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Partner HIV Status Knowledge and PrEP Uptake Among Adolescent Girls and Young Women in Oshana Region, Namibia: Associations with Communication and Contextual Factors

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Abstract

Background

Adolescent girls and young women (AGYW) in Sub-Saharan Africa remain disproportionately affected by HIV despite major advances in prevention programming. Oral pre-exposure prophylaxis (PrEP) is a highly effective biomedical HIV prevention intervention; however, uptake among AGYW remains heterogeneous and influenced by behavioural, relational, and structural factors. Partner HIV status awareness and communication dynamics may shape prevention engagement, yet evidence from routine implementation settings remains limited.

Objective

To examine the association between partner HIV status knowledge and current PrEP use among AGYW enrolled in DREAMS-supported HIV prevention programming in Oshana Region, Namibia, and to assess whether communication-related factors were independently associated with PrEP uptake.

Methods

A cross-sectional, analytical study was conducted using survey data from 311 AGYW aged 15–24 years accessing DREAMS-supported HIV prevention services in Oshana Region, Namibia. Current PrEP use was operationalized as a binary outcome (current use vs non-current use). Descriptive analyses retained all partner HIV status categories. Regression analyses were restricted to respondents reporting HIV-negative or unknown partner HIV status, excluding those reporting HIV-positive partners (n = 5) and those without current sexual partners (n = 51). Age was collapsed into 15–17 years versus 18–24 years to improve model stability. Two multivariable logistic regression models were estimated: a baseline adjusted model and a communication-adjusted model incorporating a communication composite. Adjusted odds ratios (aORs), 95% confidence intervals (CIs), and p-values were reported.

Results

Among 311 respondents, 127 (40.8%) reported current PrEP use. Compared with AGYW who reported HIV-negative partners, those with unknown partner status had lower odds of current PrEP use (aOR ≈ 0.52, 95% CI 0.30–0.91, p = 0.022). Higher communication comfort was independently associated with current PrEP use (OR ≈ 1.64, 95% CI 1.21–2.26, p = 0.002), and AGYW aged 18–24 years had higher odds of PrEP use than those aged 15–17 years (OR ≈ 7.3, 95% CI 2.40–32.03, p = 0.002). Distance to clinic was also positively associated with current PrEP use (OR ≈ 2.5, 95% CI 1.27–5.26, p = 0.010), whereas economic vulnerability and residence were not independently associated with uptake in adjusted models. A substantial proportion of AGYW with unknown partner status nonetheless reported current

PrEP use despite lower communication scores; given the cross-sectional design, this pattern is descriptive and does not establish that PrEP use occurs independently of partner engagement. The three-item communication index showed low internal consistency (Cronbach's α = 0.444) and was treated as a composite indicator rather than a validated scale.

Conclusion

Current PrEP uptake among AGYW in this implementation setting was significantly associated with partner HIV status knowledge, communication-related factors, and age. AGYW who did not know their partner's HIV status were less likely to report current PrEP use, while stronger communication-related scores were positively associated with uptake. HIV prevention programmes should strengthen differentiated, youth-responsive interventions that address relational barriers, support communication confidence, and improve equitable access to PrEP for younger AGYW.

INTRODUCTION

Adolescent girls and young women (AGYW) remain disproportionately affected by the HIV epidemic in sub-Saharan Africa, accounting for a substantial share of new infections despite sustained investments in prevention programming (Joint United Nations Programme on HIV/AIDS [UNAIDS], 2023; World Health Organization [WHO], 2022). Biological susceptibility, gender inequality, constrained sexual autonomy, economic dependence, and limited access to youth-responsive sexual and reproductive health services collectively increase vulnerability among AGYW (UNAIDS, 2024). HIV incidence has declined in several settings, yet persistent prevention gaps remain where social, relational, and structural barriers restrict access to biomedical prevention interventions (Celum et al., 2019; Saul et al., 2018).

