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## HETEROSEXUAL PARTNERSHIPS AND THE NEED FOR HIV PREVENTION AND TESTING FOR MEN WHO HAVE SEX WITH MEN AND WOMEN IN CHINA: A QUALITATIVE STUDY

**Sijia Wang,**

School of Public Health, Brown University, Providence, Rhode Island

**Dandan Song,**

School of Public Health, Anhui Medical University, Hefei, Anhui Province, People's Republic of China

**Wen Huang,**

School of Public Health, Anhui Medical University, Hefei, Anhui Province, People's Republic of China

**Huan He,**

School of Public Health, Anhui Medical University, Hefei, Anhui Province, People's Republic of China

**Min Wang,**

School of Public Health, Anhui Medical University, Hefei, Anhui Province, People's Republic of China

**David Manning,**

School of Public Health, Brown University, Providence, Rhode Island

**Nickolas Zaller,**

Fay W. Boozman College of Public Health, University of Arkansas, Little Rock, Arkansas

**Hongbo Zhang,** and

School of Public Health, Anhui Medical University, Hefei, Anhui Province, People's Republic of China

**Don Operario**

School of Public Health, Brown University, Providence, Rhode Island

### Abstract

Previous studies have reported that approximately 30% of men who have sex with men (MSM) in China have concurrent female partners. Men who have sex with men and women (MSMW) might “bridge” HIV transmission to their female sex partners. This study aimed to explore (a) motivations for why MSMW in China engage in relationships and sexual behaviors with female partners; (b) patterns of sexual behaviors and condom use between MSMW and their female

partners; and (c) barriers to and strategies for encouraging MSMW and their female partners to undergo HIV testing. The authors conducted in-depth interviews with 30 MSMW in two urban cities in China, Guangzhou and Chengdu, and used thematic analysis methods to code and interpret the data. MSMW described family, social, and workplace pressures to have a female partner, and expressed futility about their ability to form stable same-sex relationships.

Although participants reported concern about the risk of personally acquiring and transmitting HIV or other sexually transmitted infections (STIs) to their female partners, they described the challenges to using condoms with female partners. HIV-positive participants described how stigma restricted their ability to disclose their HIV status to female partners, and HIV-negative participants displayed less immediate concern about the need for female partners to undergo HIV testing. Participants described a range of possible strategies to encourage HIV testing among female partners. These findings highlight the urgent need for HIV risk reduction and testing interventions for Chinese MSMW in the context of heterosexual partnerships, and they also underscore the additional need for privacy and cultural sensitivity when designing future studies.

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Sexual transmission has become the primary mode of HIV infection in China (Lu et al., 2008). Men who have sex with men (MSM) have emerged as one of the key populations for risk of HIV infection in China (Chow, Wilson, Zhang, Jing, & Zhang, 2011). Research studies have revealed that Chinese MSM have multiple risk factors for HIV infection, including partner concurrency, inconsistent condom use, low perception of HIV risk, lack of HIV prevention knowledge, and low uptake of HIV testing (Choi, Gibson, Han, & Guo, 2004; Choi, Lui, Guo, Han, & Mandel, 2006; Chow, Wilson, & Zhang, 2012; Li et al., 2008; Li, Lau, Holroyd, & Yi, 2010; Lu et al., 2008; Ma et al., 2013).

Social and cultural factors also contribute to HIV risk for MSM. Homophobia and HIV/AIDS-related stigma inhibit many Chinese MSM from disclosing their sexual orientation or health status to people in their life (Zhou, 2006). A qualitative study of 30 MSM in Shanghai revealed how these men commonly worried that homosexuality and HIV infection would challenge family obligations and social expectations of men (Liu & Choi, 2006). Consequently, these MSM have refrained from entering discussions about HIV in order to mitigate suspicions of being HIV-positive and to avoid disruption of social relationships (Liu & Choi, 2006; Ma et al., 2013). In addition, Chinese MSM have expressed anxiety over learning their HIV status due to a common belief that an HIV diagnosis could be fatal (Choi et al., 2006). Therefore, many Chinese MSM avoid contacting HIV prevention and testing programs, despite the availability of free services (He et al., 2006; Liu & Choi, 2006; Zhou, 2006).

