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Female Sex Workers and Their Gatekeepers in China: Implications for HIV/STI Prevention

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Abstract

Female sex workers (FSWs) play a key role in HIV/AIDS transmission and their gatekeepers play a crucial role in shaping their behaviors. Limited studies are available on the relationship between FSWs and gatekeepers. In the current study we used an ethnographic approach to examine the dynamic and multidimensional relationship of FSWs and their gatekeepers from the perspectives of both parties. We recruited 38 FSWs and 16 gatekeepers from different types of commercial sex venues in Guangxi, China, and conducted in-depth individual interviews. Our data suggest that FSWs and gatekeepers maintain an interdependent and reciprocal relationship during their business practice, but gatekeepers exert significant influence and control over FSWs. Designing culturally appropriate HIV/STI-prevention programs requires us to take advantage of the unique and crucial roles of gatekeepers. We conclude with a call for structural interventions to protect FSWs' occupational health and safety.

Keywords

Asia; China, Chinese culture; HIV/AIDS prevention, sex workers; workplace

Within the global HIV/AIDS epidemic, female sex workers (FSWs)¹ constitute one of four key populations with respect to HIV infection and transmission because of their vulnerability and the potential role they play in transmission to the general public (Scambler & Paoli, 2008). In studies of FSWs and HIV-related risk, there is a growing consensus that the behaviors of FSWs are determined not just by individual attributes but more by a variety of environmental and structural factors, including social networks, social norms, policies,

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¹ We use the abbreviation "FSWs" throughout the article solely for the sake of brevity.

and legislation (Morisky, Pena, Tiglaio, & Liu, 2002; Shannon et al., 2008; Sweat & Denison, 1995).

In many countries where commercial sex is illegal, the majority of FSWs work in entertainment venues or personal service sectors such as bars, nightclubs, disco houses, karaoke centers, or massage parlors (Huang, Henderson, Pan, & Cohen, 2004). HIV-prevention programs that target FSWs have recognized the crucial role of venue gatekeepers, who are one of the primary foci in commercial sex venues (Ghose, Swendeman, & George, 2011; Kerrigan et al., 2003). Despite this recognition, studies examining FSW–gatekeeper relationships are limited.

According to Corra and Willer (2002), “Gatekeepers control access to benefits that they do not own” (p. 180). In the commercial sex industry, the word *gatekeeper* refers to individuals who manage sex workers. Commonly known as mommies, madams, managers, bosses, brothel owners, or pimps (Yang et al., 2005), gatekeepers are the brokers in access to clients and provide “protection” for FSWs. At least four types of power relationships between gatekeepers and FSWs have been identified: slave-based, live-in, employment-based, and self-employed (Huang & Pan, 2004; Pan, 1997).

The dynamic power relationship between gatekeepers and FSWs is embedded in a complex social environment of working places, gatekeepers, clients, law enforcement authorities, health professionals, and FSWs’ personal social networks (Yi et al., 2012). Gatekeepers are believed to be point personnel for these complex interactions, as they are not only the intermediaries of the sex trade but also protectors FSWs (Kerrigan et al., 2003; Morisky, Chiao, Stein, & Malow, 2005; Yang et al., 2005; Yi et al., 2012; Zhang, Hong, et al., 2013; Zhang, Li, et al., 2013). Studies have shown that the level of support for gatekeepers is significantly associated with the occupational safety of FSWs (Yang et al.; Yi et al., 2012), but qualitative data are lacking regarding the context of the FSW–gatekeeper relationship.

In China, commercial sex has experienced a resurgence since the early 1980s, when China began its economic reforms. The “flourishing” sex industry has been driven and reinforced by economic disparities, increasing disposable income, population movement, and changing norms of sexuality (Gil, Wang, Anderson, Lin, & Wu, 1996). During the past three decades, government policies with regard to commercial sex have shifted from “elimination of a social evil” to a more pragmatic approach of control under high pressure of the growing HIV/AIDS epidemic (Ren, 1999; Wu, Sullivan, Wang, Rotheram-Borus, & Detels, 2007).

Commercial sex is still illegal in China, but the laws were changed in 1999 so that sex workers and clients could be arrested only “at the scene” (Tucker, Ren, & Sapio, 2010). Nevertheless, local government and police still organize periodic “strike-hard” campaigns, typically motivated by political ideology and a show of power; and FSWs are subject to fines or incarceration if arrested (Jefferys, 2004; Tucker et al., 2010). The potential of enormous financial benefits leads most local governments to be permissive or actually promote entertainment venues and personal service sectors that potentially provide sexual services. In certain areas, commercial sex venues have become the “pillar” of the service industry, and commercial sex venues have become an indispensable part of business negotiation, social

networking, and a demonstration of masculinity in the new materialist and nationalist culture of China (Zheng, 2009). An estimated 1 to 10 million FSWs work in China (Hong & Li, 2008; Huang et al., 2004).