Namibia has made considerable progress in national HIV control, and AGYW remain a strategic prevention priority. National strategies increasingly emphasize differentiated prevention delivery, adolescent-responsive services, and the integration of oral pre-exposure prophylaxis (PrEP) into broader HIV prevention programming (Ministry of Health and Social Services [MoHSS], 2023; Joint United Nations Programme on HIV/AIDS [UNAIDS], 2023). Oral PrEP is highly effective in preventing HIV acquisition when adherence is adequate, making it an important prevention option for populations at substantial risk (O Murchu et al., 2022; Fonner et al., 2016; Eakle et al., 2018). In routine settings, however, uptake and continuation may be constrained by stigma, limited risk perception, partner opposition, service inaccessibility, discontinuation, and uncertainty regarding prevention need (Celum et al., 2019; Rousseau et al., 2021).

Among AGYW, PrEP decisions reflect biomedical risk together with relational, developmental, and structural conditions. Partner HIV status knowledge may shape perceived vulnerability, discussions about protection, and willingness to use PrEP, a role long recognized in HIV prevention science through evidence from heterosexual serodiscordant couples and WHO guidance on couples HIV testing and counselling (Bellan et al., 2018; World Health Organization [WHO], 2012). AGYW frequently navigate

relationships characterized by insecurity, transactional dependence, stigma, coercion, violence, or limited power to negotiate prevention (Murewanhema et al., 2022; George et al., 2022; Kyegombe et al., 2020). In these contexts, uncertainty regarding a partner's HIV status may indicate limited communication, disclosure, or relational safety, and some young women may avoid partner engagement altogether because of anticipated conflict, mistrust, accusations of infidelity, or fear of relationship disruption (Velloza et al., 2020; Young et al., 2023). Communication comfort may support HIV risk appraisal, partner testing discussions, and disclosure confidence, although its influence remains shaped by relationship power, gender norms, and stigma (Kababu et al., 2018). Partner HIV status knowledge and communication should therefore be examined empirically as related correlates of PrEP engagement rather than assumed facilitators.

The Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe (DREAMS) initiative was developed to reduce HIV vulnerability among AGYW through layered biomedical, behavioural, and structural interventions (Saul et al., 2018). Within DREAMS-supported settings, PrEP is delivered alongside HIV testing, youth-friendly services, violence prevention, social support, and empowerment programming. Despite a growing literature on AGYW PrEP implementation, empirical evidence linking partner HIV status knowledge to current PrEP use remains limited, particularly in routine programme settings in southern Africa. Existing studies have largely examined adherence, willingness, persistence, and qualitative barriers, leaving current behavioural uptake and relational communication factors less frequently integrated into quantitative analyses (Celum et al., 2019; Rousseau et al., 2021).

This study addresses this gap by examining the association between partner HIV status knowledge and current PrEP use among AGYW enrolled in DREAMS-supported HIV prevention programming in Oshana Region, Namibia. It also assesses whether communication-related factors are independently associated with current PrEP use after accounting for partner HIV status and key demographic covariates. We hypothesized that AGYW who did not know their partner's HIV status, would demonstrate lower odds of current PrEP use than those reporting HIV-negative partners, reflecting potential relational barriers to prevention engagement. We further hypothesized that greater communication comfort would be positively associated with current PrEP use.

METHODS

This study employed a cross-sectional analytical design using survey data from 311 sexually active AGYW aged 15–24 years accessing DREAMS-supported HIV prevention services in Oshana Region, Namibia. The study was conducted from January to August 2024. The DREAMS initiative provides an integrated package of biomedical, behavioural, and structural HIV prevention interventions for AGYW at elevated risk of HIV acquisition, including HIV testing, oral PrEP, sexual and reproductive health services, and psychosocial support (Saul et al., 2018). The analysis was situated within a routine implementation context rather than a controlled efficacy framework, reflecting real-world service delivery conditions in which behavioural uptake of prevention interventions is shaped by individual, relational, and structural factors (Celum et al., 2019; Dunbar et al., 2018).

