

Exploring the Intersection of gender norms, Mental Health, and Sexual Consent, Among Displaced men of Benue state, Nigeria

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Abstract

Background

Rape rates in Nigeria's displaced settlements reach 37–50%, yet little is known about how displaced men's navigation of consent is shaped by gender norms and mental health. This cross-sectional study aimed to predict male sexual consent behavior by examining its interaction between sociodemographic factors, gender-equitable norms (GEM), mental health, and gender-related training in displaced camps in Nigeria

Methods

A total of 610 males were randomly sampled from three purposively selected displaced camps. A validated instrument was used to collect data on sociodemographic characteristics, gender-equitable norms (GEM scale), mental health indicators for post-traumatic stress disorder, anxiety, and depression (PTSD-8 and PHQ-4), as well as sexual consent behavior. Three constructs of sexual consent were assessed: positive attitudes, indirect approaches, and consent norms. Gamma GLM modelling was used to identify significant predictors of each outcome. Interaction effects between GEM and mental health were examined.

Results

All constructs of sexual consent behaviors were consistently predicted by a longer stay in the camp. Having some form of social and emotional support, such as living with a family or friend, having a partner, or being self-employed, was associated with higher consent outcomes. Gender-equitable norms did not independently predict sexual consent; however, when combined with mental health, which was a strong predictor, they were associated with improved consent behavior. Attending gender-related training was negatively associated with all consent outcomes.

Conclusion

Sexual consent behaviors among displaced men are driven by an interaction of different constructs beyond gender norms alone. Their social, economic, and psychological factors play an important role in shaping consent behaviors. Current gender trainings may lack contextual relevance and fail to address practical negotiation skills. Interventions must integrate mental health support, empowerment opportunities, and family/community-based approaches to foster healthy consent dynamics in displacement settings.

Introduction

Sexual violence remains a public health concern in displaced settings in Nigeria¹. Studies have indicated a prevalence as high as 37–50% and nearly all perpetrators were identified as male^{2,3}. These alarming rates call for the need for intervention to strengthen sexual consent behavior among men in displaced settings as a fundamental component of ethical and safe sexual relationships. However, male sexual and reproductive health and associated behaviors is often overlooked in both research and intervention design^{2–4}. Sexual consent entails an individual's ability to recognize boundaries, communicate intentions, and respect the autonomy of others^{5,6}. The Sexual consent behavior remains poorly understood in many settings, particularly among populations experiencing displacement, instability, and socioeconomic hardship^{2,4}. In displaced settings across Africa, traditional gender norms and the silence surrounding sexuality often restrict men's ability to negotiate or respect consent within intimate relationships⁷. These dynamics are shaped by patrilineal structures, exposure to trauma, limited opportunities, and disrupted social systems^{8–10}. Some studies have highlighted that, due to the breakdown of conventional traditional structures during displacement, there are accompanying stressors that exacerbate harmful masculinities¹¹. However, the intersection of gender norms, mental health, and sexual consent behaviors among displaced men remains underexplored.

Gender-transformative programming has increasingly been promoted to address gender-based violence and harmful norms among men^{12,13}. Research shows that employment status, the availability of social support, and living arrangements significantly influence sexual risk-taking and the negotiation of consent^{13–15}. Nonetheless, gender-equitable norms alone may not translate into practice, especially when trauma or poor mental health are present.^{11,16} Moreover, traditional training approaches may be ineffective if they do not address men's lived realities or provide practical communication skills for navigating consent¹⁶.

Conceptual Framework

Figure 1: Conceptual Framework examining the intersection between mental health, gender norms, and sexual consent behaviors

The integrated socio-ecological, Gender and Power Theory, and Theory of Planned Behavior framework was used to examine the intersection between mental health, gender norms, and sexual consent behaviors among displaced men in Benue State, Nigeria. The social ecological theory explains consent behaviors and individual and household dynamics in relation to their environment¹⁷. Gender and Power Theory explains how situations of one's environment (displacement) may disrupt gender norms in the environment, creating a masculine identity that manifests in sexual domain behaviors^{18,19}. The theory of planned behavior differentiates how one's attitudes, contextual norms, and perceived behavioral control can affect consent behaviors. According to these theories, a man's characteristics do not directly affect their sexual consent behaviors. However, these behaviors are determined by interactions with contextual factors such as his psychological states, gender norms, and socio-environmental factors arising from displacement.

The model uses three distinct constructs of sexual consent as outcomes²⁰: positive attitudes toward consent, perceived consent norms, and indirect behavior. The model proposes that gender norm attitudes and mental health symptoms have a strong direct effect on sexual consent behaviors. Differential pathways to each outcome are hypothesized: gender-equitable norms are posited as the primary driver of positive attitudes, while both gender norms and environmental factors are expected to shape perceived norms. Additionally, mental health symptoms are anticipated to have the strongest direct effect on coercive behaviors.

