East African Journal of Communication Studies (EAJoCS)
2025, VOL. 1, NO. 2, 1-27
https://doi.org/10.56279/eajocs.v1i2.1

Dar es Salaam
University Press
(DUP)

# Relational Commitment and HIV Prevention Communication Among Tanzanian Youth Aged 18-24

*Benedicto Luvanda*[1], *Richard Sambaiga*[2], *Joseph Joachim Olomy*[3]

## Abstract

This study examined how relational commitment shapes HIV prevention communication and uptake of preventive services among young people in Tanzania. A convergent parallel mixed-methods design was used. Quantitative data were collected from 460 young people aged 18-24 years in Njombe District Council, Makambako Town Council, and Makete District Council. Qualitative data were obtained through 24 in-depth interviews with young people and contextual informants. Quantitative data were analysed using descriptive statistics, chi-square tests, and logistic regression, while qualitative data were analysed thematically. The findings showed that dating and married participants were more likely than single participants to discuss HIV prevention and report recent HIV testing. However, relationship status did not independently predict HIV testing or consistent condom use after accounting for communication-related factors. Communication exposure and prevention dialogue were associated with greater uptake of testing, whereas fear of testing and partner resistance constrained preventive action. Qualitative findings showed that testing was often framed as shared care, whereas condom negotiation could signal mistrust within committed relationships. The study concludes that relational commitment affects HIV prevention mainly by shaping communication, rather than directly determining behaviour.

**ARTICLE HISTORY**
Received 13th November 2025
Accepted 7 July 2026

**KEYWORDS**
Health communication, Relational commitment, HIV prevention, Service uptake, Health Belief Model

**HOW TO CITE**
Luvanda, B. et al. (2026). Relational Commitment and HIV Prevention Communication Among Tanzanian Youth Aged 18-24. *East African Journal of Communication Studies*, Vol. 1(2), 1–27. https://doi.org/10.56279/eajocs.v1i2.1

[1] Centre for Communication Studies | University of Dar es Salaam | luvanda.benedicto@udsm.ac.tz
[2] Department of Sociology and Anthropology | University of Dar es Salaam | richsambaiga@gmail.com
[3] Centre for Communication Studies | University of Dar es Salaam | jjolomy@gmail.com

## 1. Introduction

Young people remain central to HIV prevention efforts in sub-Saharan Africa, where new infections and gaps in uptake of preventive services continue to affect adolescents and young adults. In Tanzania, people aged 15-24 years are identified as a priority population in national HIV strategies. Yet, uptake of HIV testing and consistent condom use remain uneven despite widespread awareness of HIV transmission and prevention (Tanzania Commission for AIDS [TACAIDS], 2022, 2024; UNAIDS, 2023). This discrepancy indicates that access to information alone does not necessarily translate into preventive action. Understanding how HIV messages are interpreted, discussed, and acted upon within young people's everyday relationships is therefore important for strengthening prevention communication.

In intimate relationships, HIV-prevention decisions are not always made as purely individual choices; they are often shaped by trust, fidelity, disclosure, and expectations of commitment (Allen et al., 2003; Chimbiri, 2007; Maharaj & Cleland, 2004; Parikh, 2007). Testing, condom use, disclosure, and treatment-related discussions therefore occur within relational settings where prevention behaviours may carry meanings beyond biomedical risk reduction. Previous studies have shown that stable relationships may support joint testing and mutual disclosure, but they may also discourage condom negotiation when condom use is interpreted as evidence of mistrust or infidelity (Allen et al., 2003; Chimbiri, 2007; Maharaj & Cleland, 2004; Parikh, 2007). Although partner communication has been associated with HIV-prevention behaviours (Noar et al., 2009), limited attention has been given to whether different levels of relational commitment shape prevention behaviour directly or operate through communication processes such as partner dialogue, exposure to HIV messages, and the reduction of perceived barriers.

Therefore, this study examines how relational commitment shapes HIV-prevention communication and uptake of preventive services among young people aged 18-24 in Tanzania. Specifically, it addresses the following questions: (1) How is relational commitment associated with HIV testing and consistent condom use among young people in Tanzania? (2) How does relational commitment shape dialogue about HIV prevention within intimate relationships? (3) To what extent do communication exposure,

prevention dialogue, and perceived barriers account for the association between relational commitment and HIV testing and consistent condom use? The study is justified by the need to move beyond approaches that treat young people's HIV-prevention decisions primarily as products of individual knowledge or risk perception. By examining relational commitment as a context that shapes communication, the study contributes to health communication scholarship by explaining how preventive meanings and decisions are negotiated within intimate relationships. The findings may inform the development of communication interventions that promote constructive partner dialogue, reduce barriers to HIV testing, and address the meanings of trust and suspicion associated with condom use in Tanzania.

**1.1 Theoretical Framework**

This study draws on relational communication theory and the Health Belief Model to explain how intimate relationships shape HIV-prevention communication and behaviour. Relational communication theory views relationships as constructed through interaction, in which partners negotiate trust, fidelity, openness, and uncertainty (Baxter & Montgomery, 1996). From this perspective, HIV testing and condom use are not merely individual health decisions; they also convey relational meanings. Joint testing may be interpreted as care and shared responsibility, whereas suggesting condom use within a committed relationship may be understood as mistrust or suspected infidelity.

The Health Belief Model explains preventive behaviour through perceived susceptibility, severity, benefits, barriers, and cues to action (Champion & Skinner, 2008; Rosenstock, 1974). In this study, perceived susceptibility referred to whether young people considered themselves vulnerable to HIV, while perceived barriers included fear of a positive result, stigma, confidentiality concerns, and partner resistance. Exposure to HIV information and prevention-related dialogue was treated as a communication-related cue that could reduce barriers and encourage testing or condom use. Integrating the two perspectives enables examination of how individual perceptions are shaped within relational communication. Relationship status (single, dating, or married) served as a structural proxy for relational commitment. The framework therefore guided the analysis of whether relationship status was directly associated with HIV testing and condom use, or whether these associations operated

through prevention dialogue, communication exposure, and perceived barriers. Because the study used cross-sectional data, these relationships are interpreted as associations rather than as confirmed causal pathways.