Respondents were recruited during routine visits to DREAMS-supported facilities and selected primary healthcare centres classified as DREAMS site facilities in the region. Eligibility criteria included being biologically female, aged 15–24 years, sexually active, and enrolled in DREAMS-supported services in Oshana Region. Eligible respondents were approached by trained study staff, including the researcher and a trained research assistant, informed about the study, and invited to complete a structured questionnaire in a private setting following written informed consent. For respondents aged 15–17 years, written parental or guardian consent was obtained alongside participant assent. Ethical approval was granted by the University of Namibia Research Ethics Committee [Decentralization Ethical Committee: UNAM- DEC OSH 0060, dated 21/08/2023] and the Namibia Ministry of Health and Social Services Research Ethics Committee [Ref: 22/4/2/3, dated 27/09/2023]. The study adhered to the Declaration of Helsinki, national ethical guidance, and World Health Organization standards for research involving human respondents.

The primary outcome was current PrEP use, derived from the survey question assessing whether respondents had ever used oral PrEP or would consider using it in future. Responses were dichotomized into current use (coded 1) versus non-current use (coded 0), where the latter included both respondents willing to use PrEP if at risk and those reporting that they would not use PrEP in future. This operationalization was selected to distinguish actual behavioral uptake from hypothetical intention, given evidence that willingness does not consistently translate into initiation or sustained prevention engagement (Haberer et al., 2017; Celum et al., 2019).

The primary exposure variable was partner HIV status knowledge, assessed through self-report of the HIV status of the participant's current sexual partner. Original response categories included HIV-positive partner, no current sexual partner, unknown partner HIV status, and HIV-negative partner. All categories were retained for descriptive analyses to preserve contextual interpretation. For regression analyses, the exposure was restricted to two analytically comparable categories: HIV-negative partner status (reference group) and unknown partner HIV status. Respondents reporting HIV-positive partners (n = 5) were excluded because the subgroup was too small for stable estimation, while respondents reporting no current sexual partner (n = 51) were excluded because this category is conceptually distinct from active partner serostatus comparisons and therefore not analytically comparable (Riley et al., 2019).

A communication composite index was constructed to assess communication-related relational dynamics potentially associated with PrEP uptake. The index combined three survey items reflecting comfort discussing sexual and reproductive health with a partner, perceived openness regarding sexual health communication, and partner involvement in prevention-related decision-making. Responses were averaged to generate a composite score, with higher values indicating greater communication comfort and relational openness. Internal consistency for the three-item index was low (Cronbach's $\alpha = 0.444$), indicating limited psychometric reliability according to conventional thresholds (Taber, 2018). Accordingly, the measure was interpreted as a pragmatic exploratory composite rather than a validated latent communication construct. Reliability diagnostics are provided in Supplement S1, and full definitions and coding of all variables used in the analysis are provided in Supplement S2.

Covariates were selected based on epidemiologic plausibility and prior literature on AGYW HIV prevention uptake (Bellan et al., 2018; Celum et al., 2019; Saul et al., 2018). Age was included because developmental stage may influence prevention autonomy, healthcare engagement, and perceived HIV vulnerability, and was collapsed into 15–17 years versus 18–24 years for regression analyses to improve statistical stability. Economic vulnerability was operationalized as a binary indicator contrasting unemployed respondents with those who were employed or self-employed. Residence was categorized as urban or rural based on self-report, and distance to the nearest health facility offering PrEP services was included as a structural access variable. Education and marital status were available descriptively but were not retained in the final adjusted models following analytic audit, to avoid over-parameterization given the modest effective regression sample.