According to the framework, access to health care, once physical health and ever attending gender training are moderating factors to their mental health, gender norm attitude and sexual consent behavioral outcomes. It also suggests that there is a bidirectional pathway between mental health and gender norms. It proposes that poor mental health outcomes could push individuals toward rigid, authoritarian masculine ideologies that create dominance and poor consent behaviors. On the other hand, when inequitable gender norms are internalized, healthy coping strategies and health-seeking behaviors may affect men's mental health negatively.

This model thus elaborates the multi-level approach to understanding sexual consent behaviors among displaced men.

Method

This was a cross-sectional study done in three selected internally displaced persons (IDPs) camps (Otese, Mega, and Daudu camps). These camps were purposefully selected because they were relatively safe to assess. These camps are in a rural-agrarian community affected by farmer-herder conflict. Benue shelters about two million displaced persons, with the majority living in the selected internally displaced camps^{21,22}. Previous studies have reported a prevalence of sexual violence in Nigeria ranging from 36% to 54%, with Benue State recording a rate of over 53%^{22,23,24}.

Inclusion criteria

- Men aged 18 to 80
- Minimum one year of residence in the settlement.
- Sexually active in the past 12 months
- Fluent in Tiv, pidgin, or English
- Voluntarily agrees to participate

Exclusion criteria

- Severe mental illness or acute illness that impairs consent capacity.
- Never engaged in a minimum of one sexual relationship.

Measures

We collected sociodemographic data on displaced males, their attendance at gender training, and measures of gender norms, mental health, and sexual consent. We adapted the Gender-Equitable Men (GEM) Scale for assessing gender norms and their relationship to sexual consent¹³. The GEM is a reliable scale that has been piloted across several African countries, including South Africa, Uganda, and Nigeria (specifically in Benue, Kano, Lagos, and Rivers)^{15,25,26}. It measures gender norms and attitudes, supporting its application in programs addressing gender-based violence, reproductive health, and social norm change. The adapted instrument consisted of a total of 12 items, including three context-specific statements that reflected prevailing beliefs about male authority and sexual entitlement in the setting. These included;

- *If a woman refuses sex, it is acceptable for a man to keep trying until a woman agrees to sex.*
- *It is acceptable for a man to expect sex if he has provided money.*
- *It is a sign of weakness for a man to ask his partner for permission before sex.*

We assessed three mental health symptoms: Post Traumatic Stress Disorder (PTSD), depression, and anxiety using the PTSD-8 and PHQ-4 instruments, respectively, which have shown high reliability in the African setting, including Nigeria^{8,27,28}. The traditional PTSD-8 instrument measures intrusion, avoidance, and arousal, while the PHQ4 has depression and anxiety as its constructs. Each item used a Likert scale from 0 to 4, where higher scores showed stronger symptoms.

The outcome variable for this analysis was sexual consent behavior, assessed using the Sexual Consent Scale (SCS) with three constructs adapted from the original instrument^{6,20}. The first construct consisted of 9 items and captured positive attitudes toward establishing consent. The second construct, comprising 6 items, captured indirect behaviors related to consent. The third construct consisted of 5 items and captured consent norms. Items were presented in a yes/no format rather than the original Likert scale, as it ensured clarity and consistent understanding in the local language when compared to the Likert responses. The tool has been applied in studies in Ghana²⁹ and, though primarily developed outside Africa, has been validated and shows strong potential for adaptation and use in African contexts³⁰. All the tools adopted had a Cronbach's alpha of 0.85, demonstrating a good internal consistency of the entire scale.

Ethical consideration

The study was conducted in accordance with the Declaration of Helsinki. Ethical approval was obtained from the Benue State Ministry of Health (MOH/STA/204/1/337) and further administrative clearance from the Benue State Emergency Management Agency (ref. BSEMA/OFF/206/v.i/104) prior to data collection. Additional permission was received from the camp leadership overseeing the study populations. Participation was voluntary, and written informed consent was obtained from all

participants before enrolment. A translated informed consent form was read aloud in the native language or pidgin English to participants with limited literacy to ensure understanding, and consent was confirmed with a thumbprint. Participants received clear information on the study purpose, procedures, risks, and benefits. They were informed of their right to refuse participation or withdraw at any time without consequences. Confidentiality was maintained, and no personal identifiers were used. All data were stored in password-protected files and accessed only by the research team. Participants received modest compensation to cover transport or time spent, in line with ethical guidance and local standards.

Analysis

Sociodemographic variables, mental health categories, gender norm attitudes, and sexual consent were summarized using descriptive statistics. Continuous variables were summarized using the median and interquartile range (IQR), while Categorical variables were summarized using frequencies and percentages.

