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Typology of older female sex workers and sexual risks for HIV infection in China: a qualitative study

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Abstract

The HIV epidemic continues to develop among older adults in China, including older female sex workers. Yet, few studies have been conducted among this relatively hidden population. The objectives of this study were to investigate the reasons for women's entry into sex work during their thirties and to develop typology of older women sex workers. Semi-structured in-depth interviews with sixty-three older women sex workers and six focus groups interviews with stakeholders were conducted in three cities in China in 2012. Data were analysed inductively using constant comparative method. The mean age of participants was 43 years old and the mean age of entry into sex work was 39 years old. The primary reasons for entry into sex work include heavy economic burdens, limited employment opportunities, and the appealing nature of sex work. Street-based and venue-based older sex workers were identified based on where they solicited clients. Street-based older sex workers were more likely to engage in unsafe commercial sex due to financial incentives, whereas those in entertainment venues were unlikely to use condoms with regular clients. The development of effective HIV interventions needs to consider older women sex workers unique characteristics and target factors that impede safer sex practices.

Keywords

older women; sex work; sexual risk; China

Introduction

China is now facing a new challenge of a growing HIV epidemic among older adults. According to the China National HIV Surveillance System, the proportion of people living with HIV who were aged 50 years or older increased dramatically from 1.9 % in 2000 to 21.1% in 2011, an 11-fold increase (Ministry of Health of the People's Republic of China, 2012). Commercial sex may be a dominant transmission route, as the majority of PLWHAs who infected at their older age reported having had a history of sex with female sex workers, age 35 years old or older (Li and Juan 2010; Liu *et al.* 2012; Pearline *et al.* 2010). For example, 90% of older people living with HIV in Nanning, the capital city of Guangxi, were infected through heterosexual transmission (Liu *et al.* 2012) while the majority of people living with HIV who were infected at a younger age acquired HIV through injection drug use or sexual contact.

In general, sex work in China has been categorized into three tiers (low, middle, and high) based on where sex workers solicit clients, the price of sex transactions, and socioeconomic status of clients (Chen *et al.* 2012; Hong and Li 2008; Huang *et al.* 2004). Studies have found that sex workers at the low tiers were more likely to engage in unsafe sex and had higher prevalence of HIV and STIs (Li *et al.* 2012).

Older female sex workers and younger sex workers differ in socioeconomic status, reasons for entry into sex work, and the organization of sex work. Our preliminary pilot studies conducted in the same study sites found that older sex workers typically enter into the low-tier sex service in their late 30s. In contrast, younger sex workers enter into the high or middle-tier sex service in their early 20s (Fang *et al.* 2007; Huang *et al.* 2004). When young sex workers earn enough money, they usually quit sex work in their 30s and start their own private businesses (e.g., selling clothes or running beauty salons) (Fang *et al.* 2007; Huang *et al.* 2004). The correlates of sexual risk and HIV/STI prevalence among young sex workers in the high and middle tiers have been well demonstrated in previous research in China (Gu *et al.* 2009; Lau *et al.* 2012; Ruan *et al.* 2006; Wang *et al.* 2009; Yang *et al.* 2005). However, fewer studies have been conducted among older women who primarily work in the lower tier of sex work.

Therefore, there is a critical need to investigate factors that drive women into sex work in their late thirties and to explore the structure and organisation of the sex work industry. Gaining an understanding of the context, structures, and organisation of sex work is an essential prerequisite for identifying sexual risks for HIV infection. Studies of typologies of sex work may provide this needed knowledge (Buzdugan *et al.* 2010; Harcourt and Donovan 2005; Safika, Levy and Johnson 2013). A typology may here be defined as the identification of a classification based on types or categories. Typologies have proved useful across a range of HIV-related research. For example, researchers in India reported that a typology of sex work (i.e., commercial solicitation on streets and sex in brothels) was able to predict a relatively high sexual risk for HIV infection (Buzdugan *et al.* 2010).