Descriptive statistics were used to summarize participant characteristics, PrEP uptake, communication scores, and partner HIV status distributions. Group differences in categorical variables were examined using chi-square tests, while differences in continuous communication scores were assessed using one-way analysis of variance where appropriate. Binary logistic regression was used to estimate associations between explanatory variables and current PrEP use (Hosmer et al., 2013). Two multivariable regression models were estimated. Model 1 assessed the association between partner HIV status knowledge and current PrEP use, adjusting for age group, economic vulnerability, residence, and distance to clinic. Model 2 added the communication composite to assess whether communication-related factors were independently associated with PrEP uptake after accounting for partner HIV status and structural covariates. Regression analyses were restricted to respondents reporting HIV-negative or unknown-status partners with complete data on included variables, yielding an analytic sample of 255 respondents (82% of the full sample).

Results are presented as adjusted odds ratios (aORs), 95% confidence intervals (CIs), and p-values. Because the study used a cross-sectional observational design, findings were interpreted strictly as associative rather than causal (Setia, 2016; Wang & Cheng, 2020). Multicollinearity was assessed using variance inflation factors, and model fit was evaluated using pseudo-R^2 statistics, reported in full in Supplement S4. Sensitivity analyses included descriptive age-stratified comparisons (Supplement S3), the communication-adjusted model (Supplement S5), model comparison (Supplement S6), and the economic-vulnerability sensitivity analysis (Supplement S7), without estimating causal mediation or moderated interaction effects.

RESULTS

The full analytic dataset comprised 311 AGYW aged 15–24 years. Overall, 127 respondents (40.8%) reported current oral PrEP use. Most respondents were aged 18–24 years (79.7%), and the majority were classified as economically vulnerable based on employment status.

Table 1

Sample characteristics by partner HIV status category among adolescent girls and young women (AGYW) accessing DREAMS-supported HIV prevention services, Oshana Region, Namibia (N = 311).

Partner HIV status	n (%)	Current PrEP use (%)	Mean communication comfort (SD)	Mean age (SD)	Economically vulnerable (%)
No current partner	51 (16.4%)	2.0%	3.30 (0.76)	17.5 (2.3)	98.0%
HIV-negative	141 (45.3%)	58.9%	4.04 (0.90)	21.0 (2.2)	84.4%
Unknown status	114 (36.7%)	36.8%	3.63 (0.88)	19.7 (2.4)	89.5%
HIV-positive	5 (1.6%)	20.0%	4.33 (0.97)	19.8 (2.8)	100.0%

With respect to partner HIV status, 141 respondents (45.3%) reported an HIV-negative sexual partner, 114 (36.7%) reported not knowing their partner's HIV status, 51 (16.4%) reported no current sexual partner, and 5 (1.6%) reported an HIV-positive partner (Table 1). Communication comfort, partner involvement, and individual prevention engagement scores varied across partner-status categories, with generally higher communication-related scores among AGYW reporting known HIV-negative partners compared with those reporting unknown partner status.

Descriptive comparisons indicated differences in PrEP uptake across partner HIV status categories, with AGYW reporting HIV-negative partners demonstrating higher current PrEP uptake than those reporting unknown partner status or no current sexual partner. For multivariable regression, respondents reporting HIV-positive partners (n = 5) and those without a current sexual partner (n = 51) were excluded, yielding 255 eligible observations.

Association Between Partner HIV Status Knowledge and Current PrEP Use

Results from the baseline adjusted logistic regression model are presented in Table 2.

Table 2
Binary logistic regression of partner HIV status knowledge and current PrEP use, adjusted for age group, economic vulnerability, residence, and distance to clinic (Model 1, n = 255).