Scores on the modified GEM Scale ranged from 12 to 36. Equal divisions of the scores were calculated to categorize the scale into three levels: low equity (12–20), medium equity (21–28), and high equity (29–36).

Items of the PTSD-8 and PHQ-4 scales were categorized using a clinical standard. Each symptom group was screened by identifying items with values 3 or 4. Intrusion was marked positive when at least one intrusion item scored 3 or 4. Avoidance was marked positive when at least one avoidance item scored 3 or 4. Hypervigilance was marked positive when at least one hypervigilance item scored 3 or 4³¹. The PHQ was categorized into depression symptoms and anxiety symptoms. Depression was calculated as the sum of the first two items (range 0–6), while anxiety was calculated as the sum of the last two items (range 0–6). A score of ≥ 3 on either subscale suggests possible depression or anxiety.

The items of the SCS scale were scored as 1 for "yes" and 0 for "no". Subscale scores were created by summing the items within each section. The positive attitude subscale produced scores from 0 to 9. The indirect behavior subscale yielded scores ranging from 0 to 6, while the consent norms subscale produced a total score of 4. Endorsement levels were categorized using the median as the cut-off point. A higher magnitude means a stronger endorsement of the construct measured by that subscale. Lower magnitude means weaker endorsement. For the positive attitude participants scoring at or above median score of 8 were classified as having high endorsement. For the indirect behavior participant scoring ≥ 6 indicated high endorsement. For the consent norms subscale participants scoring ≥ 5 was classified as high endorsement.

A frequency table compared the distribution of SCS endorsement across sociodemographic factors, GEM categories, and mental health indicators. Chi-square tests assessed differences in categorical variables(supplement 1)

An exploratory composite index was created by summing PTSD and PHQ symptom scores to approximate overall mental health burden, with the understanding that it is not a validated measure but is intended to capture overall symptom magnitude. The index was used to test interactions between GEM and SCS scores, with sexual consent behavior examined in relation to gender norms, attitudes, and mental health as a moderator. A linear model was applied using the total scores of all three variables. The interaction was visualized using a moderated regression plot, which displays predicted SCS scores for low, average, and high mental health across the range of GEM Scores.

To examine the association between socio-demographic characteristics, mental health scores, gender norm attitudes, and gen sexual consent behaviors and its constructs, we used the Gamma generalized linear model (GLM) with a log link to estimate the relationship between predictors. The Gamma generalized linear model (GLM) was found appropriate for the positively skewed SCS score³². Two models were fitted to predict consent behavior construct: positive attitudes towards sexual consent, an indirect approach, and sexual consent norms. Model 1 included all predictors: age, length of stay in camp, number of males, income, Number of females (obtained by subtracting household size from number of of males), settlement type, living arrangements, marital status, education level, main activity, religion, gender training attendance, GEM score, and mental health combined score. Model 2 was a simplified model that included only the strongest predictors identified in Model 1, based on statistical significance and theoretical relevance: length of stay, living arrangements, marital status, education level, main activity, gender, training attendance, GEM score, and a combined mental health score. Model 2 achieved a good balance between model fit and parsimony, with Akaike Information Criterion (AIC) values of 3523 for general consent behaviors, 2522 for positive attitudes toward sexual consent, 2169 for the indirect approach, and 1841 for sexual consent norms. These AIC values were all lower than those for Model 1. All analyses were performed in R Studio, and statistical significance was assessed at $\alpha = 0.05$.

Results

Table 1: Descriptive Characteristics of Participants

Variable	Level	Overall n(%)
N		610
Age(years) (Median, IQR)		36.00 [27.00, 47.00]
Age Group	18–29	178 (29.2)
	30–39	154 (25.2)
	40–49	138 (22.6)
	50plus	140 (23.0)
length of stay in camp(years) (Median, IQR)		4.00 [2.00, 5.00]
Length of stay category	Short (1–2 years)	161 (26.4)
	Medium (3–5 years)	336 (55.1)
	Long (6–9years)	113 (18.5)
Household size (median, IQR)		6.00 [4.00, 8.00]
Household size category	Single	13 (2.1)
	Small (2–3)	119 (19.5)
	Medium (4–5)	167 (27.4)
	Large (6+)	311 (51.0)
Number of males in household (median IQR)		3.00 [2.00, 4.00]
Number of males in household Category	≤1	82 (13.4)
	2–3	321 (52.6)
	4+	207 (33.9)
total income per month(Niara) (Median IQR)		5000.00 [0.00, 19000.00]
income Cat	Less than 20k	506 (83.0)
	20k–50k	89 (14.6)
	Over 50k	15 (2.5)
Settlement	Daudu 1	218 (35.7)
	Mega camp	191 (31.3)
	Ortese	201 (33.0)

