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Influence of Sexual and Reproductive Health (SRH) Communication Channels and Messengers on Youth Behavioural Responses in Muslim Communities of Isiolo County, Kenya

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Abstract

Sexual and reproductive health (SRH) communication in conservative Muslim communities is shaped by trusted communication channels, influential messengers, and faith-informed socio-cultural norms, which influence youth behavioural responses. However, limited evidence exists on how these communication processes interact to shape behavioural responses in faith-based settings. The objective of this study was to examine the influence of communication channels and messengers on sexual and reproductive health behavioural responses among Muslim youth in Isiolo County, Kenya. Guided by the Theory of Reasoned Action and Social Cognitive Theory, this exploratory qualitative study employed a triangulated qualitative design involving 75 in-depth interviews (IDIs), 12 focus group discussions (FGDs), and 15 key informant interviews (KIIs) with Muslim youth and key community stakeholders. Data were analyzed using hybrid thematic analysis. The findings revealed that communication channels and messengers influenced youth engagement with SRH information, attitudes, and behavioural intentions. Specifically, mosques, *madrassas*, peer forums, and digital platforms emerged as the primary communication channels, while religious leaders, parents, siblings, peers and Muslim health professionals served as principle messengers. Moreover, Interactive, faith-sensitive communication strengthened youth engagement, fostered positive attitudes, and enhanced behavioural intentions, whereas fear-based communication discouraged open dialogue and reduced engagement with SRH information. Effective faith-based SRH communication requires trusted communication channels and credible messengers working together within a culturally appropriate communication environment that integrates islamic values with accurate health information. The findings advance understanding of youth behavioural responses by demonstrating how communication channels, messengers, and communication medium processes interact to shape SRH decision-making in conservative Muslim communities.

Keywords
Faith-based communication, communication channels, sexual and reproductive health messengers, youth behavioral response, Islam, Isiolo County

Introduction

Globally, sexual and reproductive health (SRH) remains major public health challenge. Adolescents and young people continue to experience unmet reproductive health needs, sexually transmitted infections (STIs), including the Human Immunodeficiency Virus (HIV), and unintended pregnancies (Odimba et al., 2021; World Health Organization (WHO), 2024). Although progress has been made in expanding SRH programmes, many young people in low and medium-income countries still lack adequate access to essential SRH information and services. Consequently, effective communication plays a very important role in shaping young people's knowledge, attitudes and behaviours related to Sexual and Reproductive Health (Odimba et al., 2021; World Health Organization (WHO), 2024).

Kenya, like many other countries, is also faced with challenges relating to Sexual and Reproductive Health (SRH). The Kenya Demographic and Health Survey (KDHS) 2022 indicates that 15% of girls aged 15-19 years were already childbearing. Adolescents and young people are more vulnerable to HIV, sexually transmitted Infections (STIs) and have limited access to youth-friendly sexual and reproductive health services, especially in poor and socially conservative settings (Lawrence et al., 2021; Adhiambo et al., 2022). The challenges are more severe in northern Kenya, where social, cultural and religious norms strongly influence sexual and reproductive health knowledge, attitudes and health-seeking behaviours.

Despite the governments and development partners' efforts to address sexual and reproductive health (SRH) in Isiolo County, challenges remain. The county is confronted with challenges such as teenage pregnancies, early marriages, harmful socio-cultural practices, and poor utilization of reproductive health services by adolescents and young people (Isiolo County Government, 2023; Oyoo et al., 2024). This implies that communication strategies need to be culturally sensitive and context-specific. In the county's predominantly Muslim population, discussions on sexual and reproductive health (SRH) are closely linked to religious teachings and moral norms, which affect the acceptability of SRH messages and the manner in which young people access SRH information.

Theories such as the Theory of Reasoned Action and Social Cognitive Theory suggest that health behaviour is influenced by subjective norms, observational learning, and interactions within one's social surroundings (Ajzen & Fishbein, 1977; Bandura, 1999). Consistent with these views, previous studies have shown that communication messengers such as parents and caregivers, peers, religious leaders, educators, and health professionals, and communication channels such as schools, health facilities, peer networks and digital media are pivotal in influencing youth SRH knowledge, attitudes and behaviours.

Young people do not passively consume information, they interpret and respond to SRH messages through the lens of religious beliefs, cultural values and social norms (Taiwo et al., 2023; Akatukwasa et al., 2022). Despite increased research about SRH communication, significant gaps in knowledge persist. Current research has mostly focused on communication messengers and communication channels separately, providing little insight into how their interplay affects youth behavioural responses. This is especially true in the largely Muslim areas of northern Kenya where religious teachings, cultural norms, familial influences, peer interactions, health professionals, and

digital media all play a role in young people's exposure to and interpretation of SRH informationl. There is limited research on how these communication factors collectively determine SRH attitudes, engagement and behavioural intentions among Muslim youth, thereby limiting the design of culturally sensitive communication interventions. The study examined the influence of communication channels and messengers on SRH behaviour among Muslim youth in Isiolo County, Kenya. It focused on how communication channels, messengers, and their interaction influence youth engagement, attitudes, and behavioural intentions within a faith-sensitive context.

