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Interpersonal and Structural Contexts of Intimate Partner Violence among Female Sex Workers in Conflict-Affected Northern Uganda

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ABSTRACT Background:

Intimate partner violence (IPV) is the most prevalent form of violence against women, yet remains under-researched among sex workers in Sub-Saharan Africa. We explored interpersonal and structural determinants of recent IPV among female sex workers in northern Uganda.

Methods:

This analysis drew on data from a community-based cross-sectional study (conducted May 2011-January 2012), involving 379 female sex workers in Gulu, northern Uganda. Using logistic regression and multivariable modeling, we examined correlates of recent male-perpetrated physical or sexual IPV.

Results:

Of 379 women with non-commercial partners, 59% reported having experienced recent moderate/severe physical or sexual IPV. Reporting recent client violence (Adjusted Odds Ratio (AOR): 3.67; 95% confidence interval [CI]: 2.31-5.83), doing what their partner wanted (AOR: 2.46; 95% CI: 1.46-4.13), and forced sexual debut (AOR: 1.92; 95% CI: 1.20-3.05) were independently associated with moderate/severe IPV; recent police arrest and/or incarceration was marginally significantly associated with IPV (AOR: 2.25; 95% CI: 0.86-5.88, p=0.097).

Conclusion:

Greater odds of IPV among sex workers was associated with recent workplace violence, forced sexual debut, and gendered power dynamics favoring male partner control. Programs and policies promoting the safety and health of marginalized women and addressing gender dynamics and violence are needed.

Keywords: Intimate partner violence, sex workers, Uganda, Sub-Saharan Africa

BACKGROUND

Intimate partner violence (IPV) is the most prevalent form of violence against women on an international level (García-Moreno and Watts 2000), as well as a fundamental violation of human rights (World Health Organization 2013). IPV, often referred to as domestic violence, has been defined by the WHO as "any behavior within an intimate relationship that causes physical, psychological or sexual harm to those in the relationship" (World Health Organization 2012). Physical IPV is almost always accompanied by psychological violence, and sexual violence, such as frequent forced sex by a partner, is experienced in 25-50% of cases (Borwankar, Diallo, and Somerfelt 2008). Unfortunately, although IPV presents a significant human rights issue, it too often goes unreported and unrecognized (Borwankar, Diallo, and Somerfelt 2008).

IPV remains an important cause of mortality and morbidity among women, and is a critical factor influencing women's reproductive and sexual health (Watts and Mayhew 2004). Forced sex by intimate partners has been associated with a range of reproductive health issues, including an increased risk of HIV (R. K. Jewkes et al. 2010) and other sexually transmitted infections (STIs), as well as unwanted pregnancy, pain during intercourse, decreased sexual desire, vaginal bleeding or infection, and urinary tract infections (Watts and Mayhew 2004). In addition, the fear of violence from an intimate partner can greatly influence sexual and reproductive decision-making, such as the use of contraceptives (Watts and Mayhew 2004).

Female sex workers represent a marginalized population that face enhanced risk of gender-based violence across diverse contexts. While most research has largely focused on client-perpetrated violence (Okal et al. 2011; Shannon and Csete 2010; Shannon et al. 2009; Scorgie et al. 2012)

and associated negative reproductive health outcomes, such as HIV transmission (Couture et al. 2010; El-Bassel et al. 2001; Ulibarri et al. 2010; Dunkle and Decker 2013), the gendered power dynamics and consequences of violence perpetrated by intimate partners has been relatively overlooked. Research on IPV among sex workers remains especially limited in low and middle income countries, including those within Sub-Saharan Africa (Pack et al. 2014), a region which has been identified as having disproportionately high rates of IPV compared to other low-and middle income contexts (Borwankar, Diallo, and Somerfelt 2008). The present research was conducted in Uganda, where IPV rates in the general population are high; an estimated 62% of ever- married women aged 15-29 years report having experienced emotional, physical or sexual IPV (Uganda Bureau of Statistics (UBOS) and ICF International Inc. 2012).

