolescents with digital SRH education. The study particularly deals with how cultural, social, and technological aspects influence adolescents' use and access to digital platforms for SRH knowledge. The study considers in-school adolescents as well as out-of-school adolescents, with the emphasis laid upon the different realities of urban and rural living adolescents. The research centers on qualitative study, employing the experience of life among adolescents as the way to gain more in-depth understanding of their adoption and interpretation of digital SRH information. Though literature on broader sub-Saharan Africa is employed in contextualizing the research, the central focus of the research remains on the adolescent group in Ghana.

1.7 Limitations of the Study

As with all studies, there are a few limitations to this one. First, its qualitative nature means that findings cannot be generalized to all Ghanaian adolescents, as it is more interested in depth of understanding rather than breadth. Second, access to the participants, and especially in rural or deprived regions, would be potentially challenging due to infrastructural constraints and connectivity. Third, because of the sensitive nature of sexual and reproductive health data, some adolescents may provide information withholding or socially desirable responding even following confidentiality assurances. Finally, the rapid pace of technological advancements has the potential to lead to digital media and technologies advancing beyond the scope of this study prior to or following study completion. These limitations, however, do not reduce the usefulness of the study but indicate avenues for future research.

1.8 Organization of the Study

This dissertation has five chapters, with every chapter covering a core part of the research. Chapter One provides the introduction to the study, including the background, problem statement, purpose, significance, and scope. It also provides the dissertation structure as a roadmap for readers. Chapter Two is dedicated to a literature review and discusses existing research on adolescents' sexual and reproductive health (SRH) with an emphasis on digital interventions. The chapter uses theoretical concepts and empirical evidence and establishes gaps in the literature that legitimize the present research.

Chapter Three outlines the research strategy. It outlines the research design, population and sampling methods, data collection methods, and analysis techniques. The chapter also outlines the ethical principles underlining the study so that it conforms to the standards of established

professional and academic standards. Chapter Four presents and explains the findings of the research. Drawing on field data, it offers a detailed account of adolescents' experiences with digital technology-based SRH education in Ghana. The findings are described with reference to themes generated from the data and supported by evidence from participants' perspectives. Finally, Chapter Five provides the summary, conclusions, and recommendations of the study. It synthesizes the main findings, discusses their policy, practice, and research implications, and provides practical recommendations for improving adolescents' digital SRH education in Ghana.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Adolescence represents a critical developmental period that profoundly shapes lifelong health trajectories and outcomes. During this stage, young people begin exploring their sexuality and forming relationships, yet simultaneously face heightened vulnerabilities including unintended pregnancies, unsafe abortion practices, and sexually transmitted infections. In Ghana and across Sub-Saharan Africa more broadly, these challenges are amplified by deeply entrenched socio-cultural taboos, pervasive stigma surrounding open discussion of sexual matters, and systematic limitations in youth-friendly health service provision (Amo-Adjei, 2022; Tetteh-Boawolor et al., 2024). Addressing these multifaceted challenges necessitates innovative and contextually sensitive approaches to both education and service delivery that recognize the complex realities adolescents navigate.

This literature review critically examines existing literature on adolescent sexual and reproductive health with particular emphasis on digital health communication interventions. The review is organized thematically, beginning with an overview of adolescent SRH challenges in Ghana and Sub-Saharan Africa, followed by examination of traditional SRH education approaches and their limitations, exploration of digital health interventions and their effectiveness, theoretical frameworks guiding SRH education, and finally identification of critical research gaps that this study seeks to address.

2.2 Adolescent Sexual and Reproductive Health in Ghana

The sexual and reproductive health landscape for adolescents in Ghana reflects broader patterns observed throughout Sub-Saharan Africa, characterized by significant unmet needs and persistent health inequities. Melesse et al. (2020) conducted a comprehensive analysis revealing that across the region, adolescents face disproportionate barriers to accessing SRH information and services, with the most marginalized groups, including rural youth, out-of-school adolescents, and girls from low-income households, experiencing the greatest disadvantages. The unequal allocation of healthcare resources and health outcomes highlights the critical necessity for strategies that extend beyond conventional healthcare delivery systems.

In Ghana particularly, teenage pregnancy rates continue to be disturbingly elevated even after multiple decades of public health initiatives. Research by Ahinkorah et al. (2023) examined thirty years of population data and discovered that teenage pregnancy occurrence reached 15.4% at the national level, revealing significant differences between rural and urban areas with rates of 19.5% in countryside regions versus 10.6% in city areas. These geographic differences mirror more profound systemic disparities in educational access, medical care availability, and exposure to thorough sexual health education. The study authors observed that these trends have stayed consistently stable across time, indicating that traditional methods have been unsuccessful in tackling the fundamental causes of teenage pregnancy.

The national adolescent pregnancy figures mask significant regional variations that reflect deeper structural inequalities across Ghana's geographic landscape. Analysis of pooled data from multiple nationally representative surveys conducted between 1988 and 2019 reveals that the pooled prevalence of adolescent pregnancy in Ghana was 15.4% (95% CI=13.49% to 17.30%), with rural areas (19.5%) having a significantly higher prevalence than urban areas (10.6%) (Ahinkorah et al.,

2023). These figures represent more than three decades of persistent geographic disparities that have remained relatively stable despite multiple public health interventions.

Regional variations in adolescent childbearing are particularly pronounced. Research utilizing the 2017 Ghana Multiple Indicator Cluster Survey (MICS) found that adolescents from the Volta Region were 131% more likely to engage in adolescent childbearing compared to those from the Western Region (Alhassan et al., 2024), demonstrating how geographic location fundamentally shapes adolescent reproductive health risks. Analysis of the 2017 Ghana Maternal Health Survey further revealed that the Brong Ahafo Region had the highest adolescent pregnancy prevalence at 18.6% (95% CI: 14.9%-22.4%), while the Greater Accra Region recorded the lowest prevalence at 8.1% (95% CI: 6.1%-10.2%) (Senkyire et al., 2022). This more than two-fold difference between regions underscores the profound disparities in adolescent reproductive health outcomes across the country.

However, it is critical to note that these patterns are not uniform across all measures. While Volta Region shows high rates of adolescent childbearing, data on unintended pregnancy reveals a different pattern, with Central Region (65.9%), Ashanti Region (55.0%), Volta Region (47.1%), Oti Region (47.0%), and Western North Region (46.7%) reporting the highest prevalence, whilst Savannah (23.7%), Upper West (22.8%), Northern (17.3%), and North East (14.4%) regions had lower prevalence (Ahinkorah et al., 2024). This discrepancy suggests that regional patterns may vary depending on whether adolescent pregnancy is measured as childbearing, current pregnancy, or pregnancy intention—an important methodological consideration for intervention design.

At the district level, granular data from the Ghana Health Service District Health Information Management System (DHIMS) reveals even more pronounced disparities. Between 2016 and 2020, Ghana recorded 542,131 pregnancies amongst adolescent girls aged 15-19 years and 13,444

pregnancies amongst young teenagers aged 10-14 years (UNFPA Ghana, 2021). In 2020 alone, a total of 109,888 teenage pregnancies were recorded through DHIMS, with 2,865 being among girls aged 10-14 years—a particularly concerning statistic given the heightened health risks associated with very early pregnancy and the likelihood that these pregnancies resulted from sexual exploitation or coercion.

District-level data for the five-year period from 2016-2020 reveals striking geographic concentration of adolescent pregnancy. Among girls aged 10-14, the Ashanti region recorded the highest number with 2,165 cases, followed by Eastern region (1,528 cases), Central region (1,327 cases), Greater Accra (1,247 cases), and Western region (1,156 cases). For adolescents aged 15-19, the Volta region recorded 29,523 teenage pregnancies over the five-year period, with annual figures ranging from 5,861 to 6,213 cases (Citi Newsroom, 2021). Therefore, these absolute numbers reveal that even regions with lower prevalence rates, such as Ashanti, may experience substantial case burdens due to larger population sizes, necessitating different intervention strategies than those appropriate for high-prevalence, low-population regions.

A recent trend analysis focusing on the Savannah Region found that the period prevalence of adolescent pregnancy was 117.50 childbirths per 1,000 women (95% CI: 102.17-131.92) between 2018 and 2022, with prevalence among late adolescents reaching 230 per 1,000 (Issahaku et al., 2025). This rate is substantially higher than national figures and demonstrates the sustained nature of adolescent pregnancy challenges in resource-constrained regions. The persistence of these geographic patterns over multiple years indicates that existing interventions have failed to adequately address the structural determinants, including poverty, limited educational opportunities for girls, child marriage practices, and inadequate access to contraceptive services, that drive high adolescent pregnancy rates in specific regions and districts.

Teenage pregnancy by region

Percentage of women age 15–19 who have ever been pregnant

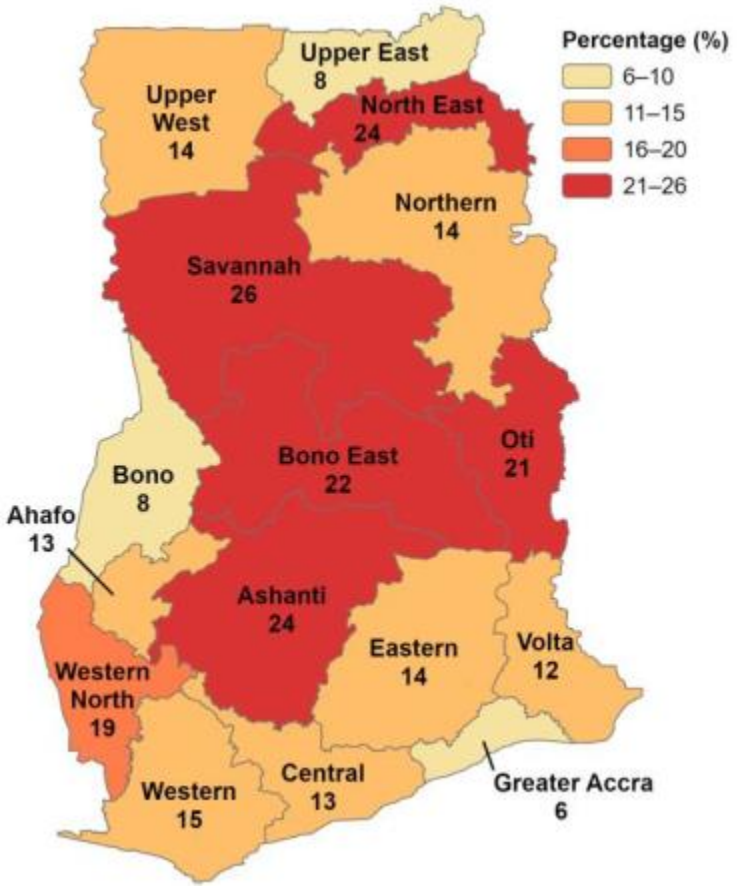

Figure 1: A Map showing teenage pregnancy by region

Source: Ghana Demographic and Health Survey 2022

As shown in the figure 1, data from the Ghana Demographic and Health Survey 2022 shows that the percentage of women between ages of 15 and 19 who have ever been pregnant ranges from 6% in Greater Accra to 26% in Savannah. This shows the regional disparities existing as a result many factors.

Table 1: Teenage Pregnancy by Region in Ghana (Women Age 15-19)

Region	Have Ever Had a Live Birth (%)	Have Ever Been Pregnant (%)	Are Currently Pregnant (%)	Number of Women
Bono East	19.1	3.9	1.0	135
Oti	15.4	3.8	4.0	62
North East	17.5	1.4	5.9	56
Ashanti	16.8	8.4	1.1	470
Northern	16.2	2.6	2.0	181
Savannah	11.5	3.9	5.1	67
Volta	7.8	2.7	1.9	158
Western North	10.6	6.0	4.0	79
Eastern	11.4	3.0	0.0	202
Central	7.0	5.4	2.4	354
Western	10.7	2.4	3.3	177
Ahafo	8.5	3.5	2.6	59
Bono	8.0	1.9	0.9	113
Upper East	6.2	0.0	2.1	111
Upper West	10.4	2.0	2.1	89
Greater Accra	5.4	2.3	0.6	364
NATIONAL	**10.9**	**3.9**	**1.9**	**2,682**
Urban	8.0	4.2	1.1	1,458
Rural	14.4	3.5	2.8	1,223

Source: *Ghana Statistical Service (GSS) and ICF. (2024). Ghana Demographic and Health Survey 2022. Table 5.12, p. 94. Accra, Ghana, and Rockville, Maryland, USA: GSS and ICF.*

The data presented in Table 1 reveal striking and deeply concerning geographic inequalities in adolescent childbearing across Ghana. Most significantly, Bono East Region emerges as having the highest adolescent childbearing rate at 19.1%, meaning that nearly one in five adolescent girls in this region has already given birth by age 19. In stark contrast, Greater Accra Region records

the lowest rate at merely 5.4%, a more than three-fold difference that cannot be dismissed as statistical noise but rather reflects fundamental structural disparities in educational opportunities, healthcare access, and socioeconomic conditions (GSS & ICF, 2024). This geographic variation challenges the notion that adolescent pregnancy is uniformly distributed across Ghana and instead suggests that place-based factors, including regional poverty levels, cultural norms around early marriage, and availability of youth-friendly reproductive health services, play decisive roles in shaping adolescent reproductive outcomes.

Moreover, the urban-rural divide compounds these regional disparities in troubling ways. Rural adolescents experience childbearing rates of 14.4% compared to 8.0% among their urban counterparts, representing an 80% higher risk for rural girls (GSS & ICF, 2024). However, this urban advantage must be interpreted cautiously; it likely reflects not merely geographic location but rather the clustering of educational infrastructure, economic opportunities, and health services in urban centers. Therefore, interventions targeting rural areas cannot focus solely on information provision but must address the structural barriers, including poverty, limited schooling opportunities for girls, and distance to health facilities, that fundamentally constrain rural adolescents' reproductive choices.

Interestingly, the data also reveal important nuances that complicate simple regional rankings. While Bono East leads in completed childbearing (19.1%), North East Region actually has the highest current pregnancy rate at 5.9%, more than double the national average of 1.9% (GSS & ICF, 2024). This discrepancy suggests that different regions may be at different stages of the adolescent pregnancy trajectory, with some experiencing high rates of pregnancy resolution (whether through birth, miscarriage, or abortion) while others show elevated current pregnancy

rates. Consequently, effective interventions must be tailored not only to regional prevalence but also to the specific patterns of adolescent reproductive behavior characteristic of each area.

Furthermore, examination of pregnancy loss rates (the “have ever been pregnant” column, indicating stillbirth, miscarriage, or abortion) reveals another dimension of regional variation. Ashanti Region, despite having a moderate completed childbearing rate of 16.8%, shows the highest pregnancy loss rate at 8.4%, more than double the national average of 3.9% (GSS & ICF, 2024). This pattern raises critical questions about whether adolescents in Ashanti have differential access to abortion services, experience higher rates of pregnancy complications, or face distinct social pressures that shape pregnancy outcomes. The implication is that regional interventions cannot adopt one-size-fits-all approaches but must account for how cultural contexts, service availability, and health infrastructure shape not only whether adolescents become pregnant but also how those pregnancies are resolved.

In addition to pregnancy statistics, dangerous abortion procedures represent a significant danger to teenage health and welfare in Ghana. Bell et al. (2021) documented that among young women aged 15-24, the self-reported abortion rate reached 30 per 1,000, with more than half of these young women obtaining abortion methods from non-formal providers operating outside the regulated healthcare system. This dependence on unofficial healthcare providers puts teenagers at risk for severe health consequences including partial abortion, bacterial infections, excessive bleeding, and possible lasting fertility problems. Darteh et al. (2025) further revealed that approximately 26% of pregnant adolescents resort to abortion, yet among those who experience complications, 40% do not seek professional medical care due to fear of stigma, cost barriers, or lack of awareness about available services. These results reveal the hazardous convergence of

insufficient sexual and reproductive health understanding, limited healthcare availability, and social-cultural barriers that define teenage health-seeking patterns in Ghana.

Data from the Ghana DHS 2022 reveals that induced abortion in Ghana is primarily concentrated among young women in their late teens and early twenties, with urban women having greater access to or utilization of abortion services. The relatively low overall rates may reflect both actual patterns and potential underreporting in a context where abortion is legally restricted and socially stigmatized. This is represented in Figure 2 and Table 2.