Objectives of the Study

The study was guided by the following objectives:

i. To examine how SRH communication channels influence youth behavioural responses among Muslim communities in Isiolo County.

ii. To examine how SRH messengers influence youth behavioural responses among Muslim communities in Isiolo County.

iii. To explore how SRH communication channels and messengers interact to influence youth behavioural responses among Muslim communities in Isiolo County.

Conceptual and Theoretical Background

Theoretical framework

The study was guided by the Theory of Reasoned Action (TRA) and Social Cognitive Theory (SCT) which provided complementary perspectives on how communication messengers and communication channels influence sexual and reproductive health (SRH) behavioural responses among Muslim youth in Isiolo County. TRA explains how attitudes and subjective norms influence behavioural intentions, while SCT emphasizes observational learning, role modelling, and self-efficacy in behavioural change. Together, the theories explain how trusted communication messengers, communication environments, and prevailing social and religious norms influence young people's interpretation of SRH information and behavioural responses.

The Theory of Reasoned Action is based on the premise that behavioural intentions are influenced by individual attitudes and perceived social norms (Fishbein & Ajzen, 1977), while Social Cognitive Theory explains behaviour through interactions between personal, behavioural, and environmental factors (Bandura, 1999). The combination of these theories provides a broader understanding of both the formation of behavioural intentions and the behavioural learning processes underlying SRH decision-making among Muslim youth. The Theory of Reasoned Action and Social Cognitive Theory were used to guide all stages of the study, beyond their role as the theoretical framework.

During data collection, the theories were used to guide the development of interview guides to explore attitudes towards sexual and reproductive health (SRH), perceived social norms, trusted communication messengers, communication channels, behavioural intentions, observational

learning, and behavioural experiences among Muslim youth. During data analysis, the theories informed the initial coding framework while allowing inductively derived themes to develop. The interpretation of findings integrated both theories to examine how behavioural intentions, social norms, observational learning, and the combined influence of communication channels and messengers shaped SRH behavioural responses through credibility, dialogue, and meaning-making processes among Muslim youth in Isiolo County.

This study contributes to the faith-based SRH communication literature by integrating the Theory of Reasoned Action and Social Cognitive Theory into a single analytic framework for understanding how Muslim youth interpret, negotiate, and respond to SRH messages. While previous studies have generally examined communication messengers, communication channels, or behavioural processes separately, this study demonstrates that communication channels and messengers jointly shape SRH behavioural responses in a conservative Muslim setting. This extends the application of behavioural and sociocultural communication theories to an under-researched Islamic context and provides a more comprehensive explanation of faith-based SRH communication.

Conceptual Framework

This study conceptualizes youth behavioural responses to sexual and reproductive health (SRH) communication as emerging from the interaction between communication channels and messengers within a faith-informed socio-cultural context. Communication channels (mosques, madrasa institutions, health facilities, peer networks, and digital platforms) and messengers (religious leaders, parents, madrassa teachers, peers, and health professionals) constitute the independent variables, while youth behavioural responses is the dependent variable. The conceptual relationships among these variables are illustrated in figure 1.

The framework proposes that communication channels and messengers influence youth behavioural responses through three communication mediation processes identified from the qualitative analysis. These mediating processes include *message credibility*, through which trust, legitimacy, and acceptance of SRH messages are established-; *interactive dialogue*, through which young people discuss, question, clarify, and verify SRH information; and *message interpretation*, through which youth interpret and contextualize SRH messages within their religious and socio-cultural contexts. Together, these processes represent the mechanisms through which communication influences youth attitudes, engagement, behavioural intentions and SRH related decision-making.

The faith-informed socio-cultural context functions as an overarching contextual influence that shapes the credibility, interpretation, and acceptance of SRH communication across the entire communication process. The framework draws on the Theory of Reasoned Action and Social Cognitive Theory to explain how communication channels and messengers, operating through these communication mediation processes, influence youth behavioural responses in Muslim communities of Isiolo County.