## 2. Methodology

### *2.1 Research Design*

This study employed a convergent parallel mixed-methods design grounded in the Health Belief Model. The design enabled concurrent collection and independent analysis of quantitative and qualitative data, followed by systematic integration during interpretation. The two strands served complementary purposes. The quantitative strand established the distribution and statistical associations among relationship status, communication processes, perceived barriers, and HIV-prevention behaviours, while the qualitative strand explained how trust, stigma, fidelity, and prevention decisions were communicated and negotiated within relational and service contexts. This approach was relevant because it allowed the study to examine both measurable associations between relational commitment, communication exposure, and service uptake and the relational narratives through which young people interpret HIV prevention within intimate partnerships. Overall, the convergent design enabled triangulation of statistical findings with lived experiences, thereby deepening explanatory power.

### *2.2 Study Area*

This study was conducted in the Njombe Region of Tanzania, specifically in Njombe District Council, Makambako Town Council, and Makete District Council. Njombe Region was purposively selected because it has consistently recorded one of the highest HIV burdens in Tanzania. The Tanzania HIV Impact Survey 2022-2023 estimated HIV prevalence among people aged 15 years and older at 12.7% in Njombe, the highest among Mainland Tanzania regions and substantially above the mainland average of 4.5% (TACAIDS, 2024). This elevated burden is corroborated by national antenatal clinic sentinel surveillance, which reported an HIV prevalence of 16.4% among pregnant women in Njombe, the highest regional estimate in the survey (Mboya et al., 2023). Including both urbanising (Makambako TC) and predominantly rural districts (Njombe DC and Makete DC) enabled examination of relational communication patterns across diverse social and service environments.

### *2.3 Study Population and Sampling*

The quantitative sample comprised 460 young people aged 18-24 years. The sample size was calculated to estimate proportions with adequate precision and to examine associations between relational commitment, communication exposure, and uptake of preventive services. A multi-stage sampling procedure was used for this component. First, the three councils were selected to reflect variation in HIV burden, urbanisation, and service-delivery contexts within Njombe Region. Wards and villages were then selected within each council, followed by the selection of households using systematic random sampling. To minimise intra-household clustering, only one eligible youth (aged 18-24) was interviewed per household. The enumerator first identified all eligible members, and where more than one was present, a respondent was randomly selected using the Kish Grid method. If only one eligible youth resided in the household, that individual was interviewed. For the qualitative strand, purposive sampling was used to recruit 24 participants with relevant experience of relational dynamics and HIV prevention communication. Eight interviews were conducted in each district to ensure geographic balance. The sample comprised three young people from the general population, three young people living with HIV, three women living with HIV, three men living with HIV, three HIV expert patients, three facility-based service providers, three community-based service providers, and three representatives of key and vulnerable populations. Youth participants were aged 18-24 years, while adult participants were included as contextual informants because of their lived experience with HIV or their roles in HIV-related service delivery and communication.

### *2.4 Data Collection Procedures*

Quantitative data were collected using a structured questionnaire administered electronically via Open Data Kit (ODK). The questionnaire was administered face-to-face by trained research assistants using ODK-enabled mobile devices. The multi-stage sampling procedure determined which districts, wards, villages, and households to visit; it did not involve distributing the questionnaire electronically to participants. Within each selected household, the research assistant identified all eligible residents aged 18-24 years and, where more than one eligible participant was present, selected one respondent using the Kish Grid. After obtaining informed consent, the research assistant read the questions to the selected participant and entered the responses directly into ODK. Built-in skip patterns and validation checks were used to minimise incomplete or

inconsistent entries. The instrument captured socio-demographic characteristics, relationship status, HIV testing within the past 12 months, consistent condom use, exposure to communication, perceived barriers, and risk perception indicators aligned with the Health Belief Model. Relational commitment was operationalised through self-reported relationship status, categorised as single, dating, or married. Communication exposure was measured by reported receipt of HIV-related information from multiple sources, including mass media, health personnel, educational institutions, peers, and partners.

Qualitative data were collected through semi-structured, in-depth interviews. Interview guides focused on relational communication practices, trust dynamics, negotiation of condom use, perceptions of vulnerability and stigma, and decision-making processes regarding HIV testing, condom use, disclosure, and prevention-related services. Interviews were conducted between March and December 2025 in the Njombe District Council, the Makambako Town Council, and the Makete District Council. They took place in private rooms at health facilities, local offices, or other mutually agreed private locations to protect participants' confidentiality. Each interview lasted 14-50 minutes, with an average of about 30 minutes. Interviews were conducted in Swahili by trained members of the research team, audio-recorded with participants' consent, and transcribed verbatim. Selected quotations were translated into English for reporting.

### *2.5 Measures and Operationalisation of Variables*

**Independent Variable: Relational Commitment**

Relational commitment was operationalised as an ordinal categorical variable reflecting increasing levels of relational attachment and partnership stability. Participants were classified into three categories: single (reference category), dating, and married. This categorisation reflects progressively higher levels of relational investment, exclusivity, and long-term orientation. The decision to treat relational commitment as ordinal rather than nominal was informed by relational communication theory, which suggests that increasing commitment restructures communicative norms, trust expectations, and shared decision-making processes within partnerships. Using single participants as the reference category, the analysis assessed whether increases in relational attachment were associated with differences in communicative engagement and

uptake of preventive services. Notably, although relationship status does not fully capture relational quality, it serves as a structural proxy for commitment and relational embeddedness in the Tanzanian context, where dating, cohabitation, and marriage entail distinct social expectations regarding fidelity, disclosure, and mutual responsibility.

### *2.6 Dependent Variables: HIV-Prevention Outcomes*

HIV-prevention outcomes were assessed using two indicators: HIV testing within the past 12 months and consistent condom use over the preceding six months. HIV testing was measured as a binary variable, with participants coded as 1 if they reported testing for HIV within the past 12 months and 0 if they reported not testing. Consistent condom use was also measured as a binary variable, with participants coded as 1 if they reported consistent condom use over the preceding six months and 0 if they reported inconsistent or no condom use. These two outcomes were selected because they capture key behavioural and service-related dimensions of HIV prevention among young people.

