'They bring AIDS to us and say we give it to them': Socio-structural context of female sex workers' vulnerability to HIV infection in Ibadan Nigeria

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Abstract

The aim of the study was to examine and describe the individual and structural-environmental factors that shape the vulnerability of brothel-based female sex workers (FSWs) in Ibadan, southwest Nigeria to HIV infection. A descriptive qualitative research design was utilised to elicit data, using in-depth interviews and focus group discussions, from 60 randomly selected participants in four brothels. A thematic analysis of data was undertaken following transcription and validation of interviews. Five themes emerged from the data: (*i*) flawed knowledge and fatalistic attitudes; (*ii*) the psychosocial and economic context of sex work; (*iii*) religious beliefs, stigma and risk taking; (*iv*) barriers to HIV testing; and (*v*) legal and policy constraints to sex work. We describe the complex interaction between these themes and how they combine to increase the risk of HIV infection among FSWs. The impact of previous interventions to reduce the risk of HIV infection among FSWs has been limited by personal and structural factors; hence we recommend that new strategies that recognise the practical constraints to HIV prevention among FSWs are urgently needed to make the environment of commercial work safer for FSWs, their clients, and by extension the general population.

Keywords: *HIV/AIDS, sex workers, individual and structural factors, decriminalisation, Nigeria.*

Résumé

L'objectif de cette étude consistait à étudier et à décrire les facteurs individuels et structuro-environnementaux qui façonnent la vulnérabilité des travailleuses du sexe dans les maisons closes d'Ibadan, dans le Sud-ouest du Nigeria, à l'infection par le VIH. Un protocole de recherche qualitative descriptif a été utilisé afin d'obtenir des données, en menant des entretiens approfondis et des réunions de groupe, réunissant 60 participants sélectionnés au hasard dans quatre maisons closes. Une analyse thématique des données a été entreprise suite à la transcription et à la validation des entretiens. Cinq thèmes ont émergé des données: (*i*) des connaissances faussées et des attitudes fatalistes; (*ii*) le contexte psychosocial et économique de la prostitution; (*iii*) les croyances religieuses, la stigmatisation et la prise de risques; (*iv*) les obstacles au dépistage du VIH; et (*v*) les contraintes juridiques et politiques associées à la prostitution. Nous décrivons l'interaction complexe qui existe entre ces thèmes et la manière dont ils se conjuguent pour accroître le risque d'infection par le VIH que courent les travailleuses du sexe. L'impact des interventions précédentes visant à réduire le risque d'infection par le VIH que courent les travailleuses du sexe a été limité par des facteurs personnels et structurels ; nous recommandons donc que de nouvelles stratégies reconnaissant les contraintes pratiques à la prévention du VIH affectant les travailleuses du sexe soient urgemment développées afin de rendre l'environnement de travail plus sûr pour les travailleuses du sexe, leurs clients et, par extension, l'ensemble de la population.

Mots clés: *VIH/SIDA, travailleuses du sexe, facteurs individuels et structurels, dépénalisation, Nigeria.*

Background

Available statistics indicate that the HIV/AIDS epidemic has already taken root in Nigeria, with more than one million AIDS related deaths, two million children orphaned as a results of AIDS, and almost three million people currently living with the virus (UNAIDS, 2007; 2008). With an estimated population of nearly 150 million (World Bank, 2009), a small increase in HIV prevalence in Nigeria would represent a significant share of the global HIV/AIDS burden (Kates & Wilson, 2005). Unprotected heterosexual intercourse remains central to HIV transmission in Nigeria, as in most of sub-Saharan Africa (UNAIDS, 2007), and female sex workers (FSWs) along with their clients play a crucial role in the spread of the virus to the general population.

The number of women infected with HIV has grown steadily since the turn of the century; currently, more than half of all those living with HIV worldwide are women (UNAIDS, 2007). Poverty, unequal power relations with men, cultural inhibitions and other structural factors are known to increase women's vulnerability (Mbirimtengerenji, 2007; Nattrass, 2009); FSWs in particular may

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find it difficult to negotiate condom use or initiate other forms of protective behaviour due to the commercial nature of these sexual relations.

Available evidence suggests that in most countries with high HIV prevalence, infection rates are significantly higher among FSWs than other groups (UNAIDS, 2008). In Nigeria, the literature on HIV prevalence among FSWs is scant, but among an estimated one million FSWs operating in the country (Pennington, 2006), existing studies estimate a prevalence of between 50% and 70% (Bamgbose, 2002; Forbi *et al.*, 2008; Genderlift Foundation, 2003; Imade *et al.*, 2008; NACA, 2008; UNDP, 2004), compared with a prevalence of 2.3 - 3.8% in the general population (UNAIDS, 2008).

Both individual and structural factors (Sumartojo, 2000) increase the vulnerability of FSWs to the risk of HIV infection. Structural factors are present in the environment where the individual lives, and over which they have limited control. In the context of the lives of FSWs, these include gendered power dynamics, socio-economic deprivation, sexual exploitation, client violence, and legal and policy constraints that criminalise sex work (Cusik, 2006; Panchanadeswaran *et al.* 2008). Individual factors are the personal characteristics that increase vulnerability to specific risk situations. For FSWs, these consist of circumstances of entry into sex work, demographic attributes, perceptions of risk, inability or unwillingness to initiate protective behaviour, substance abuse, and childhood experiences that make it difficult to practise safe sex (Campbell, 2000; Gysels, Pool & Nnalusiba, 2002; Izugbara, 2005; Madhivanan *et al.* 2005; Panchanadeswaran *et al.* 2008; Schensul *et al.*, 2006; Wechsberg, Luseno & Lam, 2005; Wojcicki & Malala, 2001).