FSWs are called *Xiaojie* (literally “miss,” in English), and the gatekeepers are called mommies in China, although some gatekeepers are male (Liao et al., 2006). Limited research is available on the FSW–gatekeeper relationship, and most studies have been quantitative and focused on gatekeepers’ attitudes toward condom use (Hong, Fang, Li, Liu, & Li, 2008; Li, Li, Stanton, Fang, & Zhao, 2010; Yang et al., 2005; Zhang, Hong, et al., 2013). Few studies have provided an in-depth analysis of the dynamic interactions between FSWs and gatekeepers and the context of their relationship. Furthermore, most studies of the FSW–gatekeeper relationship have been based on data from FSWs, with little input from gatekeepers. To address this gap, we conducted the current study based on in-depth interviews with gatekeepers and FSWs, with the aim to illuminate the interdependent and reciprocal relationships between them, including venue operation and employment arrangements, condom-use policies, communications, and practices.

Methods

Study Site

The data were collected in B City of the Guangxi Zhuang Autonomous Region (Guangxi) in 2008. Guangxi, a multiethnic region located in southeastern China, has witnessed an alarming increase of HIV cases in the past decade. A total of 69,548 HIV/AIDS cases were reported in June 2011, placing Guangxi second among 31 Chinese provinces in terms of HIV seropositive cases. In the first half of 2009, on average, 30 new cases were reported each day, placing Guangxi first in the nation in terms of new cases reported. The HIV epidemiological trend in Guangxi is similar to that of greater China. Typically, injecting drug users were the major source of HIV infection, but sexual transmission has increased so rapidly in recent years that it accounted for 65% of new infections from 2008 to 2009. HIV prevalence among FSWs ranged from 1% to 11% in sentinel surveillance sites in Guangxi (Guangxi Center for Disease Control and Prevention [CDC], 2009).

B City is located in the southern part of Guangxi and has a population more than 1 million people in the metropolitan area, including an urban population of 550,000. The city is famous for its beautiful beaches and attracts more than four million tourists each year. Because of significant tourism, commercial sex flourishes in the city. The local CDC estimated there were at least 155 commercial sex venues, including hair salons, massage parlors, sauna houses, nightclubs and karaoke (KTV) houses, roadside restaurants, bath centers, and small hotels in the urban areas, with an estimated 1,565 FSWs. Furthermore, there were several locations where women solicited business along the seashore and had sex with male clients in the sea or on the beach (i.e., “swimming companions”). An additional 1,000 FSWs worked in nonvenue-based places or suburban areas, totaling an estimated 2,500 FSWs in the metropolitan area.

Interview Guide

An interview guide was developed based on the theory of gatekeepers (Corra & Willer 2002), structural HIV prevention (Shannon et al., 2008), literature on commercial sex in China (Choi & Holroyd, 2007; Huang et al., 2004), and our previous ethnographic studies with FSWs in Guangxi (Hong et al., 2008). Key stakeholders, including FSWs, gatekeepers, local community leaders (both formal and informal), health care providers, government officials, and project staff provided input for the guide, which was designed to elicit information regarding the personal and social experiences of FSWs and gatekeepers.

The resulting interview guide consisted of open-ended questions with suggested probes covering several broad topics: (a) personal experience in the sex trade and in working venues; (b) the relationship between FSWs and gatekeepers; (c) HIV-related risks to FSWs; (d) barriers to HIV prevention; (e) the role of gatekeepers in decision making by FSWs; and (f) effective programs to reduce HIV risk among FSWs, as well as the role of gatekeepers in implementing these programs. The interview guide included open-ended questions to encourage extended responses.

Participants and Data Collection

The research team and local health workers first constructed a sampling scheme by stratifying the target venues that were known to provide sexual services based on their size, type, and services through ethnographic mapping. Second, we approached the establishments in each stratum according to the sampling scheme. After establishing a rapport with the venue owners, we explained the purpose of the study and asked for their participation. Once we received consent from the gatekeepers to participate, local outreach workers approached eligible women at the establishments, explained the purpose, procedures, potential benefits, and potential risks of the study, and invited them to participate.

Women were informed that participation in the study was completely voluntary and that they could withdraw from that study at any time. Approximately one third of the venues and 30% of the women we approached declined to participate. Because of study protocol on confidentiality and voluntary participation, we did not obtain information regarding the reasons for refusal. At each venue identified, we asked between one and three FSWs to participate. A total of 16 gatekeepers and 38 FSWs participated in the study.

Individual, in-depth interviews were conducted in places convenient for the participants. Interviews took place in private rooms at the venue, in hotel rooms, or in private rooms provided by the local CDC. All interviewers were proficient in qualitative interviewing and had prior research experience with FSWs. Each participant was assured of confidentiality in the study and provided with written informed consent before the interview started. Each interview took about 60 to 90 minutes. No financial incentive was provided for participation. All interviews were audio-recorded and transcribed. The study protocol was approved by the Institutional Review Boards (IRBs) of Texas A&M University and Wayne State University in the United States and Beijing Normal University in China.

Data Analysis

All interview transcripts and field notes were entered into ATLAS.ti (v6.0). Data analysis followed the procedure outlined by Ryan and Bernard (2000): theme identification, codebook building, text mark up, model construction (i.e., identification of relationships among the codes), and model testing against empirical data. Preliminary coding started with the reading and rereading of the transcripts by the research team members. Coding themes were developed from the interview guide and new themes emerged during the interview and coding process (LeCompte & Schensul, 1999; Rubin & Rubin, 1995; Silverman, 1993).