### *2.7 Communication Exposure, Prevention Dialogue and Perceived Barriers*

Consistent with the theoretical framework integrating relational communication theory and the Health Belief Model, communication exposure, prevention dialogue, and perceived barriers were examined as communication-related and cognitive constructs associated with HIV-prevention outcomes. Communication exposure was operationalised as the number of HIV information sources reported by each participant. These sources included mass media, health personnel, educational institutions, peers, partners, and social media. Higher scores indicated exposure to a wider range of HIV information sources. Conceptually, communication exposure was treated as a cue to action within the Health Belief Model and as a contextual factor that could support prevention dialogue within relationships.

Prevention dialogue was assessed by asking whether participants had discussed HIV prevention with their partner or partners. Responses were coded as binary, with 1 indicating that the participant had discussed HIV prevention and 0 indicating that they had not. Perceived barriers were assessed using selected items measuring fear of HIV testing and perceived partner resistance to condom use. Fear of testing was included in the HIV-testing model, while partner resistance was included in the condom-use model because of its direct relevance to condom negotiation within

intimate relationships. Risk perception was measured using both general and personalised vulnerability indicators. General susceptibility was assessed by agreement with the statement, "I believe I could contract HIV," while personalised vulnerability was measured by the item, "My behaviours put me at risk." Distinguishing between abstract susceptibility and behaviour-linked vulnerability enabled a more nuanced assessment of cognitive appraisal processes within relational contexts. These measures capture the cognitive dimension of perceived threat while acknowledging that such perceptions may be shaped by communicative and relational dynamics.

### *2.8 Data Analysis*

Quantitative data were analysed using Python. Descriptive statistics summarised demographic characteristics and service uptake patterns. Chi-square tests assessed bivariate associations between relational commitment and preventive behaviours. Multivariable logistic regression models were constructed to examine predictors of HIV testing and condom use, with adjustment for age and sex. An indirect-effect analysis was conducted using a regression-based approach to assess whether prevention dialogue statistically accounted for part of the association between relational commitment and HIV testing (Hayes, 2022). Given the cross-sectional design, indirect effects were interpreted as statistical associations rather than causal mediation. Qualitative data were analysed thematically using NVivo. A hybrid coding approach was employed, combining deductive codes derived from the Health Belief Model with inductive themes emerging from the data. Particular attention was paid to narratives of trust, relational safety, stigma, and communication negotiation. Integration of quantitative and qualitative findings occurred at the interpretation stage, using joint display matrices. This approach enabled the identification of convergence, divergence, and complementarity between statistical patterns and narrative accounts. For each major finding, the two datasets were compared to determine whether the qualitative evidence confirmed the quantitative pattern, provided additional explanation, or revealed a contrasting interpretation.

### *2.9 Ethical Considerations*

Ethical approval was obtained from the University of Dar es Salaam Research Ethics Committee and the President's Office-Regional Administration and Local Government (PO-RALG). Written informed consent was obtained from all participants prior to data collection.

Participation was voluntary, and participants were informed that they could decline to answer any question or withdraw from the study at any time without penalty. Confidentiality was maintained by not recording identifying information in the dataset, using anonymised participant labels in reporting, and conducting interviews in private settings to minimise social harm, given the sensitivity of HIV-related discussions.

## 3. Results

The results are presented separately for the quantitative and qualitative components. Quantitative findings are reported first, followed by the qualitative themes. The interpretation and integration of the two strands are presented in the Discussion section.

### *3.1 Quantitative Findings*

#### Participant Characteristics

The quantitative sample comprised 460 young people aged 18-24 years. Their mean age was 21.58 years (SD = 2.02). Slightly more than half were male (53.0%), with 47.0% female. Participants were recruited from Makambako Town Council (41.7%), Makete District Council (31.7%), and Njombe District Council (26.5%). Regarding relationship status, 51.3% were dating, 30.2% were single, and 18.5% were married. Among 450 participants with valid responses to the HIV-testing question, 305 (67.8%) reported having tested for HIV in the preceding 12 months. Of 454 participants with valid responses on condom use, 211 (46.5%) reported consistent condom use in the preceding six months. Prevention dialogue was reported by 252 of 453 participants (55.6%) with valid responses. Table 1 presents the demographic profile of the respondents, their relationship status, and selected HIV-prevention outcomes, including HIV testing, consistent condom use, and discussion of HIV prevention with partners.

**Table 1**

Participant Characteristics and HIV-Prevention Outcomes (N = 460)

| Variable | Category | n | %/Mean (SD) |
|---|---|---|---|
| Age | Years | 460 | 21.58 (2.02) |
| Sex | Male | 244 | 53.0 |
| | Female | 216 | 47.0 |
| District | Makambako TC | 192 | 41.7 |
| | Makete DC | 146 | 31.7 |

| | | | |
|---|---|---|---|
| | Njombe DC | 122 | 26.5 |
| Relationship status | Single | 139 | 30.2 |
| | Dating | 236 | 51.3 |
| | Married | 85 | 18.5 |
| HIV testing in the past 12 months[1] | Tested | 305 | 67.8 |
| | Not tested | 142 | 31.6 |
| | Don't know | 3 | 0.7 |
| Consistent condom use in the past six months[2] | Yes | 211 | 46.5 |
| | No | 233 | 51.3 |
| | Don't know | 10 | 2.2 |
| Discussed HIV prevention with partner(s)[3] | Yes | 252 | 55.6 |
| | No | 187 | 41.3 |
| | Don't know | 14 | 3.1 |

*Note.* [1]Valid n = 450; 10 missing responses. [2]Valid n = 454; 6 missing responses. [3]Valid n = 453; 7 missing responses.

As shown in Table 1, the sample was almost evenly distributed by sex, with slightly more male than female respondents. More than half of respondents were dating, followed by those who were single or married. Among participants with valid responses, more than two-thirds reported HIV testing in the preceding 12 months, while fewer than half reported consistent condom use in the preceding six months.

***Relationship Status and Prevention Dialogue***

Discussion of HIV prevention with partners varied significantly across relationship categories, $\chi^2(2) = 114.04$, $p < .001$. Among married participants, 70 of 85 (82.4%) reported discussing HIV prevention with their partners. The corresponding proportions were 161/234 (68.8%) among dating participants and 21/134 (15.7%) among single participants. The chi-square test was based on participants who provided either an affirmative or a negative response; "don't know" and missing responses were excluded from the test. Table 2 presents the distribution of prevention dialogue across the three relationship-status categories.