In China, where homosexual marriage is not recognized by law and where homosexual individuals regularly experience discrimination, MSM are known to marry heterosexual females to disguise their same-sex attraction and behavior (Chapman, Cai, Hillier, & Estcourt, 2009). Studies show that about 60% of MSM in China have engaged in bisexual behaviors, and these men also report a higher rate of marriage than MSM in Western countries; around 30% of Chinese MSM in general and over 70% of MSM aged 30 or older have been married (Chow et al., 2012). Studies show that these men also report less frequent condom use with regular female partners than with casual male partners, and only a small

percentage use condoms consistently with female partners (Chow et al., 2012; Lau et al., 2008). For example, in a study of 896 MSM in Yunnan Province by Lau et al. (2008), 34% had ever been married to a woman and 18% were currently married (marriage was more common among men over 30 years old), 31% had engaged in sex with a man during the past 6 months, and 45% reported unprotected anal sex with a male noncommercial sex partner during the past 6 months. Of those who had a female sex partner during the past 6 months, 72% reported unprotected vaginal sex (Lau et al., 2008). Among participants included in a systematic review of 43 studies of MSM in China, 17% were currently married and 26% had engaged in sex with a woman during the past 6 months, and high rates of unprotected sex were reported with primary female partners (77%), casual female partners (61%), and commercial female partners (44%) during the past 6 months (Chow, Wilson, & Zhang, 2011). Researchers have suggested that such a high rate of unprotected sexual behavior among men who have sex with men and women (MSMW) might create a “bridge effect” that can lead to transmission of HIV and other STIs to their female partners (Choi et al., 2004; Chow et al., 2012; He et al., 2006; Lau et al., 2008).

The aims of this study were to develop a deeper understanding of the social and interpersonal dynamics that can influence sexual behavior and HIV risk among Chinese MSMW and their female partners, and to explore strategies and barriers to HIV testing for female partners of MSMW. Qualitative methods were used to provide formative insight into the personal experiences and subjective meanings associated with sexuality, heterosexual partnerships, and HIV prevention among Chinese MSMW. This qualitative study can provide guidance for future research and health interventions to promote HIV prevention for MSMW in China and potentially to identify strategies that can address the HIV testing needs of their female partners.

## METHODS

### PARTICIPANTS

We recruited 30 MSMW using targeted outreach and referrals by nongovernment organizations that provided HIV prevention and education services to MSM in Guangzhou (Guangdong Province) and Chengdu (Sichuan Province), People’s Republic of China. The study was described to potential participants as a 1-hour in-depth interview with adult men in each city to learn about their sexual behaviors and relationships with men and women. Eligible participants must (a) have had sexual behavior with at least one male partner in the past 12 months; (b) have had at least one female partner in the past 12 months; (c) reside in Guangzhou or Chengdu; and (d) be age 18 years or older. Fifteen MSMW at each site volunteered; 22 (73%) were currently married and 9 (30%) self-reported as HIV-positive; 8 MSMW who reported being HIV-positive were currently married.

### PROCEDURE

The research team developed a semi-structured interview guide inquiring about the social context of relationships and sex with women, and about the facilitators and barriers to HIV prevention programs for MSMW. The questions elicited information about reasons for having female sex partners, attitudes toward relationships with female sex partners,

relationship dynamics with female partners, sexual behaviors with both male and female partners, barriers to encouraging female sex partners to take an HIV test, and strategies to promote HIV testing among female sex partners.

