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Transactional sex is associated with income level and psychosocial health problems among gay and bisexual men (GBM) in Nigeria, Africa

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Abstract

Gay and bisexual men (GBM) who report engagement in transactional sex are at increased risk for HIV acquisition. The current study aimed to assess the prevalence of transactional sex and its association with demographic characteristics, social marginalization, HIV sexual risk behaviors, psychosocial health problems, and access to healthcare services among a multi-site sample of GBM in Nigeria. Bivariate and multivariable logistic regression were used to examine factors associated with engagement in transactional sex in the previous 3 months. More than a third (39.6%) of the participants reported engagement in transactional sex in the previous 3 months. In the multivariable model, factors associated with engagement in transactional sex included: reporting a monthly income of 30,000 Naira [adjusted odds ratio (aOR) 1.98; 95% CI: 1.12 to 3.35], compared to 30,000 or more Naira monthly income, reporting 4 or more receptive anal sex acts in the previous 30 days (aOR 2.45; 95% CI: 1.31 to 4.57) compared to reporting none, and having depressive symptoms (aOR 1.82; 95% CI: 1.06 to 3.14). There is an urgent need for interventions that address the economic disenfranchisement and psychosocial problems experienced by GBM in Nigeria, which has implications for sexual health.

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Introduction

Transactional sex is defined as the exchange of sexual acts for money, food, housing, and other items of value (McMillan et al., 2018). A systematic review and meta-analysis examining the association between transactional sex and HIV prevalence among gay and bisexual (GBM) in 17 countries found a significant association between transactional sex and HIV prevalence (Oldenburg, Perez-Brumer, Reisner, et al., 2015). Another study of GBM in West Africa (Burkina Faso, Coˆte d'Ivoire, Mali, and Togo) found that 45.9% of participants reported engagement in transactional sex in the previous 6 months (Kounta et al., 2019). There have been conflicting findings on the association between transactional sex and HIV sexual risk among GBM. Several studies have demonstrated that GBM reporting engagement in transactional sex had higher odds of being socioeconomically disadvantaged, polydrug use, having a higher number of sexual partners, having participated in group sex, and having a history of sexually transmitted infection (STIs) diagnosis (Bamgboye et al., 2017; Bauermeister et al., 2016; Bond et al., 2019; Klingelschmidt et al., 2017; Mgbako et al., 2019). However, a study conducted in Nigeria found a lower prevalence of HIV among GBM who reported engagement in transactional sex compared to those who did not report engagement in transactional sex (Bamgboye et al., 2017). Consequently, it is important to elucidate the correlates of engaging in transactional sex among GBM in Nigeria to effectively inform HIV prevention strategies among this vulnerable group.

GBM in Nigeria are disproportionately affected by the HIV epidemic (Awofala & Ogundele, 2018; Djomand et al., 2014). HIV prevalence among GBM in Nigeria has increased significantly, from 14% in 2007 to 17% in 2010 and 23% in 2014 (Eluwa et al., 2019). Factors associated with increased risk for HIV seropositvity among GBM in Nigeria include being older, engaging in condomless anal sex, history of STIs, and transactional sex (Eluwa et al., 2019; Nowak et al., 2019; Vu et al., 2013). Consequently, it is important to investigate factors that contribute to increased risk for HIV infection among GBM in Nigeria, to better conceptualize and implement health interventions to reduce new cases of HIV.

Homosexuality is criminalized in Nigeria through the Same-Sex Marriage Prohibition Act (SSMPA) (Chiroma & Magashi, 2015). While SSMPA prohibits same-sex marriage, it further infringes on the civil liberties of the Nigerian lesbian, gay, bisexual, and transgender community by barring participation in organizations or events that promote homosexuality and criminalizing sexual acts and public displays of affection by individuals of the same sex (Nwazuoke & Igwe, 2016). The existence of these archaic laws limits opportunities for employment and financial independence due to the stigma associated with identifying or being perceived as being a sexual minority (Scheibe et al., 2014). Additionally, homosexuality is explicitly condemned in the Qu'ran and considered unacceptable in the Islamic religion (Kligerman, 2007), which is of great relevance as 54% of Nigeria's population is Muslim. Consequently, GBM in Nigeria have high levels of unemployment, financial hardship, and social marginalization (Ogunbajo, Iwuagwu, et al., 2019; Ogunbajo, Oke, et al., 2020), which has been demonstrated to be associated with increased odds of engaging in transactional sex among GBM (Berg et al., 2015).