Since the incidence of HIV infection among FSWs is closely linked to these factors, previous efforts to reduce their susceptibility have mostly concentrated on improving knowledge, attitudes and practices, including education, behaviour modification, condom promotion, harm reduction, treatment of sexually transmitted infections, community mobilisation and other policy initiatives (Ahoyo *et al.*, 2007; Berthe *et al.*, 2008; Ghys *et al.*, 2002; Lowndes *et al.*, 2007; Luchters *et al.*, 2008; Ngugi *et al.*, 2007; Ngugi, Wilson, Sebstad, Plummer, & Moses, 1996; Shahmanesh, Patel, Mabey & Cowan, 2008; Rojanapithayakorn, 2006; UNAIDS, 2008). Despite these efforts, there is still some evidence that the prevalence of HIV and other sexually transmitted infections among FSWs have not substantially declined (Ahoyo *et al.*, 2007; Forbi & Odetunde, 2007; Genderlift Foundation, 2003; Imade *et al.*, 2008; Kimani *et al.*, 2008; Oyefara, 2007; Lawoyin, Okhakume, Adejuwon, Osinowo & Asekun-Olarinmoye, 2004; UNAIDS, 2008).

Some authors (Campbell, 2003; 2000; Gysels *et al.*, 2002; Izugbara, 2007; Oyefara, 2007; Wojcicki & Malala, 2001) have suggested that failure to reduce substantially the prevalence of HIV infection among sex workers is influenced by a complex interaction of marginality, poverty, powerlessness and the contexts in which these take place. Therefore, to understand FSWs' vulnerability to HIV/AIDS requires moving beyond a common assumption that knowledge leads to behaviour modification, or that sex workers are malignant risk takers, to examining the complexities of the interaction between individual and structural factors and how these influence the dynamics of commercial sex work. Such knowledge will equip programme planners and policy makers with information to develop more appropriate and effective interventions that address the problem of HIV/AIDS within the FSW community.

While scholars have examined the problems of HIV/AIDS and other sexually transmitted infections among sex workers in Nigeria (Bakare *et al.*, 2002; Forbi *et al.*, 2008; Imade *et al.*, 2008; Izugbara, 2007; Lawoyin, 2004; Umar, Adekunle & Bakare, 2001), only a few have moved beyond providing demographic and epidemiological data, or surveying the knowledge, attitudes and practices of FSWs towards HIV, to systematically examine the complex interaction between individual and structural factors and how these shape the context of sex work in an era of HIV/AIDS (Asowa-Omorodion, 2000; Bamgbose, 2002; Esu-Williams, 1995; Falola, 1984; Izugbara, 2007; Orubuloye & Oguntimehin, 1999; Tinuola, 2008).

Against this background, this study aims to examine and describe the individual and structural-environmental factors that shape the context of HIV infection among brothel-based FSWs in Ibadan, Nigeria in order to inform effective programmes and policies that make sex work safer. To achieve the aims of the study, we adopt a critical phenomenological approach, following Desjarlais (1997), as the underlying philosophical perspective to uncover how individual and structural factors predispose brothel-based FSWs in Ibadan to HIV infection.

Data and methods

Research design and study setting

The study adopted a descriptive qualitative research design, which focused on observing and describing the behaviour of the target population in eliciting data. The study setting was Ibadan, the capital city of Oyo State in southwest Nigeria. Ibadan is one of the most densely populated cities in sub-Saharan Africa and the 2006 population census figures showed that there were more than 1.3 million inhabitants in the metropolis (NPC/FOS, 2006). The city was chosen as the study site for two reasons: first, the expansive and dense population in the city and the expected high numbers of FSW that characterise most urban centres in Nigeria; and second, there is scarce literature on the impact of individual and structural factors on HIV infection among FSWs in the city. Four brothels were purposively selected for inclusion in the study. These were chosen due to their location in two of the city's most active and popular red light districts for commercial sex. Each brothel, depending on the number of rooms available, employed about 30 - 60 women.

To enable access to the study population, the research team obtained permission from a series of stakeholders within the brothel system. In each brothel there is an organisational hierarchy, with the most senior position being the director, followed by a co-director, manager, chairlady and sometimes vice-chairlady. The director, co-director (usually the owners of the buildings) and the manager are responsible for running the hotel, including allocating women, especially the younger ones, to clients. These are sometimes men, but mostly women who are not involved in the sex trade themselves. The chairlady and vice-chairlady

on the other hand are 'first among equals'; members of the sex worker community who have been in the trade for a number of years (the average was about 6.5 years) and tended to be the oldest, in terms of age and residence, in the brothel. Although, they have no assigned role within the brothel system, they offer advice to younger FSWs and management staff and mediate in conflicts between FSWs and/or their clients. Staff from University College Hospital and the University of Ibadan facilitated access to important figures within the FSW community, including the directors of the brothels. After permission was given for data collection to proceed, the director introduced the first author to the respective managers and chairladies.