We conducted a qualitative study among older women sex workers in three Chinese cities. The objective were to investigate the circumstances in which women in their 30s entered into sex work, to develop a typology of older sex workers, and to examine engagement in sexual risk for each type of older sex workers.

Methods

This study was conducted in three cities in China in 2012: Qingdao (Shandong Province, east China), Hefei (Anhui Province, central China), and Nanning (Guangxi Province, southwest China). The selection of the cities located in different geographic regions of China provides variation in the levels of the HIV epidemic. According to China HIV/AIDS Surveillance data (MOH 2012), Nanning is located in the area with the highest HIV prevalence (10,450 cumulative cases), Hefei in the mid-level of HIV prevalence (1,240 cumulative cases), and Qingdao in the lower level (782 cumulative cases). This qualitative study involved six focus groups with pimps, owners of roadside salons and hotels (53 participants). Sixty-three older women sex workers participated in in-depth interviews (22 in Qingdao, 21 in Hefei, and 20 in Nanning). This report mainly focuses on the findings from the in-depth interviews with older women.

Recruitment and participants

The inclusion criteria for older sex workers were women who (1) had lived in Qingdao, Hefei, or Nanning for at least three months before the study; (2) had exchanged sex for money at least once a week in the past month, and (3) were at least 35 years old. The selection of this age cutoff was based on our previous research with the study population, in which we found that older women sex workers commonly began selling sex when they were aged 35-45 years old and younger sex workers exited sex work before 30 or 35 years old.

Through HIV prevention programmes targeting sex workers, the local Centers for Disease Control and Prevention (CDCs) have developed rapport with sex workers, pimps, and venue owners. Those who worked with the local CDCs as outreach volunteers served as key informants for referrals in this study. In each site, key informants (sex workers, pimps, or owners) were asked to invite 10 pimps (Qingdao, Hefei, and Nanning) or 10 owners of roadside beauty salons (Hefei), each of whom was from different geographic locations where older women sex workers sought clients or had sex. In addition, key informants invited 5 hotel owners whose hotels provided a place for commercial sex at each site. A total of six focus groups were conducted with pimps (Qingdao and Nanning), salon owners (Hefei), and hotel owners (all three sites). After completing each focus group interview, moderators asked each pimp and owner to invite eligible older sex workers to participate in in-depth interviews. To facilitate the appropriate referrals of eligible older sex workers, moderators explained to pimps and owners the eligibility criteria, procedures of in-depth interviews, and commitments of participants.

Interviews

Focus group moderators and in-depth interviewers were local CDC public health staff or graduate students experienced in conducting qualitative research and familiar with the local

culture and sex work. They were trained in methods of conducting interviews, obtaining rapport with interviewees, and probing for additional information. All interviews were conducted in private rooms at the local CDCs, restaurant rooms, or hotel rooms. After the introduction of the study objectives and procedures, informed consent was obtained from the participants. The study protocol was approved by the Institutional Review Boards of the Virginia Commonwealth University and three Chinese institutes (Shandong University School of Public Health, and the Hefei and Nanning Centers for Disease Control and Prevention).

Data analysis

All interviews were digitally-recorded and transcribed by trained team members. The transcripts in Chinese were then entered into Atlas.ti 6.2 for data analysis. Research team members analysed the data thematically in a multi-step process using constant comparative method. Three transcripts were chosen for open coding, which involved reading small segments of text at a time, examining and comparing events and actions, and making notes in the margins regarding contents or analytic thoughts on the primary objective of this study (Sherman *et al.* 2008; Strauss and Corbin 1990). The codes applied in the open coding process were then synthesised into a list to remove redundancy and similar labels were grouped together. After refining smaller level codes into broader thematic categories, a draft coding list was created to code the next three interviews. The list was modified as new themes arose. A final coding theme was developed after all remaining interviews were coded.