**Table 2**

Relationship Status and Discussion of HIV Prevention with Partner(s)

| **Relationship status** | **Discussed n (%)** | **Did not discuss n (%)** | **Don't know n (%)** |
|---|---|---|---|
| **Single (n = 134)** | 21 (15.7) | 100 (74.6) | 13 (9.7) |

| | | | |
|---|---|---|---|
| **Dating (n = 234)** | 161 (68.8) | 72 (30.8) | 1 (0.4) |
| **Married (n = 85)** | 70 (82.4) | 15 (17.6) | 0 (0.0) |

*Note.* Percentages are calculated within relationship-status categories. "Don't know" responses are presented descriptively but were excluded from the chi-square test.

Table 2 shows that prevention dialogue was most commonly reported among married participants, followed by those who were dating. Single participants reported substantially lower levels of discussion about HIV prevention with partners. This pattern was statistically significant, $\chi^2(2) = 114.04$, $p < .001$.

***Relationship Status and HIV Testing***

HIV testing during the preceding 12 months also differed significantly by relationship status, $\chi^2(2) = 26.48$, $p < .001$. Testing was reported by 68 of 83 married participants (81.9%) and by 169 of 233 dating participants (72.5%). Among single participants, 68 of 134 (50.7%) reported having tested. The chi-square test excluded "don't know" and missing responses. Table 3 summarises HIV testing in the preceding 12 months by relationship status.

**Table 3**

Relationship Status and HIV Testing During the Preceding 12 Months

| **Relationship status** | **Tested n (%)** | **Not tested n (%)** | **Don't know n (%)** |
|---|---|---|---|
| Single (n = 134) | 68 (50.7) | 64 (47.8) | 2 (1.5) |
| Dating (n = 233) | 169 (72.5) | 63 (27.0) | 1 (0.4) |
| Married (n = 83) | 68 (81.9) | 15 (18.1) | 0 (0.0) |

*Note.* Percentages are calculated within relationship-status categories. "Don't know" responses are presented descriptively but were excluded from the chi-square test.

As indicated in Table 3, the proportion reporting HIV testing was highest among married participants, followed by dating participants and single participants. The association between relationship status and HIV testing was statistically significant, $\chi^2(2) = 26.48$, $p < .001$.

***Relationship Status and Condom Use***

Consistent condom use over the preceding six months differed significantly across relationship categories, $\chi^2(2) = 27.41$, $p < .001$. Consistent use was reported by 130 of 234 dating participants (55.6%) and 45 of 85 married participants (52.9%). Among single participants, 36 of 135 (26.7%) reported

consistent use. “Don’t know” and missing responses were excluded from the chi-square test. Table 4 presents consistent condom use over the preceding six months by relationship status.

**Table 4**

Relationship Status and Consistent Condom Use During the Preceding Six Months

| Relationship status | Consistent use n (%) | Inconsistent use n (%) | Don’t know n (%) |
|---|---|---|---|
| Single (n = 135) | 36 (26.7) | 92 (68.1) | 7 (5.2) |
| Dating (n = 234) | 130 (55.6) | 101 (43.2) | 3 (1.3) |
| Married (n = 85) | 45 (52.9) | 40 (47.1) | 0 (0.0) |

*Note.* Percentages are calculated within relationship-status categories. “Don’t know” responses are presented descriptively but were excluded from the chi-square test.

Table 4 shows that consistent condom use was reported more often among dating and married participants than among single participants. The association between relationship status and consistent condom use was statistically significant, $\chi^2(2) = 27.41$, $p < .001$.

***Predictors of HIV Testing and Condom Use***

Two multivariable logistic regression models examined factors associated with HIV testing and consistent condom use. Relationship status was entered as an ordinal proxy for relational commitment, coded as single = 0, dating = 1, and married = 2. Communication exposure was measured by the number of HIV information sources reported by each participant. The models also included prevention dialogue, age, and sex. Fear of HIV testing was included in the testing model, and perceived partner resistance to condom use was included in the condom-use model.

In the HIV-testing model, relational commitment was not independently associated with testing after adjustment for communication and demographic factors (AOR = 1.42, 95% CI [0.92, 2.20], p = .117). Each additional source of HIV information was associated with higher odds of testing (AOR = 1.17, 95% CI [1.09, 1.27], p < .001). Participants who had discussed HIV prevention with their partners had higher odds of reporting recent testing than those who had not (AOR = 2.96, 95% CI [1.71, 5.13], p < .001). Fear of testing was associated with lower odds of having tested (AOR = 0.35, 95% CI [0.21, 0.59], p < .001).

In the condom-use model, relational commitment was not independently associated with consistent condom use (AOR = 1.25, 95% CI [0.79, 1.99], p = .336). Prevention dialogue was positively associated with consistent condom use (AOR = 3.91, 95% CI [2.19, 6.97], p < .001), whereas perceived partner resistance was associated with lower odds of consistent use (AOR = 0.56, 95% CI [0.34, 0.90], p = .017). The number of communication sources was not statistically significant in the condom-use model (AOR = 1.07, 95% CI [0.99, 1.16], p = .071). Table 5 presents the adjusted logistic regression results for HIV testing and consistent condom use.

**Table 5**

Multivariable Predictors of HIV Testing and Consistent Condom Use

| Predictor | HIV testing AOR (95% CI) | p | Consistent condom use AOR (95% CI) | p |
|---|---|---|---|---|
| Relational commitment | 1.42 (0.92-2.20) | 0.117 | 1.25 (0.79-1.99) | 0.336 |
| Number of HIV-information sources | 1.17 (1.09-1.27) | < .001 | 1.07 (0.99-1.16) | 0.071 |
| Prevention dialogue | 2.96 (1.71-5.13) | < .001 | 3.91 (2.19-6.97) | < .001 |
| Fear of HIV testing | 0.35 (0.21-0.59) | < .001 | - | - |
| Partner resistance to condom use | - | - | 0.56 (0.34-0.90) | 0.017 |
| Age | 1.10 (0.97-1.26) | 0.141 | 0.99 (0.86-1.14) | 0.870 |
| Female sex[1] | 1.19 (0.74-1.91) | 0.464 | 0.79 (0.49-1.27) | 0.327 |

*Note.* AOR = adjusted odds ratio; CI = confidence interval. Male was the reference category for sex. The HIV-testing model included 431 participants, and the condom-use model included 333 participants.