Term	aOR	95% CI	p-value
Intercept	0.06	0.01–0.39	0.005**
Partner status: Unknown (ref. HIV-negative)	0.45	0.26–0.77	0.004**
Age group: 18–24 (ref. 15–17)	8.52	2.82–36.97	< .001
Economic vulnerability	0.70	0.31–1.51	0.365
Residence: Urban	1.31	0.65–2.69	0.456
Distance to clinic	2.27	1.16–4.68	0.020*

After adjustment for age group, economic vulnerability, residence, and distance to the nearest PrEP-providing health facility, partner HIV status knowledge was significantly associated with current PrEP use. Compared with AGYW who reported an HIV-negative partner, those who reported not knowing their partner's HIV status had significantly lower odds of current PrEP use (aOR = 0.45, 95% CI 0.26–0.77, p = .004). Age was also strongly associated with current PrEP uptake: respondents aged 18–24 years had substantially higher odds of current PrEP use than those aged 15–17 years (aOR = 8.52, 95% CI 2.82–36.97, p < .001). Distance to the nearest health facility was independently associated with current PrEP use (aOR = 2.27, 95% CI 1.16–4.68, p = .020), whereas economic vulnerability and urban–rural residence were not statistically significant predictors in the adjusted model.

Communication-Adjusted Model

Model 2 added the communication index as an associated covariate while retaining partner status, age group, economic vulnerability, residence, and distance to clinic, again using 255 complete-case observations (Table 3).

Table 3
Communication-adjusted binary logistic regression of partner HIV status knowledge and current PrEP use (Model 2, n = 255).

Term	aOR	95% CI	p-value
Intercept	0.01	0.00–0.07	< .001
Partner status: Unknown (ref. HIV-negative)	0.52	0.30–0.91	0.022*
Communication comfort	1.64	1.21–2.26	0.002**
Age group: 18–24 (ref. 15–17)	7.33	2.40–32.03	0.002**
Economic vulnerability	0.72	0.31–1.59	0.419
Residence: Urban	1.62	0.78–3.42	0.200
Distance to clinic	2.52	1.27–5.26	0.010*

Partner status remained significantly associated with current PrEP use: AGYW with unknown partner status had lower odds of current PrEP use than those with HIV-negative partners (aOR ≈ 0.52, 95% CI 0.30–0.91, p = 0.022). Higher communication comfort was independently associated with current PrEP use (OR ≈ 1.64, 95% CI 1.21–2.26, p = 0.002), and AGYW aged 18–24 years had substantially higher odds of PrEP use than those aged 15–17 years (OR ≈ 7.3, 95% CI 2.40–32.03, p = 0.002). Distance to clinic remained positively associated with current PrEP use (OR ≈ 2.5, 95% CI 1.27–5.26, p = 0.010), whereas economic vulnerability and residence were not significantly associated with uptake. Communication comfort was treated as an associated explanatory variable rather than a mediator, consistent with audit findings and the cross-sectional design. Predicted probability estimates from the adjusted model are presented in Fig. 1.

Error bars represent 95% confidence intervals. Predicted probability was 15.2% (95% CI 4.9–38.7%) for AGYW reporting an HIV-negative partner and 7.5% (95% CI 2.3–21.9%) for AGYW reporting unknown partner HIV status.

Summary of Main Findings

Across adjusted analyses, three consistent findings emerged: uncertainty regarding partner HIV status was associated with significantly lower odds of current PrEP use relative to reporting an HIV-negative partner; stronger communication-related scores were positively associated with current PrEP uptake; and older AGYW demonstrated substantially higher PrEP uptake than younger adolescents.

DISCUSSION

This study examined associations between partner HIV status knowledge, communication-related factors, and current PrEP use among AGYW accessing DREAMS-supported HIV prevention services in

Oshana Region, Namibia. AGYW who reported unknown partner status had lower odds of current PrEP use than those who reported HIV-negative partners, and this association persisted after adjustment for communication comfort and structural covariates, with odds ratios around 0.45–0.52 in baseline and communication-adjusted models. Higher communication comfort and being aged 18–24 years were also associated with greater likelihood of current PrEP use, whereas economic vulnerability and residence were not consistently associated with uptake.