The interviews were conducted in a private room in two community-based HIV prevention and testing organizations serving MSMW in Guangzhou and Chengdu. Participants were informed about the study aims and goals, and all participants provided informed consent and agreed to be digitally recorded before the interview. Following the interview, participants received referrals to local HIV prevention, counseling, and testing services. Study procedures and interviews were conducted in Mandarin Chinese, facilitated by interviewers who were familiar with the local dialects. The research team finished data collection between November and December 2010. The audio and interview transcript files were kept on password-protected computers. All procedures were approved by the local University's Internal Review Board.

## ANALYSIS

Audio files of the interviews were transcribed by a native Mandarin-Chinese speaking researcher and corrected for errors and omissions by a native Chengdu dialect speaker and a fluent Cantonese speaker (for interviews conducted in Chengdu and Guangzhou, respectively). Transcripts were analyzed following the principle of Thematic Analysis described by Braun and Clarke (2006). Each transcript was individually read by two research team members (both Chinese), who identified themes and subthemes emerging from the data. With other research team members (in China and the United States), themes were further discussed and interpreted. Relevant excerpts from the text were translated into English (and back-translated by a member of the research team for accuracy) for U.S. investigators lacking Mandarin language competency. We identified four emergent themes that addressed our primary aim to understand the context of HIV risk and opportunities for HIV prevention and testing for MSMW and their female partners. These themes included (a) social and psychological pressures to have a female partner; (b) infrequent but mostly unprotected sexual behaviors with female partners; (c) strategies to maintain relationships with female partners; and (d) recognition of risk but challenges for HIV testing and prevention among HIV-positive MSMW.

## RESULTS

### SOCIAL AND PSYCHOLOGICAL PRESSURES TO HAVE A FEMALE PARTNER

The most commonly mentioned reason described among participants for engaging in marriage was pressure from family members. Participants described how, as responsible sons, they were expected to comply with their filial duty of continuing the family line. This duty is particularly important in the context of China's historic one-child policy. Participants described being urged to marry and raise a younger generation, and they recalled feelings of anxiety, fear of failing family expectations, and disappointing parents. For example, a participant described his attitude regarding this familial pressure as follows:

Even homosexual people have to get married because of their family and the Chinese culture: Get a son and expect a grandson. Like it or not, he has to show

gratitude to his parents' graciousness of raising him up. No matter if it [marriage] is because of pressure or something, he has no better choice than to show gratitude. Forced by family or friends, he has to get married just like completing an assignment. (Chengdu, married, HIV-negative)

This comment reflects the influence of the Confucian principle of filial piety: Parental nurturing and investment in the child lead to a future obligation—or as this participant describes, an “assignment” to be completed when the son reaches adulthood. Producing offspring and continuing the blood lineage were defined here as a son's primary duty and a principle way to repay the social debt to parents, in accordance with the family-centered culture in China. Marriage, as the necessary tool to accomplish this obligation, was stressed repeatedly as a core “assignment” among adult sons as a way to demonstrate responsibility as an adult male.

In addition to parental pressures to marry and reproduce, participants described the need to comply with the prevailing social norm, which defined heterosexuality as normal and homosexuality as deviant and immoral. Thus, to prevent being negatively labeled and discriminated against, participants entered into relationships with female partners as a strategy to minimize suspicion among their peers. One participant spoke of this phenomenon:

If a man is old enough but not married, he will be rebuked by others. One way to get through it is having a girlfriend to conceal some of his behaviors. In a conventional country such as China where [the culture] is not as open as Western countries, people are too traditional to accept these things [homosexuality]. (Chengdu, married, HIV-positive)

Participants also noted struggling with workplace-related pressure to appear heterosexual. They described the frequency with which colleagues questioned their relationship status, and they shared concern about conforming to norms that pervade the workplace environment. In addition, participants suggested that having a satisfactory marriage was commonly seen as an indicator of career success. According to participants, men who hope to attain career advancement are expected to possess a stable and socially sanctioned relationship, thus demonstrating reliability and maturity to their heterosexual peers. One participant spoke of these pressures by stating:

It's like if you don't get married, people will think you have no sense of responsibility. It happens in workplaces, and there are plenty of leaders having these thoughts. Under such pressure, you may lose a lot of promotion opportunities if you don't get married. (Chengdu, divorced, HIV-negative)

In this way, career opportunities are thought to be inextricably tied to a successful heterosexual relationship. In addition to the pressure emerging from the social environment, participants described the psychological pressure to marry in order to fulfill their need to form a stable bond with a life partner. They described how this need for a stable relationship increased as they aged, and that this need could be attained only through a heterosexual relationship because of the perceived instability and lack of social recognition of same-sex partnerships.