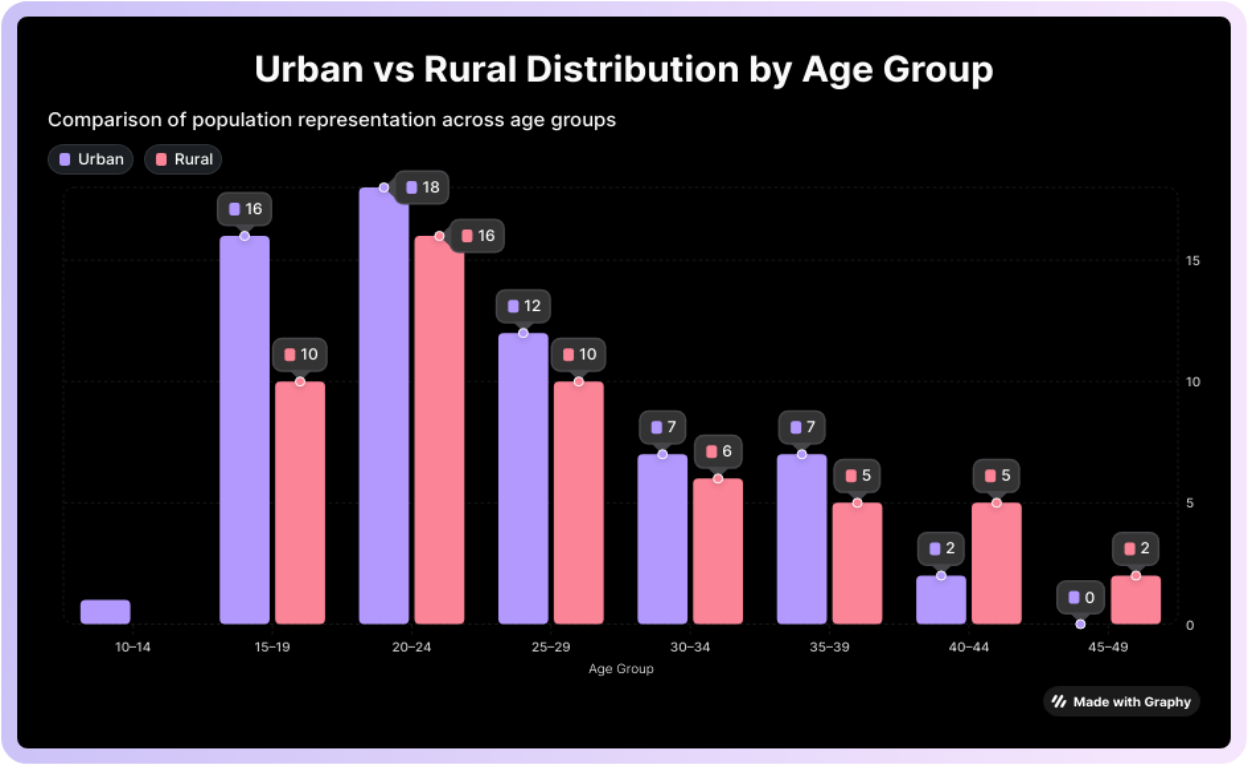

Figure 2: Urban vs Rural Distribution by Age Group

Source: Designed with Graphy

Table 2: Age-Specific Induced Abortion Rates

Per 1,000 women for the 3 years preceding the survey

Age Group	Urban	Rural	Total
10–14	1	0	1
15–19	16	10	13
20–24	18	16	17
25–29	12	10	11
30–34	7	6	7
35–39	7	5	5
40–44	2	5	4
45–49	0	2	1
TAR (15–49)	**0.3**	**0.3**	**0.3**
GAR	**11**	**9**	**10**

Source: Ghana Statistical Service (GSS) and ICF. (2024). *Ghana Demographic and Health Survey 2022.* Table 5.15, p. 96. Accra, Ghana, and Rockville, Maryland, USA: GSS and ICF.

Note: TAR (Total Abortion Rate): 0.3 induced abortions per woman during her reproductive lifetime

GAR (General Abortion Rate): 10 induced abortions per 1,000 women aged 15–44

Likewise, the pattern of contraceptive use among Ghanaian adolescents reveals another way of lingering SRH quests. Although the proven efficacy of contemporary birth control methods in avoiding unwanted pregnancies is widely recognized, adoption rates among teenagers continue to be consistently poor. Karim et al (2003) recorded contraceptive usage rates of merely 13% among females aged 15-19 in Ghana. Even more alarming, Aviisah et al. (2020) analyzed longitudinal trends using Ghana Demographic and Health Survey data and discovered that contraceptive use among adolescents actually declined from 22.1% in 2003 to 20.4% in 2014, indicating that existing

interventions have not successfully overcome the barriers preventing young people from accessing and utilizing contraceptive services. The researchers discovered that embarrassment, safety concerns, and fear of parental discovery as the primary barriers, demonstrating that adolescent contraceptive use is shaped not merely by availability of methods but fundamentally by socio-cultural contexts that stigmatize adolescent sexuality.

These epidemiological patterns depict deeper systemic issues in how sexual and reproductive health is conceptualized and addressed within Ghanaian society. Amo-Adjei (2022) argued that adolescent SRH challenges persist because interventions have historically focused on knowledge transmission rather than addressing the structural, cultural, and relational contexts that shape adolescent health behaviors. The author emphasized that adolescents possess agency and decision-making capacity, yet their choices are constrained by poverty, gender inequalities, limited educational opportunities, and restrictive social norms that prohibit open discussion of sexuality. This perspective shifts attention from individual-level deficits toward recognition of the social determinants that structure adolescent health outcomes.

2.3 Traditional Approaches to SRH Education

Traditional sexual and reproductive health education in Ghana has primarily been delivered through three main channels: school-based curricula, clinic-based counseling, and community outreach programs. While these approaches have dominated the SRH education landscape for decades, a critical examination of the evidence reveals fundamental limitations that extend beyond mere implementation challenges. Rather, these shortcomings reflect deeper structural inadequacies in how traditional approaches conceptualize adolescent sexuality, information access, and behavioral change. This study argues that traditional SRH education models are inherently constrained by three interconnected failures: their inability to reach marginalized populations, their

reliance on discredited pedagogical assumptions, and their failure to address the socio-cultural contexts that shape adolescent sexual decision-making.

To start with, school-based comprehensive sexuality education represents the most widespread formal approach to SRH education in Ghana. However, this institutional focus creates a paradox whereby those most in need of SRH information are systematically excluded from access. Although CSE theoretically provides universal coverage, implementation faces substantial obstacles rooted in socio-cultural resistance and institutional constraints. Adzovie and Adzovie (2022) conducted a systematic review of barriers to CSE in Ghanaian schools and identified several critical challenges. It was evident that teachers frequently lack adequate training and confidence to deliver sexuality education, often resulting in prescriptive presentations of biological facts while avoiding discussion of relationships, pleasure, consent, and gender dynamics. Furthermore, religious and conservative community groups have mounted persistent opposition to comprehensive approaches, preferring abstinence-only communication that research consistently shows to be ineffective in changing adolescent behavior.

More critically, however, the school-based model inherently excludes the most vulnerable adolescents. Afeadie and Appiah (2025) examined the experiences of out-of-school adolescents and found that this population, disproportionately drawn from poor households and rural communities, faces compounded disadvantages, lacking access to both formal education and the SRH information that school-based programs nominally provide. This exclusion carries profound implications: out-of-school youth often engage in economic activities that increase their vulnerability to sexual exploitation and transactional relationships, yet have minimal access to accurate SRH information or youth-friendly services. Therefore, by privileging school-based delivery, traditional approaches inadvertently create an inverse care law whereby those facing the

greatest sexual health risks receive the least educational support. This structural failure suggests that the problem extends beyond implementation quality to the fundamental design of traditional SRH education systems.

Even when traditional services are technically available, institutional environments frequently reproduce the very stigma they purport to address. Clinic-based SRH services represent another traditional approach, yet adolescents consistently report significant barriers to accessing formal healthcare settings for sexual and reproductive health needs. For instance, Ninsiima et al. (2021) conducted qualitative research in Uganda examining adolescents' perceptions of clinic-based SRH services and found that young people experienced healthcare facilities as unwelcoming, judgmental, and lacking in privacy. Adolescents reported feeling stigmatized by healthcare providers who expressed moral disapproval of adolescent sexual activity, refused to provide contraceptives without parental consent, or breached confidentiality by informing parents about adolescents' clinic visits.

Although this study was conducted in Uganda, similar dynamics have been documented throughout Sub-Saharan Africa, including Ghana, where cultural norms construct adolescent sexuality as transgressive and inappropriate (Krugu et al., 2016). These findings illuminate a critical paradox: formal health systems designed to support adolescent sexual health instead function as surveillance mechanisms that police and punish adolescent sexuality. Consequently, the very existence of clinic-based services does not guarantee access; rather, the social organization of these services actively deters adolescents from seeking care. This suggests that improving traditional clinic-based approaches requires not merely training providers in "youth-friendly" techniques, but fundamentally restructuring how healthcare institutions engage with adolescent sexuality.

The last approach to be considered in this discussion is the community-based outreach programs, which have attempted to circumvent the limitations of schools and clinics by bringing SRH education directly into communities through peer education sessions, community dialogues, and mobile health camps. In theory, this approach overcomes geographical barriers and embeds health promotion within existing social structures. Nevertheless, evidence suggests that community proximity may actually exacerbate rather than resolve access barriers. In Northern Ghana, Aninanya et al. (2015) assessed a community-based adolescent SRH intervention and discovered that although the intervention improved attitudes and knowledge about contraception, actual service uptake remained low. The researchers found persistent sociocultural barriers, including limited decision-making autonomy, worries about confidentiality, and fear of gossip in the community, especially among teenage girls.

These findings reveal a fundamental tension that while community-based programs increase physical accessibility, they simultaneously compromise the privacy and anonymity that adolescents require to engage with stigmatized topics. As argued above, traditional approaches struggle to overcome the surveillance embedded in close-knit communities where everyone knows everyone else's business. Therefore, bringing services closer to communities may inadvertently increase rather than decrease social barriers to access. This paradox has profound implications for SRH programming, suggesting that effectiveness depends not only on reducing distance but on creating social distance,, spaces where adolescents can access information and services without fear of community judgment or parental discovery.

Beyond their specific limitations, all traditional approaches share several common conceptual flaws that undermine their effectiveness. First and foremost, traditional SRH education typically adopts a didactic, information-transmission model premised on the assumption that increased

knowledge will automatically translate into behavior change. However, decades of health promotion research have consistently demonstrated this assumption to be overly simplistic (Fishbein & Ajzen, 2010). Adolescent sexual decision-making is shaped not merely by information deficits but by complex negotiations involving power dynamics, gender disparities, economic constraints, peer pressure, and competing immediate incentives. For example, an adolescent girl may possess comprehensive knowledge about contraception yet be unable to negotiate condom use with an older partner upon whom she depends economically. In such contexts, providing additional information addresses neither the power imbalance nor the economic vulnerability that fundamentally constrain her agency.

Moreover, traditional methods consistently fail to address the structural determinants of adolescent sexual behavior, instead locating responsibility for health outcomes within individual decision-making. This individualistic framing obscures how poverty, gender inequality, inadequate educational opportunities, and limited livelihood alternatives shape the contexts within which adolescents make sexual decisions. Consequently, traditional approaches may increase knowledge without transforming the material conditions that necessitate risky sexual behaviors.

Additionally, traditional methods struggle with scalability and sustainability. Face-to-face delivery in schools, clinics, and communities requires substantial human resources, ongoing training, and continuous funding. Furthermore, traditional methods cannot easily reach geographically dispersed rural populations or frequently marginalized groups such as out-of-school youth, street-connected adolescents, or adolescents with disabilities. The COVID-19 pandemic starkly illustrated this limitation, as school closures and clinic disruptions left adolescents without access to SRH information and services (Towne et al., 2021).

In summary, the limitations of traditional SRH education approaches in Ghana extend beyond implementation challenges to fundamental conceptual inadequacies. These approaches systematically exclude the most vulnerable populations, reproduce rather than challenge stigma surrounding adolescent sexuality, and rely on discredited assumptions about the relationship between knowledge and behavior. Therefore, improving adolescent SRH outcomes requires not merely better implementation of existing models but a fundamental reconceptualization of how SRH education is delivered, who it reaches, and how it engages with the social contexts that shape adolescent sexuality. This critical analysis establishes the foundation for considering alternative approaches, particularly digital and mobile health technologies, that may circumvent some of these structural limitations while introducing new challenges of their own.

2.4 Digital Health Communication SRH Education

The rapid proliferation of mobile technology across Sub-Saharan Africa has created unprecedented opportunities for delivering health information and services to adolescents through digital channels. However, the mere availability of technology does not automatically translate into effective health interventions, as the relationship between technological access and health outcomes is mediated by complex social, economic, and cultural factors. In Ghana specifically, where nearly universal mobile phone ownership among young people provides the technological infrastructure for digital health interventions, the critical question is not whether adolescents have access to devices but rather how, and under what conditions, digital platforms can meaningfully address the deeply entrenched barriers to adolescent sexual and reproductive health that traditional approaches have failed to overcome.

Alhassan et al. (2019) documented that mobile phone usage among Ghanaian adolescents extends to both urban and rural regions, theoretically facilitating digital health interventions to achieve the

extensive geographic reach that conventional face-to-face programs cannot replicate. Nevertheless, this optimistic assessment risks technological determinism, the flawed assumption that technology alone can resolve social problems. While mobile phones are indeed ubiquitous, their potential for health education depends fundamentally on factors including internet connectivity, data affordability, digital literacy, and adolescents' actual patterns of technology use within their particular social contexts. Therefore, the geographic reach that technology promises may be more theoretical than practical for many vulnerable adolescent populations.

Both experimental and quasi-experimental research suggests that digital SRH interventions can produce measurable improvements in adolescent health knowledge and behaviors under certain conditions. For instance, Rokicki and Fink (2017) conducted an extensive evaluation of text messaging initiatives in Ghana that delivered reproductive health information to young girls over a six-month period. Their findings revealed significant improvements in participants' reproductive health knowledge, increased confidence in discussing SRH topics, and a reduction in pregnancy rates compared to control groups. Significantly, the program extended to teenagers in isolated rural regions where availability of adolescent-appropriate healthcare services was limited, illustrating the capacity of technology-based systems to tackle geographic disparities in health education access.

However, these promising findings warrant critical scrutiny rather than uncritical celebration. Firstly, the study's effectiveness may be partly attributable to the novelty effect, participants' initial enthusiasm for a new technology-based approach that may not be sustained over time. Also, the confidential, judgment-free delivery approach that the study authors credited for the program's success raises important questions: if adolescents primarily value digital platforms for their anonymity and privacy, does this not reveal the profound failure of families, schools, and

communities to create safe spaces for open discussion about sexuality? Rather than merely celebrating digital solutions, we must ask whether technology is being used to circumvent rather than address the stigma and social barriers that fundamentally constrain adolescent sexual health.

Moreover, the translation of knowledge gains into actual behavior change, such as reduced pregnancy rates, demands closer examination. While Rokicki and Fink (2017) documented reduced pregnancy rates, the causal pathways remain inadequately understood. Did improved knowledge directly change sexual behavior, or were participants who engaged with the program already more motivated toward protective behaviors? This distinction matters because it determines whether digital interventions can reach the most vulnerable adolescents or primarily benefit those already predisposed to seek health information.

Interactive and gamified digital approaches have also attracted considerable attention and investment based on claims that they enhance adolescent engagement with SRH content. Haruna et al. (2018) conducted a systematic review of mobile learning interventions for adolescent sexual health education and found that interactive features such as quizzes, games, and personalized feedback significantly enhanced engagement compared to static information delivery. Building on this, Haruna et al. (2019) implemented a comparative study examining gamified digital platforms for SRH education in Tanzania and documented that adolescents who used game-based learning applications demonstrated higher motivation, longer engagement duration, and better knowledge retention than those who received traditional classroom-based instruction.

On the surface, these findings appear to validate gamification as a powerful pedagogical approach. The game-based approach ostensibly transformed SRH learning from a potentially embarrassing or uncomfortable experience into an engaging activity that adolescents voluntarily pursued. Nevertheless, this narrative of transformation obscures troubling questions about what

gamification actually accomplishes. Does turning sexual health education into a game trivialize serious health topics and reduce complex relational and ethical dimensions of sexuality to points and levels? Furthermore, the emphasis on individual engagement metrics, motivation, duration, knowledge retention, reflects the individualistic bias discussed earlier, measuring success through decontextualized psychological outcomes rather than examining whether gamified interventions address the structural, relational, and cultural contexts that actually determine adolescent sexual health outcomes.

More critically, the celebration of higher engagement duration may reveal technology's capacity to capture adolescent attention without necessarily producing meaningful learning or behavior change. Adolescents' willingness to spend time playing health-education games does not automatically translate into their capacity or willingness to negotiate safer sex with partners, resist social pressures, or navigate complex relationship dynamics. Therefore, while gamification may solve the problem of adolescent disinterest in didactic health education, it may simultaneously create new problems by reinforcing individualistic, decontextualized approaches to sexual health that ignore the social worlds adolescents actually inhabit.

Across Sub-Saharan Africa, systematic reviews have documented a growing evidence base for digital health interventions targeting adolescent SRH, yet this literature reveals as much about the limitations of current approaches as about their potential. Edeghere et al. (2022) conducted a scoping review of digital innovations for adolescent SRH across the region and identified multiple intervention modalities including mobile applications, interactive voice response systems, social media campaigns, and web-based learning platforms. The review found consistent evidence that digital interventions improved SRH knowledge and in some cases increased protective behaviors such as condom use and healthcare-seeking. However, the reviewers also noted significant

heterogeneity in intervention quality and implementation, with many programs suffering from poor user interface design, culturally inappropriate content, and insufficient attention to adolescents' actual information needs and preferences. This finding exposes a fundamental contradiction in digital health interventions: while proponents celebrate technology's potential to overcome traditional barriers including limited teacher capacity, cultural taboos, and geographical distances, the actual implementation of digital platforms frequently reproduces these same limitations in technological form. Poor interface design reflects limited investment in understanding adolescents' actual technology practices; culturally inappropriate content demonstrates developers' failure to engage meaningfully with local contexts; and insufficient attention to adolescents' preferences reveals the persistence of top-down, adult-centered approaches despite digital platforms' supposed user-centeredness.

Similarly, Nigerian research provides additional insights into digital SRH interventions' potential in West African contexts culturally similar to Ghana, while simultaneously revealing persistent challenges. Ogunfowora et al. (2024) evaluated a mobile-based comprehensive sexuality education program delivered to Nigerian adolescents through smartphone applications and found significant improvements in both knowledge and attitudes toward SRH topics including contraception, STI prevention, and consent. Participants reported that the digital format allowed them to learn at their own pace, revisit content as needed, and access information privately without adult supervision or peer observation.