Contrary to assumptions that uncertainty regarding a partner's HIV status may heighten perceived vulnerability and motivate protective action, AGYW who reported unknown partner HIV status were less likely to report current PrEP use than those who reported HIV-negative partners. This pattern suggests that uncertainty regarding partner serostatus may not function solely as a marker of elevated HIV risk perception but may instead reflect broader relational or structural barriers that inhibit prevention engagement. Knowledge of a partner's HIV status often requires some degree of communication, disclosure, mutual testing, or relational transparency; AGYW who know that a partner is HIV-negative may therefore differ from those reporting uncertainty in ways that extend beyond serostatus awareness alone, including communication confidence, relationship stability, and prevention literacy (Kababu et al., 2018; Velloza et al., 2020; Young et al., 2023).

These findings also align with social and relational theories of HIV vulnerability among AGYW, who frequently navigate prevention decisions within contexts shaped by gendered power inequalities, economic dependence, age-disparate relationships, and constrained sexual autonomy (Murewanhema et al., 2022; Kyegombe et al., 2020). Partner HIV status awareness may therefore be interpreted less as an isolated informational variable and more as a marker of relational context relevant to HIV prevention engagement. In the communication-adjusted model, greater distance to clinic was associated with higher odds of current PrEP use, which may reflect underlying service patterns or unmeasured structural factors rather than straightforward access barriers.

The positive association between communication comfort and current PrEP uptake reinforces this interpretation. Respondents with higher communication-related scores demonstrated significantly greater odds of PrEP use even after adjustment for partner HIV status and structural covariates, consistent with evidence that communication confidence can facilitate HIV risk discussion, partner disclosure, and engagement with prevention services (Kababu et al., 2018), and with qualitative research showing that communication barriers, anticipated stigma, and fear of accusations of infidelity may discourage PrEP uptake among AGYW (Velloza et al., 2020; Young et al., 2023). This association should nonetheless be interpreted cautiously: the communication composite demonstrated weak internal consistency (Cronbach's $\alpha = 0.444$), so it should be treated as a pragmatic exploratory composite rather than a validated latent construct, and it does not establish communication as a mechanistically defined causal pathway.

Age emerged as a particularly strong correlate of PrEP uptake. AGYW aged 18–24 years demonstrated substantially higher odds of current PrEP use than younger respondents, consistent with implementation

literature showing that older AGYW often exhibit greater autonomy, stronger healthcare engagement, and fewer structural barriers to independent prevention access (Celum et al., 2019; Rousseau et al., 2021). Younger adolescents may face distinct barriers, including dependency on caregivers, consent-related concerns, limited confidentiality, lower risk recognition, stigma, and reduced access to youth-responsive services.

Distance to health facilities was also associated with PrEP uptake in the adjusted baseline model, indicating that geographic access remains relevant in this implementation context, consistent with evidence that transport barriers and structural access constraints influence HIV service utilization among AGYW (World Health Organization [WHO], 2015). Economic vulnerability did not demonstrate a statistically significant independent association with PrEP uptake in the adjusted models; this should not be interpreted as evidence that structural disadvantage is unimportant, since a binary employment indicator provides only a limited approximation of economic vulnerability and does not capture food insecurity, transport affordability, or transactional relationships (UNAIDS, 2024; Saul et al., 2018).

Implications for Programmes and Policy

These findings have important implications for HIV prevention programming and policy. HIV prevention engagement does not occur through a single relational pathway. For some AGYW, PrEP may be most effectively integrated within partner-engaged prevention strategies that include couples HIV testing, structured counselling, and supportive communication where relationships are safe and conducive to shared decision-making (Bellan et al., 2018; World Health Organization [WHO], 2012). For other AGYW, confidentiality, autonomy, and protection from potential partner-related harms may be central to successful PrEP uptake, particularly where disclosure may provoke stigma, mistrust, coercion, or relationship conflict (Velloza et al., 2020; Young et al., 2023).