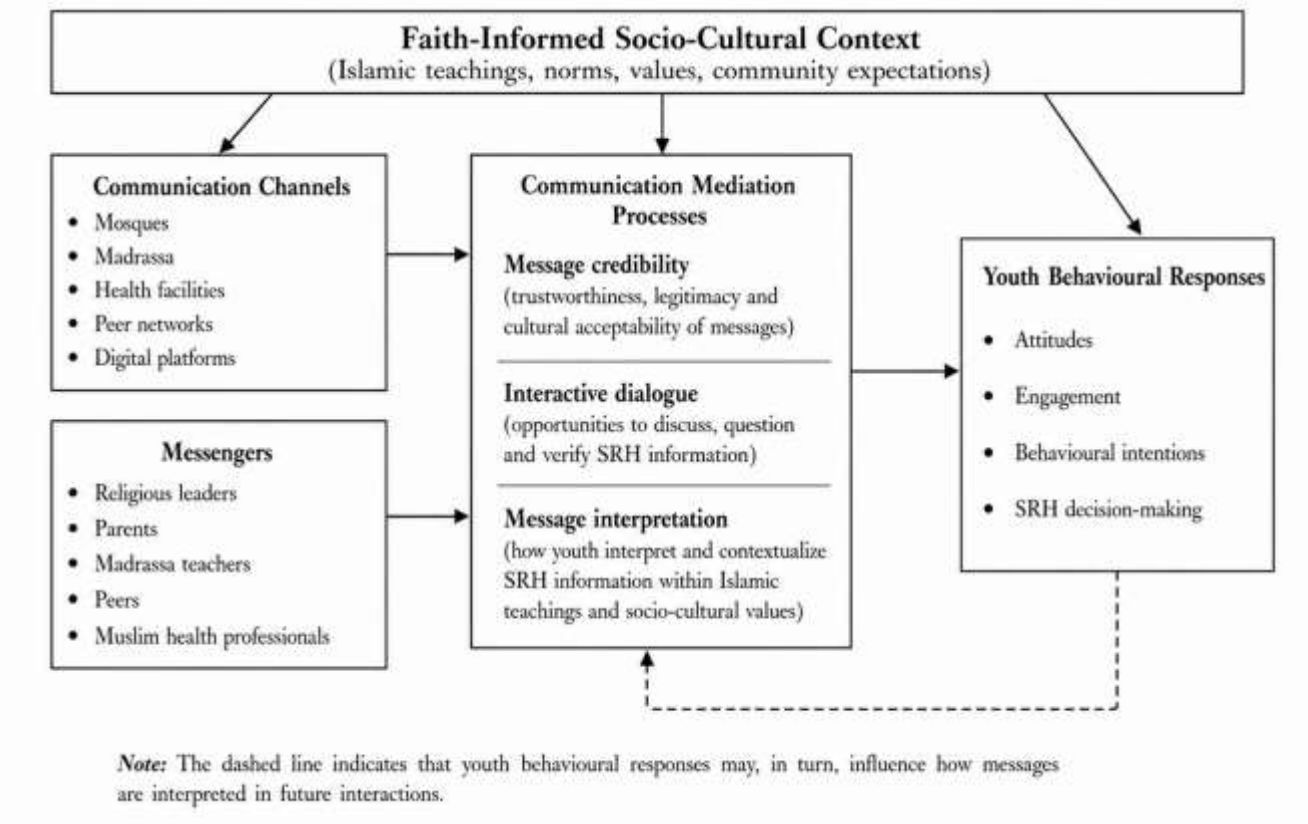

Figure 1: *Conceptual Framework*

Empirical review and research gap

Empirical evidence demonstrates the complementary role of both communication channels and messengers in shaping young people's access to SRH information, knowledge, attitudes, and behavioural outcomes. Data from sub-Saharan Africa show that school-based programmes, community outreach activities, health services and digital communication channels improve access to accurate information and enable informed decision-making, and as a result, improve young people's SRH literacy (Amanu et al., 2023; Alhassan et al., 2025; Odii et al., 2024).

Effective communication through these channels has been linked with higher usage of youth-friendly SRH services and favorable uptake of preventive health behaviours. Interpersonal communication is still crucial to teenage sexual and reproductive health. Parents, friends, teachers, religious leaders and health experts are reliable communication messengers who influence young people's awareness of SRH through mentoring, role modelling, socialization, and trust building (Agyei & Kaura, 2023; Matovu et al., 2020; Chitando, 2025). The studies collectively suggest that effective communication about SRH depends on availability of multiple communication channels and credibility of the messengers. This highlightsthe need for integrated communication strategies that connect accessible information channels with trusted interpersonal relationships.

The existing body of -literature acknowledges the importance of communication channels in sexual and reproductive health (SRH) communication, although evidence regarding their efficacy remains uneven. Digital platforms are a useful channel for providing SRH information as they provide privacy, anonymity and timely access to health information, especially for adolescents and young people who experience geographical, social or cultural barriers to conventional health services (Alhassan et al., 2025; Amanu et al., 2023). However, they are not always effective. Digital platforms can improve access to SRH information but can also spread misinformation, conflicting health advice, and unregulated content that can threaten the reliability of information and hinder effective SRH decision making among young people (Amanu et al., 2023).

In addition, communication via schools, health facilities and community outreach activities has been associated with higher levels of knowledge of sexual and reproductive health, higher levels of trust, and higher use of health services by young people (Ninsiima et al., 2021; Chamuka, 2024). However, the effectiveness of these communication channels might be impeded by socio-cultural norms, religious beliefs, gender expectations, and stigma surrounding discussions on sexuality (Ninsiima et al., 2021; Chamuka, 2024). The results show that SRH communication effectiveness relies not only on the communication channel but also on the socio-cultural setting where communication takes place. Furthermore, the evidence regarding communication messengers is nuanced, with systematic reviews and qualitative studies demonstrating that interpersonal communication, socialization, role modelling, and trust-building by parents, peers, teachers, health professiona/ls, and religious leaders influence youth SRH knowledge, attitudes, and behavioural decisions (Agyei & Kaura, 2023; Matovu et al., 2020; Chitando, 2025).

