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Stigma, Social Support, and Sexual Behavior among Female Sex Workers at risk for HIV in Malawi

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Abstract

Lack of social support and sex work stigma may hinder STI/HIV prevention for female sex workers (FSW). We explored the prevalence and associations between sex work stigma and social support with sexual behaviors in Malawi. In 2017, 150 HIV-negative, venue-based FSW completed a behavioral survey containing sex work stigma items that captured internalized stigma, isolation from family and friends, fear of disclosure, and health care discrimination, as well as emotional/informational, tangible, affectionate, and positive interaction social support. Linear binomial regression models were used to estimate prevalence differences comparing the probability of inconsistent condom use and substance use before sex by social support and stigma. A majority (93%) reported sex work-related internalized stigma. About 50% reported family or friend isolation. Social support was high (mean index: 86.53). Inconsistent condom use and substance use before sex had little to no association with stigma and social support. FSW in Lilongwe largely internalize stigma and experience isolation from family and friends yet have high levels of social support. Large-scale evaluations should investigate the role of stigma and social support in STI/HIV prevention for FSW.

Keywords

Stigma; Sex Work; sub-Saharan Africa; Sexual Behavior; condom use

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Background

Globally, female sex workers (FSW), when compared to all females, are at heightened risk for sexually transmitted infections (STIs) and HIV (CDC, 2019; UNAIDS, 2018). Consequently, FSW have a fundamental need for enhanced prevention efforts (Brunham and Plummer, 1990; UNAIDS, 2018). While STI surveillance among FSW is limited, the estimated prevalence of syphilis among FSW in the African region is particularly high, approximately 13% compared to the median of 3.2% reported by 38 cross-regional countries (WHO, 2018). Furthermore, nearly 40% of FSW in Sub-Saharan Africa are living with HIV (Baral et al., 2012) and 92% of all HIV-related deaths attributed to sex work occur among African women (Pruss-Ustun et al., 2013). In Malawi, recent estimates of the prevalence of HIV among FSW is especially high (approximately 70%) and a quarter of FSW had abnormal vaginal discharge, pelvic inflammatory diseases, or genital ulcer disease (Lancaster, Powers, et al., 2016; Zachariah et al., 2003). While nascent research in Sub-Saharan Africa has demonstrated the importance of stigma, discrimination towards sex work and the lack of social support in STI acquisition for sex workers, (Decker et al., 2016; Duff et al., 2018; Friedland et al., 2018; Lyons et al., 2017; Mantsios et al., 2018) have yet to be investigated in Malawi. Understanding the role of these social factors is critically needed to enhance STI/HIV prevention strategies among FSW.

FSW face stigma and discrimination due to their profession (Huschke, 2019; Ryan, Nambiar, & Ferguson, 2019). Clients may have stigmatizing views of sex workers that can dehumanize them, lead to violence and affect their ability to negotiate condom use (Beattie et al., 2010; Huschke, 2019). For example, internalized stigma, the act of accepting stigmatizing attitudes as true or negative experiences as just, may also make it more difficult to negotiate condom use due to low self-confidence, self-efficacy, and depression (Budhwani et al., 2017; Campbell, 2000; Logie, Okumu, Ryan, & Yehdego, 2018). Furthermore, the success of previous HIV prevention interventions promoting consistent condom use for sex workers have been hampered by stigma related to sex work (Asthana and Oostvogels, 1996; Campbell and Mzaidume, 2001; Kerrigan, Telles, Torres, Overs, & Castle, 2008; Murray, Lippman, Donini, & Kerrigan, 2010; Scambler and Paoli, 2008). The intersection of sex work and HIV stigma may ultimately compound sex workers vulnerability to HIV (J. M. Turan et al., 2019). Stigma and discrimination are also associated with negative self-coping behaviors such as substance use with alcohol and drug (Benoit, McCarthy, & Jansson, 2015; Cramer, Colbourn, Gemberling, Graham, & Stroud, 2015; Lancaster, Go, et al., 2016; Zhang et al., 2018). Substance use, such as alcohol or drug use, use prior to sexual intercourse is frequently associated with lower condom use (Chersich, Bosire, King'ola, Temmerman, & Luchters, 2014; Connors et al., 2017; Iakunchykova and Burlaka, 2017). In Malawi, little is known about the prevalence of stigma and discrimination among FSW or its role in their sexual behaviors.