Results

Older sex workers were found to work at two types of setting: street-based and venue-based. There were two subgroups among the venue-based women: sex workers who solicited clients at roadside beauty salons, saunas and massage parlours, and sex workers who solicited clients at entertainment venues, such as dance halls or karaoke bars.

Socio-demographic characteristics of study participants

Study participants included women who solicited clients on streets or in parks (44%), at saunas or massage parlours (32%), and at entertainment venues (24%) including dance halls and karaoke bars. Table 1 depicts the demographic characteristics of the study sample. The mean age of participants was 43 years old (range: 35-60 years old). The age of starting sex work ranged from 28 to 53 years old, with a mean age of 39. The majority of the participants were of Han ethnicity (76.2%). Most participants (81%) came from rural areas, and had already lived in the study cities for several years. Only six participants had received a high school education, the highest education level in this sample. All of sex workers in this sample had been married at least once, more than half (57%) of whom were divorced or widowed. Among married participants, only a small number (6 out of 27) lived with their husbands; and 11 participants reported having a poor relationship with their husband. Almost all women (98.4%) had one or more children. Most of their children (73%) were of pre-school or school age. About two thirds of the participants previously worked in low-paid service industries, including as waitresses, housekeepers and shop assistants.

Reasons for entry into sex work

The primary reasons for entry into sex work were economic. Women had usually confronted two major challenges before they started sex work in their 30s: heavy economic burdens and limited employment opportunities. The appealing nature of sex work (i.e., relatively well-paid, unskilled, and less competitive) motivated some of them to enter into sex industry. These reasons were prevalent among both street- and venue-based women.

Economic burdens—Older women's economic burdens arose from unstable marriages and the expense of their children's education. Lack of husband's economic stability and financial support created economic hardships in these women's lives, who traditionally did not work outside of the home and had few options for engaging in income generating. Most study participants were divorced, widowed, or did not obtain sufficient economic support from their husbands, forcing them to rely on themselves. Zhang said,

“My husband did not provide any financial support to our family. I thus could not maintain a good relationship with him. Consequently, I am the only one who provides support to our family” (39 years old, Nanning, street-based).

Almost all participants had at least one child of the pre-school or school age. Although the Chinese government provides free tuition for elementary and middle school education, parents still need to pay for textbooks, uniforms, transport and food. Study participants overwhelmingly assumed the primary financial responsibility of their children's education. As Yang said, “My husband lost all money in his business. But we need pay for my child's education. I have no other choice. (40 years old, Nanning, street-based)”

Older women understood a substantial contributing factor to their precarious economic position was their limited or nonexistent education. They thus did not want their children to follow their footsteps and decided to make every effort to support children's education. Li (40 years old, Qingdao, street-based) said, “I just feel guilty that I could not give my child a wealthy family. I have had many troubles because I am uneducated. How could I let my child be uneducated?!” Some women had started sex work when their children went to college or university. In China, the cost of post-secondary education is much higher than that of primary or middle school. “I got divorced and had to support my children's education on my own. I started to work as a sex worker two years ago when my child went to a university” (Huang, 46 years old, Qingdao, street-based). High expenditure of children's education was the most significant factor aggravating family economic difficulties.

Limited employment opportunities—Most participants had migrated from rural areas to urban areas. Their employment opportunities were limited by low education level, lack of requisite skills, and older age. Before entering into sex work, many had been employed in low-paid service jobs, such as waitresses in small restaurants and household cleaners. Their average salary ranged from 600 to 1,500 Chinese Yuan (\$100 - \$250 USD) per month, which was not enough to support their family. Chen said,

“I used to earn 600 Yuan (\$100 USD) per month as a street sweeper. I have to pay for household expenses and children's education. I have two children, one in a high

school, and the other in a college. I have no other job choices.” (56 years old, Qingdao, street-based).

Under these unfavourable circumstances, sex work was one of the limited available options as it was unskilled, less competitive, and relatively well-paid.