I think it is unfortunate to be alone in all one's life. It's not happy. Men are unreliable, I know it well. Usually man and man have little attachment, and it is impossible to stay long even if there is [a homosexual] marriage system. They [male partners] never accommodate to each other, or rarely. It's hard to keep loyalty, especially for men. (Guangzhou, married, HIV-negative)

This participant pointed to a traditional cultural belief held by Chinese linking life happiness with heterosexual marriage. As indicated, this participant believed that men were incapable of providing a long-term commitment as a life partner to another man. Notably, this participant described that even the hypothetical legalization of same-sex marriage might not guarantee relationship stability between homosexual individuals, suggesting a sense of futility about long-term male partnerships. Others expressed similar negative beliefs about the longevity of same-sex relationships, suggesting that these partnerships were fleeting and based solely on physical sex rather than on "caring":

When you get old, you still need to have a family ... and someone to take care of you. You have to be realistic, and don't be impulsive saying you want to live your life with some boy. The passion will retreat as time goes by, so it's better getting married. (Cheng-du, single, HIV-negative)

Relationships between man and man are not protected by law ... are merely sexual behaviors and sexual needs, while a family is one's basis and haven of life, one's property, and part of his spirit. ... To his wife and child, his love is not about sex, but about caring. (Chengdu, married, HIV-positive)

## **INFREQUENT BUT MOSTLY UNPROTECTED SEXUAL BEHAVIORS WITH FEMALE PARTNERS**

MSMW in our study described a low frequency of and low levels of satisfaction in sexual behaviors with their female partners. Participants described that they usually engaged in heterosexual intercourse only to satisfy their female partners' explicit requests. Most participants had difficulty in accomplishing heterosexual intercourse, and this was reported to be a source of conflict in their relationships. One participant spoke of this challenge:

Because of the family pressure he [MSMW] may have a wife or a "marriage of convenience" in that they live together but don't have sex. I heard there are some people who rely on medicine. Almost all of them do it only when there is no choice. Only occasion-ally, and most of the time it's a disaster. (Guangzhou, single, HIV-negative)

This comment highlights how heterosexual intercourse is treated by these men as a duty, to which many MSMW husbands feel an obligation in order to satisfy expectations and needs of their female partners. As expressed in this comment, participants usually made concessions to their partner's requests and engaged in heterosexual intercourse, even though it was against their preference. However, some men relied on medication to obtain and maintain an erection in order to enhance their sexual performance with women.

Although participants reported infrequently engaging in heterosexual inter-course, they also described using condoms infrequently during sex with female partners. Notably, participants

reflected on how their female partners believed them-selves to have low risk for HIV and other STIs, because of their perception of being in monogamous relationships. In such cases, participants found it difficult to provide their female partners with convincing reasons for condom use. They described how condom use could be justified if one partner disclosed having an STI, or if contraception was needed. For example, one participant from Guangzhou recalled an instance in which one of his MSMW peers justified using condoms with his wife by explaining that he was infected with hepatitis C; another participant from Chengdu used condoms with his wife who expressed discomfort with using an intrauterine device for birth control. However, participants more generally indicated that the common use of the intrauterine device among women after childbirth had made condom use less necessary as a form of contraception. This eliminated contraception as an “excuse” for condom use, and thus compounded the MSMW’s predicament when suggesting condom use with their female sex partners.