Rather, these communication messengers tend to complement each other by reinforcing, clarifying, or contextualizing SRH messages. This suggests that coordinated communication, grounded in trusted interpersonal relationships, is more likely to result in positive behavioural outcomes than reliance on a single communication messenger.

However, the literature on the role of religious leaders in sexual and reproductive health (SRH) communication is inconclusive. Religious leaders have been shown in many instances to improve the credibility, acceptability, and moral validity of SRH messaging within faith-based groups, thereby influencing norms and youth behavioural outcomes (Chitando, 2025; Ashriady et al., 2024). Conversely, other studies have revealed that the restrictions associated with doctrinal and conservative religious interpretations might hamper open conversations about sexuality, contraception, and reproductive health, and hence hinder young people's access to comprehensive SRH information in religious contexts (Usonwu et al., 2021).

Likewise, health workers are generally considered credible sources of SRH information, but their effectiveness depends on their technical expertise, and culturally sensitive communication, confidentiality, and respectful engagement with adolescents and young people in conservative settings (Amanu et al., 2023; Ninsiima et al., 2021). Together, these findings provide insights into the highly contextual nature of the effects of communication messengers, and how their influence is conditioned by the relationship between religious beliefs, socio-cultural norms, communication practices , and institutional trust. Overall, the empirical evidence shows that both communication

channels and messengers are important in influencing SRH knowledge, attitudes, and behavioural intentions. However, these factors have been studied mostly in isolation, and little is known about how communication channels and trusted messengers interact to influence behavioural outcomes.

Moreover, the scholarly literature on sexual and reproductive health (SRH) communication is extensive, but less is known about how young people assess, negotiate, and internalize SRH information in religious and socio-cultural settings. The gap is particularly evident in conservative Muslim communities, where social and religious norms greatly influence communication styles and reproductive health decisions.

Previous studies have acknowledged the role of religion in shaping SRH attitudes and behaviours but provide limited qualitative insights into how faith-based communication channels such as mosques and *madrassa* institutions interact with key communication messengers such as religious leaders, parents, peers, and health professionals to influence behavioural responses among young people. Crucially, the influence of processes such as trust-building, moral framing, and meaning-making on the interpretation and acceptance of SRH messages in such settings is not well understood (Ashriady et al., 2024; Amanu et al., 2023). In addition, empirical studies examining these complex relationships among Muslim communities in northern Kenya remain limited. To address this gap, the present study employedan integrated qualitative approach to explore the interplay between communication channels and messengers and their influence on youth behavioural responses to SRH communication in Isiolo County, Kenya.

Methodology and Approach

Research Design and Study Setting

This study adopted an exploratory qualitative design to examine faith-based sexual and reproductive health (SRH) communication among Muslim youth in Isiolo County, Kenya. The design was appropriate for generating in-depth insights into how communication channels and messengers shape youth behavioural responses to SRH information within a conservative religious context. Methodologically, the study adopted a triangulated qualitative approach incorporating in-depth interviews, focus group discussions, key informant interviews, and non-participant observations, supported by hybrid inductive–deductive thematic analysis. This triangulated approach allowed the integration of individual experiences, institutional perspectives, and religious discourse, thereby providing a richer understanding of faith-based SRH communication within a conservative Muslim community, compared with studies that have relied primarily on single qualitative methods or secondary data sources. The study was conducted in five purposively selected locations including Isiolo Town, Garba Tulla, Kinna, Kulamawe, and Merti to capture variations in geographical setting, religiosity, and exposure to SRH communication.

Data were collected through 75 in-depth interviews (IDIs) with Muslim youth aged 19–28 years, 12 focus group discussions (FGDs) with youth, parents, and religious leaders, and 15 key informant interviews (KIIs) with religious leaders, health workers and civil society representatives.

In addition, non-participant observations of selected sermons and *madrasa* sessions were undertaken to complement and triangulate the interview data. Participants were recruited using

purposive and snowball sampling techniques. The inclusion criteria for youth participants were beingMuslim, aged between 19 and 28 years, living in the study area, and providing informed consent. Those who did not meet the criteria or who declined to participate were excluded from the study. The sample was distributedover the five study sites to ensure representation of different socio-cultural contexts. Data collection continued until thematic saturation was reached, defined as the point at which no substantially new themes emerged from subsequent interviews, focus group discussions, or key informant interviews.

Data collection and Analysis

Semi-structured interview guides were used to collect data, with the tools developed in line with the study objectives and theoretical framework. The data collection methods included in-depth interviews to explore personal experiences of faith-based SRH communication, focus group discussions to examine collective viewpoints and social interactions, and key informant interviews to provide institutional and professional perspectives. Separate guides were prepared for youth, parents, religious leaders, health practitioners, and community members. Non-participant observation of a number of sermons and *madrasa* classes was conducted to record the content of messages and participant involvement. Data collection was undertaken by 10 trained, gender-matched research assistants under the supervision of the principal researcher.