The appealing nature of sex work—One unique feature of sex work as a profession is its high remuneration given its lack of requirement for skills or education. Sex work is an attractive option for women who find themselves in poverty and in need of making a large amount of money in a relatively short period. The majority of older women believed that sex work was an easy and fast way to make enough money to support their family: “I used to have a job (as a waitress), but I had to wake up early and started working at 3 am every day. It was a really hard job. This job (sex work) is easier, and I don't need wake up earlier” (Wang, 49 years old, Qingdao, street-based). Women identified problems associated with sex work, “I am afraid of getting diseases” (Duan, 35 years old, Hefei, venue-based), “I am worried if my husband learns about it (sex work)” (Liang, 45 years old, Hefei, venue-based), “I feel guilty that I take this indecent job at my age” (Zhang, 39 years old, Nanning, street-based). However, economic benefits outweighed these fears.

Organisation among older female sex workers

Participants discussed a range of street-based and venue-based locations where they solicited clients. Street-based venues include street or parks. Venue-based locations included roadside beauty salons, sauna, massage parlours, and entertainment venues such as dance halls or karaoke bars. Each of these locations is characterised by different but at time overlapping characteristics such as where business is conducted, how sex work is organised, service fees, and client types, as displayed in Table 2.

Place of soliciting, location of having sex, organisers and rules of commercial sex service—Among street based sex workers, the predominant venue for sex work solicitation was direct solicitation of clients on the street, in public squares, or in the park at night. These areas are commonly referred to as ‘red-lantern areas’. As described by an owner of a hotel (Shi, 35 years old, Qingdao): “Their solicitation places are known to the public, such as Sifang road, Hubei road, or the Children's Garden. There are many older female sex workers over there.” Street-based sex workers were self-organised, in that they selected places for soliciting clients and set up the price for sex transactions. Sometimes, clients were introduced to them by referrals who were the owners of the off-street venues that were geographically clustered in cities, including the owners of beauty salons, teahouses or saunas. Older women did not work in these venues, but left their telephone numbers with owners. When customers visited these places and asked for sexual services, owners called and introduced customers to the sex workers.

Street-based sex workers reported conducting the business of sexual transactions in both public spaces and indoor venues. The locations for having sex were decided by both the woman concerned and her client. Clients who had lower income, such as construction or migrant workers, usually requested sex in public spaces (e.g., on street corners or in parks) given the lesser expense compared to a venue such as a hotel. Yang (40 years old, Nanning,

street-based) explained, “Rich clients usually ask us to go to a hotel for sex. However, we sometime have sex at the corner of a street with poor migrant workers.”

In general, there were three kinds of indoor locations where services were provided: private apartments (sex workers' own home or those of clients), rented rooms, and roadside hotels. Rented rooms tended to be in the off-street venues, such as the previously mentioned beauty salons, teahouses or saunas. Older women occasionally took clients who were solicited on street to these venues for sex. They usually provided sexual services in the same neighborhood, but in different locations within the neighbourhood area. An owner of a roadside hotel, Hong (female, 48 years old, Hefei) said that:

“Older FSWs usually provide commercial sex in different roadside hotels. They typically work in a number of roadside hotels, maybe 50-100 roadside hotels, in a certain area. They don't go far away from this area since their frequent clients are there.”

Street-based sex workers were loosely organised by a “quasi-leader”, some of whom were experienced sex workers themselves. They had two main roles: introducing clients and ensuring that women did not steal each other's clients. Zhang (39 years old, Nanning, street-based) explained: “She [a quasi-leader] gets 5 Yuan (\$0.8 USD) per sex deal for introducing us a client. If we don't pay her, she will no longer introduce clients to us.” Regarding stealing others' clients, she said,

“It is not permitted to steal clients from other FSWs. She [the leader] warns the rule breaker. If that FSW steals a client again, she will ask other FSWs to beat her up. She won't even allow that FSW to solicit clients in this area.”