Ethical approval for the study was granted by the Faculty of Medicine Research Ethics Committee of Trinity College, Dublin and the Department of Sociology, University of Ibadan, Nigeria.

Participant selection

To be eligible, FSWs were at least 18 years old, self-identified as a sex worker, resided in the brothel for at least one year and willing to participate in the study. The sensitive nature of sex work required a careful selection of respondents in the selected brothels. Because of concerns about FSWs' identity, the brothel management required that the research team select participants in a way that guaranteed their privacy and gave everyone an opportunity to participate in the study. These concerns, in addition to the need to collect manageable data, led to a decision to use a simple random technique in selecting the FSW respondents.

Consequently, a total of 60 FSW respondents, equally divided between the four brothels, were recruited for the study. Fifteen respondents were selected from a list of registered FSWs living in each brothel. Prior to interviews, selected respondents were informed of the purpose of the study, the voluntary nature of the information given, and were required to sign a written informed consent form.

Data collection

Data collection was undertaken between April and July 2008. The research team, led by the authors, included four experienced research assistants affiliated with the Departments of Sociology, University of Ibadan and Medical Microbiology, University College Hospital, Ibadan.

In obtaining data, three qualitative research tools, in-depth interviews (IDIs), focus group discussions (FGDs), and non-active observation, were triangulated. To aid qualitative data collection, two interview guides (one for the IDIs and a modified version for the FGDs) were designed. The guides were semi-structured in nature to allow interviewers to pursue other lines of inquiry that might have emerged during interviews. The IDI guide covered specific topics that emerged from a review of existing literature relating to the psychosocial, economic and environmental contexts of FSWs' lives, as well as knowledge and barriers to HIV prevention, HIV testing, use of HIV-related services, individual experiences of treatment for any sexually transmitted infections, and future plans if and when they leave sex work, among others. The guide for the FGDs covered similar topics, but was modified to exclude topics that were considered personal to each FSW.

Overall, eight FGDs and 60 IDIs were held with participants in all the four brothels. Specifically in each brothel we conducted two FGDs and 15 IDIs. In-depth interviews were held with individual FSWs, while focus groups were held with the same population after they were allocated into one of two groups (consisting of seven or eight participants). The FGDs, lasting an average of 90 minutes, were conducted in areas of the brothel that were inaccessible to the public. The IDIs were held at a location of respondents' choice and lasted an average of 60 minutes. All the interviews were conducted by the research team (one moderator and two research assistants) in 'pidgin English' a language widely spoken in many parts of the country.

Observation was also used to supplement the interview data. Prior to data collection, the first author spent time (sometimes up to eight hours a day during the off-peak hours of 6am - 5pm) with the study population in each brothel, to establish trust and rapport and explain the purpose of the study. This made it possible to observe the FSWs' work environment and the dynamics of their interaction. Copious notes taken during these observations provided another rich source of data regarding the issues that were explored in the study.

Data analysis

Data processing and analysis were done manually using a thematic framework. The tapes from in-depth and key informant interviews as well as the FGDs were transcribed verbatim by the facilitating team, which included the moderator and two research assistants. Thereafter, transcripts were double-checked for consistency and accuracy by the authors and other experienced researchers from the University of Ibadan before they were sent back to the interviewee for validation. In addition, the authors independently reviewed the transcripts several times to become familiar with the data before the process of sorting, coding and theme identification.

Themes were developed based on an inductive and deductive process of issues emerging from the data. Initially, themes independently developed by each author were compared for similarity, and those that differed were subjected to a discussion, based on the study objectives, on whether to include or exclude them from the analysis. This process led to a final list of themes and sub-themes that was discussed with and reviewed by colleagues from the Department of Sociology, University of Ibadan and the Department of Medical Microbiology at University College Hospital. Following theme identification, relevant codes developed from the transcripts after they were processed with NVivo™ were systematically applied to the themes. A joint decision was made by the authors on the themes to report using relevant verbatim quotes from the data to support the presentation of results. Where direct quotes were used in reporting the findings, pseudonyms were used in place of participants' names to hide their real identities.

Study limitations

The findings reported in this study shed light on the circumstances of brothel-based FSWs in the city of Ibadan, and how individual and structural factors increase their vulnerability as well as those of their clients and, by extension, the general population, to HIV infection. However, the selectiveness of the sample from four

brothels out of several that operate in the city and the qualitative nature of the data limit the applicability of our findings to populations of brothel-based FSWs in the city of Ibadan whose circumstances are similar to the study population. Because of these limitations, our interpretation and reporting of the data warrant caution, which we have taken care to reflect in the study.

Results

Participants' profile

All the participants were females between 18 and 35 years old (mean 26.5 years). They originated from several parts of Nigeria: north, east and southwest. With the exception of one, all the women described their backgrounds as disadvantaged; many were from single-parent homes or became orphans early in life. Nearly all professed Christianity as their religion with exception of one who was of Islamic faith. About a third reported having children or families where they are the primary bread-winners.