In the second stage of data analysis, two researchers independently coded all transcripts using the themes developed in the first phase and following the procedures outlined in recent qualitative literature (La Pelle, 2004; Ryan, 2004). Interrater reliability was 80%. Coding disagreements were reconciled successfully after discussion with all research team members. Detailed summaries with substantial retention of original quotes were prepared to facilitate discussion and elaboration. Quote excerpts and summaries were then categorized by participant characteristics and the coding domains; they were further compared and reviewed for interrelationships and correspondence with coding and a conceptual framework (Rubin & Rubin, 1995; Ryan & Bernard, 2000). The findings presented in this article reflect the range of responses, with some indication of the more consistent responses.

Participant Characteristics

We interviewed 16 gatekeepers and 38 FSWs. The ages of gatekeepers ranged from 20 to 60, with a mean age of 39 years. Of these gatekeepers, 5 were men and 11 were women; 5 were owners of massage parlors, 4 were managers or supervisors of saunas or massage parlors at hotels, 3 were from hair-washing rooms, and the remaining 3 worked at a KTV, card-playing house, and roadside restaurant (i.e., a roadside brothel that provides both dining and sexual services), respectively. The sizes of venues, as measured by the number of FSWs, varied from 5 to 30 FSWs. Recruited FSWs worked in nightclubs, hotel saunas, massage parlors, hair-washing rooms, or at the beach/on the street. In addition to these venue-based services, some FSWs also worked as a “second wives,” providing long-term sexual services to married men.

These women ranged in age from 18 to 44, with a median age of 30 years. Significant age differences were observed among women working at different locations. Women working in hotel saunas were the youngest, with a mean age of 20, whereas women working at the beach as swimming companions had an average age of 38. The street-based FSWs were the oldest, with a mean age of 42. Most FSWs had other legitimate occupations before working as FSWs; however, 5 FSWs entered commercial sex as their first job. The length of time working in the sex industry varied from 10 days to more than 10 years. Women working at high-paying venues had a much shorter tenure at their current venue compared to peers who worked at low-paying venues. About two thirds of the participants had stable sexual partners and half of them had children who lived in their hometown.

Results

Venue Operation and Employment Arrangement

Three main types of working relationships were identified between FSWs and gatekeepers in B city. The first type, live-in FSWs, featured close monitoring and control by the gatekeeper, and was commonly seen in low-paying venues such as massage parlors. In such venues, FSWs called their gatekeeper “boss” and the gatekeeper usually owned the establishment. Housing and work were typically combined to save costs, and FSWs lived with their managers in the same building. One woman revealed, “We all live and work here. The first floor is a reception area, the second floor is where the massage rooms are, the third floor is for the boss, and we live on the fourth floor” (FSW, age 24 [24], massage parlor [MP]).

In this type of operation, the gatekeeper provided a space for the FSWs to meet clients and a watchful eye for potential law enforcement or abusive clients. The gatekeeper charged the clients an hourly rate for providing the space, and FSWs kept tips from clients. In B city, the typical cover charge was 20 yuan (about \$3.25USD) per hour for most small commercial sex venues. The boss and FSW each kept 10 yuan, and clients offered extra tips to FSWs for each sexual service. Gatekeepers always liked a client to stay longer for sexual services so they could collect more hourly charges. FSWs had relatively less freedom in these venues because they shared space with a gatekeeper nearly 24 hours a day. FSWs were more likely to obey the rules than to advocate for change. A boss remarked, “Most of my girls are quite stable because we provide them with housing and food. With food and lodging, it is easy for them [to stay]” (Gatekeeper [G], male [M], 36, MP).

The second type of commercial sex operation was employment-based. It was commonly seen in KTV. In this type of operation, the gatekeeper usually was not an employee or owner, but a contractor. The gatekeeper, known as “mommy,” was usually a former FSW who supervised a group of 10 to 80 FSWs. The gatekeeper arranged for clients to meet FSWs, who accompanied clients on outings that included singing, drinking, and chatting prior to sexual services. FSWs were not paid by the venue. They kept tips from clients, but were required to pay daily commission to their mommy, regardless of their income level. In this kind of operation, FSWs had more autonomy; they were able to choose their mommy and played a more active role in constructing the rules of their sex trade.

Another type of employment-based operation was seen in venue-based establishments (e.g., hotel-based saunas and massage parlors). Gatekeepers were usually managers of the hotels and they were in charge of scheduling clients, negotiating price, and receiving payment. FSWs were usually not allowed to leave the hotel with clients, and their salary was typically paid on a daily basis by the hotel based on the number of clients and types of services they performed. In general, these venues were well equipped (e.g., air conditioning, massage apparatus, or spa) and clients were charged high rates. FSWs usually received 50% of the total payment that clients paid for their services. Compared to the mommy-managed framework, manager-managed FSWs were more stable in their employment and drank or smoked much less compared to peers who worked in nightclubs or KTVs.