Venue-based older women—In contrast, venue-based sex workers solicited clients in venues and had sexual transactions within these same venues. They generally worked with a manager who owned the venue, usually referred to as the (x08001)(x0677F) (boss). They vetted potential clients, managed the logistics of sex services, and provided security support. There were two types of venues where women usually worked: roadside sauna or massage parlours, and entertainment venues, such as dance halls and karaoke bars. The form of organisation was different from younger sex workers as the latter usually had their own organisers, called (x05988)(x054AA) or mami. Mamis, who were not owners of venues, usually organised and led a group of young sex workers and provided support to them (Huang *et al.* 2004; Zhang, Wu and Liu 2001).

In each roadside sauna or massage parlour, there were usually two or three sex workers. Bosses allocated clients to available women. In contrast, sex workers at entertainment venues were generally chosen by clients. As Liu said, (39 years old, Hefei, venue-based): “We are chosen by clients. Good-looking and younger ladies are always popular and easily selected by clients.” Compared to younger women working in the same venue, older sex workers had fewer clients and, as a result, made less money.

Almost all venue-based older sex workers reported having a good relationship with their bosses. They described it as a close, family-like relationship: “She (boss) is just like my family member” (Duan, 35 years old, Hefei, venue-based); “Our relationship looks like a

sister-relation” (Jiang, 43 years old, Nanning, venue-based). Bosses perceived that keeping a sound relationship with sex workers resulted in a mutually beneficial situation in which women felt a sense of belonging that financially benefitted management. “We are working together to make money. If we are nice to them [older FSWs], they are willing to work longer with us and have more clients” (Feng, 54 years old, female, manager, Qingdao). This sense of belonging was enhanced by feeling of emotional support by venue management: “If something goes wrong in our daily life, we'd like to talk with our boss. She tries hard to find a way to help and support us” (Jiang, 43 years old, Nanning, venue-based). Economic and emotional support resulted in low turnover at the venues, with the majority of these venue-based sex workers reporting that they had worked with their current bosses for more than one year.

There were some differences in the rules governing commercial sex between sauna or massage parlours and entertainment venues. The only rule at a sauna or massage parlours was that bosses collected a commission fee from each sex transaction, between 10 to 20 Yuan (\$1.6 - 3.0 USD). Liang (45 years old, Hefei, venue-based) described the rules at a roadside hotel, “We don't have a fixed working time; we are flexible in working hours. It [sex] is usually 40 Yuan (\$6 USD) per time, and we need give the boss 10 Yuan (\$1.6 USD) as commission.” At entertainment venues, in addition to the commission fee (ranging from 10% to 50% of sex transaction fees), another rule was that sex workers were not permitted to seek and sell sex outside their venues without a permission. Bosses drew a clear distinction between “bad” and “good” sex workers based on whether they obeyed this rule. The rule helped to maximise women's safety as well as minimised potential loss of commission. One owner, Yin, said, “Some sex workers call their regular clients and ask them to come to my place, while others contact their clients and go out with them behind my back. That's the difference between a bad and a good sex worker” (50 years old, female, Hefei). In contrast, this rule did not exist in sauna or massage parlours.

Types of clients and service charges—Most of older sex workers, especially those who are street-based, reported that clients were rural-to-urban migrant workers, low-paid manual workers, or retired old men. Liu (39 years old, Hefei, venue-based) said that most of her clients were of low socioeconomic status: “I do not know their jobs. However, I feel they are low-paid manual workers. If they had a well-paid job, they would not look for us” Entertainment venue-based sex workers occasionally encountered clients who were officers or private businessmen. “There were a few clients who were officers from the local government agencies, and a few businessmen who frequently visited our venue” (Deng, 38 years old, Hefei, venue-based). Furthermore, most street-based older sex workers reported that their clients were usually older men. Chen (56 years old, Qingdao, street-based) responded that clients of older women were generally older men or retired: “My clients include widowed elderly men, retired men, or those whose wives are sick and cannot have sex with them.”