Whom do you live with	by yourself/with friend(s)	33 (5.4)
	with family/relative	577 (94.6)
Marital status	married/cohabiting	463 (75.9)
	single/separated/divorced/widowed	147 (24.1)
Educational level	no formal education/other	181 (29.7)
	Primary	145 (23.8)
	Secondary	240 (39.3)
	university/tertiary	44 (7.2)
Employment status	employed fulltime	112 (18.4)
	Other(casual /work)	93 (15.2)
	Self employed	164 (26.9)
	Student	82 (13.4)
	Unemployed	159 (26.1)
Religion	Christian	601 (98.5)
	other(Islam/traditional	9 (1.5)
ever attended gender related training	No	219 (35.9)
	Yes	391 (64.1)

In Table 1 above, the average age of the males was 36 [37, 47] years, with up to 178 (29.2%) between 18 and 29 years. The average length of stay in the camp was 4 [2-5] years. Most of the participants had large household sizes, with an average of 6 [4-8] persons in the household and an average of 3 males. Most of the males were self-employed, at 164 (26.9%), with an average monthly income of 5,000 naira. The majority, 463 (75.5%), were married/cohabiting, and 577 (95.6%) lived with a family member/relative. Up to 392 (64.1%) had ever attended gender-related training.

Supplement 2 shows that there was a low endorsement of gender-equal norms among displaced men, with only 4.1% reporting high endorsement. Up to 54.8% of the participants reported at least one mental health symptom. Slightly over half of the respondents had a probable symptom of PTSD (54.3%), with the majority experiencing hypervigilance (24.3%). Anxiety and depression were prevalent among (33.3%)and (32.1%) of the respondents. Endorsement of sexual consent behaviors varied, with 59.3% reporting positive attitudes, 55.2% using indirect behaviors, and 60.8% conforming to consent norm beliefs

Supplement 1 presents the Pearson correlations among positive attitudes, individual behaviors, and consent norms, showing consistently strong and statistically significant associations across all three domains.

Interaction of GEM and Mental Health in Predicting Total SCS Score

Figure 1 illustrates that the overall effect of GEM Score on SCS is moderated by mental health. High mental health predicts higher SCS across GEM levels. For participants with an average mental health score, the GEM Score shows little association with SCS, while for those with low mental health, the GEM Score is negatively related to SCS. The lines intersect around GEM $\approx$ 15–20, where low mental health, combined with a high GEM Score, yields the lowest SCS.

<i>Table2 Gamma GLM: Model 2 Predicting general sexual consent</i>					
Variable	Level	Estimate	Std. Error	z value	p value
Length of stay in camp		-0.021	0.005	-4.230	0.000
Whom do you live with,	family/relative	0.104	0.043	2.430	0.015
Marital status:	single/separated/divorced/widowed	0.097	0.023	4.260	0.000
Level of education	primary	-0.048	0.025	-1.910	0.057
	Secondary	-0.066	0.022	-2.990	0.003
	University/tertiary	0.007	0.037	0.180	0.857
Activity	Other(non/casual work)	-0.088	0.031	-2.860	0.004
	Self employed	0.099	0.027	3.600	0.000
	student	-0.088	0.034	-2.610	0.009
	unemployed	0.037	0.029	1.300	0.193
Ever attended gender training	yes	-0.111	0.022	-4.930	0.000
GEM scores		-0.002	0.002	-1.280	0.202
Total mental health score		0.004	0.001	2.760	0.006

Table 2 reveals that several factors are significant predictors of sexual Consent behavior. Length of stay in camp was negatively associated with consent . Living with family or relatives and being in a relationship were associated with higher scores. Secondary education was significantly predicted by lower sexual consent behavior scores. Males who were self-employed had significantly higher scores,

whereas males in “other” activities or who were students had lower scores. Participants who had ever attended a gender showed a negative association with consent . Finally, mental health scores were positively associated with consent .

Table 3 Gamma GLM: Model 2 Predicting Positive Attitude Toward Establishing Consent

		Estimate	SE	Z	p
		2.05	0.08	26.03	<.001
Variable	Level	0	0	-1.83	0.068
Length of stay in camp		-0.02	0.01	-3.79	<.001
Whom do you live with,	family/relative	0.12	0.04	2.6	0.01
Marital status:	single/separated/divorced/widowed	0.1	0.02	4.24	<.001
Level of education	primary	-0.06	0.03	-2.39	0.017
	Secondary	-0.08	0.02	-3.29	0.001
	University/tertiary	0.01	0.04	0.27	0.787
Activity	Other(non/casual work)	-0.05	0.03	-1.51	0.132
	Self employed	0.1	0.03	3.56	<.001
	Student	-0.09	0.04	-2.49	0.013
	unemployed	0.05	0.03	1.64	0.101
Ever attended gender training	Yes	-0.12	0.02	-4.93	<.001
GEM scores		0	0	-1.82	0.07
Total mental health score		0	0	2.24	0.025

In Table 3, several demographic, socioeconomic, and psychosocial factors were found to significantly predict positive attitudes toward establishing consent. A longer stay in the camp, being a student, and ever attending gender training were associated with lower attitude scores towards establishing consent. In contrast, living with family or relatives, being single, separated, divorced, or widowed, having primary or secondary education, being self-employed, and higher mental health scores predicted higher attitudes scores toward consent.