In-depth and key informant interviews lasted approximately 60 - 90 minutes, while focus group discussions lasted 75 - 90 minutes. Owing to the sensitive nature of the study, interviews were not audio-recorded. Instead, interviewers used voice-typing to generate detailed field notes immediately after each interview, which were reviewed, anonymized, and securely stored before analysis. Data were analyzed using a hybrid inductive–deductive thematic approach.

Deductive codes were derived from the study objectives, the Theory of Reasoned Action, and Social Cognitive Theory, while inductive codes emerged from participants' narratives. Codes were categorized and then refined into themes through constant comparison across interviews, focus group discussions, and observations.

Microsoft Excel was used to manage transcripts and coding matrices, offering a systematic and transparent approach to qualitative data management. Triangulation, peer debriefing, and member checking were used to enhance the credibility of the findings, while discourse analysis was used to examine recurring messaging frames, as well as the interaction between communication channels and messengers and how this interaction influenced youth behavioural responses.

Study limitations

The study has several limitations. First, although variation in age, gender, and religious involvement was ensured to capture diverse perspectives, purposive sampling limits the transferability of the findings beyond the study context. Second, because SRH discussionsare sensitive in conservative settings, self-reported data may be influenced by social desirability bias; this was mitigated through anonymity, confidentiality, and private interview settings.

Third, despite the rich contextual descriptions to support transferability, the study was conducted in Isiolo County and may not fully reflect experiences in other Muslim settings. Fourth, hard-to-reach youth may be underrepresented; this was addressed through the use of key informants and community gatekeepers. In addition, the focus on participants aged 19 – 28 years limited direct insights into school-based SRH communication, which was partly mitigated through retrospective accounts of adolescent experiences.

Lastly, reliance on retrospective recall, which may introduce memory bias, was unavoidable due to the ethical exclusion of participants under the age of 19. Nevertheless, triangulation of data sources and cross-checking of emerging themes were used to enhance credibility of the findings.

Ethical Considerations

Ethical approval for the study was obtained from the National Commission for Science, Technology and Innovation (NACOSTI) (Ref. No. 962160). All participants provided written informed consent prior to data collection, and participation was voluntary. Participants were informed that they may decline to participate, skip any question they felt uncomfortable answering, or withdraw from the study at any moment without consequence. Interviews were conducted in private settings, and identifying information was removed from field notes and transcripts. Pseudonyms were used in analysis and reporting to preserve the anonymity of the participants. Due to the sensitive nature of the study, the interviews were not recorded but detailed field notes were voice-typed immediately after each interview, de-identified, and stored in password secured computer files accessible only to the research team. In order to minimize bias in data collection and interpretation, the researcher maintained reflexive awareness throughout the research process. The credibility of the findingswas enhanced through triangulation of data sources, member checking, peer debriefing, and maintenance of an audit trail throughout the study process.

Results

Participant Characteristics

Table 1 shows that a total of 75 Muslim youth participants were recruited for in-depth interviews (IDIs) from five sub-counties of Isiolo County, namely Garba Tulla, Isiolo Town, Kinna, Kulamawe, and Merti. The sample comprised both male and females, with females accounting for 60% (n=45) and males for 40% (n=30). Regarding age, 47% (n=35) were between 22 and 25 years, 33% (n=25) were between 19 and 21 years and 20% (n=15) were between 26 and 28 years. The majority of the participants were single (63%, n=47) with 37% (n=28) being married. In terms of education, 40% (n=30) had post-secondary or university education, 43% (n=32) secondary education and 17% (n=13) primary or no formal schooling. In terms of employment status, 49% (n=37) were unemployed, 32% (n=24) were employed, and 19% (n=14) were self-employed. The research sites were fairly evenly distributed across locations. Garba Tulla (27%), Isiolo Town (24%), Merti (20%), Kulamawe (16%) and Kinna (13%). In addition, 15 key informants participated in the study, including; religious leaders, health experts, representatives from CSOs, women leaders, and youth representatives. A total of 12 focus group discussions (FGDs) were conducted with youth, parents/guardians, and religious leaders from the study locations. Separate FGDs were conducted for male and female participants to capture gender-specific perspectives.

Table 1

Summary of Participant Characteristics (n = 75)

Characteristic	**Summary**
Gender	Female: 45 (60%); Male: 30 (40%)
Age	25 (33%) aged 19–21; 35 (47%) aged 22–25; 15 (20%) aged 26–28.
Marital Status	Single: 47 (63%); Married: 28 (37%)
Education	13 (17%) had primary/no formal education; 32 (43%) had secondary education; 30 (40%) had post-secondary/university education
Study Sites	Isiolo Town, Garba Tulla, Kinna, Kulamawe, and Merti

Source: Field Data (2025).

4.2 Communication Channels of Faith-Based Sexual and Reproductive Health Messaging

As shown in Table 2, Muslim youth received sexual and reproductive health (SRH) information through multiple interconnected communication channels, including *mosque sermons, madrasa instructions, family-based communication, health facilities, digital platforms, and peer forums*. These channels operated collectively rather than independently, serving as complementary sources through which youth accessed, interpreted, validated, and negotiated SRH information.