The present study was conducted in northern Uganda, a region that has recently emerged from a two-decade-long conflict fought between the government's Uganda's People Defense Forces and the rebel Lord's Resistance Army (LRA). Known for its gross human rights violations, including large-scale sexual and gender-based violence and the abduction of children and youth by the LRA, the conflict has contributed to a breakdown in social structures, forced migration, and large-scale displacement (Human Rights Watch 2003). Within this context, enhanced negative sexual and reproductive health outcomes have been reported, including potentially elevated vulnerability to HIV, STIs and unintended pregnancies (Amowitz 2002; Buvé, Bishikwabo-Nsarhaza, and Mutangadura 2002; Lehmann 2002; Spiegel 2004; Erickson et al. 2015).

Although research involving sex workers in conflict-affected settings has been minimal, previous studies have demonstrated that sex workers who live and work in northern Uganda have

experienced large-scale physical and sexual violence, not only related to their working conditions, but also stemming from the historical legacy of exposure to conflict, abduction by rebel forces, and experiences living in internally displaced peoples camps (K. a Muldoon et al. 2014; Goldenberg et al. 2016).

Despite the potential importance of partner-based interventions for improving women's health and wellbeing in post-conflict settings (Inter-Agency Standing Committee 2015; Hossain, Zimmerman, Kiss, Abramsky, et al. 2014), limited research has examined the relationships between sex workers and their intimate partners within this context. The aim of the present research, therefore, was to investigate the burden of recent IPV, measured using the WHO Standardized IPV Scale (World Health Organization 2005), and its associations with individual, partner-level/interpersonal and structural experiences (including historical, current and warrelated violence and work environment factors) among sex workers in post conflict Gulu, northern Uganda.

METHODS

Study Participants

As previously described (Erickson et al. 2015; K. a Muldoon et al. 2014), this analysis drew on data from the Gulu Sexual Health Project, a community-based cross-sectional study conducted in Gulu District, northern Uganda from May 2011 to January 2012. The study was conducted by Canadian and Ugandan researchers in partnership with The AIDS Support Organization (TASO) and other local community partners. Service providers, sex workers and policy experts provided extensive input and guidance on the project and questionnaire. The questionnaire items were developed, adapted and piloted for this study by the research team. Questionnaire measures were adapted to the local context during questionnaire piloting and based on available validated and previously published measures where possible, including the WHO Standardized IPV Scale (World Health Organization 2005), gendered sexual relationship control and power dynamics (Pulerwitz, Gortmaker, and Dejong 2000), and standard measures of workplace violence used in other sex work studies (K. A. Muldoon et al. 2015; Argento et al. 2014). The study protocol received ethical approval from the University of British Columbia Behavioural Research Ethics Board, TASO Institutional Review Board and is registered at the Ugandan National Council for Science and Technology.

Participants were recruited through peer/sex worker-led outreach to on- and off-street sex work venues, such as bars, brothels, hotels and truck stops. Time-location sampling was used to enroll sex workers at the times and places when and where they congregated, with physical spaces rather than persons as the primary sampling unit. These methods are consistent with recruitment of other cohorts of sex workers and hidden/mobile populations (Karon and Wejnert 2012). Sampling was based on ethnographic mapping and outreach planning by TASO. Other recruitment strategies supplemented this approach, including outreach to former internally displaced person (IDP) camps, recruitment at TASO clinics, and referral from local community agencies (e.g., Gulu Refugee Committee). Eligibility criteria included: \geq 14 years old and exchanged sex for money or resources (e.g., food, cell phone air time, clothing, shelter, etc.) in the previous 30 days. Of 400 recruited female sex workers, the analysis was restricted to female sex workers who reported having an intimate (non-commercial) partner (n=379). All participants provided written informed consent or a thumbprint for those with limited literacy.