Table 4 Gamma GLM: Model 2 Predicting Indirect behavioral approach to consent

		Estimate	SE	z	p
		1.59	0.09	17.47	<.001
Variable	Level	0	0	-1.48	0.139
Length of stay in camp		-0.02	0.01	-2.69	0.007
Whom do you live with,	family/relative	0.14	0.05	2.84	0.005
Marital status:	single/separated/divorced/widowed	0.11	0.03	3.91	<.001
Level of education	primary	-0.03	0.03	-0.82	0.41
	Secondary	-0.06	0.03	-2.17	0.03
	University/tertiary	0.03	0.04	0.66	0.509
Activity	Other(non/casual work)	-0.16	0.04	-4.38	<.001
	Self employed	0.11	0.03	3.31	<.001
	student	-0.1	0.04	-2.35	0.019
	unemployed	0.02	0.03	0.57	0.568
Ever attended gender training	yes	-0.15	0.03	-5.38	<.001
GEM scores		0	0	-0.17	0.863
Total mental health score		0	0	1.72	0.085

Table 4 shows that a longer stay in the camp, having a secondary education, engaging in other non-casual work, being a student, and having ever attended gender training were associated with lower scores for indirect behavioral approaches to consent. In contrast, living with family or relatives, being single, separated, divorced, or widowed, and being self-employed were all predictors of higher indirect behavioral approaches to consent.

Table 5 ***Gamma GLM: Model 2 Predicting Sexual Consent Norms***

		Estimate	SE	z	p
		1.51	0.08	18.82	<.001
Variable	Level	0	0	-1.99	0.047
Length of stay in camp		-0.02	0.01	-4.04	<.001
Whom do you live with,	family/relative	0.09	0.04	2.02	0.044
Marital status:	single/separated/divorced/widowed	0.09	0.02	3.59	<.001
Level of education	Primary	-0.05	0.03	-1.81	0.071
	Secondary	-0.09	0.02	-3.98	<.001
	University/tertiary	-0.03	0.04	-0.69	0.491
Activity	Other(non/casual work)	-0.14	0.03	-4.3	<.001
	Self employed	0.07	0.03	2.58	0.01
	Student	-0.16	0.04	-4.5	<.001
	Unemployed	-0.02	0.03	-0.67	0.501
Ever attended gender training	Yes	-0.06	0.02	-2.75	0.006
GEM scores		0	0	0.52	0.6
Total mental health score		0	0	1.86	0.063

In Table 5, lower sexual consent norms were predicted by a longer stay in the camp, having secondary education, engaging in other kinds of work, being a student, and ever attending gender training. In contrast, living with family or relatives, being single, separated, divorced, or widowed, and being self-employed predict higher sexual consent norms.

Discussion

In this study, we examined the relationship between sociodemographic factors, gender norms, mental health, and sexual consent among displaced men in Benue State, Nigeria, using validated scales. Findings indicate that most men residing in the camps were aged 18–29 years, had a partner, lived with their families, and had a monthly income of approximately 5,000 naira. Predictors of sexual consent were measured using three constructs: positive attitudes toward consent, indirect behavioral approaches, and sexual consent norms. Overall, longer stay in the camp consistently predicted lower consent across all outcomes, while living with family/relatives, being single/divorced/widowed, being self-employed, and having poor (high mental health score) mental health predicted higher consent. In contrast, attending gender training and being a student were consistently associated with poorer

consent endorsement. Interestingly, GEM scores were not directly associated with any consent outcome, but their effect was moderated by mental health, suggesting that equitable gender beliefs alone are insufficient for consent behavior unless supported by psychological well-being. Surprisingly, the findings reveal a strong correlation between positive attitudes, individual behaviors, and consent norms, suggesting that men in the community regard positive consent orientation as integral to sexual identity and norms.