While stigma is often a barrier to engagement in health care, social support may be protective against stigma and interpersonal violence and support positive sexual health behaviors (Adih and Alexander, 1999; Gaede et al., 2006; Giorgio et al., 2016; House J. S., 1988; Shrestha et al., 2019). In fact, health programming for sex workers has sought to foster social support and develop social cohesion as a means of promoting condom use (Fonner,

Kennedy, O'Reilly, & Sweat, 2014; Sarafian, 2012; van Griensven, Limanonda, Ngaokoew, Ayuthaya, & Poshyachinda, 1998; Yang et al., 2005). Community mobilization efforts are associated with increases in condom use and reduction in HIV and other STI transmissions among commercial sex workers and clients (Kerrigan et al., 2015). Supportive relationships have been linked to health-promoting behaviors (Berkman, 1995), however the relationship between social support and STI/HIV preventative behaviors among FSW has yet to be well established in Sub-Saharan Africa.

Given the need for enhancing STI/HIV prevention strategies among FSW in Malawi, we quantify sex work stigma, social support, and sexual health behaviors among a population of FSW living without HIV in Malawi. We also explore associations between sex work stigma and social support and sexual behaviors, specifically condom use and substance use before sex. Beginning to understand these associations among HIV-negative FSW will support hypotheses generation and inform the development of future stigma reduction and social support interventions to complement STI/HIV prevention strategies for this marginalized and stigmatized group of women.

Methods

Study Design

We conducted a cross-sectional study in June to August 2017 to examine HIV prevention knowledge, including pre-exposure prophylaxis, and attitudes among HIV-negative FSW in Lilongwe, Malawi. Trained interviewers administered a structured questionnaire for all consenting FSW to obtain demographics; HIV prevention awareness; knowledge, attitudes, and acceptability of HIV prevention and ART adherence; sexual behaviors; and stigma and social support. Our interviewers were trained in non-judgmental interviewing techniques, as well as ensuring participants their responses would remain confidential and not interfere with receiving any HIV prevention services in the future to minimize social desirability bias. The survey was translated from English to Chichewa, the predominant language in Malawi. The full survey was available in both English and Chichewa. The trained interviewers administered the survey in either English or Chichewa per the interviewee's preference.

Recruitment

In June 2017, FSW were recruited and enrolled from hotspots of geographic clusters of venues where women were known to meet and solicit clients, in Lilongwe district identified in the 2016 PLACE (Priorities for Local AIDS Control Efforts) (Malawi National AIDS Commission, 2006). A total of 16 'hotspots,' including night clubs, bottle shops, taverns, and bars, were purposively selected to provide a balance of feasibility and timeliness of data collection for this study. An outreach team was developed and included trained HIV testing counsellors, interviewers, peer navigators, and a FSW program coordinator from the Family Planning Association of Malawi. The outreach team visited the hotspots in random order and if needed, received permission to recruit and enroll FSW from venue owners at venues within hotspots. Women within the hotspot were informed of the study objectives and procedures.

Study Population

Eligible participants self-identified as a sex worker or as ‘someone who has received money in exchange for sex either regularly or occasionally’ in the previous year (Family Planning Association of Malawi, 2011). Additionally, participants were female, HIV-negative, 18 years or older, and were willing to undergo an HIV test or show documentation of a negative HIV test result within the prior 3 months. Among those without documentation of HIV test results within the prior three months, trained HIV testing counsellors confirmed HIV serostatus with a negative Determine HIV-1/2 rapid test. A total of 242 women were screened, with 169 determined eligible, of which 149 provided consent, agreed to enrolment, and completed data collection.

Ethical Considerations

The research protocol, survey, and consent forms were reviewed and approved by the Non-Biomedical Institutional Review Board at the University of North Carolina and the Malawi Ministry of Health and Population National Health Sciences Research Committee. All participants provided written informed consent. All study related activities were conducted in a safe and private location at the recruitment venue.