Data Collection

Interviewer-administered questionnaires were conducted by trained Acholi research assistants at the TASO-Gulu office or at a confidential location of participant's choosing. The questionnaire covered topics including socio-demographics, sex work history, trauma and violence, sexual and reproductive health, mental and physical health, and HIV testing and treatment. Study participants received an honorarium of 10,000 UGX (~\$4 Canadian) for their time, information and travel. Trained research assistants offered voluntary HIV testing and counseling, although this was not required for study participation. Referrals for food security programs and other health services were provided.

Independent variables

Individual characteristics examined included age, education, and HIV serostatus (based on voluntary HIV counseling and testing, or after informed consent to link their most recent TASO test results). Sexual and reproductive health measures considered contraceptive use, access to contraceptives and condoms, and recent STI testing and results.

Interpersonal/partner-level variables: Interpersonal/partner-level factors examined included intimate partner knowledge of the respondent's sex work involvement, and gendered power dynamics over sexual negotiation (i.e., partner gets violent when asked to use a condom, most of the time we do what my partner wants, who has more say regarding sexual acts) using sub-measures of the standardized Pulweritz Sexual Relationship Power Scale (Pulerwitz, Gortmaker, and Dejong 2000).

Structural variables: structural variables examined included workplace physical and/or sexual violence by clients (i.e., customers), police harassment, or criminal justice encounters (police

arrest and/or incarceration) in the previous six months; as well as relevant historical exposures, such as forced (vs. consensual) sexual debut (i.e., "was your first time having sex forced or consensual?"), historical violence (e.g., childhood abuse/mistreatment; history of physical and sexual assault) and conflict-related experiences and human rights violations (e.g., ever lived in an IDP camp, abducted into the LRA).

Outcome measure: Recent IPV was measured using an adapted version of the WHO Standardized IPV Scale, originally designed for the WHO Multi-country Study on Women's Health and Domestic Violence Against Women (World Health Organization 2005). The standardized scale addresses experiences of physical, sexual, and emotional violence among women by current or former intimate male partners. Our IPV outcome measure was defined as experiencing either or both of moderate/severe physical IPV (e.g., slapped, pushed or shoved, kicked, beaten up, choked or burnt, threatened with a weapon) or sexual IPV (e.g., physically forced to have sex against will, had sex out of fear, forced into degrading or humiliating sexual acts) within the last six months.

Data Analyses

The analysis was restricted to female sex workers who reported having an intimate (noncommercial) partner (n=379). Descriptive statistics and bivariate analyses were calculated for individual, partner/interpersonal, and structural variables. Wilcoxon rank-sum test for continuous variables and Pearson's Chi-squared test (or Fisher's exact test for small cell counts) were used for binary variables in the bivariate analysis. Variables which were hypothesized *a priori* to be related to IPV and which had p<0.10 in bivariate analyses were considered for inclusion in the multivariate logistic regression analysis. Multiple logistic regression was used to model interpersonal and structural factors associated with experiencing physical or sexual IPV in the last six months. A backward selection modeling approach was used to identify the most parsimonious and best-fitting model, as indicated by the lowest Akaike's information criterion (AIC). Variables with the largest p-value were removed in a stepwise manner until the model with the lowest AIC was determined. Analyses were performed using SAS version 9.4 (SAS, Cary, NC).

RESULTS

Of 400 sex workers, the analysis was restricted to 379 (95%) women who had an intimate, nonpaying partner in the last six months. Of these women, 59% (n=225) reported having experienced moderate-to-severe physical and/or sexual IPV in the last six months.

Individual factors: The median age of participants was 21 years; a large proportion (63%) of participants reported less than primary school educational attainment, and the majority (75%) had children. HIV prevalence was 32.5%, and a greater proportion of women exposed to recent IPV were living with HIV compared to women who did not report IPV (59% vs. 40%, p=0.933), although this difference was not statistically significant. In the prior six months, only 118 (31%) of women reported having used non-barrier contraceptives as pregnancy prevention; 221 (56%) faced difficulty obtaining condoms, and less than one-fifth (17%) had been tested for STIs.