Within DREAMS-supported implementation settings, these findings support differentiated PrEP delivery models that allow AGYW to determine whether and how partners are involved in prevention decision-making, while ensuring that PrEP remains accessible regardless of disclosure decisions (Saul et al., 2018). Such approaches are aligned with global HIV prevention priorities emphasizing expansion of equitable PrEP access for AGYW (Joint United Nations Programme on HIV/AIDS [UNAIDS], 2023; World Health Organization [WHO], 2015). Strengthening provider training in adolescent-friendly communication, relationship safety assessment, confidentiality protection, and gendered power dynamics may further improve programme responsiveness to AGYW seeking PrEP across diverse relational contexts (Murewanhema et al., 2022; George et al., 2022).

Strengths and Limitations

This study has several strengths. It examined PrEP uptake within routine DREAMS-supported service delivery, increasing the relevance of the findings for programme implementation. The simultaneous assessment of relational, communication, and structural factors provided a more comprehensive

understanding of PrEP engagement among AGYW. The multivariable models also adjusted for relevant demographic and contextual covariates, including age, economic vulnerability, residence, and distance to a PrEP-providing facility, strengthening the robustness of the observed associations.

Several limitations require consideration. Cross-sectional design prevents assessment of temporal ordering and causal relationships between partner HIV status knowledge, communication, and current PrEP use. All measures were self-reported and may be affected by recall bias, social desirability bias, or misclassification. The communication composite demonstrated low internal consistency, limiting the strength of conclusions concerning communication as a distinct construct. Regression analyses were restricted to 255 respondents reporting HIV-negative or unknown-status partners; the resulting estimates may not apply to AGYW with HIV-positive partners or no current sexual partner. The study achieved an 81.8% response rate, leaving some potential for nonresponse bias. Item-level missingness was low, at approximately 2.3%, and was addressed through stratified mean and mode imputation, although some imputation-related bias may remain. Unmeasured factors, including gender-based violence, relationship coercion, stigma, transport affordability, facility-level service differences, and community norms, may also have influenced PrEP uptake. The findings should therefore be interpreted as implementation-relevant associations within the study population rather than causal effects.

Future Research

Future research should build on these findings using longitudinal and mixed methods designs that can better examine temporal ordering between partner HIV status awareness, communication dynamics, and PrEP uptake or persistence among AGYW (Celum et al., 2019; Dunbar et al., 2018). Qualitative research exploring how AGYW interpret partner HIV status uncertainty, navigate disclosure decisions, and engage with PrEP under differing relational and structural conditions would further strengthen implementation understanding and support more responsive programme adaptation (Velloza et al., 2020; Young et al., 2023).

CONCLUSION

Current PrEP uptake among adolescent girls and young women accessing DREAMS-supported HIV prevention services in Oshana Region, Namibia, was independently associated with partner HIV status knowledge, communication-related factors, and age. Lower uptake among AGYW who were unaware of their partner's HIV status, together with higher uptake among those reporting greater communication comfort and among older respondents, positions relational and developmental context as central to PrEP engagement. These findings support differentiated, youth-responsive PrEP delivery strategies that strengthen communication support where safe, protect confidential and autonomous access, and prioritize younger AGYW and those experiencing uncertainty regarding partner HIV status.

Declarations

Ethics approval and consent to participate declaration

Ethics and Consent to Participate declarations: Ethical approval was granted by the University of Namibia Research Ethics Committee [Decentralization Ethical Committee: UNAM DEC OSH 0060, dated 21/08/2023] and the Namibia Ministry of Health and Social Services Research Ethics Committee [Ref:22/4/2/3, dated 27.09.2023]. All respondents provided written informed consent before participation. For respondents aged 15-17 years, written parental or guardian consent was obtained alongside participant assent.

Consent to Publish declaration

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Author Contribution declaration

Author Contribution declaration: Ms Peneyambeko Ipawa Shikulo conceptualized the study, led data collection, conducted the analysis, and drafted the manuscript. Dr. Iita Hermine and Dr. Shilunga A. P. Kauko provided supervisory guidance, reviewed the analysis, and critically revised the manuscript. All authors read and approved the final manuscript.