Measures

Sex-Work Associated Stigma: Participants responded to seven items that captured aspects of stigma and discrimination related to being a sex worker. Since there is no single psychometric stigma tool that measures stigma dimensions related to engaging in sex work, we adapted the revised HIV Stigma Scale and the stigma mechanisms scale to quantify internalized stigma sex-work related stigma, isolation from family and friends, and fear of disclosure by replacing “HIV” with “sex worker” (B. Turan et al., 2017). Respondents reported their level of agreement with the four adapted statements using a 4-point Likert scale. We collapsed responses into any agreement vs any disagreement. (See table 2 for individual items)

Additionally, we developed three items that captured stigma from health care providers based on formative qualitative interviews. Participants were asked: “Have you ever not gone to the doctor because you worried that s/he would not treat you well?” (yes/no); “In the last year, how many times have you delayed seeking treatment due to previously being discriminated and stigmatized against?”(at least once/none); and “Has a health care provider ever refused to treat you?” (yes/no).

Social Support: The original Medical Outcomes Study (MOS) Social Support Survey was developed and tested for validity and reliability found to be highly valid and reliable (Sherbourne and Stewart, 1991). The survey asks participants about how often they have someone to provide various types of social support, such as ‘Someone to confide in or talk to about yourself or your problems’ or ‘Someone to help with daily chores if you were sick.’ It includes the construction of an overall social support score consisting of four functional support scales for 1) emotional/informational 2) tangible 3) affectionate and 4) positive social interaction and one additional item. To obtain a score for each subscale, we calculated the average of the scores for each item in the subscale. To obtain an overall support index

score, we calculated the average of the scores for all 18 items included in the four subscale and the score of the additional item. We then transformed the scale and index scores so that the lowest possible score was 0 and the highest possible score was 100 (“Social Support Survey Instrument Scoring Instructions,” 2019). We then created a binary measure of the overall survey and individual subscales (high vs. low) by dichotomizing each at the median score, where the exact median was classified as high. Higher scores denote a higher degree of functional social support.

Sexual Behaviors: All sexual behaviors were self-reported. To assess condom use participants were asked ‘How often did you use condoms during vaginal sex with a paying sexual client in the last 7 days?’ (never, rarely, sometimes, most times, or always). We defined consistent condom use as ‘Always’ and all other responses were classified as inconsistent use. To assess substance use prior to sex, participants were asked “The last time you had vaginal sex with a paying sexual client, did you use alcohol/drugs before?” (yes/no).

Covariates: Based on the literature and sample size considerations, we identified a parsimonious set of covariates: age, education, marital status, and number of years in sex work (DiRienzo, 2016).

Analysis

We used generalized linear models with binomial error distribution and an identity link to estimate adjusted prevalence differences comparing the probability of inconsistent condom use and substance use prior to sex by individual binary measures of social support (full MOS and all four subscales) and stigma (all three healthcare facility items, internalized, combined isolation from family or friends, fear of disclosure). The two items capturing isolation from friends and family were combined into a single measure due to convergence challenges. We examined associations with each of the stigma items individually as they were not part of dedicated stigma scale.

We considered age, education, marital status, and years in sex work as potential confounders. We assessed the function form of the relation between the outcome and the two continuous variables (age and years in sex work), for the continuous variables. For each variable, linear, quadratic, restricted cubic spline, and categorical models were compared. Graphs with overlaid LOESS curves for each model were visually assessed to ascertain how well the predicted and LOESS curves aligned. Log-likelihood ratio tests (LRTs) and partial F-tests were conducted for the nested models; p-values less than 0.05 were considered indicative of the more complex model yielding statistically significant improved fit. Finally, the Akaike information criteria (AICs) associated with each model were considered; lower AIC values were preferred as they reward better fit but penalize additional degrees of freedom. Ultimately, both age and years in sex work were constructed as linear terms.