Interpersonal factors: The majority of women reported that their partner would get violent if they asked them to wear a condom (64%). Most (74%) participants also reported that most of the

time they did what their partner wanted, which was significantly more likely in unadjusted analyses among women reporting having experienced IPV compared to women who did not (65% vs. 35%, odds ratio (OR): 2.51, 95% Confidence Interval (CI): 1.56-4.04)). Only 163 (43%) participants said their partner knew about their sex work in the past six months, with women reporting IPV non-significantly more likely to report this compared to women who did not report IPV (62% vs. 38%, p=0.371). Of women reporting having experienced sexual assault by intimate partners, only two women had ever reported this to the authorities.

Structural factors: High rates of recent workplace-related violence were reported by participants, with 188 (50%) reporting having experienced client violence in the last six months. In unadjusted analyses, those reporting experiencing IPV were much more likely also to report experiencing recent client violence compared to those who did not report having experienced IPV (76% vs. 24%, p=<0.001, OR: 4.22, 95% CI: 2.72-6.56). Almost one-third of sex workers (n=106, 28%) experienced recent police harassment (without arrest), and those women who experienced IPV were more likely to have faced police harassment (67% vs. 33%, p=0.060) compared to those who did not experience recent IPV. Almost two-thirds (63%) also reported lifetime experiences of childhood abuse, with a higher proportion of women who experienced recent IPV reporting this (61% vs. 39%, p=0.145), although this difference was not statistically significant in unadjusted analyses. Almost two-thirds of participants (n=235, 62%) had experienced a forced sexual debut, and in unadjusted analyses women who reported having experienced IPV were twice as likely to have had a forced sexual debut (67% vs. 33%, p=<0.001, OR: 2.25, 95% CI: 1.47-3.44). Approximately one-third (31%) of participants had experienced war-related abduction by the rebel LRA in their lifetime, and two-thirds of women

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(67%, p=0.17) had lived in an IDP camp; while higher proportions of women who reported experiencing IPV reported exposure to these historical conflict-related experiences and rights violations, these differences were non-significant.

Multivariate results: In a multivariate model (Table 2), factors independently associated with recent physical/sexual IPV included: workplace client-perpetrated violence within the last six months (AOR: 3.67; 95% CI: 2.31-5.83); reporting that the majority of the time they did what their partner wanted (AOR: 2.46;95% CI: 1.46-4.123); forced sexual debut (Adjusted Odds Ratio (AOR): 1.92; 95% CI: 1.20-3.05); and recent arrest or incarceration within the last six months (marginally associated, AOR: 2.25; 95% CI: 0.86-5.88, p=0.097).

DISCUSSION

In this research well over half (59%) of sex workers who participated from conflict-affected Gulu northern Uganda (n=379), reported having experienced recent physical or sexual violence perpetrated by their intimate partners. This figure is similar to that from previous research examining recent physical and or sexual IPV among married women in the country (Borwankar, Diallo, and Somerfelt 2008). In the face of limited previous research on intimate partners and non-workplace related aspects of sex workers' health and safety globally (Deering et al. 2014) and particularly within conflict-affected settings (K. a Muldoon 2015), the results from our study draw attention to the high rates of IPV among sex workers within the unique post-conflict setting of Northern Uganda. In our study, structural exposures such as recent workplace-related client violence, recent arrest or incarceration, lifetime trauma (e.g., forced sexual debut), and gendered power dynamics favoring male intimate partner control were associated with a higher reporting of recent IPV. These findings echo the growing concern within the global literature that speaks to the critical need to address IPV for sex workers (Argento et al. 2014; El-Bassel et al. 2001), including an imminent need for structural interventions that address violence and trauma across the lifecourse for marginalized women in conflict-affected settings.