Few studies have examined associations between transactional sex, social marginalization, HIV sexual risk, and psychosocial health problems among GBM in Sub-Saharan Africa and no known study has investigated these associations in Nigeria. A vast majority of studies investigate the association between HIV risk taking behavior and engagement in transactional sex, without exploring the possible economic motivators and psychosocial health implications.

Study Aims

The present study aimed to assess the prevalence of transactional sex and its association with demographic characteristics, social marginalization, HIV sexual risk behaviors, psychosocial health problems, and access to healthcare services among a large multi-site sample of GBM in Nigeria. This analysis was informed by Baral et al.'s theoretical framework (Baral et al., 2013), which was conceptualized to characterize and analyses multilevel (individual, community, and structural) predictors of HIV risks in vulnerable populations and has been utilized to investigate correlates of engagement in transactional sex among GBM in West Africa (Kounta et al., 2019). We hypothesize that participants who report lower monthly income, lower educational attainment, and unemployed will be more likely to report a history of transactional sex. Additionally, we hypothesize that having depressive symptoms and higher sexual risk taking will be associated with increased odds of reporting transactional sex. Gaining a better understanding of the interconnectedness of these factors will inform the design and implementation of HIV prevention efforts and psychosocial health interventions for this vulnerable population in Nigeria.

Methods

Participants and study design.

Between March and June 2019, GBM in Nigeria were recruited to complete a cross-sectional quantitative questionnaire. Inclusion criteria included: 1) being 18 years of age or older (due to inability to recruit minors for participation without parental consent); 2) residing in these Nigerian states (Abuja, Lagos, Delta or Plateau) These four states were selected due to existing relationships with the partner CBOs and to allow for geographical and ethnic group diversity; 3) identifying as a cis-gender male; and 4) having any lifetime history of sex (oral or anal) with another male.

Participants were recruited through local community-based organizations (CBOs) and snowball sampling. Health educators from the local CBOs provided information about the study to potential participants during community events and provided the study contact information (phone number and email address) to individuals who expressed interest in participating. Eligible participants provided study information to peer networks members.

All study activities were completed in the private offices of the CBOs. The institutional review boards at Brown University and the Nigerian Institute of Medical Research approved all study procedures. Informed verbal consent was obtained from each participant prior to enrolment in the study. Each participant completed an interviewer-administered behavioral survey and was compensated 4,000 Naira (10 U.S. dollars) for their participation. Further

details on the study procedures have been published elsewhere (Ogunbajo, Iwuagwu, et al., 2019; Ogunbajo, Iwuagwu, et al., 2020; Ogunbajo, Oginni, et al., 2020; Ogunbajo, Restar, et al., 2020).

Measures.

Demographics.—Participants were asked their age, relationship status, education level, sexual orientation, religious affiliation, monthly income (in Naira), employment status, and history of incarceration.

HIV Sexual Risk.—Participants provided information on their HIV status, history of STIs, number of sexual acts (receptive and insertive) acts in the previous 30 days, condom use (for receptive and insertive acts) in the previous 3 months. Consistent condom use for receptive and insertive sexual acts was defined as reporting always using a condom for those sexual acts in the previous 3 months.

Psychosocial Health Problems.—Clinically significant depressive symptoms were assessed using the Center for Epidemiologic Studies Depression Scale (CES-D) (Eaton et al., 2004), a 20-item scale utilized to screen for depressive symptoms. The items were scored on a 4-point scale from 0–3, with a higher score indicating more severe depressive symptoms. Responses were further dichotomized into clinically significant depressive symptoms (16 or higher) or no clinically significant depressive symptoms (15 or lower).

Suicide ideation was assessed by asking participants: “Have you ever thought about ending your life or committing suicide?” with response options “yes” vs. “no”. Suicide attempt was assessed by asking participants: “Have you ever attempted to end your life?” with response options “yes” vs. “no”.

Anxiety was assessed using the Generalized Anxiety Disorder 7-item (GAD-7) scale (Spitzer et al., 2006), a 7-item scale that measures recent symptoms of generalized anxiety disorder scored on a 4-point Likert scale ranging from 0 to 3. Scores were summed and higher scores indicated greater symptoms of anxiety. Scores were classified into mild anxiety (0–5), moderate anxiety (6–10), and moderately severe/severe anxiety (10 and above).

Healthcare Access.—Participants were asked whether or not they had health insurance (yes/no).