We don’t use condoms at all because my wife would ask why we should use condoms. She stopped me when I tried to use a condom. She said we are a couple, and there would be no pleasure with condoms. You should only use condoms when having sex with a prostitute or girl outside. I had no choice after her saying that.  
(Guangzhou, married, HIV-positive)

As this comment reveals, introducing condoms into their heterosexual partnerships could expose participants’ extramarital sexual activity. Furthermore, although most participants recognized the necessity of preventing HIV and other STIs, they indicated that their female partners usually had low perceived risk and lacked knowledge regarding HIV prevention. Although condom use was widely known among participants as the most effective method of HIV prevention, the unique relationship dynamic between MSMW and their female sex partners made it difficult for condom use to be implemented effectively.

## STRATEGIES TO MAINTAIN RELATIONSHIPS WITH FEMALE PARTNERS

Nondisclosure of same-sex behavior was the dominant strategy described by participants for maintaining heterosexual partnerships. Participants in our study believed that only a very small proportion of the wives of married MSMW had openly discussed their husbands’ homosexuality. Participants suggested that most wives were “somewhat” aware of their husbands’ male sex partners, but chose not to explicitly acknowledge or discuss this issue. Participants offered two general rea-sons to explain wives’ tolerance of their husband’s same-sex extramarital affairs: the economics of marriage, and the negative effects of divorce on children.

One reason is for financial [benefit]. For example, I have a friend whose wife has no income, and then when she knew he had something outside, she just let him continue as long as he brought money back every month and she didn’t care what he did out there. Another reason is that some people stay together for the sake of children. (Chengdu, married, HIV-positive)

Although many women may remain in a “marriage of convenience,” participants revealed that if divorce was necessary, it was more frequently initiated by the wives than by the MSMW husbands. They described how, in general, MSMW are motivated to maintain their

marriages out of fear of risking social prestige and worries regarding the negative influence of divorce on their parents and children. Moreover, MSMW would be required to provide a justification for seeking divorce, and thereby might be compelled to disclose their homosexuality.

My parents are 80 years old. In a warm and happy family like ours, if I want divorce, there has to be a reason. There is no need for divorce. If you say you have an affair, my parents, with such old age, may be infuriated to death. They have heart problems and they are old. Besides, my child is too young and [divorce] is bad for her development. (Chengdu, married, HIV-positive)

Additional strategies for maintaining heterosexual partnerships were discussed. In efforts to maintain their heterosexual appearance, these men recounted often censoring their social activities (e.g., by deleting telephone call logs, text messages, and online browser histories) and covering up their homosexual activities with alleged work or other common leisure activities. Financial compensation was another common strategy used by participants to avoid conflicts in marital life and to ease their wives' discontent, such as buying gifts as a sign of commitment. Participants also de-scribed maintaining separate homes, often under the guise of having a long-distance job, as a strategy for maintaining the relationship. Moreover, some participants noted that having a child would preoccupy a wife and divert her attention from her husband, thus allowing him space for pursuing extramarital same-sex partners. On this topic, one participant recommended the following:

Have a child as soon as possible after marriage. Once you have a child, the wife will totally lean her attention on that child. After the child grows up, she won't ask for sex anymore ... and then you two can live like siblings. And there are some people who choose to live apart. I know a friend whose wife and child live in Dongguan [another city in Guangzhou Province], and he bought a house for his wife. His wife thinks he is very good to her and their child. (Guangzhou, married, HIV-negative)

This comment provides an example of how maintaining separate dwellings is used both as a strategy for minimizing a wife's suspicion as well as reducing the risk of homosexual disclosure. These physical separations were usually justified as a consequence of job transfer, and they provided MSMW with additional ease and comfort in having same-sex partners.