Table 2

Communication Channels of Faith-Based Sexual and Reproductive Health (SRH) Messaging among Muslim Youth in Isiolo County

Communication Channel	**Level of Influence**	**Primary function**	**Illustrative Quote**
Mosque sermons	High	Moral guidance	*"The imam reminds us about abstaining and staying away from zina."* (Male, 24, IDI)

Madrasa instruction	High	Religious instruction	*"We are taught what is halal and haram and expected to follow it."* (Female, 20, IDI)
Digital platforms	High	Information access	*"I search online because it is private and no one judges you."* (Female, 22, IDI)
Peer forums	High	Informal discussion and support	*"Friends explain things in a way that is easier to understand."* (FGD Participant)
Family-based communication	Moderate	Early moral socialization	*"My mother tells me to wait until marriage but does not explain more."* (Female, 21, IDI)
Health facilities	Moderate	Professional guidance/ and counselling	*"At the clinic I can ask anything without fear."* (Female, 27, IDI)

Source: Field Data (2025).

Religious institutions, peer forums, and digital platforms emerged as the main sources due to their accessibility and perceived relevance, while family communication and health facilities provided moral guidance and professional clarity. The roles of communication channels varied significantly across study participant groups. Digital channels and peer forums were consistently preferred by Muslim youth as they provided privacy, anonymity, and opportunities to clarify sensitive SRH issues without fear of societal judgment.

In contrast, parents and religious leaders identified the mosque, the *madrasa*, and family-based communication as the most appropriate channels for promoting moral values and acceptable behaviour. Health professionals viewed faith-aligned health facilities as complementary spaces that could respect religious beliefs while providing accurate and reliable medical information. However, all participant groups agreed that no single communication channel was sufficient on its own. Instead, youth commonly navigated across multiple channels, where religious organizations provided moralguidance, peers and digital platforms enabled discussion and clarification of sensitive issues , and health professionals offered credible SRH information. Overall, the findings suggest that SRH communication occurs within a layered communication environment in which different channels serve complementary and interconnected roles.

Mosque and *Madrassa* Communication

Mosque sermons and *madrassa* instruction emerged as the primary formal channels of faith-based sexual and reproductive health communication. *Imams* often spoke about sexuality, modesty, marriage, and the prohibition of illegitimate sexual behaviour during sermons, while *madrassa* lessons covered SRH-related topics as part of broader teachings on Islamic law and moral conduct

. Both channels were perceived as highly *structured*, *authoritative*, and largely *one-way communication* with limited opportunities for questions, discussions, or clarification.

One participant explained:

"In mosques, the imam speaks with authority from the mimbar ('pulpit'), so you just listen even if you do not fully understand everything." (Female, 21 years, IDI)

Similarly, a *madrassa* participant observed:

"We are taught what is halal (permissible) and haram (prohibited), and we are expected to follow what has already been defined without questioning."

Observational data supported these accounts, showing that mosque sermons and *madrassa* lessons consistently emphasized *abstinence*, *modesty*, *moral responsibility*, and *adherence to religious teachings*, while providing limited discussion of practical SRH concerns or opportunities for clarification. Although both youth and religious leaders acknowledged the authority and credibility of mosques and *madrassa* institutions, their perceptions differed. Religious leaders viewed these settings as importance spaces for transmitting Islamic values and protecting young people from behaviours considered religiously unacceptable. In contrast, the majority of the youth valued the credibility of religious teachings but expressed a desire for greater opportunities to ask questions and discuss practical SRH concerns. These findings were further reinforced by observational data, which showed that communication in both settings remained predominantly *didactic*, with minimal opportunities for *interactive dialogue*.

Family-based Communication

Family-based communication was identified as a major source of early SRH socialization. Parents, particularly mothers, were often reported to emphasize *abstinence, family honor and religious commitment*. However, participants indicated that these discussions were mostly indirect and provided limited practical information on sexual and reproductive health.

As one participant stated:

"My mother tells me to wait until marriage and not do anything that can bring shame to the family, but she does not explain further." (IDI Participant)

In contrast, older siblings were viewed as more approachable and willing to discuss sensitive SRH issues openly.

"My sister talks to me in a way that I understand without feeling embarrassed." (FGD Participant)

The findings suggest that parents served as important "*moral mentors*", while siblings often acted as "*informal interpreters*", making SRH issues more comprehensible. The findings further revealed differences in the communication roles of family members, with parents primarily providing moral "instruction" on *abstinence, modesty and family honour*, while siblings were perceived as more accessible for discussing sensitive sexual and reproductive health concerns. Both male and female participants reported that siblings played an important role in interpreting

and contextualizing parental advice in more relatable and understandable ways. Overall, the findings indicate that family members perform distinct yet complementary roles in household SRH communication.

Health Facilities and Muslim Health Professionals

Health facilities were identified as trusted communication channels where participants sought confidential clarification on SRH concerns. Participants particularly valued Muslim health professionals, whose cultural and religious alignment strengthened trust and encouraged open discussion of SRH issues. Unlike religious or family settings, health facilities provided opportunities for young people to ask questions freely without fear of judgment.