Primary Outcome.—Transactional sex was assessed by asking participants: “Thinking about when you had sex with any men in the last 3 months, how many men did you have anal or oral sex with in exchange for things you wanted or needed such as money, drugs, food, shelter or transportation?”. Response options were open-ended. If a participant reported one or more occurrence of each statement, they were categorized as ‘yes’ and those who reported no occurrence were categorized as ‘no’. In this study, we did not assess whether participants had a history of providing someone with money, drugs, food, shelter, or transportation in exchange for sex.

Statistical Analysis

We assessed the distribution (percentages and means) of all variables by engagement in transactional sex. Chi-square global tests of independence were used to assess independent associations between variables. Next, bivariate and multivariable logistic regression analysis was constructed to examine the association between demographic characteristics, social marginalization, HIV sexual risk, psychosocial health problems, and access to healthcare services. Variables that were significant at $p<0.05$ in the bivariate logistic regression model were retained in the multivariable model. Data were analyzed using SAS version 9.4 (Cary, NC).

Results

Sample Demographics

The sample demographic characteristics are presented in the table. More than a third (39.6%) of participants reported engagement in transactional sex in the previous three months.

Unadjusted associations with reporting engagement in transactional sex in the previous three months

In the bivariate analysis, factors statistically significantly associated with increased odds of reporting engagement in transactional sex in the previous three months included: identifying as gay/homosexual [odds ratio (OR) 1.52; 95% confidence interval (CI): 1.01 to 2.28] compared to bisexual, identifying as Muslim (OR 1.83; 95% CI: 1.18 to 2.85) compared to Christian, reporting a monthly income of 0–30,000 Naira (OR 2.62; 95% CI: 1.73 to 3..98), compared to 30,000 or more Naira, reporting being unemployed (OR 1.64; 95% CI: 1.00 to 2.67) compared to being employed, and reporting a history of incarceration (OR 1.68; 95% CI: 1.04 to 2.69).

Participants who reported 2–3 (OR 1.94; 95% CI: 1.14 to 3.31), and 4 or more (OR 2.83; 95% CI: 1.66 to 4.81), receptive anal sex acts in the previous 30 days compared to none, reported consistent condom use for receptive sex acts in the previous 3 months (OR 2.25; 95% CI: 1.47 to 3.45), and having depressive symptoms (OR 1.79; 95% CI: 1.13 to 2.83) were more likely to report engagement in transactional sex in the previous 3 months.

Factors associated with decreased odds of reporting engagement in transactional sex in the previous three months included: residing in Delta (OR 0.35; 95% CI: 0.19 to 0.63) compared to residing in Abuja, having some university education or higher (OR 0.46; 95% CI: 0.30 to 0.69) compared to a senior secondary school education or lower, having a history of sexually transmitted infections (OR 0.64; 95% CI 0.43 to 0.96), and having health insurance (OR 0.41; 95% CI: 0.22 to 0.78).

Adjusted associations with reporting engagement in transactional sex in the previous three months

In the multivariable analysis factors statistically significantly associated with increased odds of reporting engagement in transactional sex in the previous three months included:

reporting a monthly income of 30,000 Naira [adjusted odds ratio (aOR) 1.98; 95% CI: 1.12 to 3.35], compared to 30,000 or more Naira monthly income, reporting 4 or more receptive anal sex acts in the previous 30 days (aOR 2.45; 95% CI: 1.31 to 4.57) compared to reporting none and having depressive symptoms (aOR 1.82; 95% CI: 1.06 to 3.14)

Factors associated with decreased odds of reporting engagement in transactional sex in the last three months included: residing in Plateau (OR 0.43; 95% CI: 0.22 to 0.87) compared to residing in Abuja.

Discussion

This study examined the prevalence of transactional sex and its association with demographic characteristics, social marginalization, HIV sexual risk, psychosocial health problems, and access to healthcare services among a large multi-site sample of GBM in Nigeria. We found that 39.6% of participants reported engagement in transactional sex in the previous three months, which was lower than the prevalence of transactional sex reported in a similar study—which assessed any history of transactional sex—conducted among GBM in Lagos, Nigeria (50.9%) (Ayoola et al., 2013) and another study of GBM in similar West African countries (Burkina Faso, Coˆte d'Ivoire, Mali, and Togo) (45.9%) (Kounta et al., 2019). Additionally, engagement in transactional sex was significantly associated increased odds of with having lower income, higher number of receptive anal sex acts in previous 30 days, clinically significant depressive symptoms, and limited access to healthcare services. These findings suggest that engagement in transactional sex may disproportionately affect individuals of lower socioeconomic status and contribute to increased sexual risk taking behaviors and poor psychosocial health, which has implications of the general health and wellness of GBM in Nigeria.