Prior studies found a moderate link between indirect behaviors and norms, but reported a negative correlation with positive consent attitudes^{6,33}. Our study showed strong correlations across all three constructs. This suggests that, in high-context cultures, positive attitudes, peer norms, and both direct and indirect behaviors are viewed as complementary forms of consent communication rather than opposing dimensions. In our study, participants appeared to internalize positive consent and their personal behaviors towards sex. The males may see consent as a good idea ('attitude') while following different rules in practice ('behavior'). This suggests that effective consent promotion may require moving beyond attitude change to foster the internalization of consent as a fundamental personal standard for ethical sexual conduct

The men's sociodemographic characteristics predicted different constructs of male sexual consent behavior. General consent scores, including positive attitudes, indirect behaviors, and sexual consent norms, decreased with longer stays in the camp. This suggests that prolonged displacement likely begins to erode psychosocial stability, leading to fatigue, reduced social engagement, and a lower ability to negotiate consent. According to finding from studies using the SCS scale, good sexual consent behavior is predicted by supportive attitudes toward explicit consent communication, confidence in handling consent situations, respect for autonomy, and adherence to positive social norms^{6,29}. Studies in displaced settings, including IDP camps in Benue State, highlight the absence of supportive structures^{10,34}. These camps are often overcrowded and insecure, conditions that facilitate sexual exploitation and coerced sex, underscoring how camp environments hinder positive sexual consent experiences^{10,34,35}. Also, males who lived with their family or a relative consistently predicted higher sexual consent scores across all dimensions, highlighting the role of social support for good sexual health. Studies among young adults and women show that social support reinforces communication norms, promotes relationship stability, and fosters accountability^{36,37}. However, there is limited evidence of this effect in studies of males in Africa. Males who were single/separated/divorced/widowed had a higher Sexual Consent Score, highlighting that these men have consent behaviors and may have clearer boundaries and communication when having sex.

This study found that secondary school education was associated with reduced attitudes toward sexual consent, and, unexpectedly, attending gender training also lowered consent attitudes, suggesting that attitudes do not always align with behavior. Although education is linked to safer sex practices and negotiation skills, people often lack a full understanding of sexual consent, as sex education frequently omits consent or is constrained by cultural taboos, a gap that persists even in school-based

programs^{38,39}. However, limited evidence exists on how the education of males in Africa affects their ability to consent before sex.

Males who were self-employed showed high endorsement for indirect behaviors towards sex in comparison to students and men with casual/other work. This can be due to increased autonomy, financial control, and decision-making confidence, which foster independence but also social conservatism, leading men to prefer indirect approaches to sexual consent. In African contexts, indirect sexual consent behaviors stem from cultural norms that emphasize male assertiveness and female passivity, making direct verbal communication about sex rare and often socially uncomfortable^{33,38,40}. Strong endorsement of traditional masculine autonomy roles is associated with greater reliance on indirect consent and negative attitudes toward direct consent³³.

In this study, gender equitable norm scores were not associated with sexual consent behaviors. However, the interaction model showed that high mental health scores and gender norm scores were associated with higher sexual consent behaviors. This implies that men experiencing mental health challenges but endorsing gender-equitable norms were more likely to demonstrate positive consent behaviors. This highlights the importance of integrating mental health support with gender-equity interventions in displaced settings, as addressing both factors together may foster healthier and more respectful sexual consent practices. This may also explain the fact that ever-attending gender-related training consistently predicted lower consent scores across all outcomes. Studies highlight that such training emphasizes gender roles without adequately addressing mental health or the complexities of consent^{12,41}. A study by Stryker et.al highlighted that training for mental health professionals often lacks structured, experiential learning about the intersection of gender and mental health, leaving practitioners underprepared to address the unique challenges faced by men⁴². Hence, participants may internalize messages that reinforce indirect or traditional behaviors rather than fostering direct, equitable consent practices.

Male mental health predicted general consent behavior and positive attitudes towards sexual consent. This may indicate emotional needs caused by depression, anxiety, and PTSD may lead individuals to establish relationship boundaries, showing how poor mental health can foster greater caution or empathy in sexual interactions. Studies have repeatedly shown that depression, anxiety, and PTSD negatively influence sexual consent and behavior among people in Africa and Nigeria, increasing vulnerability to sexual coercion and risky sexual practices^{43,44}. However, these studies have focused mostly on the female population. Studies among men prove that mental health issues affect emotional regulation and self-control, leading men to engage in self-gratifying or maladaptive coping behaviors like unprotected sex to alleviate negative affect⁴⁵⁻⁴⁷. Also, males with conditions like PTSD or anxiety may also experience increased fear or avoidance of sexual situations, leading to reduced sexual activity⁴⁶. Our findings suggest that male mental health may foster more cautious and empathetic consent behaviors, yet existing literature emphasizes that men's mental health suggests impaired communication and emotional regulation, sometimes leading to maladaptive coping or avoidance of

sexual activity. However, more direct research on male sexual consent behaviors remains scarce. This underscores the need for more gender-inclusive, context-specific research to clarify how men's mental health influences sexual consent and behavior, and to inform interventions that promote safer and more equitable sexual relationships.