On average, older sex workers reported having one or two sex transactions per day. Most street-based and venue-based older women who worked in sauna or massage parlours sold sex for around 50 Yuan per client (\$9 USD). Some street-based older sex workers sold sex

for less than 30 Yuan per client (\$5 USD). In general, the price of sex in entertainment venues (about 100 Yuan or \$15 USD) was higher than massage or sauna venues.

Risky sexual behaviours

A number of factors influenced the lack of consistent condom use reported by participants. The three major reasons for not using condoms frequently mentioned by study participants were: earning extra money, encountering problems with erection, and having sex with regular clients. Women in the two types of workplaces differed in engagement in sexual risk for HIV infection.

Earning additional income was the primary motivating reason for not using condoms among participants, particularly among street-based women whose economic disadvantage dampened their power for condom use negotiation. They usually accepted additional incentives for not using condoms. Yan (54 years old, Qingdao, street-based) noted, “In general, I do not want to have sex with clients who are unwilling to use condoms. But, if they give me more money, I will change my mind and do not use them”. Women also claimed that if they did not observe something abnormal in the client's genital area, they would not use a condom when clients were willing to pay additional money for unsafe sex. Lan described matters thus,

“If clients are willing to give me extra money to have sex without a condom, I may agree to it. However, I will check their penis first. If their penis looks normal, I will have sex without a condom after I clean their penis with clean wipes.” (44 years old, Qingdao, street-based)

Participants reported that older clients often did not want to use condoms because of the difficulty that they caused in maintaining an erection and ejaculation. Some participants felt that not using condoms was the only way to earn money with older clients. Chen (56 years old, Qingdao, street-based) said, “If clients' penis can be erect with a condom, I will use it. Otherwise, I do not. But I will clean their penis, using toothpaste or soap.” Furthermore, sex workers perceived a low risk for HIV infection when having sex with older men. As Dong (46 years old, Hefei, venue-based) described,

“Some older men can't make the penis erect with a condom. In general, there is no disease problem associated with having unprotected sex with older men as they might not frequently have sex with others due to erectile dysfunction.”

The third reason for not using condoms was with regular clients, which was most common among participants who worked in entertainment venues. Norms of condom use were relaxed when clients became regular visitors. Women usually trusted regular clients because they had a relatively long-term relationship and these clients were their major source of income. As one woman said, “I usually use condoms, maybe 90% of the time. I do not use condoms only when the clients are regular and in good health. I trust them as we have known each other for a long time.” (Fang, 37 years old, Hefei, venue-based).

Discussion

To our knowledge, this is the first study to explore entry into and a typology of sex work among older female sex workers in China. Two types of sex workers are identified: street-based older and venue-based sex workers. Reasons for not using condoms varied between the two groups. Among street-based sex workers, making extra money was the driving force for inconsistent condom use, whereas the common reason for not using condoms among women working in entrainment venues was having sex with regular partners.

Because street-based sex workers faced a heavy economic burden, they made every effort to solicit clients and did not want to lose sex business. As most of their clients were at low socioeconomic status and older clients did not want to use condom due to the difficulty in erection, women had no or low power to negotiate for condom use. If they insisted on their use, potential clients would turn to other available women. Confronted with the lure of money and family economic difficulty, their only choice was to comply with their clients' request and have sex without protection.

Because venue-based sex workers usually worked in the stable venues, they typically had regular clients who frequently visited these venues. In this study, having sex with regular clients was frequently mentioned as the reason for unsafe sex by women working in these settings. Women working in venues did not use condoms when they perceived their clients to be rich, as being of high social status, and when a trust relationship had been established between them. However, they did not know if clients had other commercial sex partners and their actual risks for HIV infection. Factors that influenced condom use among young sex workers have been well reported in other studies in China, including age, marital status, having a stable partnership, HIV knowledge levels, condom use skills, and accessible health and social support (Gu *et al.* 2010; Pingmin, Yuepu and Jiwen 2005; Wang *et al.* 2009). As factors determining unsafe sex among young and older sex workers differ. The development of future HIV intervention programmes should take the differences into consideration.