Sparse data and potential collinearity were assessed for pairs of continuous variables by examining their correlation coefficients, for pairs of binary variables by examining their odds ratios, for continuous and binary or polytomous variables by examining their standardized mean differences, and for pairs of polytomous variables by examining the

distribution of empty or near-empty cells (<5). Correlation coefficients greater than 0.7, odds ratios of greater than 3 or less than 0.33, and mean differences greater than 2 were considered indicative of possible collinearity, respectively. To assess the internal consistency reliability of the scale scores and overall index score, we estimated the Cronbach's Alpha coefficient. All statistical analyses were conducted using Stata software version 15.0 (College Station, TX: StataCorp LLC.)

Results

Participant characteristics

This analysis is restricted to the 149 of 150 FSW who answered all social support and stigma questions measured in this study. Of these participants, the average age was 24 years (SD: 4.6; range: 18–41; Table 1). Only 42% had received some secondary schooling or more. Most (66%) were separated, divorced, or widowed. The average time spent exchanging sex for money was 3 years (SD: 3.37) and participants averaged 11 different clients per week (SD: 8.9). Only 92 (62%) of FSW reported always using condoms and 103 (69%) did not report using substances before the last vaginal sex encounter with a paying sexual client.

Stigma

A majority (93%) of the participants think less of themselves or have felt ashamed because they are a sex worker (internalized stigma; Table 2). Half of participants felt that they have been isolated from their family and over a third felt they had been isolated from their friends because they are sex workers. Lastly, nearly half anticipated that should they disclosed that they are a sex worker to their friends, they would be excluded from usual social activities.

Health care facility stigma was less commonly reported than internalized stigma, isolation, and fear of disclosure items. Eleven (7%) participants reported not going to the doctor because they were worried, that they would be treated poorly. Just over 10% of participants reported delaying seeking treatment due to previously being discriminated and stigmatized against; the frequency of this ranged from one to seven times in the last year. Thirteen (9%) were refused treatment from a health care provider.

Social Support

The average overall support index score was 86.53 and the median overall support index score was 89.36 (Table 3). Among the subscales, the mean and median scores were 85.13 and 87.18 for the Emotional/Information Support; 87.88 and 94.74 for the Tangible Support; 86.96 and 92.86 for the Affectionate Support; and 85.71 and 85.71 for Positive Social Interaction. All scales were highly left skewed and leptokurtic.

The Cronbach's alpha coefficient of the overall MOS was 0.9102, which meets the acceptable internal consistency for the alpha. The Cronbach's alphas for the subscales were 0.8267 for Emotional/Informational Support, 0.723 for Tangible Support, 0.5221 for Affectionate Support, and 0.6405 for Positive social interaction.

Multivariate Analysis

In the multivariate analysis, there was little to no association between social support indices or individual stigma items and either inconsistent condom use or substance use prior to sex (Table 4). All of the estimated prevalence differences yielded insignificant p-values > 0.5 and confidence intervals that encompassed the zero. There was a trend for the adjusted prevalence difference of substance use prior to sex among participants who anticipated stigma from healthcare providers (e.g. those who reported not going to the doctor because they worried that they would not be treated well) when compared to those who did not [aPD: 0.3 (95% CI:0.0–0.6), p-value 0.06].

Discussion

Among our sample of HIV-negative FSW in Malawi, women largely internalized stigma, experienced isolation from family and friends, and fear of sex work disclosure, due to their engagement in sex work, however, they reported high levels of functional social support. FSW reported sexual behaviors placing them at risk for STI/HIV, as nearly 40% of FSW reported inconsistent condom use and a third used substances prior to last sexual encounter with a paying sex client. Internalized stigma, isolation, & fear of disclosure, and social support were not significantly associated with inconsistent condom use and substance use prior to sex.

In Malawi, sex work is highly stigmatized and sex workers may face severe isolation from their family and friends. Due to the nature of the work, FSW often experience high levels of stigma resulting in negative health outcomes (Huschke 2019). Nearly all FSW in our sample reported internalized stigma from sex work. As a result, FSW may experience poor quality of life and negatively influence HIV/STI prevention behavior. FSW also reported feeling isolated from both friends and family and feared social exclusion from friends should they disclose their engagement in sex work. Future studies must continue to understand the mechanisms of sex work related stigma to enhance HIV/STI prevention behaviors for FSW in Malawi.