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Figures

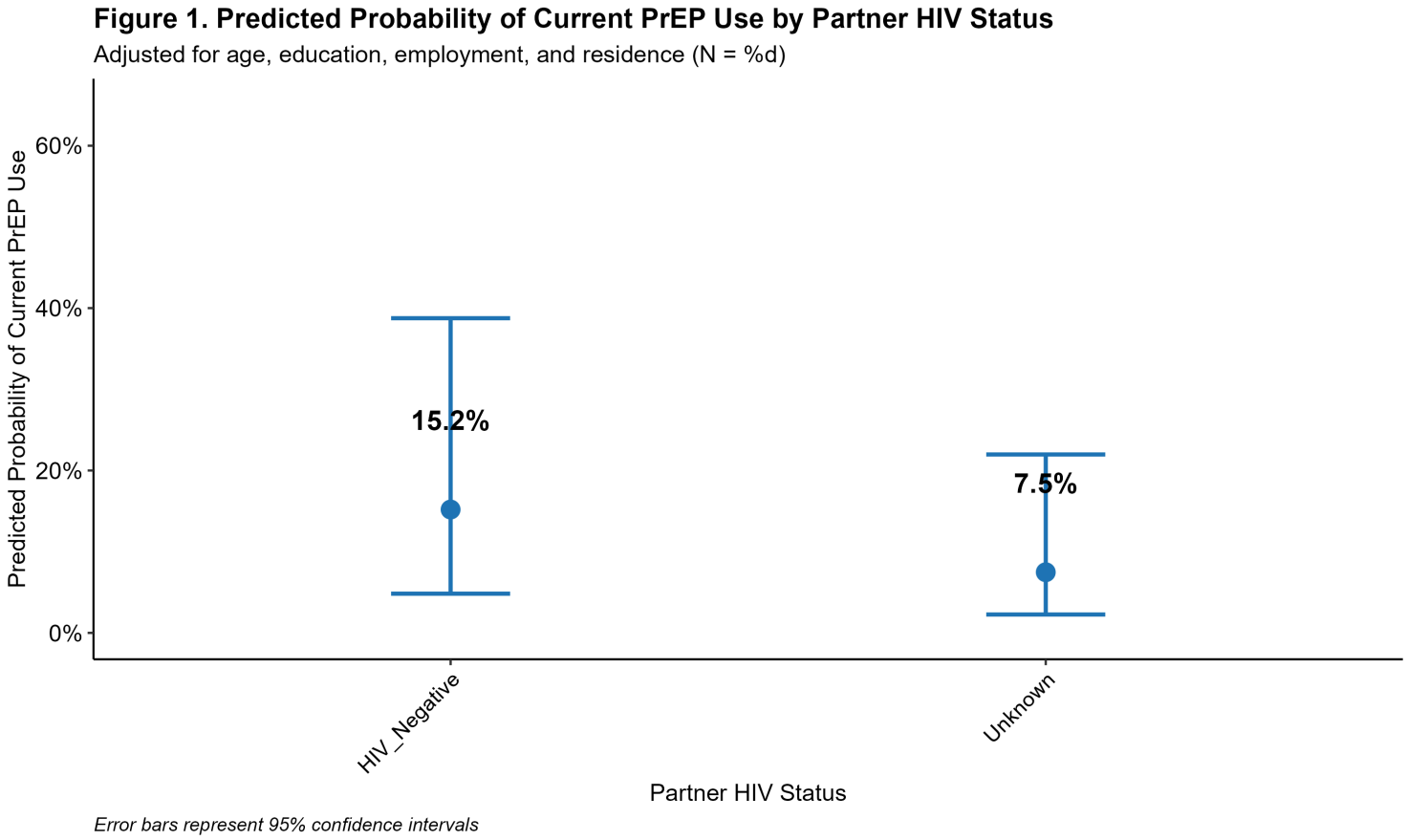


Figure 1

Predicted probability of current PrEP use by partner HIV status, adjusted for age group, economic vulnerability, residence, and distance to clinic (N = 255).

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