As shown in Table 5, prevention dialogue was positively associated with both HIV testing and consistent condom use. The number of HIV-information sources was significantly associated with HIV testing but not

with consistent condom use. Fear of HIV testing was negatively associated with HIV testing, while partner resistance was negatively associated with consistent condom use.

***Indirect-Effect Analysis***

An indirect-effect analysis examined whether prevention dialogue statistically accounted for part of the association between relational commitment and HIV testing. Higher relational commitment was associated with increased odds of discussing HIV prevention with a partner (OR = 6.44, 95% CI [4.02, 10.33], $p < .001$). Prevention dialogue was subsequently associated with higher odds of HIV testing after relational commitment, communication exposure, fear of testing, age, and sex were controlled (AOR = 2.96, 95% CI [1.71, 5.13], $p < .001$). The model-based indirect association was 0.08 on the probability scale, with a 95% bootstrap confidence interval of 0.04-0.13 based on 5,000 resamples. The direct association between relational commitment and HIV testing was not statistically significant after adjusting for prevention dialogue and other covariates (AOR = 1.42, 95% CI [0.92, 2.20], $p = .117$). Given the cross-sectional design, this result represents an indirect statistical association and not evidence of a causal mediation pathway.

**3.2 Qualitative Findings**

The qualitative analysis generated four themes concerning relational communication, HIV testing, condom use, and barriers to preventive action. The themes are presented independently of the quantitative findings.

***Relational Commitment and Prevention Dialogue***

Participants described intimate relationships as important settings in which HIV status, testing, condom use, and disclosure could be discussed. However, the extent of dialogue varied. Some participants reported discussing testing and prevention with their partners, while others described incomplete disclosure or silence about HIV status.

A young woman living with HIV explained that she and her partner had previously tested regularly, but she later discovered that he had been taking HIV treatment without disclosing his status: “We used to go for testing regularly. I did not know his status. Later, when I told him about my result, I found that he was already taking treatment but had not told me.” *(Young woman living with HIV, Njombe DC)*. Other participants described testing discussions as becoming more likely when relationships were

perceived to be serious or long-term. A participant advising young people about entering committed relationships stated: "When someone says they want to live with you, tell them, 'Let us go and test so that I know your safety and you know mine.'" *(Man living with HIV, Njombe DC.)* These accounts showed that relational commitment created opportunities for prevention dialogue, although commitment did not necessarily guarantee openness or disclosure.

***HIV Testing as Shared Responsibility***

Participants commonly described HIV testing as a decision that could involve both partners. In these accounts, one partner's illness, diagnosis, or health concern prompted discussion and encouraged the other partner to seek testing. One man described deciding to test after his wife had been diagnosed: "When I was told about the result, I said, 'No, both of us must test.' Because my wife had been found with the condition, I also wanted to test. We had to begin treatment together." *(Man living with HIV, Njombe DC)* Another participant reported returning home after receiving his result and encouraging his wife to test. Although she initially declined, he continued to discuss the issue with her until illness later prompted her to seek testing. Such accounts presented HIV testing as connected to disclosure, mutual health, and responsibility within the relationship, even where the partners did not act at the same time.

***Condom Negotiation, Trust, and Suspicion***

Participants distinguished between condom use with new or less familiar partners and condom use within established relationships. Condoms were more readily described as necessary when a partner's health status was unknown. In contrast, familiarity and the designation of a partner as "official" were frequently treated as reasons for discontinuing condom use. A young man explained: "I do not use [condoms] all the time. I use one when I meet a partner who is not my official partner, but when I meet my official partner, I do not use one." *(Young man, Makete)* When asked why he used condoms with new partners, he added: "I use condoms with new partners because we do not know each other's health status, so I must protect myself." *(Young man, Makete)*

Other participants described condom initiation within marriage as difficult because a sudden request could raise questions about why condom use

had become necessary. A young man living with HIV observed that a spouse might "start wondering why we are beginning to use condoms today," particularly where condoms had not previously formed part of the couple's sexual practices. These accounts showed that condom negotiation was shaped by familiarity, established routines, and concerns about how a partner would interpret a request.

***Communication, Fear, and Perceived Barriers***

Participants described fear of a positive result, anticipated stigma, and possible relationship consequences as barriers to HIV testing and disclosure. One young participant stated: "I have never thought that one day I might test and be found with it. It would be very difficult; it is not something that would be easy to accept." *(Young man, Makete)* Service providers similarly reported that some people avoided being seen receiving HIV information or accompanying an educator to a testing facility. A community service provider explained: "The first challenge is that a person does not want to be educated and then be seen as someone who has HIV. The second is that, after receiving the education, the person may not want to go directly to the service point with the person who provided the information." *(Community service provider, Makete)*

Participants also described communication as reducing uncertainty when information was provided confidentially and in an understandable manner. They referred to counselling, peer testimony, and conversations with healthcare providers as helping people prepare for testing, understand the meaning of results, and identify available treatment and support services.

## 4. Discussion

This study examined whether relationship status, used as a proxy for relational commitment, was associated with HIV-prevention communication and preventive behaviours among young people in Tanzania. The findings show that dating and married participants were more likely than single participants to report prevention dialogue, HIV testing, and consistent condom use at the descriptive level. However, relationship status did not independently predict HIV testing or consistent condom use after communication-related factors and demographic variables were considered. Instead, prevention dialogue, exposure to multiple HIV-information sources, fear of testing, and partner resistance

emerged as more immediate factors associated with preventive behaviour. These findings shift attention from relationship status as a direct behavioural determinant to communication as the mechanism through which relational contexts become relevant to HIV prevention.

The bivariate results indicate a pronounced relational gradient in HIV prevention dialogue. Married and dating participants were substantially more likely to report discussing HIV prevention with their partners than single participants. This does not mean that committed relationships automatically create open or protective communication; rather, they create a relational setting in which prevention may be discussed, avoided, delayed, or reframed depending on trust, disclosure, gender expectations, and anticipated conflict. This suggests that relational commitment reorganises communicative expectations and opportunities for dialogue. However, the findings reveal that once communication exposure and perceived barriers were included in multivariable models, relational commitment no longer independently predicted HIV testing. Notably, the directional increase in testing odds across commitment categories did not reach statistical significance after adjusting for communication variables.