The majority described themselves as active members of churches where other parishioners had no knowledge of what they did for a living. Without exception, they reported that extended family members and friends were unaware that they engaged in sex work for a living. Most described themselves as leading a 'double life', hence those with close family ties would often have other residences apart from the brothel, and would explain long absences from home in terms of 'going on business trips'. All participants reported some level of formal education, with the majority completing secondary education and a few reporting primary education or some years of tertiary education.

Generally, the living/working conditions of study participants could be described as impoverished, although this varied from brothel to brothel. Each brothel had between 30 and 60 rooms depending on the size of the building. The nature of their work required that all the women have a room of their own (what they jocularly referred to as 'the office'). In reality, only the senior ones could afford to rent a room of their own; younger FSWs who could not afford the cost (usually between 1 000 - 1 500 naira per month [6 - 9 USD]) would share with one other. Those who shared often had to agree on the timing in case they both had clients to serve. Each room contained very sparse furniture provided by the brothel management. These included a thin foam mattress, a table and two chairs, other pieces of furniture and a radio/cassette/compact disc player. The walls that separated the rooms were made of wood and were very thin, so that sound could be heard and movement felt from room to room or throughout entire sections of the building. Each brothel had a bar section with seating and often a dance floor.

Individual and structural-environmental barriers to effective HIV prevention

This study examined and described the factors that shape the context of HIV infection among brothel-based FSWs in Ibadan, Nigeria in order to inform effective programmes and policies to make sex work safer. Our data showed that both individual and structural-environmental factors make an individual susceptible to the risk of HIV infection, and the analysis suggests that among the FSWs who participated in this study, these factors work together to determine the degree of vulnerability. Consequently, we identified five themes from the data, including: (*i*) flawed knowledge and fatalistic attitudes, (*ii*) psychosocial and economic context of sex work, (*iii*) religious beliefs, stigma and risk taking, (*iv*) barriers to HIV testing, and *(v*) legal/policy constraints.

Flawed knowledge and fatalistic attitudes

Despite being recognised as a high-risk group, our data suggest that FSWs in Ibadan are not being systematically targeted for HIV prevention activities, as only two brothels were reported to have participated in previous interventions that included education, condom distribution and treatment for sexually transmitted infections. The data indicated that although all the participants had correct knowledge regarding the modes of HIV transmission and prevention, many still held misconceptions about symptoms and treatment, and believed that only those who are unable to take care of themselves get infected with HIV. As a result they dismissed HIV as a disease of 'the other' to which they were immune. According to one participant:

> *I have been on this job for some time now and I have not been infected with HIV. Why? ... because I know what to do,[like] use medicine regularly and have unprotected sex with only clients that I know well. I am not careless ... it's only the ignorant ones that end up with HIV infection.* [Madam, 38 years old].

Evidence from the data suggests that such feelings of immunity are reinforced because many FSWs believed they know enough about how HIV is transmitted and can therefore prevent it through prophylactic use of antibiotics, and being able to detect clients with symptoms of infection. The data indicated that older, more experienced FSWs from brothels targeted with interventions were more likely to display such feelings of immunity, flawed knowledge and fatalistic attitudes than younger, less experienced FSWs from brothels that had not benefited from any intervention. Perhaps, as the excerpt above suggests, many FSWs do not consider themselves at risk because they engage in certain preventive practices through which they have thus far avoided HIV infection. Also, they may be saturated with information that gives them a feeling of being in total control and knowing how to avoid HIV infection.

There is some evidence in the data which also suggests that FSWs' self-esteem and belief in the efficacy of traditional medicine may be responsible for the feelings of immunity, denial, flawed knowledge and fatalistic attitudes demonstrated by the respondents. Whereas participants routinely patronised several Western and traditional medicine sources when in need of protection and/or treatment from sexually transmitted infections, they also reported a high patronage of traditional medicines because they were less expensive, easily accessible and often perceived to be more effective than Western medicine. One participant in the focus group echoed this sentiment when she said:

> *Hospitals are good, but they have no remedy for everything. Traditional medicine is better for prevention because it protects you from any disease and you don't pay a lot of money.*

Although the benefits of traditional medicine reported by participants have not been scientifically proven, the finding that sex workers in Ibadan, and as literature suggests in other places

subscribe to it, suggests the need for further investigation. This is especially important because what they considered beneficial may actually be compromising their sexual health.

Psychosocial and economic context of sex work

For sex workers, successful prevention of HIV and other sexually transmitted infections rests on practising safe sex, especially consistent condom use, which considerably reduces the transmissibility potential of the HI virus. However, the ability to consistently use condoms or take other preventive measures is mediated by psychosocial, economic and other structural/environmental factors. As the data showed, participants in this study were not immune from psychosocial dynamics that influence condom use in intimate sexual relations.