Consistent with previous studies among GBM (Berg et al., 2015; Javanbakht et al., 2019; Oldenburg, Perez-Brumer, Biello, et al., 2015), reporting lower monthly income was significantly associated with engagement in transactional sex in the previous 3 months. This finding suggests that engagement in transactional sex may be motivated by financial instability and poverty. A qualitative study of male sex workers in Nigeria found that a majority of participants reported engagement in sex work due to unemployment, poverty, and having to support family members financially (Okanlawon et al., 2013). These findings illuminate the need to provide economic and educational advancement opportunities to socially disadvantaged GBM in Nigeria. Programs that provide skill acquisition workshops, job training, academic and need-based scholarships, peer mentorship, resume review, and job interview practice may increase the chances of achieving financial security and reduce the likelihood of having to resort to transactional sex.

In the bivariate analysis, participants who identified as Muslim had twice the odds of reporting engagement in transactional sex compared to participants who identify as Christian. However, this finding became statistically insignificant in the multivariable model. This finding—at least on the bivariate level—is in line with the finding of (Crowell et al., 2017) where Muslim GBM in Nigeria were more likely to report engagement in transactional sex compared to Christians. This observed effect might due to the

disproportionate levels of financial hardship and poverty experienced in the Northern region of Nigeria (Ngbea & Achunike, 2014), which has the nation's highest concentrations of Muslims (Kukah, 1993). We conducted post-hoc analyses where we constructed a multivariable model which included religion, monthly income, educational attainment, employment status as predictors of transactional sex. After controlling for monthly income, educational attainment, and employment status, there was no longer a significant association between identifying as Muslim and reporting engagement in transactional sex. This finding provides evidence that the lack of economic opportunity in the Northern region of Nigeria is a major contributor to transactional sex observed among Muslim GBM in that setting. Muslim GBM may be more likely to report engagement in transactional sex due to the lack of economic opportunities. Future studies should explore the complexity of sexual orientation, gender identity, sexual activity, and religious affiliation, especially as it relates to GBM in Nigeria.

We found that participants who reported engagement in transactional sex were more likely to have clinically significant depressive symptoms. Previous research has linked psychosocial health problems with engagement in transactional sex among GBM (Bauermeister et al., 2016; Biello et al., 2014; Oldenburg, Perez-Brumer, Biello, et al., 2015). It is plausible that there may be a bidirectional relationship between depression and transactional sex. Individuals who report engagement transactional sex might exhibit depressive symptoms due to possibly traumatic experiences with clients or feelings of guilt due to the stigma ascribed to transactional sex. The reverse is also plausible where depressive symptoms—due to lack of financial stability—may influence the decision to resort to transactional sex to achieve financial security. More research is needed to establish the temporality of the relationship between psychosocial health problems and transactional sex. Interventions aimed at improving psychosocial health among GBM should explore and address the role of transactional sex.

Lastly, individuals who reported engagement in transactional sex were more likely to have a higher number receptive anal acts in the previous 30 days compared to individuals who did not report engagement in transactional sex. Despite this finding, we recognize that having a higher number of receptive anal acts doesn't necessarily equate to more sexual risk taking if condoms are being utilized during each of these acts and/or HIV pre-exposure prophylaxis (PrEP) is being utilized. It is important to explore innovative approaches to HIV prevention among GBM who are involved in transactional sex in Nigeria. Possible solutions may include frequent STI screening and adoption of PrEP for HIV prevention. Oral PrEP is a biomedical prevention approach that significantly reduces HIV acquisition when taken daily (Grant et al., 2010). PrEP has been shown to be highly acceptable among GBM in Africa (Ogunbajo, Iwuagwu, et al., 2019; Ogunbajo, Kang, et al., 2019; Ogunbajo, Leblanc, et al., 2020) and could provide protection from HIV infection without having to disclose PrEP use to a client. For individuals who are living with HIV, it is important to ensure they are currently engaged in antiretroviral care and virally suppressed.

The criminalization of homosexuality in Nigeria allows for an environment where GBM are prosecuted for being in a romantic and/or sexual relationship with someone of the same gender. This also has implications for access to job opportunities, and economic mobility

due to the stigma ascribed to homosexuality and individuals perceived to be sexual minorities. Consequently, it is important that GBM be provided equal protection under the law and the SSMPA be repealed. Additionally, there is a need for the enactment of laws that prohibit discrimination in job hiring practices that might intentionally exclude sexual minority communities.