Our analysis demonstrated that there was little to no association between social support or stigma and either inconsistent condom use or substance use prior to sex. Notably, nearly 40% of this sample of HIV-negative FSW reported inconsistent condom use which is substantially higher than previously reported 21% inconsistent condom use among similarly HIV-negative FSW in Lilongwe, Malawi (Lancaster KE et al., 2016).

Functional social support was high among FSW in Malawi, identifying a possible avenue for addressing stigma and improving STI/HIV prevention. Research has demonstrated social support from friends or family can impact health behaviors, specifically, engaging in evidence-based HIV/STI prevention strategies (Lancaster, Cernigliaro, Zulliger, & Fleming, 2016; Scheibe, Drame, & Shannon, 2012; Tokar, Broerse, Blanchard, & Roura, 2018). Though not specifically examined in this study – peers may also provide an alternative source of support that can encourage and motivate one another to access STI/HIV prevention services as well as sexual health promotion (George, Blankenship, Biradavolu, Dhungana, & Tankasala, 2015; Huschke, 2019; Leddy et al., 2020). Interventions that reduce interpersonal

level barriers to engagement in STI/HIV prevention, such as peer social support, may better reach FSW, particularly areas with concentrated HIV epidemics, such as Malawi (2016).

In contrast to social support, family and friends may contribute to further stigma and isolation. As seen among our sample, many of the women reported feeling isolated from both family and friends because of their engagement in sex work. While our sample is small, limiting our ability to detect small differences and does not represent all FSW in Malawi, previous literature has indicated a similar lack of association between social support, stigma, and health behaviors. Approximately one-third of FSW in Zimbabwe have reported internalized stigma, which is substantially lower than FSW in our sample (Fearon et al., 2019). Similar to our sample, stigma was not associated with condom use. However, among a sample of FSW in the Dominican Republic, HIV stigma mediated the association between social cohesion and consistent condom use with clients and partners, while sex work-related stigma did not (Carrasco et al., 2018). HIV-negative FSW in Malawi make up less than a third of the FSW population and this sample in particular may be at lower risk for STI/HIV compared to the general FSW population in Malawi in light of engaging in sex work for a shorter time period and averaging fewer partners (Lancaster KE, et al., 2016). Nevertheless, STI/HIV prevention programming for FSW is essential and more research is needed to enhance engagement for FSW in these programs.

Limitations

To assess social support and sex work stigma, we administered a structured questionnaire. Though all questionnaires were piloted with the target population, the questions asked were very intimate and a subjective experience that is impacted by many factors. We asked participants to discuss their involvement in sex work a highly stigmatized and often illegal profession. The deeply personal nature of the questions may impact the way participants answer them, thus leading to underreporting of any socially undesirable responses. Nonetheless, our team was trained extensively in non-judgmental interviewing techniques to minimize socially desirable responses.

Conclusion

This study provides vital evidence on stigma and social support for a highly marginalized population at significant risk for STI/HIV in Malawi. Our study identified that FSW feel highly stigmatized and isolated population in Malawi, but did not show an association with STI/HIV prevention behaviors. However, this relationship is complex and further research is needed to examine how stigma and isolation may vary over time and if these factors have a causal relationship with STI/HIV prevention behaviors. Future interventions should investigate whether social support can be leveraged to counter stigma and enhance STI/HIV prevention for FSW in Malawi.

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Table 1:

Participant Characteristics (N=149)

Variable	Mean (SD) or n (%)
Age (Range: 18–41)	24 (4.6)
Education	
Primary or less	58 (39%)
Completed Primary	28 (19%)
Some Secondary or more	63 (42%)
Marital Status	
Never married	33 (22%)
Co-habituating or married	17 (11%)
Separated, divorced, or widowed	99 (66%)
Years in Sex Work ^I (Range: 0–17)	3.2 (3.4)
Number of different clients per week ^I	11 (8.9)
Condom use	
Inconsistent ^I	57 (38%)
Always	92 (62%)
Drug or alcohol use prior to sex	
No	102 (69%)
Yes	47 (31%)