Focus group participants were unanimous in their opinion that it was difficult to resist the huge financial rewards from clients who request unprotected intercourse. One participant reported that: 'For most girls, this is not a lifelong occupation, so every opportunity to make extra money should not be wasted'. With the exception of two interviewees, all the participants had stable relationships with boyfriends that involved unprotected sexual relations. The boyfriends, usually former clients who had relationships with other women, reportedly used a great deal of persuasion to get FSWs to have unprotected sex. Joy, a 22-year-old FSW recounted such an interaction:

> *He said 'Don't you love me? I love you and know you're clean. I believe you don't have anything in your body. I trust you ... don't you love me ... you don't love me? I'm not your client now I'm your boyfriend ... how can we get married if you continue like this?' Sometime we use condom, but most time we don't. I love him and I don't want this work all my life.*

Other forms of barriers relate to the FSWs' economic vulnerability. Whereas charges for sex with a condom ranged from 100 to 300 naira (0.65USD to 1.95USD), men who desired unprotected sex routinely offered as much as 5 000 naira 32.05USD) to the girls, with subtle threats to take their patronage to other FSWs if their demands were not met. At other times, alcohol, drugs, condom tampering or even the threat of physical violence were employed by clients to coerce sex workers into having unprotected sex. In order to avoid condom tampering, FSWs often insisted on applying the condom themselves to a client, and because those intent on having unprotected sex did not like this, girls, especially the young ones, were often subjected to physical (beatings or rape) and verbal abuse. Participants in FGDs and interviews believed that younger FSWs were more vulnerable to both physical and psychological manipulation from clients, putting them at elevated risk for sexually transmitted infections, including HIV.

Religious beliefs, stigma and risk taking

Census data indicate that the vast majority of Nigerians claim an Islam or Christian religious affiliation. The tenets of religion and the associated moral norms largely influence the conduct and perception of individuals. Although sex work is morally condemned and highly stigmatised in Nigeria, sex workers were still able to justify their involvement from a religious perspective. For example, in focus groups, participants reported their involvement in sex work was not without God's knowledge, something tied to their fate, even though society condemned it. As one FGD participant put it: 'In due time, God will deliver us from the abuse and hardships we suffer in our daily lives'. Such religious convictions, expressed mostly by younger FSWs, may also determine how they perceive and deal with adverse consequences of commercial sex work. As the data showed, younger FSWs were more likely to display a sense of hopelessness and certainty that someday they would get sick and unable to work, but before that happened, they wanted to make as much money as possible, so that they had enough to sustain them when they retired from sex work. According to some of the participants:

> *I have to do what is necessary. God knows me ... he sees … he understands … [that] I have to get money for my children. One day I will look sick and then I can't work. I have to have enough money … for that time. If a client will give me 5 000 naira for sex without a condom I must do it ... I believe God will protect me. If I can finish this work quick it is good for everyone. I pray before I have sex without condom and then leave the rest to divine providence.* [Emily, 23 years old].

> *I need to hurry and get as much money before the sickness comes. I have to have the money … it's very hard. What will happen to my children when I die? If a man will pay big money for sex without condom I will do … God must want this.* [Mama T, 32 years old].

The pervasive stigma attached to HIV is also largely influenced by religion. Existing literature suggests that HIV is regarded as a lifestyle disease, 'the result of immoral behaviour that should be punished by God'. This belief also prevailed among some focus group participants, who conceded that those who become infected with HIV may be paying for a sin they have committed in the past.

Barriers to HIV testing

Although only FSWs in two of the four brothels had been targeted with education and treatment intervention activities implemented by existing no-governmental organisations in the city, almost all the participants in this study reported obtaining information about HIV prevention and treatment through other sources including the media. Thus, they all knew the importance of regular testing to determine their HIV status. Despite this knowledge, less than half of study participants reported to have ever been tested for HIV. Among those who did, testing was reportedly infrequent, (ranging from two to eight years). In terms of HIV status, only two of the participants during in-depth interviews confided to having recently tested positive for HIV; others reported being negative or were unwilling to share the results with the research team. When asked why they did not regularly take a test, given the risks associated with sex work, one focus group participant said:

> *It is true that sex work has a lot of risks, but is there any occupation without risks? ... if you go and you are tested positive, I believe that is what will kill faster than the disease itself. If you are even lucky to have the drug [antiretroviral], the shame and trauma of not being able to do this work anymore is enough to kill anyone. How will you get money to survive?*

Those who had tested in the last six months shared valuable insights into the dynamics of HIV testing that could help explain the low uptake and/or irregularity of HIV testing services among

FSWs. Focus group data showed that personal and structural-environmental factors were major barriers that inhibited voluntary or regular testing among sex workers. While the brothel management maintained strict control over the girls' conduct and usually apply strict punitive measures if someone was suspected of contracting a disease, none of the brothels in this study had a policy of mandatory testing, leaving that decision to individual sex workers. Whereas the decision to test was voluntary, those who underwent testing were normatively expected to share the results with the rest of the group and to demonstrate that they were 'clean', by producing the test result to confirm a negative status. If this was not done, the girl was assumed to be 'hiding something' (HIV-positive status), thus running the risk of being ridiculed by other FSWs or sent away by the management so as not to give a 'bad name' to the brothel.

Focus group participants agreed that existing options for HIV testing gravely compromised confidentiality and discouraged testing. Testing could be done either within the brothel or at a designated clinic within the general hospital. Because the structural integrity of the brothel was weak, with thin walls separating rooms and communal nature of living, it was impossible to find an area of the property where privacy could be assured. As one FGD participant reported: 'If you test here when the NGOs come, you are taking a big risk. No girl wants to take such risk.'