In the third type of operation, self-employment, gatekeepers had the least control over FSWs. With the availability of cell phones, FSWs contracted with several venues; they showed up only when a gatekeeper called to inform them of a business opportunity. These FSWs were seemingly “freelancers,” but they also relied on gatekeepers to meet clients. A gatekeeper stated, “Girls are usually not here. If a client comes up asking for a girl, I will call the girl over” (G, F, 45, hair-washing room [HWR]). Another venue owner commented on how the business operation had changed over the years:

The girls nowadays are all over the place....Seven or eight years ago, many girls lived in this place; but nowadays, few girls live with their bosses. They would make the phone calls asking if I need any girl in my shop. They would give their phone numbers to me and I just call them when clients come. (G, M, 48, HWR)

In B City, a gatekeeper typically charged the client an hourly rate if the sexual encounter took place at the venue. If the client wished to take the FSW out, he was charged an “introduction” fee (e.g., 100 yuan, about \$16USD). This procedure was typically seen in hair-washing rooms, roadside restaurants, and increasingly in other venues. With the cost of living rising, more gatekeepers would like to employ freelancers to save costs.

In contrast to FSWs who had a specific boss or venue for work, self-employed FSWs also found clients by themselves along the beach or on the street. These women tended to be older and charged lower rates for their sexual services compared to their peers in entertainment establishments or personal-service sectors. These FSWs usually charged clients an hourly rate (e.g., 30 to 50 yuan/hour) to be a swimming companion or for chatting. If clients requested sexual services, FSWs negotiated a fee of one to several hundred yuan. Although these FSWs did not have a fixed gatekeeper to supervise or arrange their business, they usually lived together and had an opinion leader who played an influential role in their life. One FSW commented,

Although we don’t have a boss to arrange our business, we do have a lead who is in charge of dozens of misses in this area. She gets along with us very well and she usually distributes free condoms and provides information regarding testing and counseling services to us. We also ask for help from her if we get into any trouble. (FSW, 33, swimming companion [SC])

Interdependent and Reciprocal Relationships

In venue-based commercial sex, gatekeepers relied on FSWs to make money. In most of the operation styles described above, the gatekeeper collected a good portion of money from the FSWs; more importantly, gatekeepers provided a safe place for FSWs to meet clients and protected FSWs from abuse (Yi et al., 2012).

Recruitment of FSWs.—The gatekeeper–FSW relationship began even before an FSW worked at a gatekeeper’s venue. Because of the illegal nature of commercial sex, FSWs were typically recruited through the introduction of a fellow villager who also worked in the sex industry. In many of the commercial sex venues we visited, the FSWs typically came from the same province and sometimes the same county. Although live-in FSWs appeared to have stronger connections compared to their non-live-in peers, no significant differences in

patterns of recruitment were detected among FSWs in different modes of sex work practice. One gatekeeper commented about recruiting FSWs, “I don’t have a problem finding the girls. The girls find us. Usually one follows the other and they come as a group” (G, F, 30, nightclub [N]).

Gatekeepers’ role in the business arrangement.—Although gatekeepers relied on FSWs to make money for them, they often had the power to arrange business for their own best interests, usually with an eye toward maintaining a regular business flow. One FSW commented, “If the client has any preference, he would pick the girl; otherwise, the boss would make the arrangement. For example, if a girl has had clients today, he would send the other girl who did not have a client” (FSW, 29, MP).

Gatekeepers’ relationship with the government and law enforcement.—Because of the secrecy, illegality, and stigma associated with commercial sex, the interdependent relationship between FSWs and gatekeepers extended far beyond a business arrangement; for instance, FSWs relied on gatekeepers to avoid legal trouble. Although the laws were changed in 1999 so that FSWs can be arrested only “at the scene,” many arrests were made each year in different kinds of “crack-down” or “clean-up” actions. Large fines were often imposed without appropriate charges or conviction (Tucker et al., 2010). Therefore, considerable resources were necessary to operate a commercial sex venue safely. An experienced owner of a massage parlor shared his distress about running a business:

Too many times I thought of quitting, especially in the first couple of years. The police came to harass too often. Once, I went up to the police station and told them this: “If you dare to publically harass my parlor and ruin my business, be careful with your wife and children!” The situation got better after that. Some cops [police] have come here for massages with their friends. I’ve never charged them; it’s all free for them. I even bought drinks and cigarettes for them. (G, M, 46, restaurant [R]).

Most FSWs in the current study had not been arrested because they received warnings from their gatekeepers before “strike-hard” campaigns began. Despite the precautions, accidents happened, especially in large-scale “strike-hard” campaigns. When FSWs were arrested, gatekeepers usually helped to bail them out of jail. After the FSWs were released, they needed to work harder to pay the gatekeeper back for the fines. One gatekeeper shared a recent experience:

Last year, police in B City arrested more than 100 girls. So the business got very bad. Many girls had to flee to other cities. In the past, the police usually fined the girls and didn’t detain them. Last year, many girls were detained, and their bosses had to pay a lot of money to get them out. (G, F, 30, HWR)

FSWs need gatekeepers to deal with gangsters and abusive clients.—In addition to police raids, abusive clients and gangsters often targeted FSWs. Because commercial sex is illegal, FSWs are not afforded the same legal protections as other citizens. FSWs rarely called police for help when encountering an abusive client; they usually turned to gatekeepers. FSWs working in entertainment establishments such as nightclubs had less

risk compared to those working in personal-service sectors such as massage parlors; those at the bottom of the sex work hierarchy, (i.e., street walkers) were most vulnerable to physical abuse (Yi et al., 2010).