As one IDI respondent explained:

"At the clinic I can ask anything, and the health workers explain without judgment. At my local health facility, we have hijabi ("veiled') nurse. I feel I can relate to her, and I ask her anything. She explains compassionately but also relates the message to Islamic teachings" (Female, 27 years, IDI).

Both health professionals and participants agreed on the the role of health professionals as trusted interpersonal sources of SRH information. Young participants consistently reported valuing confidential and non-judgmental communication, while married women appreciated guidance and counselling on various SRH concerns, including antenatal (ANC) and postnatal (PNC) care.

Health professionals emphasized the importance of culturally sensitive communication to build trust within conservative Muslim communities. Unlike communication in many religious settings, interactions with health professionals were often described as *dialogic*, providing opportunities for young people to ask questions, seek clarification, and discuss sensitive SRH issues that were d difficult to raise in other settings.

Digital Platforms and Peer Forums

Digital platforms and peer forums emerged as key informal communication channels for SRH information, complementing institutional channels. Participants found digital platforms (such as Whatsapp, X, youtube, and Islamic or health-related websites) valuable because they providedprivacy, anonymity, and rapid access to information that could not be easily discussed within families or religious settings.

One FGD participant remarked:

"I prefer using my phone because I am afraid of being judged if people know what I am asking. So, I use online sources to research and get information on SRH issues"

Peers were similarly regarded as trusted channels for discussing relationships and sensitive SRH concerns because of their shared experiences and mutual understanding.

"It is easier to talk to friends than to ask adults about such sensitive things. They don't judge me. They also relate to what I am experiencing" (IDI Participant)

Digital platforms and peers both contributed to participants' *understanding, interpretation, and discussion* of SRH information. However, participants highlighted that information received

through these channels was not always accurate, and often required verification from trusted adults or health professionals. Both male and female participants appreciated digital platforms as a private and convenient means of accessing SRH information, while also recognizing the potential risks of misinformation. Participants further reported that peer interactions helped them to interpret and contextualize information received from religious institutions and digital platforms. Nevertheless, neither peers nor digital media were considered fully reliable sources. Instead, participants often verified information obtained through these channels with trusted messengers, including religious leaders, parents and health professionals.

Cross-Cutting Communication Patterns

Across the in-depth interviews, focus group discussions, key informant interviews, and observations, a consistent cross-cutting pattern emerged, showing that SRH communication was not dependent on a single source but distributed across multiple complementary communication processes. Participants demonstrated navigation across different communication channels and messengers depending on the type of SRH information sought. Religious institutions were primarily associated with moral guidance and behavioural expectations, family members reinforced normative expectations within the household context, peers and digital platforms facilitated discussion, interpretation, and informal information exchange, while health professionals provided confidential, explanatory, and dialogue-based clarification of SRH concerns.

Although perceptions of the roles of the identified communication channels and messengers varied across participant groups, there was broad consensus that no single source was sufficient for effective SRH communication. Instead, effectiveness emerged from the convergence and complementarity of trusted messengers operating through socially and religiously legitimate channels within a shared faith-informed socio-cultural context, highlighting an interconnected communication ecology of meaning-making and response.

This was reflected in a key informant interviewee' perspective that *"SRH communication is not received in isolation. Its credibility is dependent on both the messenger and the communication through which its delivered"*.

Communication channels and messengers jointly shape SRH behavioural responses through processes of credibility, dialogue, and meaning-making.

The study findings further indicated that learning also occurred throughbehavioural modelling , where participants observed and internalized SRH-related norms from religious leaders, health workers, and elder sisters who were socio-culturally relatable to them. This form of modelling reinforced acceptable behavioural expectations within the community and strengthened the translation of communicated messages into everyday practices.

Discussion

The findings show that multiple communication channels converge to shape sexual and reproductive health (SRH) communication among Muslim youth in Isiolo County. Participants described navigating between religious institutions, family, peers, digital platforms, and health

professionals to access, understand, and verify SRH information. This study, however, extends existing evidence by demonstrating how these communication channels operate within a conservative Muslim community, where religious beliefs significantly influence message interpretation and behavioural responses. Unlike settings where schools or conventional health education programmes serve as primary sources of SRH information, participants consistently identified religious institutions (mosque and madrassas) as the key entry points through which SRH messages gained legitimacy and social acceptance. These findings suggest that effective SRH communication depends not only on the availability of SRH information but also on its alignment with socio-religious norms and its delivery through trusted communication channels and messengers.

The study findings point to the context-dependent nature of communication channels. They further suggest that trustworthiness alone is insufficient for effective communication. *Imams* and *madrassa* teachers were widely perceived as highly trusted sources of moral guidance, although many interviewees expressed a desire for greateropportunities for discussion and clarifications. The gap between message authority and communication effectiveness indicates that behavioural outcomes are maximized when authoritative communication is combined with interactive dialogue, rather than the one-way delivery of religious teachings. These findings contribute to the growing evidence highlighting the critical role of religious leaders in enhancing youth engagement with SRH communication and underscore the need for dialogic communication approaches within faith-based settings (Ashriady et al., 2024; Chitando, 2025).