Yet these reported advantages simultaneously reveal troubling assumptions about adolescent learning and development. The emphasis on self-paced, private learning, while addressing adolescents' legitimate privacy concerns, may inadvertently isolate young people from the very

social supports and guidance they need to navigate sexuality responsibly. Moreover, the celebration of learning without adult supervision reflects a fundamental misunderstanding of adolescent development: young people do not need simply more information delivered in isolation but rather supportive relationships with trustworthy adults who can help them interpret information, navigate complex situations, and develop critical thinking about sexuality and relationships.

Despite the promising findings highlighted above, digital health interventions face substantial challenges that fundamentally constrain their reach and effectiveness, challenges that enthusiastic proponents too often minimize or ignore. Agbenyo and Nzengya (2023) conducted qualitative research in Tamale, Northern Ghana, and exploring adolescents' use of mobile phones to access reproductive health information. While participants valued the privacy digital platforms afforded, multiple barriers emerged including poor internet connectivity, high data costs that made sustained engagement prohibitive, limited digital literacy particularly among rural and out-of-school youth, and persistent concerns about data privacy and parental monitoring of phone use.

Crucially, these barriers are not merely technical problems awaiting technical solutions but rather reflect deeper structural inequalities that digital interventions cannot address and may actually exacerbate. Adolescent girls in particular expressed fears that parents or siblings might discover their search histories or app usage, leading to punishment or restrictions on phone access. This finding throws more light on how digital interventions intersect with, and are constrained by, existing power dynamics within families and communities. Rather than liberating adolescents from surveillance and control, digital platforms may simply relocate these dynamics into technological spaces where parental monitoring and sibling surveillance take new forms.

Furthermore, the economic barriers to digital health access deserve critical attention. High data costs do not merely inconvenience adolescents but systematically exclude the most economically vulnerable young people from accessing digital health information. Consequently, digital interventions risk creating new forms of health inequality whereby adolescents with economic resources can access high-quality, private health information while their poorer peers remain dependent on stigmatizing, inaccessible traditional services. This paradox suggests that digital health interventions, despite rhetoric about democratizing access, may actually reinforce rather than challenge existing patterns of health inequality.

The sustainability of digital health interventions represents another critical challenge that fundamentally questions the viability of technology-centered approaches. Alhassan et al. (2025) examined young people's perceptions of mobile health platforms for reproductive healthcare in Tamale and found that while initial adoption rates were high, many adolescents discontinued use after several weeks due to repetitive content, lack of personalization, technical glitches, and insufficient attention to their evolving questions and concerns.

This pattern of initial enthusiasm followed by abandonment should provoke serious reflection about what digital health interventions actually accomplish. The researchers argued that digital SRH platforms often adopt a one-directional broadcast model rather than creating genuinely interactive spaces where adolescents can ask questions, receive personalized guidance, and engage in dialogue. However, this critique may be too generous because the problem extends beyond implementation failures to fundamental conceptual limitations. Digital platforms, regardless of their level of interactivity, cannot replicate the responsive, contextual, emotionally attuned guidance that adolescents receive or should receive from trusted adults who know them, understand their circumstances, and can provide tailored support over time.

The quality and cultural appropriateness of digital SRH content requires critical attention, yet current interventions frequently fail on precisely these dimensions. Daher et al. (2017) conducted a systematic review of digital innovations for HIV and STI prevention and noted that many interventions employed content developed in Western contexts without adequate adaptation to local cultural norms, values, and communication styles. Content that adolescents perceive as culturally foreign, morally preachy, or disconnected from their lived realities is unlikely to be credible or influential regardless of its technical quality.

This insight exposes a profound irony in digital health interventions due to the fact that technology that supposedly enables global knowledge sharing and cross-cultural communication actually requires deeply localized, culturally specific content to be effective. Moreover, the challenge extends beyond superficial cultural adaptation (translating content into local languages or using culturally appropriate images) to fundamental questions about whose knowledge, values, and understandings of sexuality inform digital platforms. Western-developed content typically embodies individualistic assumptions about autonomy, rational decision-making, and sexual relationships that may not resonate with, or may actively contradict adolescents' lived experiences in collectivist African contexts where family honor, community reputation, and intergenerational obligations profoundly shape sexual behavior.

Therefore, effective digital SRH education requires not merely technological infrastructure but deep, sustained engagement with local contexts, involving adolescents themselves in content development and ensuring that information is presented in culturally resonant ways. Yet this imperative for localization and participation fundamentally challenges the scalability and cost-effectiveness that proponents celebrate as digital health's primary advantages. Truly youth-centered, culturally appropriate digital interventions demand substantial resources for community

engagement, participatory design, and ongoing content adaptation, investments that undermine the efficiency rationale typically used to justify digital approaches over traditional face-to-face programming.

In summary, digital health communication platforms for adolescent SRH education present a complex and contradictory picture. On one hand, substantial evidence demonstrates that well-designed, adequately resourced digital interventions can improve adolescents' knowledge, attitudes, and in some cases, behaviors related to sexual and reproductive health. On the other hand, the challenges facing digital interventions, including digital divides, sustainability concerns, cultural appropriateness, and the limitations of individualistic approaches, suggest that technology alone cannot address the deeply structural, relational, and cultural determinants of adolescent sexual health. Perhaps most importantly, the enthusiasm for digital solutions may itself be symptomatic of deeper failures in how societies address adolescent sexuality. If adolescents primarily value digital platforms for the privacy and anonymity they provide, this reveals the profound absence of safe, supportive spaces for sexuality education in families, schools, and communities. Rather than simply celebrating technological workarounds for these social failures, we must ask whether investing in digital platforms diverts attention and resources from the more difficult but ultimately more important work of transforming the social contexts that make adolescent sexuality so fraught with stigma, shame, and silence in the first place.

Therefore, while digital health interventions merit continued development and evaluation, they must be understood as complements to comprehensive efforts to address the structural, cultural, and relational contexts that determine adolescent sexual and reproductive health outcomes. The question is not whether to use digital technology but rather how to ensure that technological innovation serves rather than obscures the fundamental work of creating enabling environments

where all adolescents can access accurate information, supportive services, and the social support they need to navigate sexuality safely and responsibly.

2.5 Theoretical Frameworks

The question of why adolescents adopt, engage with, or reject digital sexual and reproductive health (SRH) education demands rigorous theoretical scrutiny. While multiple frameworks from health psychology, communication studies, and technology adoption research offer valuable analytical lenses, their application to adolescent digital health interventions reveals significant limitations that must be critically examined. Indeed, the uncritical adoption of these frameworks risks perpetuating interventions that are theoretically sound yet practically ineffective.

The Health Belief Model (HBM), despite its widespread application in health behavior research, presents a fundamentally flawed premise when applied to adolescent digital SRH education. Proponents argue that the model's focus on perceived susceptibility, severity, benefits, and barriers provides a comprehensive framework for understanding health behavior (Janz & Becker, 1984). However, this rational choice approach fails to account for the deeply emotional, relational, and socially embedded nature of adolescent sexuality. More critically, the HBM's individualistic assumptions ignore the profound structural constraints, including poverty, gender inequality, and limited autonomy—that fundamentally shape adolescent health decisions. Consequently, digital interventions designed solely around HBM principles risk victim-blaming adolescents for "poor choices" while failing to address the systemic barriers that actually determine health outcomes.

In contrast, the Theory of Planned Behavior (TPB) offers a more sophisticated understanding by incorporating social normative influences and perceived behavioral control (Ajzen, 1991). Nevertheless, even this expanded framework proves inadequate when confronted with the complex

realities of adolescent sexuality in resource-constrained settings. While TPB acknowledges that peer approval and self-efficacy influence behavior, it fundamentally misunderstands the nature of adolescent decision-making by treating social norms as external influences rather than recognizing how young people actively negotiate and reconstruct these norms through their everyday interactions. Furthermore, the theory's emphasis on "planned" behavior contradicts substantial evidence that adolescent sexual behavior often occurs in contexts of limited planning, emotional intensity, and structural coercion.

The Diffusion of Innovations theory, though valuable for understanding technology adoption patterns, reveals even more troubling assumptions when applied uncritically to adolescent health interventions. Rogers' (2003) framework suggests that innovations spread through rational evaluation and peer influence, positioning early adopters as opinion leaders who facilitate broader uptake. However, this perspective seriously oversimplifies the power dynamics within adolescent social networks and ignores how health information seeking can be stigmatized rather than celebrated. More problematically, the theory's emphasis on "innovation" implicitly valorizes technological solutions while potentially undermining traditional knowledge systems and community-based support structures that may be more culturally appropriate and sustainable.

The Unified Theory of Acceptance and Use of Technology (UTAUT) represent perhaps the most technologically deterministic approach, focusing primarily on performance expectancy, effort expectancy, and facilitating conditions (Venkatesh et al., 2003). While Soehnchen et al. (2023) found that perceived usefulness and ease of use predicted technology adoption among West African youth, their findings simultaneously revealed the profound limitations of technology-centered frameworks. Significantly, social influence emerged as the most powerful predictor, suggesting that technology acceptance cannot be understood apart from broader social and cultural

contexts. This finding fundamentally challenges UTAUT's individualistic assumptions and demonstrates the need for frameworks that prioritize social relationships over technological features.

These limitations become even more apparent when contrasted with emerging socio-ecological approaches that recognize multiple levels of influence on adolescent health. Svanemyr et al. (2015) persuasively argue that effective adolescent SRH interventions must address individual, interpersonal, community, and policy-level factors simultaneously. This framework exposes the profound inadequacy of individual-focused theories and demonstrates why digital platforms alone cannot address the structural determinants of adolescent health. More importantly, it challenges the entire premise of technology-centered interventions by showing that digital tools can only be effective within broader enabling environments that include supportive policies, accessible services, and cultural contexts that normalize rather than stigmatize adolescent health information seeking.

The most devastating critique of mainstream theoretical frameworks comes from scholars like Marston and King (2006), who demonstrate how conventional models systematically ignore the political-economic contexts that fundamentally structure adolescent sexuality in Sub-Saharan Africa. Their analysis reveals that existing frameworks not only fail to account for gender inequalities, economic insecurity, and intergenerational power dynamics but actually obscure these structural determinants by focusing attention on individual attitudes and behaviors. This critique suggests that digital SRH education, regardless of its theoretical foundation, cannot address the root causes of poor adolescent health outcomes without accompanying structural interventions that address poverty, inequality, and limited economic opportunities.

2.6 Review of Related Studies

Traditional adolescent health research has been fundamentally compromised by its reliance on quantitative methods that reduce complex human experiences to measurable variables. While such approaches generate epidemiological data valued by policymakers and funders, they systematically exclude the subjective meanings, contextual realities, and lived experiences that actually determine how adolescents engage with health information and services. This methodological bias has produced a vast literature that is statistically sophisticated yet practically irrelevant to the populations it claims to serve.

Consequently, a growing body of scholarship advocates for youth-centered, participatory approaches that recognize adolescents as experts on their own lives rather than passive subjects of research (Flicker et al., 2008). This methodological shift represents more than a technical adjustment; it constitutes a fundamental epistemological challenge to traditional research hierarchies that position adult researchers as objective observers of adolescent behavior. However, even this progressive turn toward participatory methods risks co-optation if it fails to address the structural inequalities that shape adolescent experiences in the first place.

Phenomenological research approaches offer a particularly powerful alternative by prioritizing the lived, embodied experiences of individuals as they navigate health-related phenomena. Van Manen (2016) compellingly argues that phenomenological inquiry seeks to grasp the essential meanings and textures of human experience as it is actually lived rather than as it is theoretically conceptualized. Applied to adolescent SRH research, this approach reveals the profound inadequacy of interventions designed without understanding how young people subjectively experience sexuality education, the emotions accompanying health information encounters, and the practical realities that enable or constrain their ability to act on health knowledge.

The value of lived experience approaches becomes particularly evident when examining research that has successfully employed these methods. Shoveller et al. (2004) demonstrated that adolescent sexuality must be understood not as an individual psychological phenomenon but as profoundly social, shaped by cultural narratives, peer relationships, and family dynamics. Their qualitative research revealed that young people construct meanings about sexuality, risk, and responsibility through ongoing interactions rather than through abstract health messages. This finding fundamentally undermines intervention approaches that treat adolescents as individual consumers of health information and instead demands attention to the relational contexts in which sexuality is embedded.

Furthermore, research focusing on adolescents' experiences with health services has consistently exposed the gap between technical service availability and subjective experiences of accessibility and quality. Ivanova et al. (2019) found that even when services were geographically accessible, young people's utilization was mediated by experiences of stigma, fear of judgment, and culturally inappropriate service delivery. These experiential barriers often proved more decisive than structural factors in determining service access. This finding exposes the fundamental flaw in intervention approaches that focus on service provision without addressing the quality of adolescent-provider interactions and the cultural appropriateness of service delivery.

The research by Bantebya-Kyomuhendo et al. (2014) provides even more compelling evidence for the importance of understanding lived experiences. Their study of Ugandan adolescent girls revealed that health decisions were embedded in complex webs of social expectations, economic constraints, and gendered power relations. Girls described making sexuality and contraception decisions not based on health knowledge but through navigating competing pressures from partners, family, peers, and community norms. This research demonstrates that interventions

designed without understanding these lived realities are not merely ineffective but potentially counterproductive if they fail to acknowledge the actual conditions under which adolescents make health decisions.

In digital health contexts, the importance of lived experiences becomes even more critical given the rapid pace of technological change and the diversity of adolescent digital practices. Gonsalves and Hindin (2017) found that Kenyan adolescents' trust in digital platforms, perceptions of privacy, and assessments of cultural appropriateness varied widely based on their previous experiences and social networks. Similarly, Daher et al. (2017) documented how Syrian refugee adolescents' experiences with digital health information were profoundly shaped by trauma histories, displacement contexts, and changing family structures. These studies demonstrate that technological interventions cannot be understood apart from users' lived realities and social positions.

Most significantly, participatory research approaches that involve adolescents as co-researchers have produced insights that fundamentally challenge conventional intervention approaches. Flicker et al. (2008) found that when Canadian youth were empowered to define research questions and analyze findings, they identified barriers and facilitators that adult researchers had not anticipated. Youth participants brought insider knowledge about peer cultures, communication styles, and trust dynamics that enabled more nuanced understanding of health-seeking behavior. Crucially, the researchers argued that participatory approaches constitute interventions in themselves by building adolescents' critical consciousness and agency.

This body of research leads to an inescapable conclusion: adolescents actively construct meanings about sexuality, risk, and health through everyday interactions rather than passively receiving information from authority figures (Dowsett & Aggleton, 1999). This perspective positions

adolescents as knowledgeable social actors who possess crucial insights about their information needs, trusted communication channels, and the contextual factors that enable or prevent them from acting on health knowledge. Research that fails to engage seriously with adolescents' perspectives and experiences inevitably produces interventions that may be technically sophisticated but remain practically irrelevant to their intended beneficiaries.

Therefore, the imperative for youth-centered approaches extends beyond methodological preference to represent a fundamental requirement for effective adolescent health intervention. Any digital SRH education initiative that fails to prioritize adolescent voices, lived experiences, and participatory engagement is destined to reproduce the failures of previous top-down interventions that have consistently failed to improve adolescent health outcomes despite substantial investments and good intentions.

2.7 Critical Gaps in Existing Literature

Despite the growing body of research on digital health interventions for adolescent SRH, significant gaps remain in understanding how young people in diverse African contexts actually experience these platforms. Most existing studies have employed quantitative methods to measure knowledge gains, attitude changes, or behavioral outcomes following digital interventions, but relatively few have explored the qualitative dimensions of how adolescents subjectively experience, interpret, and make meaning of digital SRH education within their specific social and cultural contexts.

In the Ghanaian context specifically, while quantitative studies have documented gaps in adolescent SRH knowledge and service uptake, limited qualitative research has examined how Ghanaian adolescents experience digital platforms, what factors shape their trust and sustained

engagement, how gender dynamics influence platform usage, or how digital SRH education intersects with family relationships, peer networks, and community norms. Afeadie and Appiah (2025) highlighted structural barriers facing out-of-school adolescents, but research has not adequately explored how diverse groups of Ghanaian adolescents, including rural youth, urban poor, in-school and out-of-school populations, and adolescents across gender identities, differentially experience and engage with digital SRH platforms.

Furthermore, existing research has largely focused on whether digital interventions "work" in terms of producing measurable outcomes, but has paid insufficient attention to understanding the processes through which adolescents encounter, evaluate, adopt, use, and potentially abandon digital platforms. Little is known about what makes digital SRH content credible and trustworthy to adolescents, how concerns about data privacy and parental surveillance shape platform usage, what types of interactivity adolescents find valuable, or how cultural appropriateness influences adolescents' willingness to engage with content. These process questions are critical because understanding mechanisms of engagement can guide the design of more effective and sustainable interventions.

The relationship between digital SRH education and adolescents' actual health-seeking behaviors, decision-making processes, and confidence in navigating sexual and reproductive health matters remains inadequately understood. While some studies demonstrate that digital interventions improve knowledge and attitudes, the pathways through which digital engagement translates (or fails to translate) into protective health behaviors, effective healthcare navigation, and empowered decision-making require deeper investigation. Understanding these pathways demands attention to the complex social contexts, power dynamics, and material constraints within which adolescent health behaviors occur.