Family responsibility, in combination with economic deprivation, was the driving force propelling older women into sex work and engaging in sexual risk. In contrast, the majority of younger women sex workers in China are single and do not have a family economic burden. They work as sex workers in order to make quick and easy money and save it for personal use. Young sex workers do not usually have a child to raise and have less family responsibility (Fang *et al.* 2007; Gil *et al.* 1996; Liao, Schensul and Wolffers 2003). Study findings suggest that older sex workers had a high sense of family responsibility. The development of future HIV-related interventions need take this family responsibility and women's dual roles (as a sex worker and responsible mother) into consideration.

Another important finding is that the majority of older female sex workers' clients were older men. The HIV epidemic has started spreading among older adults, a fast growing population in China. Older women sex workers usually perceived older clients at what they perceive to be a low risk for HIV infection and, consequently, did not use condoms. In addition, because of erectile dysfunction and ejaculation problems, older men often did not

want to use condoms. HIV intervention targeting older population need take these issues into consideration.

In this study, we found that the mobility of older female sex workers was relatively low. Studies in China and other countries have demonstrated that younger sex workers are often highly mobile. It may be difficult to trace their sexual practices, to implement interventions, and to evaluate programme effectiveness (Choi and Holroyd 2007; Hong and Li 2008; Tian *et al.* 2006). Street-based older sex workers usually remained in a certain areas to maintain their stable income with regular referrals and clients. Older women working in venues typically worked with the same boss for at least one year, for the purposes of safety and having stable and regular clients. This low mobility may provide a good opportunity for designing HIV intervention programmes and for evaluating long-term effectiveness.

The study's findings must however be viewed in light of several limitations. The study was conducted in three Chinese cities and may have limited generalisability beyond these settings. Furthermore, sex workers participating in the study were recruited by pimps or the owners of venues, and were potentially those who were well connected to bosses or the owners. Their characteristics may differ from older sex workers who are not so closely attached. Finally, social desirability biases may be present with respect to reporting of condom use and sexual behaviours. However, with more in-depth exploration, these biases may be minimised.

The findings of this study offer much-needed information for advancing understanding of older sex workers and sexual risk for HIV infection in China. The results suggest that the development of HIV interventions for older sex workers needs to take account of the contexts and manner in which women work. Intervention contents should target the different risks associated with the two types of sex work, varying underlying reasons for unsafe sex, problems in older adults' sexual lives, limited power of negotiation for condom use, family economic burden, and regulations regarding condom use at venues. On the basis of the unique organisation and structures of each type within the proposed typology, future interventions may prove more effective in working with these at-risk and stigmatised populations.

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Table 1
Socio-demographic characteristics of study respondents (N = 63)