Mosques and *madrassas* emerged as the primary sources of moral guidance on sexual and reproductive health, consistent with studies demonstrating that religious leaders enhance the legitimacy of SRH messages within religious communities (Ashriady et al., 2024; Chitando, 2025). However, in contrast to previous studies that primarily emphasizet the beneficial influence of religious leaders, the present findings indicate that participants perceived communication in these settings as predominantly *directive*, with limited opportunities to discuss practical SRH issues. Consequently, participants sought additional opportunities for dialogue and clarification through health professionals, peer networks, and online platforms.

Health professionals were considered *trustworthy* sources of confidential and culturally appropriate SRH information, while peers helped facilitate open discussions on sensitive topics. Although access to SRH information through digital platforms was valued, participants also expressed concerns about the potential risk of misinformation (Abdul Hamid Alhassan et al., 2025; Ninsiima et al., 2021; Uhawenimana et al., 2026). Overall, the findings indicate that effective SRH communication depends not only the credibility and accessibility of information, but also on opportunities to verify and clarify messages across multiple communication channels. A fundamental contribution of this study is the insight that communication channels perform complementary rather than conflicting roles. Participants reported a *sequential communication process* in which information from one source was assessed, questioned, and corroborated through another trusted source.

This study extends previous research, which has largely focused on communication messengers, communication channels, or access to SRH services in isolation (Agyei & Kaura, 2023; Usonwu et al., 2021). The findings demonstrate that communication effectiveness results from the

interconnection between trusted messengers and communication channels. Accordingly, the findings support comprehensive SRH communication strategies that integrate faith-based institutions, families, health professionals, peer networks and digital platforms.

The findings also corroborate the Theory of Reasoned Action and Social Cognitive Theory. Religious and family communication shaped subjective norms and behavioural intentions, whereas peer and health professional interactions enhanced observational learning and informed decision-making. The strongest behavioural responses occurred when messages from different communication channels were consistent, trusted, and culturally acceptable. Together, these findings demonstrate how the two theories complement each other within a faith-informed communication context, where subjective norms, observational learning, trust, and communication credibility jointly influence behavioural decision-making among Muslim youth.

Overall, the findings indicate that faith-based SRH communication is most effective when communication channels and messengers operate together in a coordinated manner. Sustained behavioural change is therefore more likely when SRH interventions strengthen these complementary linkages.

Conclusion

The study examined the influence of communication channels and messengers on sexual and reproductive health (SRH) behavioural responses among Muslim youth in Isiolo County. The findings indicate that effective faith-based SRH communication depends on the interaction between trusted communication channels, credible messengers, and culturally appropriate communication approaches. Religious institutions, families, health professionals, peers, and digital platforms played complementary roles in shaping young people's interpretation of and response to SRH messages. The study further demonstrates that youth behavioural responses are shaped through the interaction of communication channels and messengers, mediated by message credibility, interactive dialogue, and message interpretation within a faith-informed socio-cultural context. Overall, coordinated communication channels and trusted messengers strengthened youth engagement, informed decision-making, and positive behavioural responses, providing an integrated framework for culturally sensitive SRH communication in conservative Muslim communities.

Recommendations

Faith-based institution and religious leaders

Religious leaders, mosque committees, and *madrassa* administrators should incorporate structured interactive forums, such as question-and-answer sessions and youth discussions, into mosque sermons and madrassa programmes. This would enable young people to seek clarification, address misconceptions, and improve their understanding of SRH issues within an Islamic framework.

Health Sector and Religious Institutions

The Isiolo County Department of Health, Muslim health professionals, and religious institutions should develop collaborative SRH outreach programmes through joint health education forums,

community outreach activities, and referral pathways to youth-friendly health services. Such partnerships would enhance the credibility, accessibility, and cultural acceptability of SRH information among Muslim youth.

Family and Community-based Communication Messengers
Parents, siblings, peers, and community leaders should be supported through parent education programmes, community dialogue forums, and faith-sensitive communication training. This would strengthen their capacity to provide accurate and culturally appropriate SRH information within families and communities.

Digital Communication Platforms
Religious institutions, the Isiolo County Department of Health, Muslim health professionals, and youth-focused organizations should collaborate to develop and disseminate accurate, faith-sensitive SRH information through verified social media platforms, WhatsApp groups, and other youth-friendly digital channels. Expert moderation and regular content verification would enhance the credibility of information and reduce the spread of misinformation.

Suggestions for Further Research
Future research should evaluate the effectiveness of specific communication channels and messengers in influencing SRH knowledge, attitudes, intentions, and behavioural outcomes among Muslim youth. Comparative studies across different Muslim communities, geographical settings, and age groups would enhance understanding of how faith-based communication shape behavioural responses within diverse socio-religious contexts. Future research should also include younger adolescents and hard-to-reach youth populations to address existing gaps in representation and strengthen the evidence base on the effectiveness, reach, and sustainability of faith-based SRH communication interventions.

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