Finally, research has not adequately assessed how adolescents themselves define what constitutes effective, relevant, and empowering SRH education. Too often, interventions are designed based on what health professionals or adult educators believe adolescents need rather than on young people's own articulated priorities and preferences. Youth-centered approaches that meaningfully involve adolescents in defining research questions, interpreting findings, and shaping recommendations remain rare in Ghanaian SRH research, representing a significant missed opportunity to generate insights that are both rigorous and genuinely responsive to adolescents' lived realities.

2.8 Socio-Cultural Context of Adolescent Sexuality in Ghana

Understanding adolescents' experiences with digital sexual and reproductive health education requires examining the broader socio-cultural landscape within which Ghanaian young people navigate sexuality. This landscape is characterized by multiple, often contradictory forces: traditional cultural norms that construct adolescent sexuality as transgressive, religious teachings that promote abstinence and condemn premarital sex, gendered expectations that create double standards, and economic realities that shape sexual relationships and decision-making power. Digital health interventions do not enter a neutral space but rather intersect with these deeply entrenched socio-cultural dynamics that fundamentally shape whether, how, and under what conditions adolescents seek, receive, and act upon sexual health information.

2.8.1 Cultural Taboos and Intergenerational Silence

Within most Ghanaian ethnic communities, open discussion of sexual matters between adults and young people is culturally discouraged or explicitly taboo. Traditional norms construct sexuality as a private adult domain, inappropriate for children or adolescents to discuss or even know about

until marriage (Awusabo-Asare et al., 2006). Parents, teachers, and other adult authority figures frequently avoid sexuality education, operating on assumptions that providing such information will encourage sexual experimentation, a belief contradicted by substantial research evidence but nonetheless culturally persistent (Biddlecom et al., 2009).

This intergenerational silence creates an information vacuum that adolescents fill through peer networks, media, and increasingly, digital platforms, sources that may provide inaccurate, incomplete, or misleading information (Adzovie & Adzovie, 2022). When adults do address sexuality with adolescents, communication is typically limited to warnings, threats, or moral prescriptions rather than comprehensive, factual information that could support informed decision-making.

Religious institutions, which wield substantial influence in Ghana's predominantly Christian and Muslim society, reinforce this silence by promoting abstinence-only messages and condemning premarital sexual activity as sinful (Marston & King, 2006). Church and mosque-based youth programs typically emphasize moral purity and sexual restraint without providing practical information about contraception, STI prevention, or what constitutes healthy relationships. Consequently, religious adolescents who do become sexually active often experience profound guilt and shame, deterring them from seeking health services or information that might implicitly acknowledge their sexual activity (Izugbara, 2008).

These cultural taboos extend to formal educational settings, where comprehensive sexuality education faces persistent resistance. Although Ghana's education curriculum nominally includes population and family life education, implementation remains sporadic and heavily censored. Teachers report discomfort discussing sexuality, fear of community backlash, and lack of training and materials (Biddlecom et al., 2009). When sexuality topics are addressed, instruction typically

focuses on biological reproduction and disease transmission, avoiding discussion of pleasure, consent, gender dynamics, or practical decision-making skills (Adzovie & Adzovie, 2022).

The cumulative effect of these taboos is that adolescents learn that sexuality is shameful, dangerous, and not to be discussed with trustworthy adults. This social construction profoundly shapes how young people approach digital health platforms: they may value these platforms primarily for anonymity that circumvents stigmatizing face-to-face interactions, yet simultaneously internalize shame that prevents them from fully engaging with educational content or acting on information received.

2.8.2 Gendered Sexual Norms and Double Standards

Ghanaian society, like most patriarchal societies, maintains distinct and unequal expectations regarding male and female adolescent sexuality. These gendered norms fundamentally shape young people's sexual experiences, information-seeking behaviors, and capacity for autonomous decision-making. For adolescent girls, cultural norms emphasize virginity preservation, sexual innocence, and reputation protection. Girls who are perceived as sexually active face severe social stigma, being labeled as "loose," "spoiled," or "wayward," with potentially lasting damage to their marriage prospects and social standing (Chandra-Mouli et al., 2013). This stigma is disproportionate compared to consequences boys face for similar behavior, creating a gendered double standard where male sexual activity is normalized or even celebrated while female sexual activity is condemned.

These norms create profound barriers to adolescent girls accessing sexual and reproductive health information and services. Seeking contraception, for instance, risks social interpretation as evidence of sexual activity, inviting judgment and stigma. Consequently, many sexually active

girls avoid seeking contraceptive services despite knowledge of pregnancy risks, prioritizing reputation protection over health protection (Hindin & Fatusi, 2009). When girls do become pregnant, they face severe consequences including school expulsion, family rejection, and community shame, while the boys responsible typically face minimal social consequences (Kumi-Kyereme et al., 2007).

For adolescent boys, sexual norms operate differently, constructing male sexuality as inherently strong, uncontrollable, and requiring outlet. Boys face peer pressure to demonstrate sexual prowess, with virginity perceived as shameful rather than virtuous. Research in Ghana indicates that boys often experience initiation into sexual activity as a rite of passage affirming masculinity, with peers ridiculing those who remain virgins (Biddlecom et al., 2009). These norms encourage boys toward early sexual debut, multiple partners, and sexual risk-taking as demonstrations of manhood.

However, these masculine norms also constrain boys in important ways. Boys who wish to delay sexual activity or who seek information about contraception or STI prevention risk being perceived as weak, effeminate, or not "real men" (Kyilleh et al., 2018). Furthermore, masculine norms often discourage boys from acknowledging vulnerability or seeking help, positioning health information-seeking as feminine rather than masculine behavior. Consequently, while boys may face less stigma for sexual activity itself, they encounter different barriers to accessing quality sexual health information and services.

These gendered dynamics extend to relationship power and sexual decision-making. Within Ghanaian adolescent relationships, traditional gender norms position males as decision-makers and females as compliant, creating power imbalances that undermine girls' capacity for autonomous sexual decision-making, including negotiating condom use or refusing unwanted

sexual activity (Kumi-Kyereme et al., 2007). Research consistently documents that adolescent girls in Ghana have limited negotiating power regarding whether, when, and under what conditions sex occurs, particularly in relationships with older partners who control economic resources (Awusabo-Asare et al., 2006).

These gendered norms have direct implications for digital SRH education. Platforms designed without attention to gender dynamics risk failing to address the actual constraints shaping adolescent sexual behavior. For instance, providing girls with information about condom negotiation is insufficient if they lack actual power to insist on condom use within relationships characterized by male dominance. Similarly, providing boys with biological information about contraception may be ineffective if masculine norms position contraception as female responsibility and condom use as evidence of distrust or reduced pleasure.

2.8.3 Economic Barriers and Transactional Sexual Relationships

Sexual and reproductive health decision-making among Ghanaian adolescents cannot be understood apart from economic realities that fundamentally shape sexual relationships and limit autonomous choice. Poverty and economic insecurity drive patterns of transactional sex, intergenerational relationships, and survival-motivated sexual partnerships that override health considerations.

Research documents that many adolescent girls in Ghana, particularly those from economically disadvantaged backgrounds, engage in sexual relationships at least partially motivated by material need (Biddlecom et al., 2009). These transactional sexual relationships, where sex is exchanged for money, gifts, school fees, or other material support, blur boundaries between survival strategy and sex work. Girls may enter relationships with older, economically established men (colloquially

termed “sugar daddies”) who can provide financial support, school expenses, or desired consumer goods that their families cannot afford (Kumi-Kyereme et al., 2007).

Within such relationships, power differentials favor the economically dominant partner, severely constraining the dependent partner’s ability to negotiate safer sex practices. Research consistently demonstrates that adolescent girls in economically motivated relationships have limited capacity to insist on condom use when partners refuse, even when aware of HIV/STI risks (Awusabo-Asare et al., 2006). The economic dependence creates situations where girls must prioritize maintaining the relationship and its material benefits over health protection, with pregnancy prevention and STI prevention becoming secondary concerns.

Beyond overtly transactional relationships, economic factors shape sexual decision-making in subtle ways. The cost of contraceptives, while seemingly modest, represents substantial expense for economically marginalized adolescents. Emergency contraception (Postinor-2) costs approximately GH₵15-25 ($1.20-$2.00 USD), combined oral contraceptive pills cost GH₵5-15 per month, and male condoms cost GH₵1-3 per pack (Ghana Health Service, 2023). For context, adolescents engaged in informal work typically earn GH₵10-20 per day, and many adolescents, particularly those in school, have minimal or no independent income (Ghana Statistical Service, 2021).

Even when contraceptives are theoretically available at no cost through public health facilities, accessing them incurs indirect costs including transportation to clinics (GH₵4-8 round trip in urban areas), time away from income-generating activities or school, and for out-of-school youth, potential loss of daily earnings. These economic barriers are gendered, as adolescent girls typically have less independent income than boys yet bear primary responsibility for pregnancy prevention (Hindin & Fatusi, 2009).

Economic factors also shape whether adolescents can access digital health platforms. While mobile phones are relatively widespread, maintaining connectivity requires ongoing expenditure for airtime and mobile data. As noted earlier, 1GB of mobile data costs GH₵10-15, representing significant expense for adolescents. Consequently, economically disadvantaged adolescents may own phones but lack consistent data access, creating intermittent rather than sustained engagement with internet-based health platforms. This economic digital divide means that digital interventions may inadvertently privilege adolescents from relatively advantaged backgrounds while failing to reach those facing the greatest sexual health risks.

Furthermore, economic pressures shape broader life trajectories that intersect with sexual health. Girls facing economic hardship often view early marriage and childbearing as economic strategies, trading reproductive autonomy for material security through marriage to employed men (Chandra-Mouli et al., 2013). While such calculations may be economically rational given limited alternatives, they result in early pregnancy and school-leaving, perpetuating cycles of poverty and limited opportunity.

These economic realities reveal the limitations of information-focused interventions, including digital health education. While accurate SRH information is necessary, it is insufficient when economic constraints fundamentally limit adolescents' capacity to act on that information. An adolescent girl who understands contraceptive methods but depends on an older partner for school fees cannot exercise autonomous contraceptive decision-making without risking her educational future. Digital platforms that provide information without addressing these structural economic constraints risk being technically sophisticated yet practically irrelevant.

2.8.4 Institutional and Provider Barriers

Beyond cultural norms and economic factors, adolescent access to sexual and reproductive health information and services in Ghana is constrained by institutional policies and provider attitudes that systematically discourage young people from seeking care. Healthcare facilities and pharmacies, which should serve as trusted sources of SRH information and services, frequently function instead as sites of judgment and gatekeeping. Research documents that many Ghanaian healthcare providers and pharmacy staff hold moralistic attitudes toward adolescent sexuality, viewing sexually active young people as deviant or immoral (Biddlecom et al., 2009).

These attitudes manifest in practices that deter adolescent health-seeking behavior. Providers often engage in judgmental questioning, interrogating adolescents about their marital status, lecturing them about morality, or expressing disapproval of their sexual activity rather than providing non-judgmental care. Additionally, pharmacists and clinic staff frequently refuse to provide contraceptives to visibly young customers, citing concerns about "encouraging" sexual activity or requiring parental consent even when not legally mandated. Confidentiality breaches represent another significant barrier, with providers threatening to inform parents or actually disclosing adolescents' clinic visits to family members, fundamentally violating medical confidentiality and betraying young people's trust. Furthermore, youth-unfriendly service delivery, including operating hours that overlap with school times, requirements for multiple visits, long waiting times, and clinic locations lacking privacy where adolescents may be observed by community members—creates additional obstacles to accessing care.

These institutional barriers affect adolescent girls particularly severely due to cultural assumptions that construct girls' sexuality as more problematic than boys'. Girls seeking contraceptives face harsher judgment and more invasive questioning than boys seeking condoms, reflecting gendered

double standards embedded in healthcare delivery. This gendered approach to healthcare undermines girls' autonomy and reinforces harmful social norms regarding female sexuality while simultaneously failing to provide them with the equitable, supportive care they require.Schools, which theoretically should provide comprehensive sexuality education, instead often punish rather than support sexually active adolescents. Pregnant girls face mandatory school expulsion in many Ghanaian schools, despite policy reforms intended to enable continuation of education (Ghana Education Service, 2022). Teachers who discover students in romantic relationships or accessing sexual health information on their phones often respond punitively, confiscating phones, informing parents, or administering disciplinary measures (Biddlecom et al., 2009). These institutional responses reinforce adolescents' understanding that seeking sexual health information or support is risky behavior inviting punishment rather than a responsible health practice deserving support.

Parental responses when discovering adolescent sexual activity or health information-seeking are similarly often punitive. While individual family responses vary, common patterns include physical punishment, severe restrictions on movement and social interaction, phone confiscation, forced withdrawal from school (particularly for girls), and ostracism or verbal abuse (Kyilleh et al., 2018). These responses reflect parents' genuine fear about consequences of adolescent pregnancy or HIV infection but nonetheless create environments where adolescents hide rather than disclose their sexual health concerns and needs.

2.8.5 Implications for Digital SRH Education

This socio-cultural landscape fundamentally shapes how Ghanaian adolescents encounter, interpret, and respond to digital sexual and reproductive health education. Digital platforms do not circumvent these socio-cultural realities but rather intersect with them in complex ways. In line with viewing privacy as a primary value, the cultural taboos and stigma surrounding adolescent

sexuality make privacy and anonymity the most valued features of digital platforms. Adolescents prize digital channels precisely because they circumvent face-to-face interactions that risk judgment, stigma, or disclosure to authority figures. However, this privacy premium creates its own challenges, as adolescents may clear browsing histories or avoid sustained engagement with platforms due to fear of parental monitoring of phone use.

Additionally, gendered norms and differential parental surveillance create distinct patterns of male and female engagement with digital health platforms. Girls may face greater barriers to sustained platform use due to parental monitoring and phone access restrictions, while boys' usage may be shaped by masculine norms that discourage health information-seeking or position contraception as female responsibility. Moreso, economic access mediates effectiveness in the sense that digital platforms cannot reach adolescents who lack phones, data, or consistent internet access due to economic constraints. Consequently, digital interventions risk reinforcing health inequalities by serving economically advantaged adolescents while failing to reach their more vulnerable, economically marginalized peers.

In furtherance, it is a fact that providing accurate health information through digital platforms addresses knowledge gaps but does not empower adolescents to act on that information when constrained by relationship power imbalances, economic dependence, provider discrimination, or institutional punishment. Effective digital interventions must extend beyond information provision to actively address these contextual constraints. Lastly, cultural appropriateness determines credibility, coming with the understanding that digital content that embodies Western assumptions about sexuality, relationships, and autonomy without attention to Ghanaian cultural contexts risks being rejected as foreign, irrelevant, or offensive. Cultural appropriateness requires not superficial

localization (translating language or using local images) but deep engagement with local values, communication norms, and actual relationship dynamics.

Understanding these socio-cultural dimensions is essential for interpreting adolescents' experiences with digital SRH education. Their engagement with platforms, trust in information, and capacity to act on knowledge must be understood within these constraining yet also potentially transformable socio-cultural contexts.

2.9 Conclusion

Available literature reveals substantial evidence that adolescent sexual and reproductive health in Ghana remains characterized by significant unmet needs, persistent inequalities, and inadequate access to comprehensive, youth-friendly information and services. Traditional approaches to SRH education face multiple constraints including cultural taboos, limited reach, stigma, and insufficient attention to the complex social contexts shaping adolescent sexuality. Digital health communication platforms offer promising alternatives that can potentially overcome geographical barriers, provide confidential access to information, and deliver interactive, engaging content at scale.

Research from Ghana and across Sub-Saharan Africa demonstrates that digital SRH interventions can improve knowledge, shift attitudes, and in some cases influence health behaviors. However, significant challenges persist including sustainability concerns, limited attention to cultural appropriateness, insufficient user-centered design, and inadequate understanding of how adolescents subjectively experience these platforms. Theoretical frameworks from health psychology, communication studies, and technology adoption research provide valuable tools for

analyzing adolescent engagement with digital health interventions, though these frameworks must be applied with attention to the specific socio-cultural and political-economic contexts shaping adolescent lives in Ghana.

Critical gaps remain in qualitative research exploring adolescents' lived experiences with digital SRH education, understanding process mechanisms that mediate platform adoption and sustained use, and investigating how digital engagement shapes confidence, decision-making, and health-seeking behaviors. This study addresses these gaps by centering adolescent voices and prioritizing their subjective experiences, thereby generating insights essential for designing contextually appropriate, youth-centered digital interventions that can genuinely empower adolescents and contribute to improved sexual and reproductive health outcomes in Ghana.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents the methodological framework employed to explore adolescents' experiences of digital sexual and reproductive health education in Ghana. The methodology in research study refers to the choices of cases to analyze, ways of gathering data and techniques of analysis (Silverman, 2013). This chapter outlines the research design, philosophical foundations, population and sampling procedures, data collection methods, data analysis techniques, and ethical considerations that guide the study.

3.2 Research Philosophy and Paradigm

This study is grounded in an interpretive research paradigm, which assumes that reality is socially constructed and that knowledge is generated through understanding the meanings people attach to their experiences (Bryman, 2016). Interpretivism recognizes that multiple realities exist and that understanding these realities requires engagement with participants' subjective perspectives (Scotland, 2012). This philosophical stance is particularly appropriate for studying adolescent sexual and reproductive health, where experiences are profoundly shaped by cultural beliefs, social norms, gender dynamics, and personal circumstances that cannot be adequately captured through standardized instruments.