These findings challenge behavioural assumptions that relationship status directly determines prevention outcomes. Instead, relational commitment appears to serve as a structural context that shapes communication norms, trust expectations, and disclosure practices. This interpretation aligns with relational communication theory, which emphasises that meaning and behaviour are co-constructed through interaction rather than being solely determined by structural categories (Baxter & Montgomery, 1996). The findings should therefore be read alongside scholarship showing that intimate relationships can both enable and constrain HIV prevention. On one hand, partner communication, social support, and prevention advocacy may encourage testing and safer practices, particularly when prevention is framed as mutual care rather than accusation (Noar et al., 2009; Wagner et al., 2024).

On the other hand, communication within relationships is not always protective. Studies of condom use and relationship dynamics in sub-Saharan Africa show that condom negotiation may be constrained by fear of partner reaction, unequal power, gendered expectations, or the

possibility that prevention will be interpreted as mistrust (Aventin et al., 2021; Duby et al., 2021; Parikh, 2007). This mixed evidence is important because it cautions against treating communication as inherently beneficial; its effect depends on the relational context, the meaning attached to the prevention behaviour, and the degree of safety partners have in negotiating sensitive issues. In committed partnerships, norms surrounding trust and fidelity may simultaneously facilitate dialogue and suppress certain forms of negotiation, such as condom use. The findings are consistent with East African scholarship showing that trust within established relationships can reduce perceived vulnerability and complicate condom negotiation (Chimbiri, 2007; Parikh, 2007; Smith & Watkins, 2005). However, this study extends the literature by empirically demonstrating that engagement in communication, rather than commitment itself, explains variation in service uptake. Notably, while commitment structures the communicative environment, communication appears to be more directly associated with preventive action. Prevention dialogue emerged as the most theoretically pivotal construct in the analysis.

The sharp differences in discussions of HIV prevention across relationship categories indicate that dialogue serves as the immediate relational pathway through which prevention decisions are negotiated. As illustrated in qualitative narratives, testing decisions were frequently described as joint outcomes of conversation rather than as unilateral individual choices. The findings reveal that participants consistently framed testing as following a discussion. This supports a communication-centred interpretation of preventive behaviour, in which dialogue acts as a catalyst for cognitive reassessment and behavioural coordination. The indirect-effect analysis further supports this interpretation by showing that prevention dialogue statistically accounted for part of the association between relational commitment and HIV testing. However, given the cross-sectional design, this pathway should be interpreted as an indirect association rather than causal mediation. These findings suggest that prevention dialogue serves as both a relational and a cognitive bridge. It facilitates mutual reassurance, clarifies misconceptions, and reduces anticipatory stigma. These processes align with the Health Belief Model's emphasis on cues to action and perceived barriers (Champion & Skinner, 2008; Rosenstock, 1974). The findings also relationally contextualise the

model by showing that perceived barriers and cues to action operate within partner communication, trust, disclosure, and negotiated meanings of prevention, rather than solely within individual cognition.

Exposure to multiple HIV information sources was significantly associated with HIV testing, although it was not independently associated with consistent condom use in the adjusted model. This distinction is important because it suggests that general exposure to HIV information may be more effective in encouraging service contact, such as testing, than in changing behaviours that require negotiation with a partner. Testing can often be acted upon individually or jointly after counselling, whereas condom use depends more directly on partner agreement, sexual scripts, trust, and power within the relationship. This also cautions against assuming that greater exposure to communication automatically produces safer behaviour; the content, source, relational meaning, and timing of communication remain critical. This finding is consistent with wider evidence from sub-Saharan Africa and other developing-country contexts showing that communication interventions can influence HIV-related behaviours (Bertrand et al., 2006; Wakefield et al., 2010). However, this study expands this understanding by situating exposure within relational contexts. Exposure appears to provide shared interpretive frameworks that normalise discussions of testing within partnerships. Additionally, when communication is repeated and multi-channel, it strengthens relational dialogue and reduces fear.

Importantly, perceived barriers are strongly associated with a lower likelihood of testing. Fear of testing, anticipated social judgement, and disclosure concerns remain significant deterrents in East African contexts (Maman et al., 2001; Musheke et al., 2013). Qualitative data reveal that these fears are relationally embedded. Participants expressed concerns not just about community stigma, but also about how their partners might perceive requests for testing. Thus, barriers are not merely individual anxieties but socially negotiated perceptions shaped by communication.

The study's findings regarding consistent condom use further underscore the centrality of communication. While relational commitment did not independently predict condom use, partner resistance, a communicative construct, was significantly associated with inconsistent condom use.

Participants described condom negotiation as symbolically loaded within committed relationships, often interpreted as implying mistrust or infidelity. These findings echo earlier East African studies in which condoms were framed as appropriate for casual relationships but inappropriate within marriage or cohabitation (Chimbiri, 2007; Parikh, 2007). The present study, however, advances this literature by linking partner resistance statistically to condom use inconsistency and demonstrating that such resistance is fundamentally communicative in nature. Condom use, therefore, is negotiated within relational narratives of trust rather than being solely determined by risk knowledge. At the same time, the findings should not be interpreted to mean that trust is inherently opposed to condom use. Rather, condom use becomes difficult when the act of proposing it is not already normalised within the relationship. In relationships where partners explicitly frame condoms as mutual protection, family planning, or care, condom use may be less threatening. The problem, therefore, is not commitment itself, but the absence of communicative scripts that allow partners to discuss condoms without implying accusation, infidelity, or distrust.

A central theoretical contribution of this study is that it relationally contextualises the Health Belief Model. Traditional applications of the HBM often treat perceived susceptibility, perceived severity, perceived benefits, and perceived barriers as individual-level determinants. In this study, however, perceived barriers and cues to action were embedded in relational communication. Fear of testing, partner resistance, disclosure concerns, and the meanings attached to condom use were shaped by how prevention was discussed or avoided within intimate relationships. Relational commitment, therefore, matters not as a direct behavioural determinant, but as a context that structures communication opportunities, relational expectations, and the negotiation of prevention decisions.

These findings suggest that HBM constructs are relationally structured. Perceived barriers are not static cognitive assessments but dynamic perceptions negotiated through dialogue and exposure to shared messaging. This supports critiques of purely individualistic applications of behavioural theory in African contexts (Airhihenbuwa & Obregón, 2000;

Dutta, 2008) and underscores the need to embed theoretical constructs within socio-communicative systems.