Unequal gendered power dynamics, notably limitations in women's ability to control their sexual lives, have previously been linked to negative sexual and reproductive health outcomes for women in Sub-Saharan Africa (Buvé, Bishikwabo-Nsarhaza, and Mutangadura 2002; Shannon et al. 2012; Dunkle and Jewkes 2007). In the present study, we found an almost 2.5- times higher odds of recent IPV among women reporting gendered power dynamics favoring male partner control. Within Sub-Saharan Africa, Uganda has one of the highest rates of IPV within the general population of women (Borwankar, Diallo, and Somerfelt 2008). Previous researchers have observed that within Ugandan society, deep-rooted gender norms and traditions may reinforce patriarchal values which pose significant challenges to addressing IPV (Olayanju et al. 2013).

Moreover, the influence of violent conflict in the region may play a role in the burden of IPV in the region. Research from Uganda, as well as other post-conflict settings in Sub-Saharan Africa, such as Cote d'Ivoire, Sierra Leone and Liberia have also reported heightened rates of IPV following periods of armed conflict (Hossain, Zimmerman, Kiss, Kone, et al. 2014; Horn et al.

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2014; Saile et al. 2013). Results of studies from West-Africa have indicated that a loss of social status and its effect on the gendered division of labor, poverty, and feelings of anger and shame may be contributing factors among male perpetrators post-conflict (Horn et al. 2014). Furthermore, IPV perpetration has been linked to the potential long-term and cyclical effects of exposure to conflict and trauma (R. Jewkes 2007; R. Jewkes et al. 2006; Semiatin et al. 2017). Previous reports suggest that during Uganda's two-decade long conflict, men became so accustomed to witnessing and perpetuating violence during times of war that violence within post-conflict domestic settings became normalized (Horn et al. 2014).

Overall, the heightened risk of IPV following Uganda's conflict highlights the country's historical lack of explicit interventions to address the high rates of gender-based violence (Borwankar, Diallo, and Somerfelt 2008). Programs are critically needed that are not only tailored for sex workers but that also focus on partner based interventions that address historical and ongoing violence, and the healing process that comes with that.

In this study, workplace-related client violence was the most strongly associated factor for reporting recent IPV, with women exposed to client violence facing over 3.5-times higher odds of IPV. These findings echo the results of other international research demonstrating that linkages between high rates of IPV and workplace violence among sex workers (El-Bassel et al. 2001; Hong et al. 2013). Of particular concern, the association between recent incarceration or arrest and higher odds of IPV suggests that current law enforcement policies and practices may inadvertently be further punishing, rather than assisting, the most marginalized and vulnerable women. These findings add to a growing body of evidence suggesting that sex workers in Sub-

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Saharan Africa face high rates of criminalization, stigma, discrimination, and violence structural conditions that may also make it unlikely that women will report or receive support from police upon experiencing violence (Ratinthorn, Meleis, and Sindhu 2009). The lack of access to justice or violence faced by sex workers may amplify negative health outcomes for an already highly marginalized population (Shannon and Csete 2010; Scorgie et al. 2012).

Finally, we found forced sexual debut to be independently associated with reporting recent IPV among sex workers participant in our study. While further research is required, previous studies have demonstrated that forced sexual initiation ranges from 5.3%-46% among women within Sub-Saharan Africa (Stockman, Lucea, and Campbell 2013). In our study, 62% of sex workers reported having experienced forced sexual debut, a disproportionately higher figure compared to the general population. Additionally, our findings regarding forced sexual debut and subsequent IPV, as well as high levels of workplace-related client violence, echo the results of the limited existing research which has been conducted on IPV among sex workers, which reveals a cycle of violence from multiple perpetrators that often begins during childhood, and continues throughout the lifecourse (Argento et al. 2014; El-Bassel et al. 2001; Pack et al. 2014).