^IMissing data due to not knowing or nonresponse: years in sex work: n=6; number of different clients per week: n=60; condom use: n=1

Table 2:

Additional Stigma Items (N=149)

Health Care Facility Stigma	N (%)
Ever not gone to the doctor because you worried that s/he would not treat you well (anticipated stigma)	11 (7%)
Delayed seeking treatment due to previously being discriminated and stigmatized against at least once in the last year ¹	17 (12%)
Ever refused treatment from health care provider	13 (9%)
Internalized Stigma, Isolation, & Fear of Disclosure (Agreement)	
I think less of myself or I have felt ashamed because I am a sex worker	138 (93%)
I have become isolated from my family because I am a sex worker ²	74 (50%)
I have become isolated from my friends because I am a sex worker	52 (35%)
I fear that if I disclosed that I am a sex worker to my friends, they would exclude me from usual social activities.	69 (46%)

¹Don't know (n=2);²Missing (n=1)

Table 3.

Descriptive statistics for social support measures (N=149)

Variable	Items	Range (0–100)	Mean (SD)	median	Skew/Kurtosis	Cronbach's Alpha
Social Support	19	36.17–100	86.53 (12.48)	89.36	-2.11/9.17	0.9102
EMI	8	23.08–100	85.13 (14.34)	87.18	-1.79/7.18	0.8267
TAN	4	15.79–100	87.88 (14.82)	94.74	-1.98/7.65	0.723
AFF	3	14.29–100	86.96 (16.20)	85.71	-2.04/8.26	0.5221
POS	3	35.71–100	85.71 (14.41)	92.86	-1.36/5.18	0.6405

EMI=Emotional/Informational; TAN=Tangible; AFF=Affectionate; POS=Positive Social Interaction

Table 4:

Association between social support and stigma and condom use and substance use

Exposure:	Inconsistent Condom Use		Substance use prior to sex	
	PD (95%CI)	aPD* (95%CI)	PD (95%CI)	aPD* (95%CI)
Social Support Indices				
Full MOS	0.1 (-0.1-0.2)	0.0 (-0.1-0.2)	-0.1 (-0.2-0.1)	-0.1 (-0.3-0.1)
EMI	0.0 (-0.1-0.2)	0.0 (-0.2-0.2)	0.0 (-0.2-0.1)	0.0 (-0.2-0.1)
TAN	0.1 (-0.1-0.3)	0.0 (-0.1-0.2)	0.0 (-0.1-0.2)	0.0 (-0.1-0.2)
AFF	0.0 (-0.1-0.2)	0.0 (-0.2-0.1)	0.0 (-0.2-0.2)	0.0 (-0.2-0.1)
POS	0.0 (-0.2-0.1)	-0.1 (-0.2-0.1)	-0.1 (-0.2-0.1)	-0.1 (-0.3-0)
Health Facility Stigma Items				
Anticipated	-0.1 (-0.4-0.2)	-0.1 (-0.4-0.1)	0.2 (-0.1-0.6)	0.3 (0.0-0.6)
Delay due to discrimination	-0.1 (-0.3-0.2)	-0.1 (-0.4-0.1)	0.1 (-0.2-0.3)	0.1 (-0.1-0.4)
Ever denied healthcare	0.2 (-0.1-0.4)	0.1 (-0.2-0.3)	-0.1 (-0.3-0.1)	0.0 (-0.3-0.2)
Individual Stigma Items				
Internalized	0.1 (-0.2-0.4)	0.2 (-0.1-0.5)	-0.1 (-0.3-0.2)	-0.1 (-0.4-0.2)
Isolation from friends or family	-0.1 (-0.3-0.0)	0.0 (-0.2-0.1)	0.0 (-0.1-0.2)	0.0 (-0.1-0.2)
Fear of disclosure	-0.2 (-0.3-0.0)	-0.1 (-0.3-0.0)	0.0 (-0.1-0.2)	0.0 (-0.2-0.2)

* Adjusted for age (linear), education (categorical), marital status (categorical), and years in sex work (linear)