Similarly, within the hospital, both the structural layout of the testing centre and manner in which health personnel disclosed test results did not guarantee confidentiality either. Sexual and reproductive health services are centralised in a designated area and separated from other departments. Any individual who enters through its doors or walks too far in that direction is assumed to have a sexually transmitted infection just from their presence there. Additionally, within some testing facilities the researchers observed that test results were sometimes delivered orally in the presence of groups of strangers, and anyone within several feet of the relevant health personnel could hear such communication. This could deter many individuals from using HIV testing services, particularly FSWs whose livelihoods are at stake.

Confidentiality in testing, though paramount in any context, is of elevated importance in the female sex worker community. If a FSW is tested positive, the implications can be as severe as having to begin a new life in a new location that would require assuming new identities. This has serious implications for HIV prevention, care and treatment programmes. In focus groups, participants were unanimous in their opinion that an HIV-positive diagnosis made it mandatory for the individual to relocate, and as one woman put it: 'You have to pack your bag and go far away from this place, to another place [city] where no one knows you'. Several participants reported that if they were diagnosed with HIV and the results became public, they would be required to leave the brothel because: 'Such person is not good for business or name [reputation] of this place [brothel]'. This opinion was corroborated by Umoh, a 24-year-old mother of two from the southeast, who received a positive diagnosis while in another city:

I knew when they told me [my HIV-positive test result] that I would have to leave the hotel and go, go outside, out of Abuja. I thought, can somebody pick my bag (for me)? If I do that, then it will give me away ... show on my face, in my eyes. To ask that is to say I have HIV. I went back and I put my things in a bag and said I was travelling. I never can go back now. They know and they will do bad things to me. God has taken me safe to this new place and made me new here. I am alone with my baby and my God now.

The situation of a FSW who is diagnosed HIV-positive is further complicated by the pervasive HIV stigma, which is intensified even within the FSW community, and places an additional burden on individuals within the work environment. Because HIV not only threatens the physical health and earning power of the individual, but also the reputation and financial viability of the entire business, both the brothel management and other FSWs put enormous pressure on an HIV-positive individual to relocate. Even where they have not been directly threatened with eviction, the dehumanising treatment to which they are subjected forces them to move. As Umoh reported:

If the girls knew ... they would make me die fast. They would kill me before my time. Instead of help they would scandalise the matter. They would stop communicating with me. When HIV comes your friend becomes your enemy. I will be in danger for my life if they know.

Legal and policy constraints to commercial sex work

Our data showed that legal restrictions to sex work not only increased FSWs' vulnerability to HIV infection, but also had huge implications for their human rights. For example, brothel managers strictly enforced an unwritten rule that FSWs must do all they could to satisfy clients, so that they would continue to patronise the brothel. FSWs were expected to conform to this rule and a violation could attract severe penalties, including expulsion from the brothel. This means that even when some clients impinged FSWs' rights (for example avoiding payment for services under the pretext of dissatisfaction), they might not be able to seek redress for fear of being ejected from the brothel.

Two legal frameworks operating in Nigeria – the Penal Code and the Criminal Code – both criminalise sex work, thereby rendering sex workers powerless and vulnerable. In view of the illegality of sex work, law enforcement agents often target FSWs for harassment, extortion and intimidation. The illegality of commercial sex means that brothels are often raided by law enforcement agents and in some cases, sex workers are beaten or blackmailed. Participants in several focus groups and individual interviews were quick to report on the indignity and violence they suffered at the hands of law enforcement agents, 'who have made a habit of raiding brothels when they are in need of free sex or cash'. Grace is a 21-year-old who described a scenario common to most FSWs:

Police say our work is illegal ... that we should go find other jobs. Tell me, is there anyone who wants to do this kind of work all their lives? Many times, when they come here [to raid] they force sex [rape] on us like we are dogs or beat us so much we need to call a doctor. The Police do so many bad things to us, things that are against God's way and what happens? Not a thing. When they force sex, they won't use condom. They bring AIDS to us and then say we give it to them.

While this scenario may appear common in the FSW community, not all sex workers are subjected to such treatment. Reports in some focus groups suggested that there are brothels where girls are immune from raids because they pay protection money to law enforcement agents, or in some cases, certain law enforcement officers are involved in managing the brothel. Although the brothels selected in this study had been raided by law enforcement agencies in the past, the frequency as well as those who were targeted depended on the payment of such protection money. The chairlady in one of the brothels described the situation:

> *As we speak, some places [brothel] do not get this kind of trouble because they are protected … they pay protection money. Those who don't pay are the ones in a difficult situation as they are raided all the time. It is better to pay the money and do your business in peace; otherwise, clients will even be afraid to come here.*

The foregoing indicates that the complexity of factors that put FSWs at risk of HIV infection warrant consideration from programme planners and policy makers in making the environment of sex work safer for FSWs, their clients and ultimately the general population.

Discussion

This study examined the factors which contribute to the continued risk of HIV infection in the female sex worker community, despite the current climate of enhanced awareness and increased international health funding for the prevention of HIV/AIDS, not only among sex workers, but the general population in Nigeria.