Ontologically, the study adopts a relativist position, acknowledging that adolescents' experiences with digital SRH education are not singular or universal but rather diverse and context-dependent (Guba & Lincoln, 1994). Epistemologically, the study embraces a subjectivist stance, recognizing that knowledge about adolescents' experiences is co-constructed through interaction between researcher and participants rather than existing independently waiting to be discovered (Denzin &

Lincoln, 2011). The study specifically adopts a phenomenological approach within the broader interpretive paradigm. Phenomenology, as developed by Husserl (1970) and elaborated by subsequent scholars, focuses on understanding the essence of lived experiences as they are subjectively perceived and interpreted by individuals.

3.3 Research Design

This study employs a qualitative research design characterized by exploratory and descriptive inquiry. Qualitative research is particularly suited to exploring complex social phenomena where little is known about participants' subjective experiences and where contextual understanding is essential (Maxwell, 2013). Qualitative designs emphasize depth and contextual understanding, making them ideal for investigating nuanced topics such as adolescents' lived experiences with digital health interventions. The choice of qualitative design is justified by the fact that the research questions focus on understanding "what" adolescents know and perceive about digital SRH platforms, "how" they experience these platforms, and "why" certain barriers exist (Merriam & Tisdell, 2016).

3.4 Study Area and Context

The study will be conducted in the Greater Accra Region of Ghana, located in the southeastern coastal area of the country. Bordered by the Eastern Region to the north, the Volta Region to the east, the Central Region to the west, and the Gulf of Guinea to the south, a total land area of approximately 3,245 square kilometers (Ghana Statistical Service, 2021). With a total population of 5,446,237 people, representing approximately 17.7% of Ghana's total population, the region has females constituting 50.9% and males 49.1% (Ghana Statistical Service, 2021). Greater Accra Region comprises 29 administrative districts, including Accra Metropolis, Tema Metropolitan, and

27 municipal assemblies spanning from Ada East and Ningo-Prampram in the coastal east to Weija-Gbawe in the west, encompassing diverse urban, peri-urban, and coastal communities (Donkor et al., 2021).

The study will be conducted in the Accra Metropolis in communities such as Achimota, Madina, Nima and Teshie, while selection criteria will prioritize communities where digital SRH interventions have been implemented or where adolescents have demonstrated engagement with mobile health platforms, social media health campaigns, or other digital health communication channels. Both formal educational settings (secondary schools) and community-based settings will be included to ensure representation of both in-school and out-of-school adolescents, recognizing that out-of-school youth face distinct barriers to accessing health information and services (Afeadie & Appiah, 2025).

3.5 Population of the Study

The study population comprises adolescents aged 15-19 years residing in Greater Accra Region who have had some exposure to or interaction with digital sexual and reproductive health education platforms. Following WHO (2014), adolescents are persons aged 10-19 years. This study focuses on 15-19 years due to ethical considerations and higher digital engagement in this age group. This age range was selected because individuals in this developmental stage are navigating critical decisions about sexuality, relationships, and reproductive health while simultaneously being the most digitally connected demographic in Ghana (Pew Research Center, 2018).

The population encompasses both in-school and out-of-school adolescents, knowing that schooling status significantly shapes young people’s access to information, health services, and

digital technologies (Patton et al., 2016). In-school adolescents were recruited from the St. John Grammar Senior High School, while out-of-school youth was identified through community-based organizations, vocational training centers, and youth associations. The study will deliberately seek gender balance to ensure that both adolescent boys' and girls' experiences are adequately represented, recognizing that gender profoundly shapes adolescent sexuality, health-seeking behavior, and technology use in the Ghanaian context (Krugu et al., 2016).

Additionally, the study population includes key informants, individuals who possess specialized knowledge about digital SRH education by virtue of their professional roles including program managers and officers from organizations implementing digital SRH interventions, health educators and community health nurses working in adolescent health services, representatives from youth-led organizations engaged in peer education and digital advocacy, and staff from the Ghana Health Service Adolescent Health Unit with oversight of youth health programming. These stakeholders provide essential contextual information about the design, implementation, and challenges of digital SRH interventions that complement and help interpret adolescents' experiential accounts (Marshall, 1996).

3.6 Sampling Technique and Sample Size

3.6.1 Sampling Technique

The study employs purposive sampling as the primary strategy, supplemented by snowball sampling for hard-to-reach participants (Palinkas et al., 2015). Purposive sampling seeks information-rich cases that can provide in-depth understanding of the phenomenon under investigation (Patton, 2015). For out-of-school adolescents and other potentially marginalized groups who may be difficult to identify through conventional recruitment channels, snowball

sampling was employed as a complementary strategy (Biernacki & Waldorf, 1981). Snowball sampling, also termed chain referral sampling, involves asking initial participants to refer other potential participants from their social networks who meet the study's eligibility criteria (Noy, 2008).

Within the broader purposive sampling approach, the study employed maximum variation sampling to ensure diversity across key dimensions that may shape adolescents' experiences with digital SRH education (Suri, 2011). Maximum variation sampling deliberately seeks participants with different characteristics to capture the range of experiences and identify both common patterns that cut across diverse cases and unique variations associated with particular circumstances. Specifically, the study sought variation in dimensions such as age (both younger adolescents and older adolescents were included), gender (approximately equal numbers of adolescent boys and girls were recruited), schooling status (both in-school adolescents and out-of-school adolescents will be included, given documented disparities in health information access between these groups (Afeadie & Appiah, 2025). Other dimensions considered were socio-economic background (adolescent from affluent urban neighborhoods to low-income peri-urban areas) recognizing that economic resources shape access to smartphones, internet connectivity, and digital literacy (Pearce & Rice, 2013). The sample also included adolescents with diverse experiences across different types of digital SRH platforms, including mobile apps, SMS services, social media campaigns, and online educational resources, to understand how platform characteristics shape user experiences (Guse et al., 2012).

Key informant interviews will utilize expert sampling, a form of purposive sampling that deliberately targets individuals with specialized knowledge relevant to the research topic (Etikan et al., 2016).

3.6.2 Sample Size

Out of the approximately 533,731 adolescents aged 15-19 in Greater Accra (Ghana Statistical Service, 2021), the sample was targeted population was selected. The study targets a total of 30-35 persons comprising 25-30 adolescents and three to 5 key informants who are not necessarily adolescents but adults. In qualitative inquiry, sample size is determined by the principles of information richness and data saturation rather than statistical representativeness (Morse, 2000). Information richness refers to the quality and depth of data that participants can provide, while data saturation is the point at which additional data collection yields diminishing returns because no new insights, themes, or patterns emerge (Guest et al., 2006).

3.7 Data Collection Techniques

3.7.1 In-depth Interviews and Key Informants Interview

Data was collected using interview through interviews conducted for the adolescents who are both in school and out of school. These interviews will be in-depth in nature as they were intensive, semi-structured conversations designed to elicit rich narrative accounts of participants' subjective experiences, perceptions, and meanings (Brinkmann & Kvale, 2015). These types of interviews use flexible interview guide that allows the researcher to adapt questions based on participants' responses, probe interesting lines of inquiry, and follow participants' narratives while ensuring core research questions are addressed (Rubin & Rubin, 2012).

For the purposes of triangulation with adolescents' accounts and implementer perspectives, key informant interviews were conducted with professionals and stakeholders directly involved in designing, implementing, or evaluating digital SRH education interventions for adolescents in Ghana. Program managers from organizations operating digital SRH platforms, health educators

and community health nurses engaged in adolescent health programming, monitoring and evaluation officers who track digital intervention outcomes, representatives from the Ghana Health Service Adolescent Health Unit, and leaders of youth-led organizations conducting peer education through digital channels were considered in this group. Key informant interviews will be semi-structured, using interview guides tailored to each informant's role and expertise.

3.7.3 Document Review

In addition to primary data collection through interviews and focus groups, the study will conduct secondary document review to provide contextual background and triangulate participants' accounts. Documents to be reviewed include program reports and evaluation documents from organizations implementing digital SRH interventions in Greater Accra, screenshots, content samples, and user guides from digital platforms that adolescent participants have engaged with, health communication materials and campaign documents related to adolescent SRH, relevant policy documents from the Ghana Health Service and Ministry of Health addressing adolescent health and digital health strategies, and published research reports and grey literature on digital health interventions in Ghana.

3.8 Data Collection Instruments

All data collection will be guided by carefully developed instruments that ensure systematic coverage of research questions while maintaining the flexibility essential to qualitative inquiry. The primary instruments include adolescent in-depth interview guide, which is a semi-structured protocol organized around the research objectives, containing open-ended questions and suggested probes. The second instrument to be used for collecting data is the focus group discussion guide, serving as a facilitation protocol adapted to the group format, including ice-breaker activities,

vignette scenarios to stimulate discussion, and structured questions organized around key themes (Krueger & Casey, 2015).

Another important tool to be used is the key informant interview guide, which is a protocol tailored to professional stakeholders, with questions addressing program design, implementation experiences, observed engagement patterns, challenges, and recommendations. Additionally, the study will be using the demographic data collection form to record basic demographic information of participants that will be used to describe the sample and explore whether experiences vary across different demographic groups.

All instruments will be developed in English but will be translated into local languages (particularly Twi and Ga) as needed to ensure comprehension and enable participants to respond in the language they feel most comfortable using. It is important to note that prior to full-scale data collection, all instruments will be pilot-tested with a small number of participants (approximately 3-5 adolescents and 1-2 key informants) who will not be included in the final sample.

3.9 Data Analysis

3.9.1 Thematic Analysis Framework

This study employed thematic analysis as the primary analytical approach, following the systematic framework developed by Braun and Clarke (2006). Thematic analysis is a method for identifying, analyzing, and reporting patterns of meaning (themes) within qualitative data. Braun and Clarke (2006, p. 79) define a theme as something that "captures something important about the data in relation to the research question and represents some level of patterned response or meaning within the data set." Thematic analysis was selected because it offers flexibility in theoretical orientation, is accessible and systematic, and produces findings that are readily

translatable for policy and practice audiences, all important considerations for applied health research (Nowell et al., 2017).

The study will employ a hybrid approach combining inductive and deductive coding strategies (Fereday & Muir-Cochrane, 2006). Inductive coding involves developing codes and themes directly from the data itself without imposing predetermined categories.

3.9.2 Analytical Process

The thematic analysis will proceed through six phases as outlined by Braun and Clarke (2006), though in practice these phases will involve iterative movement back and forth rather than strict linear progression. They include:

Phase 1: Familiarization with the Data

Analysis begins with transcription of all audio-recorded interviews and focus group discussions. Transcription will be conducted verbatim, capturing not only spoken words but also significant non-verbal features such as laughter, pauses, expressions of emotion, and emphases that convey meaning (Oliver et al., 2005). While time-consuming, verbatim transcription is essential because it forces the researcher to engage intimately with the data at an early stage and ensures that subsequent analysis is grounded in participants' actual language rather than sanitized summaries (Halcomb & Davidson, 2006).

Following transcription, the researcher will read and re-read all transcripts multiple times to achieve deep familiarity with the data corpus. During this immersive reading, preliminary notes will be made about interesting features, recurring ideas, and potential patterns. This phase also involves listening to audio recordings while reading transcripts to reacquaint the researcher with the tone, emotion, and context of conversations that text alone cannot fully convey (Braun &

Clarke, 2006). Field notes from observations during data collection will also be reviewed to contextualize interview transcripts.

Phase 2: Generating Initial Codes

After familiarization, systematic coding will begin. Coding involves identifying and labeling features of the data that appear interesting or relevant to the research questions (Saldaña, 2016). Codes are more specific and granular than themes, they identify particular ideas, concepts, or phenomena mentioned by participants. For this study, coding will be conducted manually using NVivo qualitative data analysis software, which facilitates organization of large data sets, systematic comparison across cases, and transparent tracking of analytical decisions (Bazeley & Jackson, 2013).

A codebook will be developed and maintained throughout the coding process, documenting each code's label, definition, inclusion/exclusion criteria, and illustrative examples from the data (MacQueen et al., 1998). The codebook serves as an audit trail demonstrating analytical decisions and facilitates consistency if multiple researchers are involved in coding.

Phase 3: Searching for Themes

Once all data have been initially coded, the analysis shifts focus from codes to broader patterns of meaning—themes. This phase involves sorting and collating coded data extracts into potential themes that capture significant patterns across the dataset (Braun & Clarke, 2006). The researcher will examine codes to identify relationships, clustering related codes into candidate themes.

Visual mapping techniques such as mind maps or thematic maps will be employed to explore relationships between codes and themes, helping to visualize how themes might be organized hierarchically or thematically (Attride-Stirling, 2001). The researcher will maintain reflexive

memos throughout, documenting analytical decisions, considering alternative interpretations, and reflecting on how their own positionality might be shaping theme identification (Finlay, 2002).

Phase 4: Reviewing Themes

Theme refinement involves two levels of review. First, coded data extracts within each potential theme will be re-read to ensure they cohere meaningfully and form a consistent pattern. If coded extracts seem too heterogeneous or do not fit together coherently, the theme may need to be broken into separate themes or some extracts may need to be recoded elsewhere (Braun & Clarke, 2006). This internal homogeneity check ensures that themes are internally consistent and that data within each theme genuinely belong together.

Second, the entire dataset will be re-read to ensure that the proposed thematic structure adequately represents the data as a whole, that is, that themes accurately reflect the meanings evident across the complete corpus (Nowell et al., 2017). This external heterogeneity check ensures that themes are distinct from one another and that the overall thematic structure captures the full range and diversity of participants' experiences without significant omissions. During this review, some themes may be collapsed together if they overlap too much, other themes may be split if they encompass multiple distinct ideas, and new themes may emerge if significant patterns were initially overlooked.

The reviewing phase also involves considering whether sufficient data support each theme, themes should be evidenced by multiple data instances across multiple participants rather than representing isolated comments from single individuals (Braun & Clarke, 2006). However, this does not mean that minority perspectives or unusual cases should be discarded. Negative cases, instances that seem to contradict dominant patterns—are particularly valuable because they add

nuance, prevent over-simplification, and can reveal important boundary conditions or contextual factors influencing experiences (Morse, 2015).

Phase 5: Defining and Naming Themes

Once a satisfactory thematic structure has been established, each theme will be clearly defined and given a concise, evocative name that immediately communicates its essence (Braun & Clarke, 2006). Theme definitions will articulate what each theme is about, what aspect of the data it captures, and why it matters for answering the research questions. This definitional work is crucial because it forces the researcher to articulate precisely what they are claiming about the data and prevents themes from being vague or overlapping.

For each theme, a detailed thematic narrative will be developed that goes beyond merely paraphrasing data extracts to provide analytical interpretation. Sub-themes will be similarly defined, with clear articulation of how they relate to their parent theme. At this stage, the researcher will also consider relationships between themes, whether some themes are prerequisites for others, whether themes represent different dimensions of a broader concept, or whether tensions or contradictions exist between themes that reveal important complexities in adolescents' experiences (Attride-Stirling, 2001). This relational analysis moves beyond identifying discrete themes to understanding how themes interact and what the overall thematic structure reveals about the phenomenon under investigation.

Phase 6: Producing the Report

The final phase involves writing up the analysis in a manner that convincingly presents the thematic findings with sufficient evidence and in relation to the research questions and existing literature (Braun & Clarke, 2006). The write-up will present each theme systematically, using rich

data extracts (verbatim quotations) to illustrate and support analytical claims. Extracts will be selected based on their vividness, clarity, and representativeness, they should compellingly exemplify the theme while being comprehensible to readers without requiring extensive contextualization (Corden & Sainsbury, 2006).

3.9.3 Software and Tools

While the researcher will conduct thematic analysis intellectually, NVivo 12 qualitative data analysis software will be employed to manage and organize the large volume of textual data (Bazeley & Jackson, 2013). NVivo facilitates several key analytical tasks: systematic coding of large datasets; organization of codes into hierarchical structures; retrieval of all data coded at particular nodes for comparative analysis; exploration of coding patterns and relationships; and maintenance of an audit trail documenting analytical decisions. However, it is crucial to emphasize that software does not conduct analysis—it merely provides tools for organizing data and making the analytical process more transparent and systematic (Silver & Lewins, 2014).

In addition to NVivo, Microsoft Excel will be used to maintain a participant characteristics matrix documenting demographic information for all participants, facilitating examination of whether experiences vary systematically across different demographic groups. Analytic memos will be maintained in Microsoft Word, providing a reflexive journal where the researcher documents emerging insights, analytical decisions, questions requiring further investigation, and reflections on the research process (Birks et al., 2008).

3.10 Ethical Considerations

The study will execute e the needed ethical safeguards addressing the principles of respect for persons, beneficence, and justice (Belmont Report, 1979). Prior to any data collection, the study

obtained formal ethical approval from the Institutional Review Board of the University of Media, Arts and Communication, Institute of Journalism (UNIMAC-IJ). Additionally, approval was sought from the Ghana Health Service Ethics Review Committee. Intentional informed consent and assent procedures was implemented, recognizing adolescents' evolving capacities for autonomous decision-making while respecting parental rights and responsibilities.

Participants will be given adequate time to read the information sheet, ask questions, and consider their decision without pressure. Consent will be documented through signed consent forms, with copies provided to participants. For participants who prefer not to sign (perhaps due to literacy challenges or concerns about paper trails), verbal consent witnessed by an impartial third party will be accepted (Pace et al., 2014).