Overall, the discussion shows that the study's contribution lies in explaining why relationship status alone is insufficient for understanding HIV prevention behaviour among young people. Relational commitment may create opportunities for prevention dialogue, but it may also produce silence, avoidance, or selective protection when trust is equated with safety. Communication, therefore, becomes the critical point of intervention. HIV prevention messages must not only increase awareness; they must also equip young people with language for discussing testing, condoms, disclosure, and fear within relationships. This is where the study contributes to health communication scholarship: it shows that preventive behaviour is not simply a response to risk information, but a negotiated outcome of relational meaning, perceived barriers, and communicative opportunity.

## 5. Conclusion

This study examined how relationship status, used as a proxy for relational commitment, is associated with HIV prevention communication, HIV testing, and consistent condom use among young people in Tanzania. The findings show that dating and married participants were more likely than single participants to report prevention dialogue, recent HIV testing, and consistent condom use at the descriptive level. However, relationship status did not independently predict HIV testing or condom use after accounting for communication-related factors and demographic variables.

The study demonstrates that communication is central to understanding how relational contexts shape HIV prevention behaviour. Prevention dialogue was associated with both HIV testing and consistent condom use, whereas exposure to multiple HIV information sources was associated with HIV testing. Conversely, fear of testing and partner resistance to condom use were linked to lower uptake of preventive behaviours. Qualitative findings further showed that HIV testing could be framed as a shared responsibility within relationships. In contrast, condom negotiation could be interpreted as mistrust or suspicion when not normalised through partner communication.

The study concludes that relational commitment matters for HIV prevention not because it directly determines behaviour, but because it

shapes the communicative environment in which prevention decisions are discussed, avoided, or negotiated. HIV-prevention communication should therefore move beyond general awareness and equip young people with practical language to discuss testing, condoms, disclosure, fear, and mutual responsibility within relationships. Strengthening relational dialogue and addressing the meanings attached to trust, suspicion, and protection can improve the relevance of HIV-prevention communication in Tanzania and similar settings.

**5.1 Implications for HIV Prevention Communication**

The findings have implications for HIV prevention communication in Tanzania and comparable contexts where prevention decisions are shaped by intimate relationships, trust, stigma, and partner negotiation. First, interventions should prioritise prevention dialogue within dating, cohabiting, and married relationships. Rather than assuming that marriage, cohabitation, or relational commitment provides inherent protection, programmes should support young people to discuss HIV testing, condom use, disclosure, and mutual responsibility in ways that reduce fear and relational tension.

Second, communication campaigns should address relational meanings attached to prevention. Testing should be framed not only as an individual health decision, but also as an act of care, reassurance, and shared responsibility within relationships. Similarly, condom promotion should engage directly with trust narratives. Where condom use is interpreted as suspicion or evidence of infidelity, messages need to reposition condoms as mutual protection rather than as a sign of mistrust.

Third, sustained multi-channel communication remains important for improving testing uptake and reducing perceived barriers. Mass media, clinic-based counselling, peer education, partner communication, and community dialogue should reinforce one another so that young people encounter consistent prevention messages across different settings (Obregón & Waisbord, 2010). However, communication should move beyond general awareness and provide practical language that young people can use to initiate sensitive conversations with partners. This is particularly important because the findings show that prevention behaviour is shaped not only by exposure to HIV information, but also by

whether young people can translate that information into dialogue within relationships.

**5.2 Limitations and Future Research**

This study has several limitations. First, the cross-sectional design limits causal interpretation. Although the analysis identifies associations among relationship status, prevention dialogue, perceived barriers, HIV testing, and condom use, it cannot establish temporal order or confirm causal mediation. Future longitudinal studies should examine how relationship formation, communication patterns, perceived risk, and preventive behaviour change over time.

Second, the study relied on self-reported measures of HIV testing, condom use, relationship status, and communication practices. These responses may be affected by recall error or social desirability bias, particularly given the sensitivity of HIV prevention and sexual behaviour. Third, relationship status was used as a proxy for relational commitment. While analytically useful, it does not fully capture relationship quality, emotional attachment, power dynamics, trust, or communication frequency. Future research should use more nuanced measures of relational commitment and partner communication.

Fourth, the qualitative component included adult participants living with HIV and service providers as contextual informants. Their perspectives helped explain service dynamics, treatment-related concerns, stigma, and community communication processes, but they should not be taken as representative of the experiences of young people aged 18-24 years. Finally, the study was conducted in three councils in Njombe Region, an area with a high HIV burden. The findings may therefore be most applicable to similar high-prevalence settings, and caution is needed when applying them to regions with different epidemiological, cultural, or service-delivery contexts.

**Conflict of Interest**

The authors declare that they have no known financial, professional, or personal relationships that could have influenced the conduct, analysis, interpretation, or reporting of this study.

**Funding**

This study was conducted as part of the first author's doctoral research at the University of Dar es Salaam. No specific external funding was received for the conduct, analysis, or publication of this study.

**Data Availability Statement**

The data supporting this study are not publicly available because they contain sensitive information on HIV-related experiences, relationship dynamics, and service use. De-identified quantitative data may be made available from the corresponding author upon reasonable request and subject to applicable ethical approval and institutional data-sharing requirements.

**Use of Artificial Intelligence**

The authors declare that ChatGPT (GPT-5.5 Thinking, OpenAI) and Grammarly were used to support language refinement, grammar checking, clarity improvement, and manuscript editing. Grammarly version 1.170.1.0 and WebUI 2.15.11, configured for British English, were used to support proofreading and language consistency. The authors further declare that these tools were not used to collect data, generate primary data, replace human analysis, or make independent scholarly decisions. All AI-assisted revisions were reviewed, verified, and approved by the authors, who take full responsibility for the accuracy, integrity, and final content of the manuscript.

## Acknowledgements

The authors acknowledge the young people, people living with HIV, service providers, expert patients, and community informants who participated in this study. We also acknowledge the support provided by local authorities and health facility personnel in Njombe District Council, Makambako Town Council, and Makete District Council during fieldwork.