Our study has several limitations. First, given the cross-sectional and convenience sampling nature of the study, we cannot draw any conclusions about causal relationships. Next, the stigma associated with transactional sex and social desirability may have resulted in underreporting of transactional sex, which may have resulted in an underestimation of the true magnitude of this issue among GBM in Nigeria. Additionally, no data was collected on sexual risk behavior specifically with transactional sex partners. Also, this study may conflate the experiences of GBM who report engagement in transactional sex with those of GBM who identify as male sex workers. We did not ask participants if they consider themselves male sex workers. Lastly, participants were recruited through GBM community-based organizations, therefore our findings may not be generalizable to GBM who do not seek services at these organizations.

Conclusion

Taken together, our findings highlight an urgent need for interventions that address the economic disenfranchisement of sexual minority men in Nigeria, which has implications for sexual and psychosocial health. There is an urgent need for interventions that address the economic disenfranchisement and psychosocial problems experienced by GBM in Nigeria, which has implications for sexual health.

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Table 1

Unadjusted and adjusted associations between engagement in transactional sex in the previous 3 months, demographic characteristics, social marginalization, HIV sexual risk, psychosocial health problems and healthcare access among Nigerian GBM in 2019 (N=405)

	Total Sample (N=405) (n, %) or (mean, SD)	**Transactional Sex in the previous 3 months (n, %) or (mean, SD)**		**Logistic Regression for engagement in transactional sex in the previous 3 months**	
		Yes (n=159, 39.6%)	**No (n=243, 60.4%)**	**Unadjusted OR (95% CI)**	**Adjusted OR (95% CI)**
Site					
Abuja	105 (26.1)	52 (32.7)	53 (21.8)	Ref	Ref
Delta	102 (25.4)	26 (16.4)	76 (31.3)	**0.35 (0.19–0.63)** ***	**0.43 (0.22–0.87)** *
Lagos	110 (27.4)	40 (25.2)	70 (28.8)	0.58 (0.34–1.01)	0.64 (0.34–1.23)
Plateau	85 (21.1)	41 (25.8)	44 (18.1)	0.95 (0.54–1.68)	0.49 (0.21–1.17)
Demographics					
Age	29.7 (6.1)	29.0 (6.8)	30.1 (5.5)	0.97 (0.94–1.02)	
Relationship Status					
Single	253 (62.5)	104 (64.6)	149 (61.1)	1.16 (0.77–1.76)	
Not Single	152 (37.5)	57 (35.4)	95 (38.9)	Ref	
Educational Attainment					
Senior Secondary School or lower	190 (46.9)	93 (57.8)	97 (39.8)	Ref	Ref
Some University or higher	191 (47.2)	58 (36.0)	133 (54.5)	**0.46 (0.30–0.69)** **	0.84 (0.51–1.40)
Other	24 (5.9)	10 (6.2)	14 (5.7)	0.74 (0.31–1.75)	1.10 (0.41–2.96)
Sexual Orientation					
Gay/Homosexual	162 (40.2)	74 (46.3)	88 (36.2)	**1.52 (1.01–2.28)** *	1.12 (0.69–1.80)
Bisexual	241 (59.8)	86 (53.7)	155 (63.8)	Ref	Ref
Religious Affiliation					
Christian	255 (63.1)	94 (58.4)	161 (66.3)	Ref	Ref
Muslim	118 (29.2)	61 (37.9)	57 (23.5)	**1.83 (1.18–2.85)** ***	1.95 (0.93–4.08)
Other	31 (7.7)	6 (3.7)	25 (10.3)	0.41 (0.16–1.04)	0.42 (0.14–1.24)
Social Marginalization					
Monthly Income (in Naira)					
0–30,000	213 (53.3)	107 (67.3)	106 (44.0)	**2.62 (1.73–3.98)** ***	**1.98 (1.12–3.35)** **
30,000+	187 (46.7)	52 (32.7)	135 (56.0)	Ref	Ref
Employment Status					
Employed	324 (80.0)	121 (75.2)	203 (83.2)	Ref	Ref