LIMITATIONS

As a cross-sectional analysis, our findings cannot be used to determine temporal relations of variables and thus to infer causality; future longitudinal studies and qualitative analyses with larger sample sizes are recommended to comprehend better sex workers' experiences with IPV. Additionally, further research into the cultural understandings of IPV for sex workers and other marginalized populations of women in Uganda, particularly within the context of a post-conflict

setting, is recommended to inform appropriate interventions. It should be noted since the questionnaire was developed specifically for this research, misclassification may have occurred and/or the results may not be directly comparable to those of prior studies that have used standard insturments.Lastly, this research should not be generalized to the entire country as it was only conducted in northern Uganda.

CONCLUSIONS

The results of this study highlight the prevalence of the historically under-researched area of intimate partner violence for sex workers in sub-Saharan Africa. Our study determined a very high burden of recent intimate partner-perpetrated physical or sexual violence among sex workers in a unique post-conflict setting in northern Uganda. The burden of IPV was heightened among sex workers exposed both interpersonal and structural factors including recent client violence in the workplace, forced sexual debut, and gendered power dynamics favoring male intimate partner control. Recent arrest or incarceration was also marginally associated with IPV. Further research and qualitative studies are needed among women experiencing high rates of IPV, especially for marginalized women involved in sex work and those who have lived through violent conflict. Programs and policies that promote the safety, health and well-being of marginalized young women and address gender dynamics and historical violence are needed. Additionally, structural interventions that address violence and trauma across the lifecourse for marginalized young women as well as their partners are critically needed within conflict-affected settings.

CONFLICTS OF INTERESTS

The authors declare no conflict of interest

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Recent moderate/ severe physical or sexual IPV: Yes n (%)	No n (%)	Unadjusted Odds Ratio (95% CI)	p - value
21 (19-24)	21(19-26)	0.97 (0.93-1.02)	0.263
141 (62.67)	99 (64.29)	0.93 (0.61-1.43)	0.749
84 (37.33)	55 (35.71)		
· · · ·			
168 (74.7)	116 (75.3)	0.97 (0.60-1.55)	0.885
57 (25.3)	38 (24.7)		
· · ·			
73 (32.44)	50 (32.47)	1.02 (0.66-1.58)	0.933
· · · · ·	· · · · · ·		
71 (31.56)	47 (30.52)	1.05 (0.67-1.64)	0.831
154 (68.44)	107 (69.48)		
59 (26.22)	36 (23.38)	1.17 (0.72-1.88)	0.530
166 (73.78)	118 (76.62)		
133 (59.11)	78 (50.65)	1.41 (0.93-2.13)	0.104
92 (40.89)	76 (49.35)	· - /	
× /	· · /		
49 (21.78)	17 (11.04)	2.20 (1.21-4.00)	0.009
174 (77.33)	133 (86.36)		
62 (27.56)	41 (26.62)	1.06 (0.67-1.68)	0.801
	moderate/ severe physical or sexual IPV: Yes n (%) 21 (19-24) 141 (62.67) 84 (37.33) 168 (74.7) 57 (25.3) 73 (32.44) 149 (66.22) 71 (31.56) 154 (68.44) 59 (26.22) 166 (73.78) 133 (59.11) 92 (40.89) 49 (21.78) 174 (77.33)	moderate/ severe physical or sexual IPV: Yes n (%)No n (%)21 (19-24)21(19-26) $141 (62.67)$ $84 (37.33)$ 99 (64.29) $55 (35.71)$ $168 (74.7)$ $57 (25.3)$ 116 (75.3) $38 (24.7)$ $73 (32.44)$ $149 (66.22)$ 50 (32.47) $104 (67.53)$ $71 (31.56)$ $154 (68.44)$ 47 (30.52) $107 (69.48)$ $59 (26.22)$ $154 (68.44)$ 36 (23.38) $118 (76.62)$ $133 (59.11)$ $92 (40.89)$ 78 (50.65) $76 (49.35)$ $49 (21.78)$ $177 (11.04)133 (86.36)$	moderate/ severe physical or sexual IPV: Yes $n(\%)$ No $n(\%)$ Unadjusted Odds Ratio (95% CI)21 (19-24)21(19-26)0.97 (0.93-1.02)141 (62.67) 84 (37.33)99 (64.29) 55 (35.71)0.93 (0.61-1.43)168 (74.7) 57 (25.3)116 (75.3) 38 (24.7)0.97 (0.60-1.55)73 (32.44) 19 (66.22)50 (32.47) 104 (67.53)1.02 (0.66-1.58)149 (66.22)104 (67.53)1.05 (0.67-1.64)59 (26.22) 154 (68.44)36 (23.38) 118 (76.62)1.17 (0.72-1.88)133 (59.11) 92 (40.89)78 (50.65) 76 (49.35)1.41 (0.93-2.13)49 (21.78) 174 (77.33)17 (11.04) 133 (86.36)2.20 (1.21-4.00)