## **RECOGNITION OF TRANSMISSION RISK TO FEMALE PARTNERS BUT ONGOING CHALLENGES FOR HIV TESTING AND PREVENTION**

For all participants, protecting their female partners from HIV and encouraging them to undergo HIV testing were key concerns. Explicit articulation of these concerns was challenged by participants' fears of disclosing their same-sex behaviors and their own HIV status. One participant spoke of these fears:

If I told her [to take an HIV test] suddenly, she may suspect. She will think it's really weird, it's suspicious. Her first instinctive response is "if there isn't anything wrong, why would you want me to take [an] examination? It shouldn't be me [at risk]. Are you [at risk]?" (Guangzhou, married, HIV-negative)



Participants claimed that most HIV-positive MSMW should indeed encourage their female partners to undergo HIV testing after being diagnosed themselves. Of the nine self-identified HIV-positive MSMW in the sample, eight had disclosed their status to their partner. However, participants speculated that many HIV-positive men would be unwilling to disclose their personal HIV diagnosis as the reason for urging wives and girlfriends to undergo testing.

He [the HIV-positive MSMW] will try to get his wife to take HIV tests, without letting her know his status. He doesn't want anyone to know, including family and friends, or he will get into huge trouble. People will avoid him when he walks by. (Guangzhou, married, HIV-negative)

Participants also suggested that if personal HIV-status disclosure was needed, positive MSMW would offer alternative explanations for their source of infection. For example, they could attribute their HIV-positive status to casual sex with female partners or sex workers, injection behaviors, or contaminated transfusion. Any of these behaviors could be considered less threatening to one's heterosexual partnership than homosexuality. One HIV-positive participant reflected on this disclosure "strategy" for protecting his relationship:

I told her [about my HIV status]. She asked me how I got it, and I said: "I will not deny that I had sex with prostitute." We discussed about divorce and property settlement for quite a long time, but at last we worried that our child is too young ... and I decided to just let it go and live on with her like this. I asked her to take an HIV test. She felt relief after receiving the result [HIV negative]. Now she cares about me even more than before I got infected. (Chengdu, married, HIV-positive)

As this comment indicates, this participant relied on partial disclosure of the details surrounding his HIV infection. Partial disclosure allows for MSMW to assuage potential harm, both physical and emotional, to their female sex partners, while protecting interpersonal relationships and social status.

There were additional barriers keeping participants from referring their female partners to HIV testing. Some HIV-negative participants believed that their female partners experienced little risk for HIV or other STIs; this belief was pronounced among HIV-negative men who described themselves as their female partner's only sexual contact. Moreover, some participants reported distrust of HIV testing and health services referred to as "free," because "free" services in China often have hid-den fees that are incurred later by clients.

They will definitely think it's a scam. It says to be free, but they will charge you some-thing then. There are many advertisements delivered by hospitals now, saying that it's a free whole set of gynecological exam, but they will charge you for this and that when you actually take the test. (Chengdu, single, HIV-negative)

Although challenges exist in doing so, participants provided alternative strategies to promote HIV testing among their female partners. They suggested eliciting public authorities (e.g., government or workplace officials, health care workers, authorities from the Centers of Disease Control) to recommend HIV testing, rather than relying on MSMW to refer their female partners to seek testing. This approach to HIV testing would minimize suspicion and increase the perceived reliability of testing services. Participants also recommended

incorporating standard HIV testing within general health examinations or providing HIV testing at work environments as ways to normalize the testing process, thus making it easier and more comfortable for the female sex partner to accept testing services.

The most effective way should be working through the government. There are many companies that require upon hiring a health certificate with hepatitis B status, and we might add HIV test in it. The only way [to ensure HIV testing] is government intervention or the workplace so that all workers must check for this item. (Chengdu, single, HIV-negative)

Other methods provided by participants to promote HIV testing among females included encouraging regular gynecological examinations and promoting messages about free HIV testing through the Internet.

Before getting married, you tell them [female partners], well, we have free gynecological testing, and come and do it before getting married ... or at certain age, tell them that women usually get some [gynecological] disease and they should take a test. Then give them a checklist or something. (Guangzhou, married, HIV-negative)

I think a good method is the Internet ... by clicking the portal websites. Heterosexual, homosexual, infected, or uninfected, everyone may search it. (Chengdu, married, HIV-positive)

Finally, home-based HIV self-test tools were also mentioned as a possible strategy for increasing HIV testing among MSMW and their female partners. Although paying for this strategy incurs costs to the individual, self-testing allows the individual to maintain personal autonomy over the testing experience and confidentiality about the test result.