The profile of our study participants reflects prevailing socio-demographic characteristics of brothel-based sex workers in Nigeria, with the majority under the age of 35 years and from economically disadvantaged backgrounds. However, contrary to previous studies, which reported that most FSWs are young widows, infertile women, or separated wives who lack formal education (Falola, 1984), the evidence from this study suggests a possible shift in the demographic profile of sex workers, with the majority describing themselves as single and with at least a secondary school education, thus supporting other studies that reported similar socio-demographic profiles for female sex workers (Esu-Williams, 1995; Ilesanmi & Lewis, 1997; Izugbara, 2007). As a result of the current economic climate, an increasing number of girls with secondary and tertiary level education are taking on sex work as a means of livelihood.

Counselling and testing are an important intervention in the prevention, control and management of HIV infection, especially among FSWs and other vulnerable groups. The availability and quality of testing service can therefore be a powerful incentive to seek HIV counselling and testing. Despite acknowledging the importance of HIV counselling and testing, few FSWs who participated in this study reported to have ever utilised the service. This finding corroborates other studies, which reported a low uptake of HIV testing among sex workers (Adeyi, Kanki, Odutolu, & Idoko, 2006; Donadona *et al.*, 2005). Adeyi and colleagues (2006), for example, reported only 24% of sex workers in Nigeria received voluntary testing. As our data showed, the unwillingness to undergo an HIV test or share the results thereof is tied to the socio-economic and psychological implications that a positive diagnosis might have for the individual FSWs and the brothels from where they operate. Heterosexual transmission is central to the dynamics of the HIV epidemic in Nigeria, and sex workers are known to pose a high risk to their patrons. Thus, apart from the fear of testing positive because of its implications for their health, FSWs place a high premium on being perceived to be 'free' from HIV, as this is crucial for their livelihoods as well as the economic viability of the brothel business.

Another barrier to voluntary HIV testing among sex workers in Nigeria might also be related to the existing options for testing which compromise confidentiality. As the data showed, HIV testing can be done either in brothels where FSWs are based or at certain health facilities. When the manner of testing and disclosure within these settings do not guarantee the privacy that is paramount for FSWs, they will be unwilling to utilise such services. It is therefore important to review the policies and practices surrounding confidential HIV testing for these women.

The factors that contribute to a low uptake of voluntary HIV testing among sex workers are as critical as those that exacerbate the level of risk to which they are exposed. To minimise the risk of sex-related infections, protective sex through condom use is often advised. Previous studies have highlighted the low levels of condom use between sex workers and their clients and/or intimate partners (Asowa-Omorodion, 2000; Bamgbose, 2002; Campbell, 2000) even though there is a heightened awareness of HIV and STIs (Oyefara, 2007). Similarly, other studies have reported that the apathy towards condoms among sex workers does not indicate ignorance or foolishness, but rather a redefinition of what constitutes risky sex in an environment of pervasive poverty (Izugbara, 2007).

Our results lead to the conclusion that psychosocial and economic factors exert enormous influence on the extent of risk taking among FSWs. Among others, the emotional pressures from intimate and stable boyfriends who desire unprotected sex and, more importantly, the financial incentives from clients willing to pay 16 times the normal fee for unprotected sex, renders the use of condoms in the context of FSWs' circumstances unrealistic. Moreover, many FSWs still hold misgivings about the degree of protection offered by condoms (Esu-Williams, 1995; Izugbara, 2007; Orubuloye, Caldwell & Caldwell, 1994; Sussman, 2002), suggesting that condom use is also not consistent with the economic realities of FSWs lives, as well as the psychological implications of losing out on what could be regarded as a stable relationship, especially when they run the risk of being accused of violating the need for trust and intimacy (Varga, 1997; Wood & Jewkes, 1998) with stable partners.

Furthermore, as Esu-Williams (1995) showed in her work with commercial sex workers, many young FSWs still desire to have biological children, and this also makes the use of condoms in more stable relationships impractical. The threat of physical violence, directed especially at younger FSWs, is another important factor that may discourage insistence on protected intercourse (Dunkle, Jewkes, Brown, Cray, McIntyre & Harlow, 2004; Mamman, Campbell, Sweat & Gielen, 2000; Panchanadeswaran *et al.*,

2008). Therefore, it is important that effective interventions for sex workers recognise the realities of FSWs' lives regarding the genuine constraints to adopting protective measures.

Other factors that increase FSWs' vulnerability to HIV infection include pervasive stigma, a sense of immunity from HIV, flawed beliefs about AIDS and the influence of religion. Nigeria has benefited immensely from external funding to combat the HIV epidemic, specifically for prevention, treatment and care. Notable among these are the US President's Emergency Fund for AIDS Relief (PEPFAR) and the Global Fund for AIDS, Malaria and Tuberculosis (Global Fund). Consequently, education and prevention efforts have sought to improve knowledge and reduce risk behaviours among various population groups including commercial sex workers.

Despite the near universal awareness of basic knowledge regarding HIV and AIDS, the fatalistic attitudes still demonstrated by most respondents are traceable to a number of factors. First, only two of the four brothels had benefited from any intervention programme, suggesting that not all sex workers and brothels are systematically targeted with prevention activities. Second, as previous studies have shown (Imade *et al.*, 2008; 2005; Izugbara, 2007; Mbikusita-Lewanika, Stephen, & Thomas, 2009), there is widespread belief among sex workers in the efficacy of alternative therapies for reducing the risk of infection. Furthermore, differences between older and younger FSWs regarding perceived vulnerability to HIV infection may also engender fatalistic attitudes. For example, while older FSWs felt immune to infection because they 'know' what to do, younger FSWs displayed a resigned helplessness and certain expectation that someday they would become infected with HIV. This finding suggests a weakness in existing interventions regarding HIV prevention and treatment among sex workers that should be addressed.