	Street-based older sex workers(<i>n</i> = 28)	Venue-based older sex workers (<i>n</i> = 35)					
			<table border="1"> <thead> <tr> <th>Massage or sauna</th> <th>Entertainments</th> </tr> </thead> <tbody> <tr> <td><i>n</i> (%) or Mean (SD)</td> <td><i>n</i> (%) or Mean (SD)</td> <td><i>n</i> (%) or Mean (SD)</td> <td><i>n</i> (%) or Mean (SD)</td> </tr> </tbody> </table>	Massage or sauna	Entertainments	<i>n</i> (%) or Mean (SD)	<i>n</i> (%) or Mean (SD)
Massage or sauna	Entertainments						
<i>n</i> (%) or Mean (SD)	<i>n</i> (%) or Mean (SD)	<i>n</i> (%) or Mean (SD)	<i>n</i> (%) or Mean (SD)				
Age	47.3 (6.8)	39.4 (3.9)	38.3 (4.4)				
Age at first sex work	42.8 (6.0)	35.9 (4.3)	34.5 (5.8)				
Ethnicity							
Han	22 (78.6)	11 (55.0)	15 (100.0)				
Other	6 (21.4)	9 (45.0)	0 (0.0)				
Hometown							
Rural	21 (75.0)	19 (95.0)	15 (100.0)				
Urban	7 (25.0)	1 (5.0)	0 (0.0)				
Length of stay in study city							
Less than 1 year	0 (0.0)	2 (10.0)	4 (26.7)				
1- 3 years	5 (17.9)	7 (35.0)	1 (6.6)				
4- 9 years	7 (25.0)	8 (40.0)	4 (26.7)				
10 or more years	16 (57.1)	3 (15.0)	6 (40.0)				
Education							
Primary school or less	13 (46.4)	12 (60.0)	8 (53.3)				
Middle school	10 (35.7)	7 (35.0)	7 (46.7)				
High school	5 (17.9)	1 (5.0)	0 (0.0)				
Marital status							
Unmarried	0 (0.0)	0 (0.0)	0 (0.0)				
Married	11 (39.2)	12 (60.0)	4 (26.7)				
Divorced	12 (42.9)	8 (40.0)	10 (66.7)				
Widow	5 (17.9)	0 (0.0)	1 (6.6)				
Number of children							
None	0 (0.0)	0 (0.0)	1 (6.6)				
One	13 (46.4)	14 (70.0)	10 (66.7)				
Two or more	15 (53.6)	6 (30.0)	4 (26.7)				
Children in school or pre-school							
No	13 (46.4)	1 (5.0)	3 (20.0)				
Yes	15 (53.6)	19 (95.0)	12 (80.0)				
Previous occupation							
Office workers	1 (3.6)	0 (0.0)	0 (0.0)				
Low-paid services *	22 (78.6)	13 (65.0)	10 (66.7)				
Selling food or fruit in small carts	5 (17.8)	3 (15.0)	2 (13.3)				
Farmers	0 (0.0)	4 (20.0)	3 (20.0)				
Study sites							
Qingdao	18 (64.3)	3 (15.0)	1 (6.7)				

	Street-based older sex workers(<i>n</i> = 28)		Venue-based older sex workers (<i>n</i> = 35)	
	<i>n</i> (%) or Mean (SD)	<i>n</i> (%) or Mean (SD)	Massage or sauna	Entertainments
			<i>n</i> (%) or Mean (SD)	<i>n</i> (%) or Mean (SD)
Hefei	0 (0.0)	7 (35.0)	14 (93.3)	
Nanning	10 (35.7)	10 (50.0)	0 (0.0)	

* Waitress, cleaner, housekeeping, and shop assistant.

Table 2

Typology of older female sex workers

	Street-based (n = 28)	Venue-based (n = 35)
		Message or sauna Entertainment
Place of solicitation	Streets, parks or other public places	Roadside massage parlours Saunas, beauty salons Karaoke bars Dance halls
Place of having sex	Public: behind streets or in parks Indoor: older FSW's or clients' apartments, rented room in off-street buildings, roadside hotels	Inside venues Outside venue: roadside hotels Outside venue: roadside hotels
Organizers	No or quasi "leaders" of older sex workers	Venue owners
Rules of commercial sex service*	Pay a referral fee (10 RMB per client) to the leaders or the owners of the off-street premises	Share profits with owners (10 to 20 RMB per client) Share profits with owners (10% to 50% of income per client) Forbidden to sell sex outside venues without permission
Types of clients	Low-paid manual workers and older men	Low-paid manual workers and older men, officers, and private business men
Service charge*	Less than 50 RMB	100 RMB or more
Common reason for unsafe sex	Financial incentives/erectile dysfunction	Financial incentives or regular clients Regular clients

* \$1 USD = 6.28 RMB