Self-test tool is a very effective way. I used it once at home. I bought it online. I was applying for a job and worried they might test me [for HIV], so I bought the tool and tested myself. No worries anymore, I went to the hospital for a test then. (Chengdu, single, HIV-negative)

## DISCUSSION

The purpose of our study was to explore the heterosexual relationship dynamics and sexual behaviors of MSMW in China and to investigate potential barriers and facilitators to HIV prevention for their female partners, particularly HIV testing. In China, MSMW experience pressures to maintain relationships with female partners and may risk exposing their female partners to HIV and other STIs. Thus, female partners of MSMW in China represent a population with under-addressed risk for HIV and other STIs. Direct efforts to promote HIV prevention and testing among partners in this relationship are challenging because MSMW in China usually try to conceal their homosexual behaviors and HIV risk in order to mitigate potential stigma.

Previous studies have demonstrated that as many as one-third of Chinese MSM are likely to have female sex partners (Chow et al., 2012; Lau et al., 2008). Our data highlight how MSMW experience pressure to honor their parents and ancestors through continuing the

family line, and thus are compelled to have a traditional heterosexual family (Deutsch, 2006). Among the most important of all virtues in Chinese culture, *xiao* emphasizes obedience to parents and the prioritization of parental requirements above one's own will; failure to produce offspring is a serious violation of *xiao*. In some cases, staying unmarried would harm social perceptions of one's responsibility and could obstruct career development and economic livelihood. In addition to the pressures originating from family, society, and the workplace, many MSMW in our study sample internalized the belief that heterosexual marriage represents the exclusive form of relationship that offers longevity and happiness. Same-sex relationships were perceived as unstable and ill-fated. Struggling with this dilemma, most MSMW participants in our study finally chose to comply with the expected social role to marry or maintain heterosexual partnerships.

Once married, MSMW participants tried to fulfill their marital obligations as husbands. And although they lacked sexual attraction to their wives, MSMW participants aimed to maintain their marriages to avoid the negative effects divorce might have on their personal and family reputations, children's well-being, and parents' emotions. An interesting area for future investigation is the comparative experience of married MSMW who identified as bisexual or gay prior to their marriage versus those who married first and later identified as bisexual or gay—for example, exploring different patterns of extramarital sexual partnerships or different risk behaviors within and outside of the marital relationship.

Although sex with female partners was infrequent, MSMW participants described the challenges in using condoms during intercourse with women. Whereas some MSMW participants could justify using condoms because of the need for birth control, married MSMW found it difficult to use condoms with wives, who sought sex for intimacy and pleasure and who used other forms of contraception. Certain cultural factors must be considered if we are to further understand the low use of condoms among MSMW and their female partners. First, research studies showed that because of the cultural taboo of sex, Chinese individuals neither frequently talk openly about sex nor educate their children about safer sex (Chapman et al., 2009; Lieber et al., 2009). Second, in Mandarin, the word for "condom" literally means "contraception cap," which may mislead people to believe that condoms are only a tool for pregnancy prevention and not for preventing infectious diseases.

In light of the risk for HIV among MSMW, strategies to promote and normalize HIV testing among their female partners are urgently needed. As a first step, public education campaigns are needed to educate all sexually active men and women about the need for regular HIV testing. Many public education messages regarding HIV/AIDS prevention in China during the past several decades have associated HIV with "immoral" behaviors such as drug abuse and promiscuity; consequently, many people do not consider themselves at risk and thus refrain from testing. Efforts to de-stigmatize HIV are needed in order to normalize HIV testing. Most HIV-positive MSMW agreed that they had a responsibility to encourage their female sex partners to get tested for HIV, but they usually felt it difficult to do so because of the potential risk of disclosing their same-sex behaviors. In contrast, HIV-negative MSMW in our sample indicated that it was unnecessary for them to suggest that their female partners undergo HIV testing. Thus, both HIV-positive and HIV-negative MSMW need strategies and support in order to engage their female partners in HIV testing.