Gatekeepers had varying strategies to help FSWs deal with abusive clients. Sometimes, the simple presence of a gatekeeper could help deter an abusive client; however, even gatekeepers could not always help, given that they were not protected by law:

Some gangsters posed as cops, and they raped a young girl in my place. I didn't know until the next day when the girl cried and told me. I went to those guys and asked them to pay the girl 500 yuan, but they refused. They not only refused, but they also called a gang to smash my place; they literally smashed my place. (G, M, 37, MP)

More than employer and employee.—Because of their reciprocal and interdependent relationship, FSWs and gatekeepers often developed an association that went beyond employer and employee. For live-in FSWs, especially, their relationship with their gatekeeper was more akin to family, in which the gatekeeper was the authoritative father. A gatekeeper commented,

The girls are more than just employees. I am their big brother; they are my little sisters. Sometimes, when they do things wrong, I would yell at them, and they would be scared; but they know I have a temper. It happens when they do something seriously wrong, like they don't treat the clients nicely. (G, M, 46, R)

The relationship between employment-based FSWs and their gatekeeper was more economically driven: “The boss rarely says bad words to us. He rarely says nasty words to us either, because he wants you to stay longer to make more money for him” (FSW, 25, MP).

Condom-Use Policy and HIV/STI-related Communication in the Venues

Regardless of working and living conditions, keeping FSWs healthy and attractive was in the best interest of the gatekeepers. Although gatekeepers were concerned with the general health of FSWs, their attitudes toward condom use, especially communication regarding condom use within the venues, varied substantially. Such differences were less related to the venue type and more related to the trust and intimacy between FSWs and gatekeepers. In venues where FSWs and gatekeepers were closer, the topics of condom use or general health were often brought up, although sometimes the information provided by the gatekeepers was not completely accurate:

I am always concerned with their health. I tell them to pay more attention to their personal hygiene. They should always wash their hands after massage, and I tell them to prepare condoms. I also encourage them to douche after the services. (G, F, 60, MP)

In venues where FSWs and gatekeepers were less intimate, usually because of high turnover rates or the gatekeeper simply avoiding potential trouble, condom use communication rarely happened.

The boss never talks about condom use. He pretends he doesn't know [the sex business]. There is no talk about condom use or HIV prevention among girls either. Nobody talks about this. We only talk about which client is rich or which is decent (FSW, age 31, massage parlor).

Gatekeepers who avoided such topics stated that FSWs had enough knowledge on this subject. One said, "I don't need to tell them about this [condom use]. The girls today know about this more than I do" (G, F, 20, sauna in hotel [SIH]). In the venues where gatekeepers communicated about condom use or HIV/STI prevention, FSWs were more likely to report condom use with clients. Lack of communication on condom use within a venue not only reflected less intimacy between gatekeepers and FSWs, but led to less trust or loyalty from FSWs regarding their gatekeepers: "The boss doesn't care if we have abortions. We have to take some days off and go to the hospital to take care of that, all on our money" (FSW, 26, MP).

Attitudes Toward HIV/STI-Prevention Programs

Although some gatekeepers were communicative with their FSWs regarding condom use, few were enthusiastic about organized HIV/STI-prevention programs targeting FSWs. They were concerned with the stigma associated with commercial sex, and more importantly, fearful of interruption of their business and other related troubles:

Girls would not participate in the program because they are afraid. They would feel ashamed. They don't want to be publically identified as misses. If you organize such a program and want to have face-to-face training with girls, I could tell you most of the girls would not show up. (G, F, 45, HWR)

Some gatekeepers cited not having time or enough knowledge about prevention programs: "If we have time, we would go. We all know about condom use and all girls use condoms with clients. There is nothing more we need to learn" (G, M, 36, MP).

In contrast, FSWs showed more positive attitudes toward HIV/STI-prevention programs. Many believed that gatekeepers should also be included in the programs. For example, one proposed, "I think it is more important to train the boss, so he can remind us constantly" (FSW, 29, MP). However, most FSWs thought that receiving the training directly would benefit them more, especially those who did not trust their gatekeepers: "It is better to train the girls. The boss doesn't care about us. He has his business to take care of. He never talks about this with us" (FSW, 21, sauna house [SH]). Having no access to such services, many FSWs had used the Internet as a source of information: "I myself often go online to look for such information. I like to know what infection I have when I have the symptoms, and how to deal with them" (FSW, 20, SH).