Conclusion

This study shows that Sexual consent behaviors among displaced men are driven by an interaction of different constructs and not limited to gender norms alone. Males' mental, social support, economic stability, and contextualized learning experiences form prolonged stay in the displaced setting, educational level, and employment status all shape their ability to seek consent before a sexual encounter. The study also highlights that the traditional gender training in these camps may be insufficient to improve sexual consent behaviors. It may need to be contextualized and integrated with mental health interventions to ensure behavioral change. These men may benefit more from developing practical communication skills around sexual consent than from relying on awareness of norms or peer- and facility-based models. Since communication plays a strong role in predicting consent behavior, such skills could represent a more effective intervention.

Study limitation.

This study was limited by the following factors.

- Cross-sectional design limits causality.
- Self-report data may have introduced social desirability bias.
- The measure for gender related norms did not capture the unique cultural realities of displaced populations. Additionally, the GEM scale does not account for the intersection of belief systems with trauma or economic hardship. This highlights the need for in-depth qualitative research to better understand how cultural practices and beliefs shape, and are shaped by, experiences of trauma and broader socioeconomic conditions

Declarations

Ethics approval and consent to participate: Ethical approval for this study was obtained from the Benue State Ministry of Health, review board MOH/STA/204/1/337. The study also received administrative clearance from the Benue State Emergency Management Agency (ref. BSEMA/OFF/206/v.i/104). Informed consent was obtained from all participants prior to data collection.

Consent for publication: All authors consent to the publication of this manuscript.

Availability of data and materials: The datasets generated and analyzed during the current study are available from the corresponding author on reasonable request.

Competing interests: The authors declare that they have no competing interests.

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Authors' contributions: All authors contributed to the conception, design, data collection, analysis, and writing of the manuscript. All authors read and approved the final version.