Literature is replete with evidence documenting the impact of stigma on the HIV epidemic in Nigeria and elsewhere in sub-Saharan Africa (Adewuya *et al.*, 2009; Babalola, 2007; Babalola, Fatusi & Ayanti, 2009; Genberg *et al.*, 2009; Maman *et al.*, 2009; Murima & Fritz, 2009) and female sex workers are no exception (Asowa-Omorodion, 2000; Bamgbose, 2002; D'Costa *et al.*, 1985; Orubuloye *et al.*, 1994; Varga, 1997; Worth, 1998;). Despite ongoing efforts to address stigma, sex workers who are positive for HIV are still subjected to intense pressure to relocate. What happens to these women after such relocation needs further investigation, particularly as there is increased risk to clients who are unaware of their positive status and continue to engage in unprotected intercourse. Moreover, when HIV-positive FSWs are forced to relocate to settings where they have no social networks and social capital, it makes them more vulnerable to pressures to engage in unprotected sex, given the urge to make money as quickly as possible in order to settle down or before it becomes apparent that they are HIV-positive. It is unclear how widespread such a practice is, but given the trend reported here, it is necessary to put in place measures and policies that protect HIV-positive sex workers from those situations and circumstances that force them to relocate. Without such measures in place, it will be difficult to curtail the spread of the epidemic among sex workers, their clients and ultimately, the general population.

Although the moral norms surrounding sex work in Nigeria may be the single most important factor that engenders stigmatising attitudes and puts pressure on HIV-positive sex workers to relocate, there are also legal and policy constraints that make it difficult to address these problems among sex workers and society as a whole. For instance, because of legal constraints to sex work, the brothel management are unable to create an enabling environment to encourage sex workers and their clients to adopt protective measures in risky sexual encounters. The implication is that it facilitates a carefree attitude among sex workers and also disempowers them from insisting on condoms and other protective measures when some clients refuse to co-operate, thereby increasing their vulnerability to HIV infection.

The success of a previous intervention among FSWs in Calabar, Nigeria, was attributed to the support and official endorsement of law enforcement agents and the involvement of the wider community in advocating for the rights of FSWs (Esu-Williams, 1995). This underscores the importance of relaxing current legal and policy restrictions that incapacitate FSWs and brothel owners. Decriminalising sex work could therefore potentially enhance the country's efforts at curtailing the spread of HIV, not only among sex workers and their clients, but also in the general population. Moreover, there is ample evidence from other contexts regarding the benefits to sex workers, their clients and the general population when sex work is decriminalised, and programmes and policies that promote protective behaviour among sex workers and their clients are put in place (Cohen, 2004; Ford, 2006; Foss, Hossain, Vickerman, & Watts, 2007; Jana, Basu, Rotheram-Borus & Newman, 2004; Rojanapithayakorn, 2006; Shahmanesh & Wayal, 2004; Vickerman *et al.*, 2006). For instance, in settings where sex work is decriminalised, sex workers, brothel owners and entire communities have been active in monitoring the implementation of intervention programmes and policies that promote safe sex among brothel-based sex workers, and this has resulted in huge increases in condom usage, contributing to low HIV prevalence in the general population. Although, decriminalising sex work in Nigeria could be very controversial, if this is done, brothels and individual FSWs would be empowered to take measures that protect their health as well as legal and human rights, and this would ultimately result in gains for the country's efforts at curtailing the AIDS epidemic.

Conclusion

Overall, our findings suggest that the vulnerability of sex workers to HIV infection is regulated by a complex set of factors, which are often beyond the control of the individual sex worker, and these should be the focus of prevention interventions as well as policy initiatives to address the problem of HIV among sex workers. Current health promotion messages are inadequate in addressing the complexities of commercial sex work in Nigeria. For example, advising sex workers to limit the number of partners or always to use condoms, when the fee for one session of unprotected sex can equal two or three days' income, is impractical and a difficult behaviour to adapt.

To succeed, interventions aimed at vulnerable groups need to engage them in developing programmes that are relevant to their circumstances (Kaddour, Hafez & Zurayk, 2005; Obermeyer,

1999). Therefore, more efforts should be devoted to engaging and encouraging sex workers to be involved in developing effective sexual health messages that take account of the circumstances surrounding their lives. Without this, economic survival and the contextual circumstances of FSWs lives will continue to make current safe-sex messages obsolete and impractical.

Furthermore, it would be important to put in place measures that give the brothel management greater roles in participating in interventions aimed at addressing stigma, encouraging protective sex and generally removing social, economic and legal constraints that disempower FSWs. In this regard comprehensive interventions that focus on individual and structural factors that increase sex workers' vulnerabilities are urgently required. Examples from India (Cohen, 2004; Jana *et al.*, 2004), Thailand (Hanenberg, Rojanapithayakorn, Kunasol & Sokal, 1994), and in sub-Saharan Africa (UNAIDS, 2008) prove the effectiveness of addressing structural and individual risk factors, especially among sex workers operating in brothels.

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