Discussion

We believe the data presented contribute to the current debate about structure and agency within the sex industry (Choi & Holroyd, 2007; Shannon et al., 2009; Sherman, Reuben, Chapman, & Lileston, 2011). We provided a detailed description of the dynamic and multidimensional nature of FSW–gatekeeper relationships at different types of venues and in

different modes of sex work practice. Their relationship is reciprocal because FSWs bring business and money to gatekeepers, who in turn serve as recruiters, space providers, business mediators, and protectors of FSWs. Gatekeepers also serve as an important social network agent and source of social capital for FSWs (Yi et al., 2012; Zhang, Hong, et al., 2013).

Several considerations must be noted when interpreting the findings of this study. First, similar to other ethnographic investigations, we must be aware of the role of the researcher in both collecting and interpreting data. Although our experienced interviewers developed a strong rapport with participants and followed a strict IRB protocol to maintain confidentiality, the findings presented in the study might derive only from experiences participants chose to share with the interviewers. Furthermore, data interpretation was inevitably subject to our own backgrounds and biases, which were informed not only by life experiences but also by prior research with FSWs and the sex industry in China.

We also need to be aware of potential biases from study methods. For instance, we employed an ethnographic targeted sampling approach, which might have led to an unrepresentative sample and induced voluntary bias. Findings in the current study might be constrained by the self-selection of participants, because participation in our study was voluntary. We also need to be aware that the FSW–gatekeeper relationship varies substantially across venues and differs significantly between individual FSWs. Last but not least, the current investigation was designed to study the FSW–gatekeeper relationship, so we collected data mainly from FSWs and gatekeepers. Although the operation and characteristics of venues were also included, we did not collect sufficient contextual factors from other social agents, such as FSWs’ clients and partners, the police, and health care providers, which are also important in shaping the FSW–gatekeeper relationship.

In China’s sex industry, gatekeepers exert undue influence and control over FSWs. However, an increasing number of FSWs are less dependent on particular gatekeepers because of cell phones, although they still rely on them for business opportunities, safe space, and protection. Such an imbalanced power relationship is shaped by institutional factors, such as criminalization and stigmatization of sex work (Choi & Holroyd, 2007). The gatekeeper-centered sex work structure in our study sheds light on the potential of implementing environmental-structural HIV interventions within the FSW population in China (Sumartojo, 2000; Sweat & Denison, 1995).

Researchers have suggested that structural interventions that integrate gatekeepers have shown significant effectiveness (Jana, Basu, Rotheram-Borus, & Newman, 2004; Rojanapithayakorn & Hanenberg, 1996; Shahmanesh, Patel, Mabey, & Cowan, 2008). However, we found few empirical data exploring structural interventions for FSWs, especially in China (Hong & Li, 2009).

Our data indicate that gatekeepers not only decide the condom-use policies in the venue, but they are also the crucial agent in the communication of HIV prevention in the venue. Their motivation to engage in HIV prevention for FSWs is driven by financial interest; maintaining a healthy workforce in the venue is often secondary to the desire to reduce interruption of their business and to stay out of legal trouble.

These findings tell us that when designing an HIV-prevention program targeting venue-based FSWs, we need first to recognize the financial interests of the gatekeepers and design strategies compatible with their needs. We should also note that gatekeepers provide a safe physical and social space for FSWs (Lilleston, Reuben, & Sherman, 2012), so removing gatekeepers from venues for the purposes of HIV prevention might not be as effective as venue-based programs that involve both parties. Instead, we should take advantage of the unique and crucial roles of gatekeepers in our effort to prevent and control HIV and promote the wellbeing of FSWs. Gatekeepers can play a key role in transforming commercial sex venues into health-promoting workplaces. While recognizing the needs of gatekeepers, we can mobilize them as popular-opinion leaders and health educators, so the social norms of safe sex and general well-being can be established and maintained (Ghose et al., 2011).

Our data also suggest that interventions should be designed for FSWs working at different levels or different types of commercial sex venues. More attention should be paid to FSWs who are living in a venue or are self-employed, because they are at the bottom of the commercial sex hierarchy. In addition, the programs for FSWs should not focus just on HIV/STI prevention, but also on building a trusting FSW–gatekeeper relationship and a strong collective FSW community (Blankenship, Biradavolu, Jena, & George, 2010; Choi & Holroyd, 2007).

To conclude, the FSW–gatekeeper relationship is a crucial element of the structural environment for FSWs. Working closely with gatekeepers is a promising way to reduce structural health risk factors and promote occupational safety among FSWs in China.

