

# HIV Prevention

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# SUMMARY

## Summary

The existence of a conducive social environment to enhance consistent condom use with all sexual partners and the reduction of high risk sexual behaviours are some important goals of HIV prevention interventions designed for FSWs. FSWs have been identified as a core group in the transmission of HIV and other sexually transmitted infections (STIs) in Nigeria, and together with their partners, they account for 40% of new HIV infections in the country. This high HIV prevalence among female populations involved in sex work in Nigeria has heightened interest in HIV prevention programming for this sub-population.

Several empirical studies were conducted in this thesis to explore consistent condom use by Brothel Based (BB) FSWs and to investigate the positive influence gatekeepers within the immediate environment of FSWs could exert on their consistent condom use behaviours with their clients and regular partners. **Chapter 2** gives an insight into HIV prevalence and sexual risk behaviour of young FSWs (aged 15-24 years) in Nigeria focusing on the differences between the two main subgroups of FSWs in the country; BB and Non-Brothel Based (NBB) FSWs. Secondary data analysis of a nationally representative cross-sectional study showed higher HIV prevalence (21.0% vs. 15.5%) for young BB FSW compared to the NBB FSWs as well as less consistent condom use with boyfriends (26.3% vs. 45.5%) and casual partners (55.1% vs. 61.1%). The findings also showed that BB FSWs were less educated and had higher daily number of sexual partners than the NBB FSWs. However, risk of HIV infection due to injecting drug use (6.6% vs. 1.2%) and sexual partner violence (16.9% vs 7.3%) were higher in NBB compared to BB FSWs. The findings of the study showed the vulnerability of both groups of FSWs and is useful as the first level of needs assessment for this thesis and future HIV prevention interventions.

**Chapter 3** reports the findings of a review on behavioural interventions promoting consistent condom use amongst FSWs in sub-Saharan Africa. The effectiveness, intervention content, process and condom use outcomes from 18 eligible interventions (described in 20 studies) conducted in sub-Saharan Africa were reviewed. The review showed that varied approaches were combined and utilised by the behavioural

interventions within these studies including health education by peers, health workers and project staff as well as activities by brothel owners and brothel managers. The interventions showed positive consistent condom use outcomes with paying clients of FSWs, however, some studies recorded inconsistent condom use with the regular non-paying partners of FSWs. None of the studies within the review included evaluations to measure outcomes on the inclusion of gatekeepers within the immediate environment of the FSWs.

**Chapter 4** describes the protocol for a feasibility study using a cluster randomized pilot trial approach to study the feasibility and acceptability of brothel leaders (chairladies, managers and owners) to provide support and facilitate consistent condom use by FSWs residing in brothels. The intervention activities included free male and female condom distribution, HIV prevention messages on condom use and condom negotiation skills to increase self-efficacy in handling social and gender power plays within their immediate environment. Randomization of brothels into experimental and control conditions with a minimum total sample size of 200 participants was proposed. Recruitment of participants will be carried out from within the brothels recruited for the study with each brothel assigned as a cluster. The control condition will receive a standard intervention consisting of a minimum of six interactive sessions with Peer Educators (PE) engaging their peers through group discussions and one on one interaction using pre-designed HIV prevention messages. The experimental condition will receive the standard intervention as well as interactive sessions with the brothel leadership (chairladies and brothel managers) to facilitate consistent condom use and appropriate condom use policies, conditions and messaging. Both interventions will be delivered over a maximum period of 16 weeks and quantitative assessments will be carried out at baseline and at 16 weeks follow up. The findings will inform feasibility of intervention and sample size estimation for the design of a larger Phase III trial on HIV prevention for this target group in Nigeria.

In **Chapter 5**, the results of the cluster randomised pilot trial designed in **Chapter 4** are presented. The study assesses the potential effects of using brothel leaders to promote a conducive and supportive environment for consistent condom use by FSWs, and also investigates the feasibility of implementing a similar intervention on a broader

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scale. Ten brothels in Abuja, Nigeria were randomized and exposed to the experimental (n=5) and control (n=5) arms of the intervention. The feasibility of the intervention, consistent condom use outcomes for FSWs with different partner types and condom negotiation self-efficacy were measured. Condom use outcomes and condom negotiation self-efficacy outcomes were analysed using multi-level mixed regression models. A total of 243 FSWs were recruited into the study (control n=66 and experimental n=177) and 107 of them (44%) were available at 16 weeks follow-up. Positive outcomes for consistent condom use with both clients and steady partners of FSWs were obtained and the intervention demonstrated feasibility. Adherence to the intervention by the FSWs was moderate and the attrition rate was high during the intervention due to FSWs mobility. The results indicate that brothel leaders within the immediate environment of FSWs can exert positive influence for consistent condom use. Brothel leaders can be recruited into HIV prevention efforts and HIV interventions may benefit from their inclusion especially for consistent condom use outcomes.

**Chapter 6** describes a qualitative study aimed at exploring the perceptions of brothel leaders and HIV prevention experts on the inclusion of gatekeepers within the immediate environment of FSWs into HIV prevention efforts. In-depth interviews were conducted to explore the perceptions and views of brothel leaders and HIV program experts on the acceptability and roles of gatekeepers in interventions aimed at improving FSW condom use in Nigeria. Brothel leaders are an influential group within the FSWs' social and physical environment and their attitudes, beliefs and actions can influence the immediate brothel environment and the adoption of interventions within the brothel. HIV prevention experts make key decisions on intervention content and strategies adopted for HIV prevention efforts and also influence the design and implementation of HIV prevention strategies within programs. Results show that brothel leadership can support the institution of establishment policies supporting consistent condom use by the FSWs, promotion of HIV awareness, resolution of conflicts and harassments, support to new entrants into sex work and the reinforcement of protective behaviours among the FSWs. The decriminalization of sex work and the inclusion of gatekeepers' support into country HIV program guidelines may contribute to mitigating micro-level sociocultural factors limiting FSWs' rights as well as their access to health services. This qualitative study provides insights into the potential

positive roles of brothel leaders in improving condom use and other HIV/AIDS related interventions for brothel based FSWs in Abuja, Nigeria.

Finally, the general discussion highlights the main findings, reflects on the strengths and limitations of the study, and provides suggestions for further research. The findings in this thesis suggest that the inclusion of brothel leaders in HIV prevention interventions exerts positive influence on consistent condom use by BB FSWs with different partner types and facilitates individual and community level efficacy in condom negotiation.