3.11 Chapter Summary

This chapter presents the research methodology employed to explore adolescents' lived experiences with digital sexual and reproductive health (SRH) education in Ghana. The study is grounded in an interpretive paradigm using phenomenological and qualitative approaches to generate rich, contextualized understanding of how adolescents perceive, access, and engage with digital SRH platforms. The methodological framework includes purposive sampling to ensure equal representation across diverse adolescent populations based on gender, schooling status, and socioeconomic contexts. Thematic analysis is used to identify patterns of meaning from participant accounts through systematic coding and interpretation. The research incorporates comprehensive ethical safeguards specifically addressing the vulnerabilities of adolescent participants and the sensitive nature of SRH research.

This response completes the requested chapters of the study, *Exploring Adolescents' Experiences of Digital Sexual Reproductive Health Education in Ghana*, based on the provided qualitative data from Interviews (IDIs), Focus Group Discussions (FGDs), Key Informant Interviews (KIIs), and Document Reviews (DR).

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents the findings derived from the qualitative data collected through In-Depth Interviews (IDIs), Focus Group Discussions (FGDs), and Key Informant Interviews (KIIs), supported by a Document Review (DR). The analysis is structured around the four research objectives (ROs) outlined in Chapter One. The findings are presented thematically, integrating adolescent perspectives with insights from key stakeholders and existing literature to provide a comprehensive understanding of the lived experiences of Ghanaian adolescents with digital Sexual and Reproductive Health (SRH) education.

4.2 Research Objective 1: Knowledge, Awareness, and Impressions of Digital SRH Platforms

This objective explored the level of adolescents' knowledge, awareness, and initial impressions of digital SRH platforms. Two key themes emerged: reliance on existing social media for informal learning and an overwhelming preference for anonymity and privacy.

4.2.1 Reliance on Social Media and Search Engines

Adolescents displayed a high degree of awareness of digital SRH information, but their engagement was primarily with general-use platforms rather than dedicated health applications. The most commonly cited sources were social media and major search engines:

- **Social Media as the Primary Gateway:** Participants regularly used platforms like WhatsApp (groups for information sharing), Instagram(@YouthHealthGH), and YouTube to access SRH content. One participant noted relying on notifications from NGO-run Facebook pages rather than active searching.

- **Search Engine Default:** Other participants reported using Google as their primary resource for quick lookups. The Document Review confirmed this finding, noting that young adults heavily rely on Google searches and social media (Facebook, YouTube, TikTok, WhatsApp) for health information.
- **Peer Referral and Passive Consumption:** Content was often discovered through peer referral (ADO001 was added to a WhatsApp group by her older sister) or passively consumed through feeds. Another noted friends send each other memes or funny clips about sex that sometimes contain "real information".

This finding corroborates Adzovie and Adzovie (2022), who documented that Ghanaian adolescents rely heavily on unverified sources including social media due to gaps in formal education. Similarly, the Document Review's observation that young adults predominantly use Google, Facebook, and YouTube aligns with Agbenyo and Nzengya's (2023) research in Northern Ghana, where mobile phones served as primary SRH information channels. However, this reliance on general platforms rather than dedicated health apps reveals what Alhassan et al. (2025) termed the "information quality paradox" - high access but uncertain reliability.

4.2.2 The Appeal of Privacy and Anonymity

A major positive impression was the sense of privacy and safety offered by digital platforms, which contrasts sharply with the stigma associated with seeking information in traditional settings:

- **Non-Judgmental Space:** Participants overwhelmingly expressed a preference for online engagement because it was non-judgmental. ADO002 explained, "It feels more private than asking someone face-to-face... I like that nobody is judging me when I read online".

- **Secrecy and Fear of Adult/Peer Scrutiny:** The private nature allowed them to search quickly for answers to topics they "wouldn't dare ask an adult". ADO004 mentioned searching privately and quickly deleting browser history afterwards. The Document Review noted that young adults prefer online access because it provides a sense of anonymity, allowing them to avoid the stigma experienced in clinics.

This overwhelming preference for anonymity directly reflects the socio-cultural barriers is like the patterns Ninsiima et al. (2021) found in Uganda, where adolescents avoided clinics due to anticipated judgment. The desire to circumvent adult scrutiny aligns with Biddlecom et al.'s (2009) findings that intergenerational silence about sexuality in Ghana forces youth toward covert information-seeking. Importantly, this validates the theoretical premise that digital platforms function as responses to stigma rather than merely information channels (Svanemyr et al., 2015).

4.3 Research Objective 2: Benefits Compared to Traditional Methods

This objective explored the advantages adolescents attribute to digital SRH education over traditional methods like school-based Family Life Education or clinic consultations). The benefits centered on the user-centric nature of digital platforms versus the shame-based, rigid structure of traditional methods.

4.3.1 Overcoming Stigma and Embarrassment in Traditional Settings

Adolescents consistently reported negative experiences with traditional SRH education, emphasizing shame, discomfort, and limited interaction:

- **Teacher Discomfort and Avoidance:** School classes were characterized by teacher discomfort and avoidance. ADO001 recalled a teacher who was "very uncomfortable" and

"just rushed through the textbook," telling students to "read it yourself" when they asked questions. ADO011 noted the teacher "wouldn't even say the word 'vagina'".

- **Judgment and Shame in Health Facilities:** Clinic experiences were often judgmental. ADO001 was made to feel ashamed when a nurse asked, "aren't you too young for this?". An FGD participant highlighted the feeling of being judged by health workers, noting that "Digital platforms talk to us like adults who can make our own decisions".

These negative experiences with traditional education mirror findings by Adzovie and Adzovie (2022), who documented teacher discomfort as a primary barrier to CSE implementation in Ghana. The clinic judgment described by participants confirms Aninanya et al.'s (2015) research in Northern Ghana, where healthcare provider attitudes deterred adolescent service utilization. This systematic stigma across both educational and healthcare settings validates the literature's emphasis on structural rather than individual barriers (Marston & King, 2006).

4.3.2 Digital Advantages: Accessibility, Pace, and Content Quality

The digital environment provided several benefits that traditional methods lacked, fostering better engagement and knowledge transfer:

- **Time Flexibility and Accessibility:** Digital access is available anytime and not just during school or clinic hours. This addresses the barrier of limited access for out-of-school youth.
- **Self-Paced and Repeatable Learning:** Digital content allows for self-paced learning and repetition without peer ridicule. ADO003 stated, "With digital, I can take my time to understand. If I don't get something, I can read it again".
- **Engaging and Multimedia Content:** Digital content was described as being fresh and up-to-date and easier to understand due to multimedia content. ADO007 specifically

mentioned that the graphics online made concepts like the difference between a period and ovulation much clearer. ADO013 appreciated interactive elements like quizzes and decision trees for checking understanding.

These negative experiences with traditional education mirror findings by Adzovie and Adzovie (2022), who documented teacher discomfort as a primary barrier to CSE implementation in Ghana. The clinic judgment described by participants confirms Aninanya et al.'s (2015) research in Northern Ghana, where healthcare provider attitudes deterred adolescent service utilization. This systematic stigma across both educational and healthcare settings validates the literature's emphasis on structural rather than individual barriers (Marston & King, 2006).

4.4 Research Objective 3: Barriers and Challenges in Accessing and Using Digital SRH Platforms

Despite the benefits, adolescents and key informants highlighted significant structural, informational, and personal barriers that restrict access and sustained use of digital platforms.

4.4.1 Economic and Infrastructural Barriers (The Digital Divide)

The most frequently cited barrier was the economic cost of using digital platforms, a key feature of the digital divide:

- **Data Costs and Poor Connectivity:** Data is described as "very expensive", forcing one participant to constantly choose between data for school research or health information, with health being delayed. ADO001 cited the expense of data and the slowness of the internet connection in their area as major difficulties.

- **Demand for Zero-Rated Data:** The FGD with out-of-school boys reached a consensus on the need for free access, demanding “Make the content free on MTN or Vodafone! If it was we would use it all the time”.
- **Sustainability and Low-End Phones:** Key Informants corroborated these challenges, noting that funding for maintenance and updates is difficult, and technically, ensuring platforms work on low-end phones is a challenge. The Document Review also highlighted the barrier of **economic resources** as part of the digital divide.

This economic barrier represents what Pearce and Rice (2013) termed the “second-level digital divide” where access to devices doesn’t ensure meaningful use due to connectivity costs. The demand for zero-rated data echoes interventions documented by UNESCO (2020) during COVID-19, when educational content zero-rating significantly increased access among economically marginalized Ghanaian students. As noted by Alhassan et al. (2025), these costs systematically exclude precisely the populations facing greatest SRH risks - out-of-school, rural, and impoverished youth.

4.4.2 Information Quality and Trust Concerns

The open nature of digital platforms, while beneficial for access, introduces the risk of misinformation and information overload:

- **Information Overload:** Participants felt overwhelmed by the volume of content, struggling to determine which sources were reliable.
- **Misinformation and Verification:** Participants expressed concern that “some information might be wrong”. An FGD participant explicitly stated, “I don’t trust the answers I get from random people on Instagram,” demanding a way for a verified doctor to answer questions.

The Document Review also identified young people's increasing exposure to misinformation on social media as a major challenge.

This trust deficit validates John et al.'s (2025) systematic review documenting proliferation of misleading reproductive health information online. The demand for verified professional responses aligns with Adzovie and Adzovie's (2022) finding that trusted community figures remain influential despite digital access. This suggests that Development Communication principles emphasizing dialogue with credible sources remain essential even in digital contexts (Svanemyr et al., 2015).

4.4.3 Cultural and Contextual Mismatch

A key theme was the lack of cultural relevance in much of the online SRH content:

- **Western-Centric Content:** Some information was perceived as being "for people from outside Ghana" and not matching local culture, such as the assumption that one can easily talk to parents about sex. Content about condoms being easily available in vending machines, which is not the reality locally, caused frustration.
- **Demand for Localization:** Adolescents requested that platforms use simpler language, include more Ghanaian examples like in a trotro or at the market), and show more local health professionals in videos to build trust.

This cultural inappropriateness confirms Daher et al.'s (2017) systematic review finding that Western-developed content often fails in non-Western contexts. The disconnect mirrors Leerlooijer et al.'s (2013) challenges adapting Ugandan sexuality education for Indonesia, demonstrating that effective interventions require deep cultural translation beyond superficial localization. As Development Communication scholarship emphasizes, culturally incongruent messaging,

regardless of technical quality, lacks credibility and fails to influence behavior (Svanemyr et al., 2015).

4.4.4 Privacy and Surveillance

Beyond the general preference for anonymity, specific fears of surveillance and discovery were reported:

- **Parental and Family Surveillance:** ADO002 noted, “My mother sometimes checks my phone when I’m sleeping”. FGD participants shared similar experiences of family members checking their phones and needing to delete everything on WhatsApp. This leads to the need to use incognito mode, clear history, or use a fake name or profile to avoid being identified with SRH topics.

These surveillance fears extend beyond general privacy preferences to reveal power dynamics within Ghanaian families. Kyilleh et al. (2018) documented how parental phone monitoring reinforces control over adolescent sexuality. These finding challenges overly optimistic assessments of digital platforms' privacy benefits - while platforms offer anonymity from strangers, they cannot protect against familial surveillance. As Svanemyr et al. (2015) argued, adolescent autonomy remains constrained by intergenerational power relations that technology alone cannot overcome.

4.5 Research Objective 4: Influence on Confidence, Decision-Making, and Health-Seeking Behaviors

This objective explored the measurable and perceived impact of digital SRH education on adolescents’ personal agency and interaction with health systems. The evidence strongly suggests a positive influence across all three areas.

4.5.1 Increased Knowledge, Confidence, and Empowerment

Digital platforms demonstrably enhanced participants' knowledge and boosted their confidence in discussing and acting on SRH issues:

- **Specific Knowledge Gains:** Adolescents learned specific, critical information not properly taught in school, such as the timing of emergency contraception and signs of STIs.
- **Challenging Myths:** The information gained was used to challenge and correct misinformation from peers, such as the myth of using soft drinks as a contraceptive.
- **Shift in Perspective (Male Responsibility):** The content influenced attitudes, particularly among male participants. ADO020's perspective shifted from blaming the girl for pregnancy to understanding male responsibility and the importance of joint decision-making.
- **Confidence to Communicate:** ADO002 reported feeling more confident to explain different contraceptive options to his girlfriend. An FGD participant gained confidence to talk to their friends and boyfriend without being shy.

These confidence gains validate the Health Belief Model's emphasis on self-efficacy as a determinant of health behavior (Janz & Becker, 1984). The ability to challenge myths and communicate with partners demonstrates enhanced perceived behavioral control, consistent with the Theory of Planned Behavior (Ajzen, 1991). Importantly, the male participant's perspective shift regarding responsibility contradicts stereotypes about male resistance to gender-equitable attitudes and suggests digital platforms may enable attitude changes difficult to achieve in peer-pressured settings (Krugu et al., 2016).

4.5.2 Influence on Health-Seeking Behavior

Digital education served as a crucial bridge, reducing the fear of clinics and increasing the willingness to seek professional care:

- **Awareness of Youth-Friendly Services:** Participants learned about the existence of youth-friendly health services where they would not be judged. ADO009 found a public health service with a youth drop-in center on Instagram, which made the clinic feel “less scary and formal”.
- **Reduced Fear via Peer Testimonials:** Learning about services was reinforced by peer testimonials online, which mentioned nurses were kind and wouldn’t tell parents. Key Informants also noted that the peer testimonials feature has been powerful, making information more relatable.
- **Demonstrated Action:** One FGD participant felt empowered enough to go to the pharmacy and ask the attendant for emergency pills, stating, “I knew exactly what to ask for because of the information I read online”.

This bridging function validates Gonsalves and Hindin’s (2017) finding that digital information reduces symbolic barriers to formal care by normalizing service utilization. The power of peer testimonials aligns with the Theory of Planned Behavior's subjective norms construct - when peers model clinic use positively, social pressure shifts from discouraging to encouraging health-seeking (Ajzen, 1991). This demonstrates how digital platforms can serve as “cues to action” (HBM) by providing both information and social proof (Janz & Becker, 1984).

4.5.3 Broader SRH Understanding: Consent and Relationships

The digital content was also credited with broadening the understanding of SRH beyond clinical facts to include relational aspects:

- **Beyond Biology:** ADO015 appreciated that digital platforms discussed healthy relationships and consent, which was completely ignored in their school's class. They learned that SRH is "not just about avoiding pregnancy, but about respecting my body and making sure my partner respects me too". An FGD participant noted they learned they have the right to say no to anything they're not comfortable with.

This broader learning validates calls for comprehensive sexuality education that extends beyond biomedical facts to relational aspects (Adzovie & Adzovie, 2022). The emphasis on consent and respect challenges traditional Ghanaian gender norms documented by Kumi-Kyereme et al. (2007), where male decision-making dominance constrains female autonomy. Digital platforms' ability to address these relational dimensions suggests their potential for transforming not just knowledge but gendered power dynamics - though realizing this potential requires sustained, culturally sensitive content (Marston & King, 2006).

4.6 Discussion of Findings

This section discusses the study's key findings within the context of existing academic literature (Chapter Two) and the theoretical frameworks that guided the analysis, namely the Development Communication approach, and the critiques leveled against individualistic models like the Unified Theory of Acceptance and Use of Technology (UTAUT), and the applicability of the Health Belief Model (HBM) and the Theory of Planned Behavior (TPB).

4.6.1 The Digital Space as a Response to Stigma and Socio-Cultural Taboos

A dominant finding of this study is the overwhelming preference for anonymity and privacy offered by digital platforms. This finding directly corroborates the literature, which highlights that deeply entrenched socio-cultural taboos and pervasive stigma amplify SRH challenges in Ghana.

Adolescents' reports of judgmental nurses and teachers who were "too shy" or "very uncomfortable" confirm the persistence of structural barriers and the failure of traditional SRH education systems to provide a non-judgmental space. The digital environment, therefore, is not merely a source of information but a critical coping mechanism that allows adolescents to circumvent the socio-cultural gatekeepers and power dynamics that stifle open inquiry. The fact that participants fear family surveillance and rapidly delete browsing history underscores that the perceived confidentiality of the digital medium is paramount, aligning with research that lived experiences are shaped by family surveillance of phone use.

4.6.2 Challenging Individualistic Models: The Digital Divide and Structural Barriers

While technology adoption models like the Unified Theory of Acceptance and Use of Technology (UTAUT) focus on individual factors such as performance expectancy and effort expectancy, the findings of this study demonstrate the profound limitations of such individualistic frameworks in the Ghanaian context. The most severe barriers reported by adolescents were structural and economic, specifically the high cost of mobile data and poor connectivity. The demand to "Make the content free on MTN or Vodafone" is a stark illustration that the prerequisite for engagement - the Facilitating Conditions component of UTAUT - is unmet by economic reality. This suggests that the problem is not about the *ease of use* of the technology, but the affordability of the access, which effectively excludes marginalized out-of-school and rural youth and undermines the technology's potential to address health inequities. The study, therefore, aligns with literature that

critiques individualistic models and stresses the need to interpret technology acceptance within broader socio-cultural and political-economic contexts.

4.6.3 Trust, Social Influence, and the Development Communication Imperative

Adolescents overwhelmingly relied on general social media (WhatsApp, YouTube) and search engines, confirming the literature that adolescents resort to these informal and sometimes unverified sources. This reliance introduces the dual challenge of misinformation and trust deficit. This tension between the accessibility of digital content and its perceived reliability directly relates to the study's focus on Development Communication (DevCom). DevCom champions dialogue over monologue and cultural relevance. The findings indicate that while digital platforms facilitate the monologue of information delivery, they lack the necessary dialogic and trust-building components:

Trust

Adolescents explicitly demanded a way for a "verified doctor to answer questions", demonstrating that the presence of a trusted community figure is essential for content to be embraced as factual, supporting Adzovie and Adzovie (2022).