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References

- Blankenship KM, Biradavolu MR, Jena A, & George A (2010). Challenging the stigmatization of female sex workers through a community-led structural intervention: Learning from a case study of a female sex worker intervention in Andhra Pradesh, India. *AIDS Care*, 22(Suppl. 2), 1629–1636. doi:10.1080/09540121.2010.516342. [PubMed: 21161768]
- Choi SY, & Holroyd E (2007). The influence of power, poverty and agency in the negotiation of condom use for female sex workers in mainland China. *Culture Health & Sexuality*, 9, 489–503. doi:10.1080/13691050701220446
- Corra M, & Willer D (2002). The gatekeeper. *Sociological Theory*, 20, 180–207. doi: 10.1111/1467-9558.00158
- Ghose T, Swendeman DT, & George SM (2011). The role of brothels in reducing HIV risk in Sonagachi, India. *Qualitative Health Research*, 21, 587–600. doi:10.1177/1049732310395328 [PubMed: 21266706]
- Gil VE, Wang MS, Anderson AF, Lin GM, & Wu ZO (1996). Prostitutes, prostitution and STD/HIV transmission in mainland China. *Social Science and Medicine*, 42, 141–152. doi: 10.1016/0277-9536(95)00064-X [PubMed: 8745115]
- Guangxi Center for Disease Control and Prevention. (2009). Update on HIV/AIDS epidemic in Guangxi. Nanning, Guangxi, China: Author.
- Hong Y, Fang X, Li X, Liu Y, & Li M (2008). Environmental support and HIV prevention behaviors among female sex workers in China. *Sexually Transmitted Diseases*, 35, 662–667. doi:10.1097/OLQ.0b013e31816b322c
- Hong Y, & Li X (2008). Behavioral studies of female sex workers in China: A literature review and recommendation for future research. *AIDS & Behavior*, 12, 623–636. doi:10.1007/s10461-007-9287-7 [PubMed: 17694431]
- Hong Y, & Li X (2009). HIV/AIDS behavioral interventions in China: A literature review and recommendation for future research. *AIDS & Behavior*, 13, 603–613. doi:10.1007/s10461-008-9483-0 [PubMed: 19015973]
- Huang Y, Henderson GE, Pan S, & Cohen MS (2004). HIV/AIDS risk among brothel-based female sex workers in China: Assessing the terms, content, and knowledge of sex work. *Sexually Transmitted Diseases*, 31, 695–700. doi:10.1097/01.olq.0000143107.06988.ea [PubMed: 15502679]
- Huang Y, & Pan S (2004). Job mobility of brothel-based female sex workers in current northeast China: The process from “Xiangang” worker lay-offs to sex worker. Retrieved from <http://prostitution.procon.org/sourcefiles/job-mobility-of-brothel-based-female-sex-workers-in-current-north-east-china-the-process-from-xiangang-worker-lay-offs-to-sex-worker.pdf>
- Jana S, Basu I, Rotheram-Borus MJ, & Newman PA (2004). The Sonagachi Project: A sustainable community intervention program. *AIDS Education & Prevention*, 16, 405–414. doi:10.1521/aeap.16.5.405.48734 [PubMed: 15491952]
- Jeffreys E (2004). *China, sex, and prostitution*. New York: Routledge.
- Kerrigan D, Ellen JM, Moreno L, Rosario S, Katz J, Celentano DD, & Sweat M (2003). Environmental-structural factors significantly associated with consistent condom use among female sex workers in the Dominican Republic. *AIDS*, 17, 415–423. doi:10.1097/01.aids.000-0050787.28043.2b [PubMed: 12556696]
- La Pelle N (2004). Simplifying qualitative data analysis using general purpose software tools. *Filed Method*, 16, 85–108. doi:10.1177/1525822X0325922
- LeCompte MD, & Schensul JJ (1999). *Designing and conducting ethnographic research*. Walnut Creek, CA: AltaMira.
- Li Q, Li X, Stanton B, Fang X, & Zhao R (2010). A multilevel analysis of gatekeeper characteristics and consistent condom use among establishment-based female sex workers in Guangxi, China. *Sexually Transmitted Diseases*, 37, 700–705. doi:10.1097/OLQ.0b013e3181e1a2b2 [PubMed: 20539262]