An additional barrier to HIV testing identified in this study was the general lack of trust in health and social service agencies. Venues for free, confidential HIV counseling and testing in China must be more visible and accessible to the public. MSMW worried that workers in hospitals and nongovernmental organizations (NGOs) would disclose their sexual orientation or HIV status to their female sex partners, even if confidentiality was promised. Interestingly, on the basis of their previous experiences with “free” services resulting in unexpected costs, some participants perceived that offers for a free examination would require payment in the end, or that the free test results would be unreliable. These responses suggest that health and social work agencies in China need to continue to develop trust among the MSMW population in terms of dealing with sensitive topics and providing effective and reliable free health services. In addition to the free testing services commonly offered at NGOs, free HIV counseling and testing are offered at local CDCs, and HIV testing can be conducted at hospitals for a fee (roughly \$10 US) or home-based HIV test kits can be purchased online (roughly \$20 US).

Despite the barriers mentioned here, MSMW in our study provided various strategies for promoting HIV testing among their female sex partners. The most common suggestion involved listing HIV testing as part of the annual health examinations provided by the workplace. This suggestion should be interpreted with extreme caution due to the risk for discrimination or other negative impacts against people who test positive. Other strategies included incorporating HIV testing into gynecological exams, using mass media to promote HIV testing, and publicizing the use of home-based HIV self-tests. Most of the HIV-positive men in this sample described disclosing their status to wives, albeit they generally did not disclose their same-sex behaviors. This suggests that partner notification services might be useful for increasing testing and reducing transmission risk for partners of diagnosed people. Future research is needed to examine the feasibility and effectiveness of partner notification for MSMW in China.

There were several limitations to this research. Primarily, our study sites included two large urban cities, which were known as having a relatively higher acceptance of sexual diversity than other cities or rural areas in China. Generalizability of the results to other settings in China may be limited. In addition, participants were recruited by NGO staff and were interviewed within their centers; thus, participants were possibly more likely to have comfort talking about their sexual orientation and behaviors compared with the general MSMW population. Due to the sensitive nature of the issues discussed, participants might have presented themselves in a socially desirable manner. Lastly, we did not collect demographic questionnaire data in order to minimize participants’ feelings of comfort about privacy, and thus we were not unable to assign specific demographic characteristics (e.g., age, employment, length of heterosexual relationship or marriage) to the quotations presented in the text.

Findings from this study provide a deeper understanding of the sexual relationships between MSMW and their female sex partners. Findings reported here underscore the need to continue promoting HIV tests among female sex partners of MSMW in China; research is needed to understand more directly the experiences and perceptions related to HIV risk among female partners of MSMW. Programs to promote testing may differ depending on the

HIV status of the MSMW partner. For HIV-positive MSMW, partner notification programs can offer help in disclosing the HIV status of MSMW to their wives, girlfriends, or other important people in their lives while protecting their sexual identity; efforts to help their female partners accept and cope with their male partner's HIV status can also improve the well-being of both partners. For HIV-negative MSMW, efforts are needed to promote safer sex with both female and male partners and to encourage these men to undergo regular HIV testing; these men must also recognize the potential risk of transmitting other STIs to their female partners, as well as the risk of HIV due to an undiagnosed HIV status. In light of the cultural and interpersonal dynamics described in this article, indirect methods that favor partial disclosure (of one's HIV status or HIV risk, but not necessarily of one's same-sex behavior) may be more effective than methods that encourage full and explicit disclosure. Future research is needed to draw more attention to the relationship context between MSMW and their female partners in order to design appropriate and effective health promotion and HIV prevention and testing interventions for these couples.

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