Table 1: Characteristics and unadjusted odds ratios related to recent (last 6 months) moderate/severe physical or sexual Intimate Partner Violence (IPV) among female sex workers in Gulu, northern Uganda who reported having in intimate partner (n=379), 2011-2012

no	161 (71.56)	113 (73.38)		
Interpersonal Factors				
Partner Gets Violent When Asked to Use a Condom*				
yes	157 (69.78)	84 (54.55)	2.02 (1.31-3.11)	0.002
no Most Times We Do What My Partner Wants*	63 (28.00)	68 (44.16)		
yes	182 (80.89)	98 (63.64)	2.51 (1.56-4.04)	< 0.001
no	40 (17.78)	54 (35.06)		
Intimate Partner Knows About Sex Work				
yes	101 (44.89)	62 (40.26)	1.21 (0.80-1.83)	0.372
no	124 (55.11)	92 (59.74)		
Structural Factors				
Client Violence*				
yes	143 (63.56)	45 (29.22)	4.22 (2.72-6.56)	< 0.001
no	82 (36.44)	109 (70.78)		
Police Harassment (Without Arrest)*				
yes	71 (31.56)	35 (22.73)	1.57 (0.98-2.51)	0.061
no	154 (68.44)	119 (77.27)		
Arrest/ Incarceration *				
yes	30 (13.33)	6 (3.90)	3.80 (1.54 - 9.35)	0.004
no	195 (86.67)	148 (96.10)		
Childhood Abuse†				
yes	146 (64.89)	92 (59.74)	1.38 (0.90-2.13)	0.145
no	69 (30.67)	60 (38.96)		
Forced Sexual Debut [†]				
yes	157 (69.78)	78 (50.65)	2.25 (1.47-3.44)	< 0.001
no	68 (30.22)	76 (49.35)		
Abducted by LRA [†]				
yes	74 (32.89)	42 (27.27)	1.28 (0.82-2.01)	0.284
no	150 (66.67)	109 (70.78)		
Ever lived in an IDP Camp†				
yes	144 (64.0)	109 (70.78)	0.73 (0.47 – 1.14)	0.170
no	81 (36.0)	45 (29.22)		
* Last 6 Months				

Table 2. Multivariable model of factors associated with moderate/severephysical or sexual intimate partner violence (IPV) in the last 6 monthsamong female sex workers in Gulu, northern Uganda (n=379), 2011-2012

Variable	Adjusted Odds Ratio (AOR)	95% Confidence Interval (CI)	<i>p</i> - value
Interpersonal Factors			
Most Times We Do What My Partner Wants*			
(yes vs. no)	2.46	(1.46-4.13)	0.001
Structural Factors			
Client Violence*			
(yes vs. no)	3.67	(2.31-5.83)	< 0.001
Forced Sexual Debut [†]			
(yes vs. no)	1.92	(1.20-3.05)	0.006
Arrest/Incarceration*			
(yes vs. no)	2.25	(0.86-5.88)	0.097
* Last 6 Months † Lifetime			

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