	Total Sample (N=405) (n, %) or (mean, SD)	Transactional Sex in the previous 3 months (n, %) or (mean, SD)		Logistic Regression for engagement in transactional sex in the previous 3 months	
		Yes (n=159, 39.6%)	No (n=243, 60.4%)	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
Unemployed	81 (20.0)	40 (24.8)	41 (16.8)	**1.64 (1.00–2.67)** *	1.23 (0.67–2.26)
History of Incarceration					
Yes	89 (22.2)	44 (27.7)	45 (18.6)	**1.68 (1.04–2.69)** *	1.50 (0.87–2.60)
No	312 (77.8)	115 (72.3)	197 (81.4)	Ref	Ref
HIV Sexual Risk					
HIV Status					
Positive	156 (38.5)	70 (43.5)	86 (35.3)	1.41 (0.94–2.12)	
Negative/Unknown	249 (61.5)	91 (56.5)	158 (64.7)	Ref	
Any History of STIs					
Yes	178 (44.1)	60 (37.5)	118 (48.4)	**0.64 (0.43–0.96)** *	0.78 (0.48–1.27)
No	226 (55.9)	100 (62.5)	126 (51.6)	Ref	Ref
STIs in the last year					
Yes	129 (32.3)	46 (29.1)	83 (34.3)	0.79 (0.51–1.21)	
No	271 (67.7)	112 (70.9)	159 (65.7)	Ref	
# of Receptive Anal sex acts in last 30 days					
0	178 (44.2)	55 (34.6)	123 (50.4)	Ref	Ref
1	55 (13.7)	17 (10.7)	38 (15.6)	1.00 (0.52–1.93)	0.95 (0.47–1.94)
2–3	84 (20.8)	39 (24.5)	45 (18.4)	**1.94 (1.14–3.31)** *	1.35 (0.73–2.52)
4+	86 (21.3)	48 (30.2)	38 (15.6)	**2.83 (1.66–4.81)** ***	**2.45 (1.31–4.57)** **
# of Insertive Anal sex acts in last 30 days					
0	135 (33.6)	42 (26.6)	93 (38.1)	Ref	
1	52 (12.9)	19 (12.0)	33 (13.5)	1.28 (0.65–2.50)	
2–3	98 (24.4)	44 (27.9)	54 (22.1)	1.80 (1.05–3.10)	
4+	117 (29.1)	53 (33.5)	64 (26.2)	1.83 (1.10–3.07)	
Consistent condom use for receptive sex acts in the last 3 months					
Yes	272 (67.8)	92 (57.1)	180 (75.0)	Ref	Ref
No	129 (32.2)	69 (42.9)	60 (25.0)	**2.25 (1.47–3.45)** ***	1.60 (0.97–2.64)
Consistent condom use for insertive sex acts in the last 3 months					
Yes	260 (65.3)	95 (59.8)	165 (69.0)	Ref	
No	138 (34.7)	64 (40.2)	74 (31.0)	1.50 (0.99–2.28)	
Psychosocial Health Problems					

	Total Sample (N=405) (n, %) or (mean, SD)	Transactional Sex in the previous 3 months (n, %) or (mean, SD)		Logistic Regression for engagement in transactional sex in the previous 3 months	
		Yes (n=159, 39.6%)	No (n=243, 60.4%)	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
Depressive Symptoms					
Yes	97 (24.0)	49 (30.4)	48 (19.7)	**1.79 (1.13–2.83)** *	**1.82 (1.06–3.14)** *
No	308 (76.0)	112 (69.6)	196 (80.3)	Ref	Ref
Suicide Ideation					
Yes	86 (21.2)	34 (21.1)	52 (21.3)	0.99 (0.61–1.61)	
No	319 (78.8)	127 (78.9)	192 (78.7)	Ref	
Suicide Attempt					
Yes	42 (10.4)	15 (9.3)	27 (11.1)	0.83 (0.43–1.61)	
No	363 (89.7)	146 (90.7)	217 (88.9)	Ref	
Anxiety					
Mild	210 (51.9)	82 (50.9)	128 (52.5)	Ref	
Moderate	138 (34.1)	56 (34.8)	82 (33.6)	1.07 (0.69–1.65)	
Moderately Severe/Severe	57 (14.1)	23 (14.3)	34 (13.9)	1.06 (0.68–1.92)	
Healthcare Access					
Health Insurance					
Yes	60 (15.0)	14 (8.8)	46 (19.0)	**0.41 (0.22–0.78)** **	0.49 (0.24–1.00)
No	341 (85.0)	145 (91.2)	196 (81.0)	Ref	Ref

Note:

*** p <.001,

** p <.01,

* p <.05