- Liao SS, He QY, Choi KH, Hudes ES, Liao JF, Wang XC, & Mandel JS (2006). Working to prevent HIV/STIs among women in the sex industry in a rural town of Hainan, China. *AIDS & Behavior*, 10, S35–S45. doi:10.1007/s10461-006-9143-1 [PubMed: 16823627]
- Lilleston P, Reuben J, & Sherman SG (2012). “This is our sanctuary”: Perceptions of safety among exotic dancers in Baltimore, Maryland. *Health & Place*, 18, 561–567. doi:10.1016/j.healthplace.2012.01.009 [PubMed: 22361635]
- Morisky DE, Chiao C, Stein JA, & Malow R (2005). Impact of social and structural influence interventions on condom use and sexually transmitted infections among establishment-based female bar workers in the Philippines. *Journal of Psychology and Human Sexuality*, 17, 45–63. doi:10.1300/J056v17n01_04 [PubMed: 21666753]
- Morisky DE, Pena M, Tiglaio TV, & Liu KY (2002). The impact of the work environment on condom use among female bar workers in the Philippines. *Health Education & Behavior*, 29, 461–472. doi:10.1177/109-01981020290040 [PubMed: 12137239]
- Pan S (1997). Three red light district in south of China. Guangzhou, China: Qunyan Chubanshe Press.
- Ren X (1999). Prostitution and economic modernization in China. *Violence Against Women*, 5, 1411–1436. doi:10.1177/10778019922183453
- Rojanapithayakorn W, & Hanenberg R (1996). The 100% condom program in Thailand. *AIDS*, 10, 1–7. Retrieved from http://journals.lww.com/aidsonline/Citation/1996/01000/The_100Condom_Program_in_Thailand.1.aspx
- Rubin H, & Rubin I (1995). *Qualitative interviewing: The art of hearing data*. Thousand Oaks, CA: Sage.
- Ryan GW (2004). Using a word processor to tag and retrieve blocks of text. *Field Methods*, 16, 109–130. doi:10.1177/1525822X03261269
- Ryan GW, & Bernard HR (2000). Data management and analysis methods In Denzin NK & Lincoln YS (Eds.), *Handbook of qualitative research* (2nd ed., pp. 769–801). Thousand Oaks, CA: Sage.
- Scambler G, & Paoli F (2008). Health work, female sex workers and HIV/AIDS: Global and local dimensions of stigma and deviance as barriers to effective interventions. *Social Science & Medicine*, 66, 1848–1862. doi:10.1016/j.socscimed.2008.01.002 [PubMed: 18295948]
- Shahmanesh M, Patel V, Mabey D, & Cowan F (2008). Effectiveness of interventions for the prevention of HIV and other sexually transmitted infections in female sex workers in resource poor setting: A systematic review. *Tropical Medicine & International Health*, 13, 659–679. doi:10.1111/j.1365-3156.2008.02040.x [PubMed: 18266784]
- Shannon K, Kerr T, Allinott S, Chettiar J, Shoveller J, & Tyndall MW (2008). Social and structural violence and power relations in mitigating HIV risk of drug-using women in survival sex work. *Social Science & Medicine*, 66, 911–921. doi:10.1016/j.socscimed.2007.11.008 [PubMed: 18155336]
- Shannon K, Strathdee SA, Shoveller J, Rusch M, Kerr T, & Tyndall MW (2009). Structural and environmental barriers to condom use negotiation with clients among female sex workers: Implications for HIV-prevention strategies and policy. *American Journal of Public Health*, 99, 659–665. doi:10.2105/AJPH.2007.129858 [PubMed: 19197086]
- Sherman SG, Reuben J, Chapman CS, & Lilleston P (2011). Risks associated with crack cocaine smoking among exotic dancers in Baltimore, MD. *Drug & Alcohol Dependence*, 114, 249–252. doi:10.1016/j.drugalc-dep.2010.10.003 [PubMed: 21093992]
- Silverman D (1993). *Interpreting qualitative data: Methods for analysing talk, text, and interaction*. Thousand Oaks, CA: Sage.
- Sumartojo E (2000). Structural factors in HIV prevention: Concepts, examples, and implications for research. *AIDS*, 14, S3–S10. Retrieved from http://journals.lww.com/aidsonline/Fulltext/2000/06001/Structural_factors_in_HIV_prevention_concepts.2.aspx
- Sweat MD, & Denison JA (1995). Reducing HIV incidence in developing countries with structural and environmental interventions. *AIDS*, S251–S257. Retrieved from www.ncbi.nlm.nih.gov/pubmed/8819593 [PubMed: 8819593]
- Tucker J, Ren X, & Sapio F (2010). Incarcerated sex workers and HIV prevention in China: Social suffering and social justice countermeasures. *Social Science & Medicine*, 70, 121–129. doi:10.1016/j.socscimed.2009.10.010 [PubMed: 19880233]

- Wu Z, Sullivan SG, Wang Y, Rotheram-Borus MJ, & Detels R (2007). Evolution of China's response to HIV/AIDS. *Lancet*, 369, 679–690. doi:10.1016/S0140-6736(07)60315-8 [PubMed: 17321313]
- Yang H, Li X, Stanton B, Fang X, Zhao R, Dong B, & Hong Y (2005). Condom use among female sex workers in China: Role of gatekeepers. *Sexually Transmitted Diseases*, 32, 572–580. doi: 10.1097/01.olq.0000175418.48665.95
- Yi H, Mantell JE, Wu R, Lu Z, Zeng J, & Wan Y (2010). A profile of HIV risk factors in the context of sex work environments among migrant female sex workers in Beijing, China. *Psychology, Health & Medicine*, 15, 172–187. doi:10.1080/13548501003623914
- Yi H, Zheng T, Wan Y, Mantell JE, Park M, & Csete J (2012). Occupational safety and HIV risk among female sex workers in China: A mixed-methods analysis of sex-work harms and mummies. *Global Public Health*, 7, 840–855. doi:10.1080/17441692.2012.662991 [PubMed: 22375698]
- Zheng T (2009). *Red lights: The lives of sex workers in postsocialist China*. Minneapolis: University of Minnesota Press.
- Zhang C, Hong Y, Li X, Zhou Y, Liu W, Shan Q, & Su S (2013). Psychological stressors in the context of commercial sex among female sex workers in China. *Healthcare for Women International*. Advance online publication. doi:10.1080/07399332.2013.838247
- Zhang C, Li X, Hong Y, Su S, & Zhou Y (2013). Relationship between female sex workers and gatekeeper: The impact on female sex worker's mental health in China. *Psychology, Health & Medicine*. Advance online publication. doi:10.1080/13548506.2013.869612