Cultural Relevance

The critique of Western-centric content and the request for platforms to include "Ghanaian examples" and local health professionals shows that cultural sensitivity is a key determinant of perceived relevance and subsequent engagement. This collective experience reinforces the critique of UTAUT, suggesting that social influence, thus trust in a verified professional or peer testimonial and cultural congruence are more powerful factors in technology adoption than mere technological features.

4.6.4 Influence on Health-Seeking Behavior

Theoretical Consistency

The investigation into the influence of digital SRH education yielded findings consistent with core concepts of both the Health Belief Model (HBM) and the Theory of Planned Behavior (TPB). Self-Efficacy and Knowledge (HBM): Participants reported gaining critical, specific knowledge (e.g., timing of emergency contraception, signs of STIs) and using this knowledge to challenge myths. This increase in knowledge acts as a powerful Cues to Action and directly enhances Self-Efficacy (the belief in one's ability to perform a behavior), leading to confident action, such as one participant's report of going to the pharmacy knowing "exactly what to ask for".

Subjective Norms and Attitude (TPB)

The finding that digital content influenced a male participant's perspective on male responsibility and taught adolescents about consent demonstrates a change in Attitude and perception of Subjective Norms (social pressure to engage in the behavior). Furthermore, the positive impact of peer testimonials in reducing the fear of clinics is a powerful mechanism for normalizing health-seeking behavior within the youth social sphere, thereby changing the perceived Subjective Norm around clinic utilization and translating knowledge into action.

The convergence of findings with these behavioral models, mediated by the privacy and accessibility of digital technology, validates the use of digital tools as a potent intervention, provided the fundamental structural barriers (data costs) and cultural gaps (trust/localization) are systematically addressed.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter marks the culmination of the study, Exploring Adolescents' Experiences of Digital Sexual Reproductive Health Education in Ghana. It begins by summarizing the main findings derived from the data analysis in Chapter Four. Subsequently, it presents an extensive set of conclusions that directly address the research objectives, reflect on the theoretical and methodological underpinnings, and situate the findings within the existing literature. Finally, it offers practical and research-oriented recommendations, concluding with a personal reflexive statement on the knowledge gained from this work.

5.2 Summary of Findings

The study aimed to explore the lived experiences of Ghanaian adolescents with digital SRH education, adopting an interpretive, phenomenological approach. Firstly, pursuing the objective one focused on the knowledge and awareness, the study found that adolescents are highly aware of digital SRH information, but their access is dominated by general social media platforms (WhatsApp, YouTube, Instagram) and search engines. The primary initial impression and motivator for use is the promise of anonymity and a non-judgmental space.

Secondly, on the benefits compared with traditional methods stemming from objectives two, the study discovered that digital platforms offer flexible, self-paced, and engaging multimedia content. This contrasts favorably with traditional methods, which are perceived as rigid, outdated, and dominated by teacher discomfort and judgmental attitudes from both educators and health service providers. Notwithstanding the above, through research objective three focusing on the barriers

and challenges, the study showed that the most challenging situation the high cost of mobile data and poor connectivity are the most prevalent challenge. Other major barriers include concerns about information reliability (misinformation/overload), privacy fears (family surveillance of phones), and a general cultural/contextual mismatch where foreign content fails to resonate with local realities and language.

Lastly, on influence and impact under research objective four, the research learned that digital platforms significantly influence adolescents by providing critical knowledge such as emergency contraception, male responsibility, which fosters increased confidence and empowerment, and crucially, acting as a catalyst for improved health-seeking behavior by reducing the fear of clinics and directing youth toward friendly services.

5.3 Conclusions

5.3.1 Achievement of Research Objectives and Main Conclusion

The study successfully answered all four research objectives. The overarching conclusion is that digital platforms are the most vital and preferred mechanism for SRH education among Ghanaian adolescents, largely because they effectively neutralize the socio-cultural stigma embedded in traditional health and education systems. However, the potential for equitable impact is critically undermined by the economic barrier of the digital divide and the persistent need for verified, locally contextualized content. The demand for SRH information is high, but the supply is fragmented, costly, and often fails to meet the cultural and practical realities of Ghanaian youth.

5.3.2 Reflection on Theoretical Framework

The findings provide a complex validation and critique of the study's theoretical framework. On the development communication (DevCom) side, the findings strongly supported the DevCom

approach. This is spotted in the young people's demand for local examples, simpler language, and interactive Q&A features with verified local professionals is a call for dialogic, culturally relevant, and participatory communication, which are the key tenets of development communication. The failure of current interventions to provide cost-free access (zero-rating) is a failure of DevCom's equity principle, as structural issues (data cost) prevent technology from serving its development goal.

Furthermore, the study challenged the dominance of individualistic technology adoption models like the Unified Theory of Acceptance and Use of Technology (UTAUT). While adolescents rated the Performance Expectancy (it works) and Effort Expectancy (it's easy to use) highly, the overriding barrier of data cost demonstrated that the Facilitating Conditions (resources to use the technology) are dictated by national infrastructure and economic policy, not individual choice. The economic reality is a structural determinant that renders individual technology acceptance factors secondary. Moreso, the findings strongly supported the utility of the Health Belief Model (HBM) and the Theory of Planned Behavior (TPB) in explaining the influence of digital content. Digital education acted as a powerful Cue to Action and increased Self-Efficacy (HBM) by providing specific, actionable knowledge, leading to tangible actions like seeking contraception or testing. Adding to this, the exposure to peer testimonials and information on consent shifted Subjective Norms and Attitudes (TPB), thereby boosting the Behavioral Intent to seek care and practice safer sex.

5.3.3 Alignment and Contradictions with Existing Literature

The study's findings align with and, in some instances, intensify the claims made in the literature review. First, the findings confirm the literature that stigma and cultural taboos are pervasive barriers in Ghana. The heavy reliance on social media (Facebook, YouTube, WhatsApp) and

Google for health information, and the subsequent high risk of misinformation, are directly corroborated by the Document Review and international studies. Again, the study intensifies the literature on the Digital Divide. While existing literature identifies the economic barrier, the unanimous and impassioned demand by participants for zero-rated data elevates this from a recognized problem to the single most critical structural failing that must be immediately addressed by policy makers for equitable access. It challenges the assumption that simply having a smartphone equates to having access to SRH information.

5.3.4 Methodological Reliability and Limitations

The qualitative, phenomenological design proved valid for collecting rich, contextualized data on the lived experiences of adolescents. The use of In-Depth Interviews (IDIs) and Focus Group Discussions (FGDs) successfully elicited detailed accounts of why and how adolescents engage, capturing the nuance of fear (privacy, surveillance) and empowerment (confidence, action). Moreso, reliability was enhanced through data triangulation across three sources: adolescents (IDIs/FGDs), experts (KIIs), and existing programs/policy (DR). The consistency between adolescent narratives like data cost and key informant corroboration such as funding challenges, low-end phones significantly strengthen the findings.

The main methodological limitation was the geographical scope, confined to the Greater Accra Region, which limits the direct transferability of findings to extremely rural or digitally isolated communities. This was partially mitigated by including both in-school and out-of-school youth and purposively sampling communities with varying socio-economic characteristics. The sensitive nature of the topic was mitigated by ensuring strict confidentiality, written assent/consent, and employing a non-judgmental interview style, which encouraged participants to share critical personal information for instance, the use of emergency contraception.

5.3.5 Researcher Reflexivity

The researcher's prior understanding of Development Communication emphasized the need for participatory design. However, the process of data collection led to a profound reflexive shift. which initially framed the challenge as one of platform design, but the adolescents repeatedly reframed it as a challenge of economic access and cultural safety. Hearing the immediate, unanimous demand for "zero-rated data" served as a powerful personal reminder that in the Global South, the political economy of access often precedes and outweighs the technical elegance of the solution. This reflection cemented the necessity of advocating for structural change over mere programmatic tweaks in future development work.

5.4 Recommendations

The recommendations are structured into three distinct sub-themes - Policy and Structural, Programmatic and Content, and Future Research - to clearly delineate the sphere of influence for implementation. This sub-division is essential because the barriers identified are multifaceted: they range from high-level economic and legislative issues (Policy) to practical design and content creation issues (Programmatic). The recommendations are based directly on the validated findings from Chapter Four and are supported by relevant literature, as required by Development Communication principles to ensure solutions are contextually grounded.

5.4.1 Policy and Structural Recommendations

These recommendations target national-level policy, regulation, and resource allocation to dismantle the core structural barriers identified in the study. Firstly, the Ministry of Communications and the Ghana Health Service (GHS) must immediately negotiate with Mobile Network Operators to zero-rate data charges for access to designated, verified SRH education

platforms. This is critical to addressing the digital divide and ensuring equitable access, aligning with the WHO's call for addressing economic barriers to health access. Again, the Ghana Health Service should establish an official body to formally vet and certify all SRH content published on public-facing digital platforms, addressing the finding of misinformation and trust deficit. This institutional backing is necessary to provide the "verified doctor" credibility demanded by adolescents. Lastly, there is a need to integrate digital literacy into education policy. This is call on the Ministry of Education to ensure the incorporation of critical digital health literacy training into the school curriculum, focusing on teaching adolescents how to identify and evaluate credible health information online, thereby bolstering their Self-Efficacy against misinformation.

5.4.2 Programmatic and Content Recommendations

These recommendations focus on improving the quality, cultural relevance, and user experience of existing and future digital SRH interventions. The researcher suggests that prioritization of anonymous and verified dialogue features. This is a call on implementing organizations like PPAG, youth NGOs to move beyond static content by prioritizing the deployment of anonymous, interactive Q&A features staffed by local, trained health professionals. This satisfies the demand for a non-judgmental, dialogic space central to development communication.

Additionally, there is the need for mandating Cultural Localization of Content. Here, the research calls for all new digital content to be designed with explicit local context, using Ghanaian examples like trotro scenarios, local language phrases, and featuring recognizable local health champions. This increases the content's Perceived Usefulness and overcomes the cultural mismatch barrier. Lastly on the programmatic and content recommendations, programs must use digital platforms (especially Instagram and WhatsApp) to provide visual and testimonial-based introductions to

specific youth-friendly health service staff and centers, effectively using digital Social Influence to reduce the apparent Perceived Barrier (fear of judgment) of seeking clinical care.

5.4.3 Recommendations for Future Studies

The researcher recommends that future research should employ a longitudinal mixed-methods design to systematically measure the link between digital SRH consumption and sustained, verified health-seeking behavior, for instance contraceptive uptake and STI testing, moving beyond self-reported knowledge and confidence. Also, a targeted study should be conducted to calculate the cost-effectiveness and reach benefit of zero-rating key digital SRH platforms for different Mobile Network Operators, providing the necessary data for policy advocacy and negotiation. Finally, given the high incidence of reported family surveillance, future qualitative research should specifically explore adolescents' understanding of data privacy, digital rights, and the mental health implications of constantly monitoring or deleting their online SRH engagement.

5.5 Personal Reflection on Learning

The process of conducting this study was a powerful exercise in realizing the criticality of context in Development Communication. I initially hypothesized that the major challenges would be related to technology literacy or platform design. However, the data strongly redirected my focus toward structural violence in the form of economic exclusion (data costs) and the social violence of stigma and surveillance. Learning that the simple cost of data prevents an out-of-school boy from accessing life-saving information demonstrated that technological solutions cannot bypass socio-economic policy reform. My primary learning is that in the field of digital health for adolescents, advocacy for free, equitable access and cultural safety must precede the development of any new technological tool.

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APPENDICES

Appendix A: Interview Guides for Data Collection

INTERVIEW GUIDES FOR DATA COLLECTION

GUIDE A: IN-DEPTH INTERVIEW GUIDE FOR ADOLESCENTS

Study Title: Exploring Adolescents' Experiences of Digital Sexual and Reproductive Health Education in Ghana

Target Participants: Adolescents aged 15-19 years with experience using digital SRH platforms

Estimated Duration: 45-60 minutes

SECTION A: INTRODUCTION AND CONSENT

My name is John Kwasi Amuzu, a Masters student at the University of Media Arts and Communication. I am here to collect data on the use of .....For the purposes of records, I would like to arecord the interview sessions but you will not in anyway be identified with this audio apart from the purpose of this study.

SECTION B: DEMOGRAPHIC INFORMATION

Age: _____

Gender: _____

Educational Status: ☐ In-school ☐ Out-of-school

Community/Location: _____

Type of phone owned: ☐ Smartphone ☐ Basic phone ☐ None (uses someone else's)

SECTION C: INTERVIEW QUESTIONS

RESEARCH OBJECTIVE 1: Knowledge, Awareness, and Impressions about Digital SRH Platforms

1. Can you tell me about any digital platforms (apps, websites, social media pages) where you have seen or gotten information about sexual and reproductive health?

Probe: Which ones have you used? How did you first learn about them?

2. What comes to your mind when you think about getting SRH information from your phone or online?

Probe: What do you like about it? What concerns you?

3. How much do you know about the different types of digital SRH resources available?

Probe: Apps? SMS services? Social media pages? Websites?

4. What are your first impressions when you visit these platforms?

Probe: Easy or difficult to use? Trustworthy or not? Interesting or boring?

RESEARCH OBJECTIVE 2: Benefits Compared to Traditional Methods

5. Have you ever received SRH information through traditional ways like school, health facilities, or community programs?

Probe: Tell me about that experience.

6. How would you compare getting SRH information from digital platforms versus from teachers, nurses, or parents?

Probe: Which do you prefer? Why?

7. What advantages do you see in using digital platforms for SRH information?

Probe: Privacy? Convenience? Type of information? Anything else?

8. Are there things you can do or learn on digital platforms that you cannot do through traditional methods?

Probe: Can you give me an example?

RESEARCH OBJECTIVE 3: Barriers and Challenges

9. Tell me about any difficulties you've faced when trying to access or use digital SRH platforms.

Probe: Internet problems? Cost of data? Finding the right platform? Understanding the content?

10. Have you ever worried about someone finding out you were looking at SRH information on your phone?

Probe: Parents? Siblings? Friends? What happened or what did you fear might happen?

11. What stops young people like you from using these digital platforms more often?

Probe: Technical issues? Social issues? Personal fears?

12. Is the information you find on these platforms culturally appropriate for you as a Ghanaian?

Probe: Does it match your values? Your language? Your experiences?

13. Have you ever encountered wrong or confusing information on digital SRH platforms?

Probe: How did you know it was wrong? What did you do?

RESEARCH OBJECTIVE 4: Influence on Confidence, Decision-Making, and Health-Seeking

14. Has using digital SRH platforms changed what you know about sexual and reproductive health?

Probe: Can you give me a specific example of something you learned?

15. Do you feel more confident talking about or dealing with SRH issues after using these platforms?

Probe: In what ways? Can you share a situation where this happened?

16. Has information from digital platforms influenced any decisions you've made about your sexual or reproductive health?

Probe: Without sharing details you're uncomfortable with, can you tell me generally how it helped?

17. Have you ever sought services (like visiting a health facility, buying contraceptives) because of information you got from a digital platform?

Probe: What made you take that step?

18. How has using these platforms affected how you view your own ability to make health decisions?

SECTION D: CLOSING QUESTIONS

19. If you could change anything about digital SRH platforms to make them better for young people, what would it be?

20. Is there anything else about your experience with digital SRH education that you'd like to share that I haven't asked about?

CLOSING

Thank you for partaking in this interview. Can you refer me to someone who would like to speak to me on similar questions? Kindly be rest assured that the information you have shared would not shared with anyone for any other purpose. My phone number is ...

Appendix B: Key Informants Interview Guide

GUIDE B: KEY INFORMANT INTERVIEW GUIDE

Study Title: Exploring Adolescents' Experiences of Digital Sexual and Reproductive Health Education in Ghana

Target Participants: Program managers, health educators, NGO representatives, Ghana Health Service staff

Estimated Duration: 45-60 minutes

SECTION A: INTRODUCTION

Introduce yourself, explain study purpose, obtain informed consent, request audio recording permission.

SECTION B: BACKGROUND INFORMATION

Name of Organization: _____

Respondent's Position: _____

Years of Experience in Adolescent SRH: _____

Type of Organization: ☐ Government ☐ NGO ☐ Youth-led ☐ Other: _____

SECTION C: INTERVIEW QUESTIONS

Program Overview

1. Can you describe the digital SRH platforms or interventions your organization has implemented for adolescents in Greater Accra?

Probe: Type? Target audience? Duration? Coverage?

2. What motivated your organization to use digital platforms for adolescent SRH education?
3. What are the key objectives you hope to achieve through these digital interventions?

Design and Implementation

4. How was the digital content developed?

Probe: Were adolescents involved? How did you ensure cultural appropriateness?

5. What platforms or technologies do you use and why?

Probe: Mobile apps? SMS? Social media? Websites?

6. What have been the major challenges in implementing digital SRH interventions?

Probe: Technical? Financial? Cultural? Regulatory?

7. How do you address issues of privacy and confidentiality for adolescent users?

Adolescent Engagement

8. In your experience, how do adolescents respond to digital SRH platforms?

Probe: Adoption rates? Engagement patterns? Feedback received?

9. Have you noticed differences in how boys and girls engage with digital platforms?

Probe: Specific examples?

10. What about in-school versus out-of-school adolescents? Any differences?
11. What barriers do adolescents face in accessing your digital platforms?

Probe: From your observation and their feedback?

Effectiveness and Impact

12. How do you measure the success of your digital SRH interventions?

Probe: Indicators used? Results achieved?