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Figures

Conceptual Framework

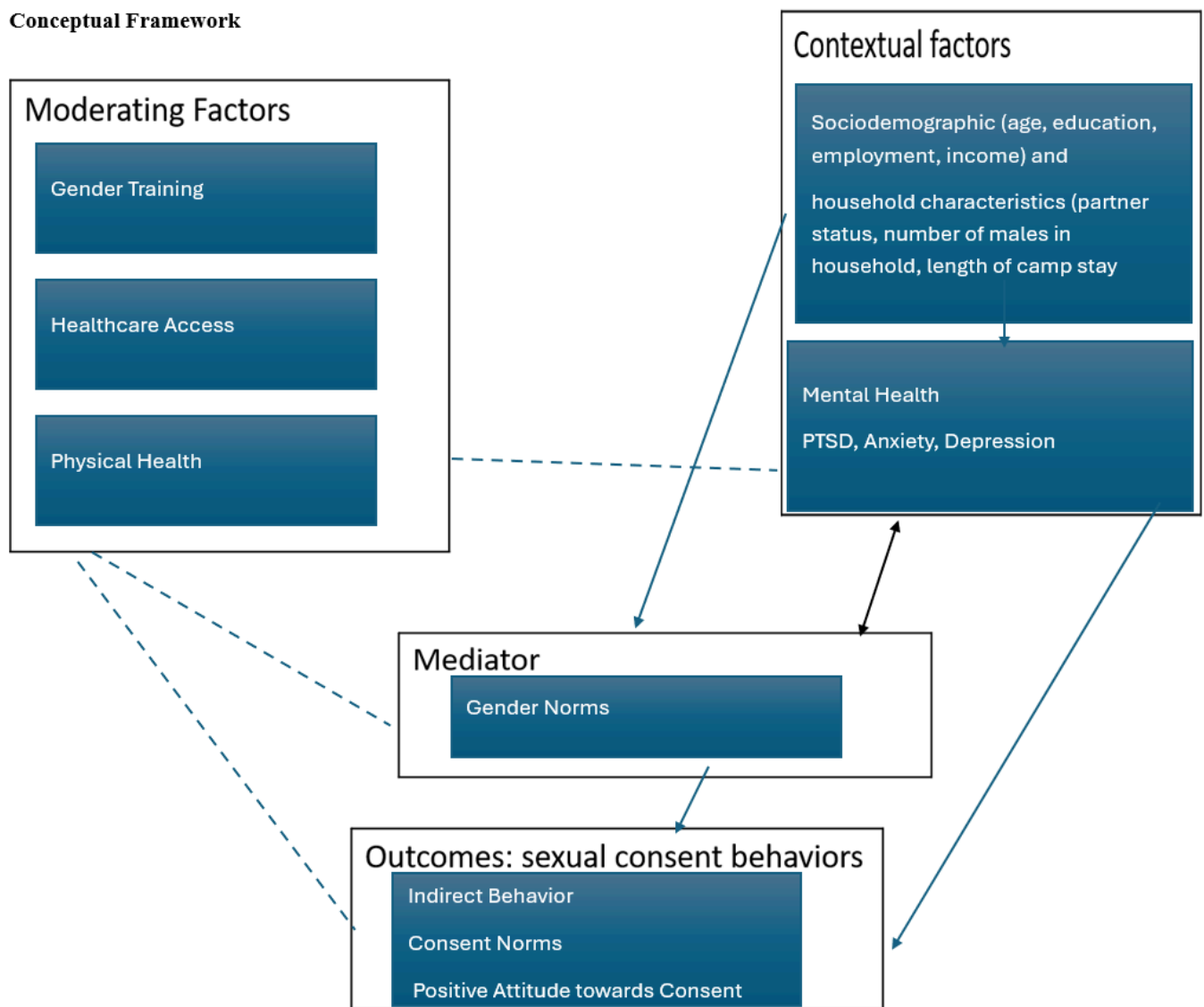


Figure 1

Conceptual Framework examining the intersection between mental health, gender norms, and sexual consent

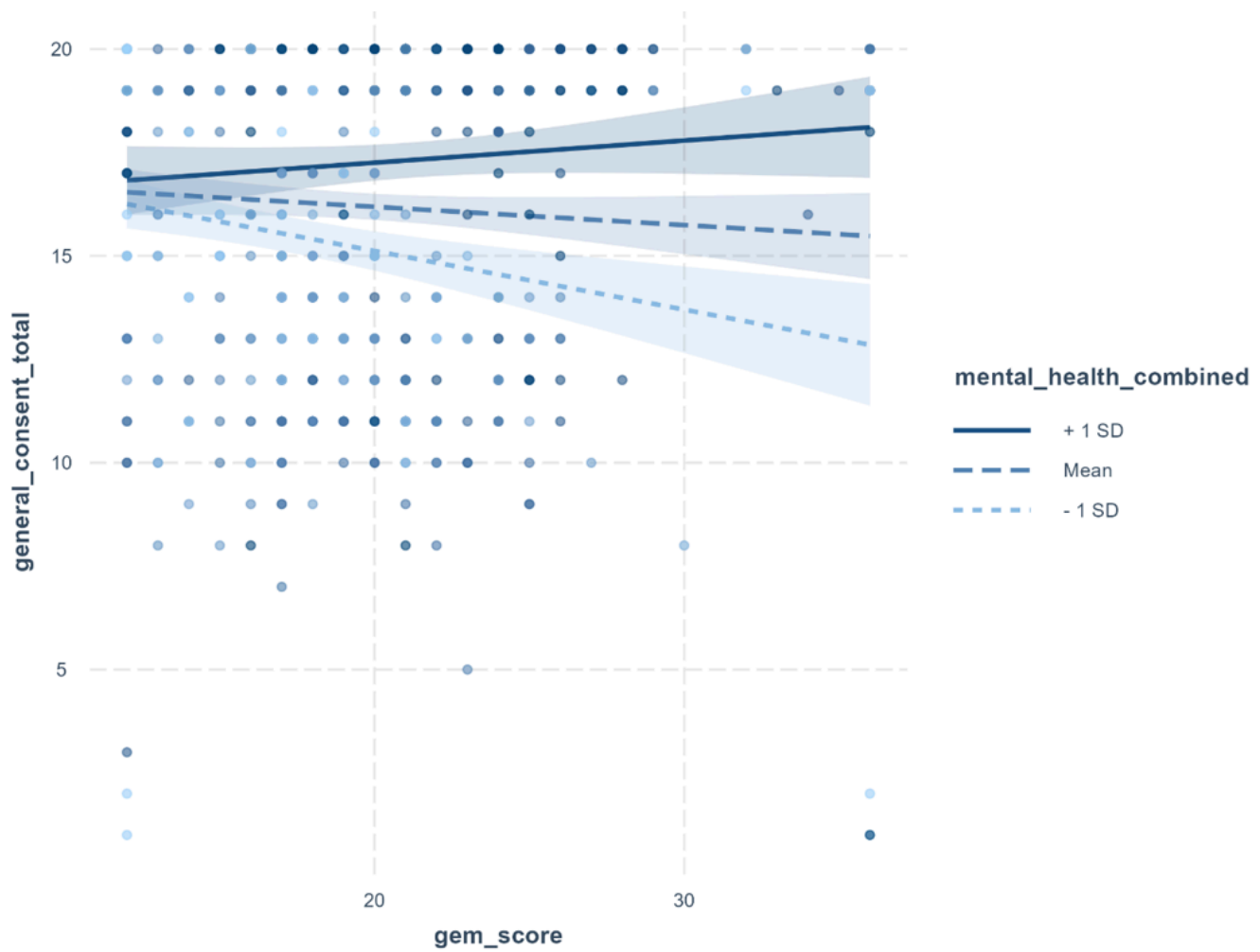


Figure 2

Figure 1: Interaction of GEM and Mental Health in Predicting Total SCS Score

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