**References**

Airhihenbuwa, C. O., & Obregón, R. (2000). A critical assessment of theories/models used in health communication for HIV/AIDS. *Journal of Health Communication*, *5*(Suppl. 1), 5-15. https://doi.org/10.1080/10810730050019528

Allen, S., Meinzen-Derr, J., Kautzman, M., Zulu, I., Trask, S., Fideli, U., Musonda, R., Kasolo, F., Gao, F., & Haworth, A. (2003). Sexual behaviour of HIV discordant couples after HIV counselling and

testing. *AIDS*, *17*(5), 733–740. https://doi.org/10.1097/00002030-200303280-00012

Aventin, Á., Gordon, S., Laurenzi, C., Rabie, S., Tomlinson, M., Lohan, M., Melendez-Torres, G. J., & Stewart, J. (2021). Adolescent condom use in Southern Africa: Narrative systematic review and conceptual model of multilevel barriers and facilitators. *BMC Public Health*, *21*, Article 1228. https://doi.org/10.1186/s12889-021-11306-6

Baxter, L. A., & Montgomery, B. M. (1996). *Relating: Dialogues and dialectics*. Guilford Press.

Bertrand, J. T., O'Reilly, K., Denison, J., Anhang, R., & Sweat, M. (2006). Systematic review of the effectiveness of mass communication programs to change HIV/AIDS-related behaviours in developing countries. *Health Education Research*, *21*(4), 567-597. https://doi.org/10.1093/her/cyl036

Champion, V. L., & Skinner, C. S. (2008). The health belief model. In K. Glanz, B. K. Rimer, & K. Viswanath (Eds.), *Health behaviour and health education: Theory, research, and practice* (4th ed., pp. 45-65). Jossey-Bass.

Chimbiri, A. M. (2007). The condom is an 'intruder' in marriage: Evidence from rural Malawi. *Social Science & Medicine*, *64*(5), 1102–1115. https://doi.org/10.1016/j.socscimed.2006.10.012

Duby, Z., Jonas, K., Bunce, B., Bergh, K., Maruping, K., Fowler, C., Reddy, T., & Mathews, C. (2021). "Condoms are boring": Navigating relationship dynamics, gendered power, and motivations for condomless sex amongst adolescents and young people in South Africa. *International Journal of Sexual Health*, *33*(1), 40-57. https://doi.org/10.1080/19317611.2020.1851334

Dutta, M. J. (2008). *Communicating health: A culture-centred approach*. Polity.

Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (3rd ed.). Guilford Press.

Maharaj, P., & Cleland, J. (2004). Condom use within marital and cohabiting partnerships in KwaZulu-Natal, South Africa. *Studies in Family Planning*, *35*(2), 116–124. https://doi.org/10.1111/j.1728-4465.2004.00013.x

Maman, S., Mbwambo, J., Hogan, N. M., Kilonzo, G. P., & Sweat, M. (2001). Women's barriers to HIV-1 testing and disclosure: Challenges

for HIV-1 voluntary counselling and testing. *AIDS Care*, *13*(5), 595-603. https://doi.org/10.1080/09540120120063223

Mboya, E., Mizinduko, M., Balandya, B., Mushi, J., Sabasaba, A., Amani, D. E., Kamori, D., Ruhago, G., Faustine, P., Maokola, W., Sambu, V., Nyamuhagata, M., Jullu, B. S., Juya, A., Rugemalila, J., Mgomella, G., Asiimwe, S., Pembe, A. B., & Sunguya, B. (2023). HIV burden and the global fast-track targets progress among pregnant women in Tanzania call for intensified case finding: Analysis of 2020 antenatal clinics HIV sentinel site surveillance. *PLOS ONE*, *18*(10), Article e0285962. https://doi.org/10.1371/journal.pone.0285962

Musheke, M., Ntalasha, H., Gari, S., McKenzie, O., Bond, V., Martin-Hilber, A., & Merten, S. (2013). A systematic review of qualitative findings on factors enabling and deterring uptake of HIV testing in sub-Saharan Africa. *BMC Public Health*, *13*, Article 220. https://doi.org/10.1186/1471-2458-13-220

Noar, S. M., Palmgreen, P., Chabot, M., Dobransky, N., & Zimmerman, R. S. (2009). A 10-year systematic review of HIV/AIDS mass communication campaigns: Have we made progress? *Journal of Health Communication*, *14*(1), 15–42. https://doi.org/10.1080/10810730802592239

Obregón, R., & Waisbord, S. (2010). The complexity of social mobilisation in health communication: Top-down and bottom-up experiences in polio eradication. *Journal of Health Communication*, *15*(Suppl. 1), 25-47. https://doi.org/10.1080/10810731003695367

Parikh, S. A. (2007). The political economy of marriage and HIV: The ABC approach, "safe" infidelity, and managing moral risk in Uganda. *American Journal of Public Health*, *97*(7), 1198-1208. https://doi.org/10.2105/AJPH.2006.088682

Rosenstock, I. M. (1974). The health belief model and preventive health behaviour. *Health Education Monographs*, *2*(4), 354–386. https://doi.org/10.1177/109019817400200405

Smith, K. P., & Watkins, S. C. (2005). Perceptions of risk and strategies for prevention: Responses to HIV/AIDS in rural Malawi. *Social Science & Medicine*, *60*(3), 649-660. https://doi.org/10.1016/j.socscimed.2004.06.009

Tanzania Commission for AIDS. (2022). *National multi-sectoral strategic framework for HIV and AIDS 2021/22-2025/26*. TACAIDS.

Tanzania Commission for AIDS. (2024). *Tanzania HIV Impact Survey 2022-2023 Final Report*. TACAIDS.

UNAIDS. (2023). *The path that ends AIDS: Global AIDS Update 2023*. UNAIDS.

Wakefield, M. A., Loken, B., & Hornik, R. C. (2010). Use of mass media campaigns to change health behaviour. *The Lancet*, *376*(9748), 1261-1271. https://doi.org/10.1016/S0140-6736(10)60809-4

Wagner, G. J., Bogart, L. M., Matovu, J. K. B., Okoboi, S., Gwokyalya, V., Klein, D. J., Ninsiima, S., & Green, H. D. (2024). Characteristics of received HIV prevention advocacy from persons living with HIV in Uganda, and associations with HIV testing and condom use among social network members. *AIDS and Behaviour*, *28*, 2454–2462. https://doi.org/10.1007/s10461-024-04347-6