13. Based on your monitoring data or feedback, what impact have these platforms had on adolescents?

Probe: Knowledge? Attitudes? Behaviors? Service utilization?

14. Can you share any success stories or positive outcomes?
15. What hasn't worked well? What would you do differently?

Sustainability and Future

16. What are the main factors affecting the sustainability of digital SRH platforms in Ghana?

Probe: Funding? Technology? Political will? Community acceptance?

17. How do digital platforms compare to traditional SRH education methods in terms of effectiveness and reach?
18. What recommendations would you give to organizations planning to implement similar digital SRH interventions?
19. What policy changes or support would help improve digital SRH education for adolescents in Ghana?

CLOSING

Is there anything else about digital SRH interventions for adolescents that you think is important for me to know?

Thank participant, explain next steps, provide contact information.

Appendix C: Document Review Checklist

GUIDE C: DOCUMENT REVIEW CHECKLIST

Purpose: To systematically review documents related to digital SRH interventions

Documents to Review:

☐ Program reports and evaluations

☐ Screenshots/content samples from digital platforms

☐ User guides and training materials

☐ Health communication campaign materials

☐ Policy documents (Ghana Health Service, Ministry of Health)

☐ Published research and grey literature

Information to Extract:

Program Details:

Name, duration, target audience, geographic coverage

Objectives and strategies

Digital Platform Characteristics:

Type of technology used

Content areas covered

Accessibility features

Implementation Insights:

Challenges documented

Success factors identified

Lessons learned

Outcomes/Impacts:

Quantitative indicators

Qualitative feedback

Recommendations made

Contextual Factors:

Cultural considerations mentioned

Barriers identified

Enablers highlighted

Appendix D: Demographic Data Collection Form

GUIDE D: DEMOGRAPHIC DATA COLLECTION FORM

Participant ID: _____ (assigned by researcher)

Date of Interview: _____

Location: _____

Interviewer: _____

Participant Information:

Age: _____

Gender: ☐ Male ☐ Female ☐ Other ☐ Prefer not to say

Educational Status:

☐ In-school (Current level: _____)

☐ Out-of-school (Highest level completed: _____)

Community Type: ☐ Urban ☐ Peri-urban

Specific Community: _____

Living Situation: ☐ With parents ☐ With relatives ☐ Independent ☐ Other: _____

Phone Ownership: ☐ Own smartphone ☐ Own basic phone ☐ Share phone ☐ No access

Internet Access: ☐ Daily ☐ Weekly ☐ Monthly ☐ Rarely ☐ Never

Primary source of data: ☐ Personal purchase ☐ Parents provide ☐ Free WiFi ☐ Other: _____

Digital SRH Platform Experience:

Types of platforms used (check all that apply):

☐ Mobile apps

☐ SMS services

☐ WhatsApp

☐ Facebook

☐ Instagram

☐ TikTok

☐ Websites

☐ YouTube

☐ Other: _____

Duration of use: ☐ Less than 1 month ☐ 1-6 months ☐ 6-12 months ☐ More than 1 year

Frequency of use: ☐ Daily ☐ Weekly ☐ Monthly ☐ Occasionally

Appendix E: Informed Consent Forms

INFORMED CONSENT FORM

For Participants 18 Years and Older

UNIVERSITY OF MEDIA, ARTS AND COMMUNICATION
INSTITUTE OF JOURNALISM (UNIMAC-IJ)
SCHOOL OF GRADUATE STUDIES

STUDY TITLE

Exploring Adolescents' Experiences of Digital Sexual Reproductive Health Education in Ghana

PRINCIPAL INVESTIGATOR

Name: John Kwasi Amuzu

Program: Master of Arts in Development Communication

Contact: 0246760776, amuzukwasijohn@gmail.com

RESEARCH SUPERVISOR

Name: Kodwo Jonas Anson Boateng (PhD)

Department: Department of Communication

Contact: 0248280377

INTRODUCTION

You are being invited to participate in a research study about adolescents' experiences with digital sexual and reproductive health (SRH) education in Ghana. Before you decide whether to participate, it is important that you understand why the research is being conducted and what it will involve. Please take time to read this information carefully and ask questions if anything is unclear.

PURPOSE

This study aims to explore how young people in Ghana experience digital platforms (mobile apps, websites, social media) that provide sexual and reproductive health information. We want to understand what works well, what challenges you face, and how these platforms influence your knowledge and confidence about sexual health matters.

You have been invited because you are between 18-19 years old and have used or heard about digital platforms for sexual and reproductive health information. Your experiences and opinions are valuable for improving these services for young people in Ghana.

DO I HAVE TO TAKE PART?

No. Participation is completely voluntary. You are free to decide whether you wish to participate. If you decide to participate, you may withdraw at any time without giving a reason and without any negative consequences.

WHAT WILL HAPPEN IF I TAKE PART?

If you agree to participate, you will be interviewed by the researcher for approximately 45-60 minutes; the interview will take place at a location of your choice (school, community center, or other private, comfortable setting); you will be asked questions about your experiences with digital sexual and reproductive health platforms; with your permission, the interview will be audio-recorded to ensure accurate information; you may skip any questions you don't want to answer; and you may take breaks whenever needed.

WHAT ARE THE POSSIBLE RISKS AND BENEFITS?

Risks

- Minor discomfort or embarrassment when discussing sexual health topics
- Potential emotional discomfort when reflecting on personal experiences
- These risks are minimal and do not exceed everyday experiences

Benefits

- Opportunity to share your voice and contribute to improving digital health services for young people
- Your participation will help design better sexual health education programs in Ghana
- No direct personal benefits, but you contribute to important research

WILL MY INFORMATION BE KEPT CONFIDENTIAL?

Yes, absolutely. We will protect your privacy in the following ways: your real name will NOT be used in any reports or publications; you will be given a pseudonym (fake name) or code number; audio recordings will be stored in password-protected files accessible only to the research team; your identity will not be revealed to anyone outside the research team; all data will be kept secure for 5 years, then permanently destroyed; and published results will not contain any information that could identify you.

Exception: If you disclose information indicating serious harm to yourself or others, or illegal activity involving minors, the researcher has an ethical and legal duty to report this to appropriate authorities.

WHAT WILL HAPPEN TO THE RESULTS?

The results will be included in a Master's dissertation and may be published in academic journals or presented at conferences. You will not be personally identifiable in any publication. If you wish, a summary of findings will be shared with you upon completion.

WHO IS ORGANIZING AND FUNDING THE RESEARCH?

This research is being conducted by John Kwasi Amuzu as part of his Master of Arts degree in Development Communication at the University of Media, Arts and Communication, Institute of Journalism (UNIMAC-IJ). The research is funded by self-funded.

WHO HAS REVIEWED THIS STUDY?

This study has been reviewed and approved by the Institutional Review Board of UNIMAC-IJ and the Ghana Health Service Ethics Review Committee.

WHAT IF THERE IS A PROBLEM OR I HAVE QUESTIONS?

If you have questions about the study or concerns about your participation:

- Contact the Researcher: John Kwasi Amuzu at 0246760776 or amuzukwasijohn@gmail.com
- Contact the Supervisor: Kodwo Jonas Anson Boateng at 0248280377 or kodwoboateng@gij.edu.gh

If you have concerns about your rights as a research participant or complaints about the research:

Contact: UNIMAC-IJ Ethics Review Committee

CONSENT STATEMENT

I have read and understood the information provided above (or it has been read to me). I have had the opportunity to ask questions and all my questions have been answered satisfactorily.

I understand that: my participation is voluntary; I can withdraw at any time without giving a reason; my information will be kept confidential; the interview will be audio-recorded (if I agree); I will be given a copy of this consent form. I voluntarily agree to participate in this research study.

Participant's Section

Participant's Name (Print): _____

Participant's Signature: _____ Date: _____

I agree to audio recording: ☐ Yes ☐ No

Researcher's Section

I confirm that I have explained the nature, purpose, and procedures of this study to the participant. The participant has had the opportunity to ask questions, and all questions have been answered to their satisfaction.

Researcher's Name: _____

Researcher's Signature: _____ Date: _____

Witness Section (if participant cannot read/write)

I confirm that the information sheet and consent form were accurately explained to the participant in a language they understand, and they have given their consent voluntarily.

Witness Name : _____

Witness Signature: _____ Date: _____

PARENTAL/GUARDIAN CONSENT FORM

For Participants Under 18 Years Old

UNIVERSITY OF MEDIA, ARTS AND COMMUNICATION
INSTITUTE OF JOURNALISM (UNIMAC-IJ)
SCHOOL OF GRADUATE STUDIES

STUDY TITLE

Exploring Adolescents' Experiences of Digital Sexual Reproductive Health Education in Ghana

PRINCIPAL INVESTIGATOR

Name: John Kwasi Amuzu

Program: Master of Arts in Development Communication

Contact: 0246760776, amuzukwasijohn@gmail.com

RESEARCH SUPERVISOR

Name:

Department:

Contact:

DEAR PARENT/GUARDIAN,

Your child/ward is being invited to participate in a research study about young people's experiences with digital sexual and reproductive health (SRH) education in Ghana. This study is being conducted as part of a Master's degree research at UNIMAC-IJ.

PURPOSE OF THE STUDY

This research aims to understand how adolescents in Ghana use and experience digital platforms (such as mobile apps, websites, and social media) that provide sexual and reproductive health information. The findings will help improve digital health programs for young people.

WHY HAS MY CHILD BEEN INVITED?

Your child has been invited because they are between 15-17 years old and have experience with or knowledge about digital health platforms. Their perspectives are valuable for understanding how to make these services better for young people.

WHAT WILL MY CHILD BE ASKED TO DO?

If you give permission and your child agrees to participate: they will be interviewed individually for approximately 45-60 minutes; The researcher will travel to a location convenient for your child (school, community center, or home if you prefer); They will be asked about their experiences with digital sexual and reproductive health information; The interview will be audio-recorded (with permission) to ensure accurate information; and Your child can skip any questions or stop the interview at any time

WHAT ARE THE TOPICS COVERED?

Your child will be asked about: Their awareness of digital health platforms; How they access health information online; Benefits and challenges they experience; How digital information affects their knowledge and confidence; and suggestions for improving these services.

The interview focuses on their experiences with information platforms, not their personal sexual behavior.

WHAT ARE THE RISKS AND BENEFITS?

Risks

- Minor discomfort discussing sexual health topics (similar to health education in schools)
- Slight emotional discomfort when sharing experiences
- These risks are minimal and do not exceed everyday experiences

Risk Management

- Trained researcher will conduct sensitive interviews respectfully
- Your child can skip questions or stop anytime
- Referral to counseling services available if needed

Benefits

- Opportunity for your child to contribute to improving youth health services

- Their voice will help shape better health programs for young people in Ghana
- No direct personal benefits, but contributes to important community research

WILL MY CHILD'S INFORMATION BE KEPT CONFIDENTIAL?

Yes, absolutely. Your child's privacy will be protected: their real name will NOT be used in any reports; they will be given a pseudonym (different name) or code number; only the research team will have access to their information; audio recordings will be stored securely in password-protected files; all data will be destroyed after 5 years, and published results will not identify your child.

Exception: If your child discloses information indicating serious harm to themselves or others, or abuse, the researcher has a legal duty to report this to appropriate authorities for your child's protection.

WHO WILL KNOW MY CHILD PARTICIPATED?

Only you, your child, and the research team will know about their participation. We will not inform teachers, friends, or other family members without your and your child's permission.

DOES MY CHILD HAVE TO PARTICIPATE?

No. Participation is completely voluntary. Even if you give permission, your child must also agree (assent). Either of you can withdraw consent at any time without any negative consequences. Your child's education, healthcare, or other services will not be affected by their decision.

WHAT HAPPENS TO THE RESULTS?

Results will be included in a Master's dissertation and may be published in academic journals. Your child will not be identifiable. You may request a summary of findings after the study is completed.

WHO HAS REVIEWED THIS STUDY?

This research has been reviewed and approved by:

UNIMAC-IJ Institutional Review Board

CONTACT INFORMATION

If you have questions about the study or concerns about your participation:

- Contact the Researcher: John Kwasi Amuzu at 0246760776 or amuzukwasijohn@gmail.com
- Contact the Supervisor Kodwo Jonas Anson Boateng at 0248280377or kodwoboateng@gij.edu.gh

If you have concerns about your rights as a research participant or complaints about the research:

Contact: UNIMAC-IJ Ethics Review Committee

PARENTAL/GUARDIAN CONSENT STATEMENT

I have read and understood this information (or it has been explained to me). I have had the opportunity to ask questions and my questions have been answered satisfactorily.

I understand that: My child's participation is voluntary, both my child and I can withdraw consent at any time without consequences, my child's information will be kept confidential, my child can skip questions or stop the interview at any time, and the interview will be audio-recorded (if we agree)

I give permission for my child/ward to participate in this research study.

Parent/Guardian Section

Child's Name: _____

Parent/Guardian Name: _____

Relationship to Child: _____

Parent/Guardian Signature: _____ Date: _____

Parent/Guardian Phone Number: _____

I agree to audio recording of my child's interview: ☐ Yes ☐ No

Researcher's Section

I confirm that I have explained the study to the parent/guardian. They have had the opportunity to ask questions, which have been answered satisfactorily.

Researcher's Name (Print): _____

Researcher's Signature: _____ Date: _____

YOUTH ASSENT FORM

For Participants 15-17 Years Old

UNIVERSITY OF MEDIA, ARTS AND COMMUNICATION

INSTITUTE OF JOURNALISM (UNIMAC-IJ)

EXPLORING ADOLESCENTS' EXPERIENCES OF DIGITAL SEXUAL AND REPRODUCTIVE HEALTH EDUCATION IN GHANA

Researcher: John Kwasi Amuzu

Contact: 0246760776, amuzukwasijohn@gmail.com

WHAT IS THIS ABOUT?

Hi! My name is John Kwasi Amuzu, and I am a student at UNIMAC-IJ. I am doing research to learn about how young people in Ghana use digital platforms (like mobile apps, websites, and social media) to get information about sexual and reproductive health.

WHY AM I BEING ASKED TO PARTICIPATE?

You are being asked because you are between 15-17 years old and have used or know about digital health platforms. Your experiences and opinions are very important and can help make these services better for young people like you.

WHAT WILL I DO IF I PARTICIPATE?

If you agree and your parent/guardian also agrees, I will interview you for about 45 minutes to 1 hour, I will come to a place that is comfortable for you (your school, a community center, or another private place).

I will ask you questions about digital health platforms you know about or have used, how you get health information online, good things and challenges you experience, how digital information helps you learn about health, your ideas for making these platforms better.

Important: This interview is about your experiences with information and apps, NOT about your personal private life or sexual behavior.

DO I HAVE TO PARTICIPATE?

No! It is completely your choice. Even if your parent/guardian said "yes," you can still say "no." Nobody will be upset with you if you don't want to participate.

CAN I CHANGE MY MIND LATER?

Yes! You can stop participating at any time, even during the interview. You don't have to give a reason. Just tell me you want to stop, and we will stop immediately. This will not affect your school, healthcare, or anything else.

CAN I SKIP QUESTIONS?

Yes! If there are questions you don't want to answer, just tell me and we will move to the next question. You can also take breaks whenever you need them.

WILL MY INFORMATION BE PRIVATE?

Yes, your information will be kept private and confidential. Here's how:

- I will NOT use your real name in any reports or papers
- I will give you a different name (pseudonym) or a code number
- Only my research team and I will know who you are
- I will keep all recordings and notes in a secure, password-protected computer
- Your teachers, friends, and other family members will NOT know what you said unless you want them to

One Exception: If you tell me something that makes me worried that you or someone else is in serious danger, or if you tell me about abuse, I have to report it to people who can help keep you safe.

WILL I BE RECORDED?

If you and your parent/guardian agree, I will audio-record the interview so I don't miss anything you say. If you don't want to be recorded, that's okay—I will just take notes instead.

ARE THERE ANY RISKS?

Talking about sexual and reproductive health might feel a little uncomfortable or embarrassing, but this is similar to health lessons at school. If you feel uncomfortable, you can skip the question. take a break, stop the interview completely.

If you feel upset, I can help you talk to a counselor or healthcare worker who can support you.

ARE THERE ANY BENEFITS?

You will have a chance to share your ideas and experiences. What you share will help make digital health information better for other young people in Ghana. There is no money or prizes, but you are helping with important research!

WHAT IF I HAVE QUESTIONS?

You can ask me questions now or anytime during the study. You can also contact me later if you think of more questions.

Researcher: John Kwasi Amuzu

Phone: 0246760776

Email: amuzukwasijohn@gmail.com

YOUR AGREEMENT (ASSENT)

Please check the boxes that apply:

☐ Someone has explained this research to me in a way I understand

☐ I have had a chance to ask questions

☐ I understand that I can stop participating at any time

☐ I understand my information will be kept private

☐ I understand I can skip questions I don't want to answer

☐ I agree to participate in this research

☐ I agree to have my interview audio-recorded: ☐ Yes ☐ No

Your Name: _____

Your Signature or Mark: _____ Date: _____

Your Age: _____ years old

Researcher's Section

I confirm that I have explained this study to the participant in language they understand. They have had the opportunity to ask questions.

Researcher's Name: _____

Researcher's Signature: _____ Date: _____

Witness Section (if needed)

I confirm that the study was explained to the participant in their language, and they voluntarily agreed to participate.

Witness Name: _____

Witness Signature: _____ Date: _____

THANK YOU FOR CONSIDERING PARTICIPATION IN THIS IMPORTANT RESEARCH!