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Amphetamine-type stimulant use and HIV/STI risk behaviour among young female sex workers in Phnom Penh, Cambodia

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Abstract: Background: Use of amphetamine-type substances (ATS) has been linked to increased risk of HIV and other sexually transmitted infections (STI) worldwide. In Cambodia, recent ATS use is independently associated with incident STI infection among young female sex workers (FSW). Methods: We conducted 33 in-depth interviews with women (15-29 years old) engaged in sex work to explore ATS use and vulnerability to HIV/STI. Results: Participants reported that ATS, primarily methamphetamine in pill and crystalline forms (*yama*), were cheap, widely available and commonly used. *Yama* was described as a "power drug" (*thnam kamlang*) which enabled women to work long hours and serve more customers. Use of ATS by clients was also common, with some providing drugs for women and/or encouraging their use, often resulting in prolonged sexual activity. Requests for unprotected sex were also more common among intoxicated clients and strategies typically employed to negotiate condom use were less effective. Conclusion: ATS use was highly functional for young women engaged in sex work, facilitating a sense of power and agency and highlighting the occupational significance and normalization of ATS in this setting. This highly gendered dynamic supports the limited but emerging literature on women's use of ATS, which to date has been heavily focused on men. Results indicate an urgent need to increase awareness of the risks associated with ATS use, to provide women with alternative and sustainable options for income generation, to better regulate the conditions of sex work, and to work with FSWs and their clients to develop and promote culturally appropriate harm reduction interventions.

Keywords: sex work; amphetamine-type substances; HIV; sexually transmitted infections; risk behaviour; vulnerability

Introduction

Worldwide, more than 30 million people aged 15 years and older are estimated to be infected with HIV, the majority (95%) in developing countries (UNAIDS, 2007). Asia, where the epidemic is expanding rapidly, accounts for an increasing proportion of global HIV infections (22%) (D. Cohen, 2004). In South and South East Asia, 29% of adults living with HIV in 2007 were women (up from 26% in 2001), and 40% of young people living with HIV are women and girls (UNAIDS, 2007). Asian women represent a large population in need of effective and culturally appropriate HIV prevention.

In 2007, an estimated 0.9% of the Cambodian population, or 65,000 people, were living with HIV (NCHADS, 2006; UNAIDS, 2007). Despite improvements in access to screening and antiretroviral therapy (ART) (Charles, 2006; NCHADS, 2006) increased condom use and reductions in commercial sex transactions (Saphonn et al., 2005), HIV and other STI prevalence among female sex workers (FSW) remains high (Sopheab, Morineau, Neal, Saphonn, & Fylkesnes, 2008). HIV Sentinel Surveillance (HSS) indicates that FSWs have consistently had the highest HIV prevalence among all groups in Cambodia (NCHADS, 2006). HIV prevalence among direct FSWs was 14% in 2006. While data on indirect FSWs (women working in the sex industry indirectly in entertainment and drinking establishments) was not collected in the 2006 HSS, a recent study of 'beer girls' found that one in four women were HIV positive (Kim et al., 2005).

This is consistent with preliminary data from our recent study which found an HIV prevalence of 23% among young women engaged in sex work in Phnom Penh (Couture et al., 2011) Incidence of HIV in this study was 3.6 per 100 person-years observation and for STI (gonorrhoea and Chlamydia), 21.2 per 100 person-years observation. Exposures independently associated with incident STI infection included duration (per year) of sex work (Adjusted Hazard Ratio (AHR) 1.1; 95% CI: 1.1-1.2) and recent use of yama, a commonly used amphetamine-type substance (ATS) in Southeast Asia (AHR 4.3; 95% CI: 1.7-11.0) (Couture et al., 2011). Further analyses revealed independent associations between ATS use and increased numbers of sexual partners among women working in entertainment establishments (RR 2.51; 95% CI: 1.59-3.70) and brothels (RR 1.57; 95% CI: 1.09-2.28) and significant associations with inconsistent condom use among women working in multiple venues (OR 4.95; 95% CI: 1.23-29.8)(Couture et al., 2010).

ATS are synthetic psychostimulants such as methamphetamine, amphetamine and ecstasy which can be injected, smoked, or taken orally. Administration results in feelings of euphoria, alertness, arousal and increased libido and increases in heart rate, respiratory rate, blood pressure and perceived increases in confidence, energy and physical strength (Barr et al., 2006). With prolonged use and in high doses ATS can also produce anxiety, hyper-vigilance, paranoia, psychosis, severe panic and other serious adverse conditions (Barr et al., 2006; Hanson, Rau, & Fleckenstein, 2004). Internationally, ATS use has been associated with increased HIV risk in young people (Moon, Binson, Page-Shafer, & Diaz, 2001), injecting drug users (Buavirat et al., 2003), non-injecting drug users (Molitor et al., 1999) and HIV positive heterosexually-identified men (Wohl et al., 2002).

In Cambodia, despite concerns that escalating ATS use may lead to a reversal of downward trends in HIV, ATS use and HIV risk among FSWs has received little attention. Recent epidemiological data (Couture et al., 2011) emphasize the need to understand how socio-cultural factors mediate the complex relationships between sex work, drug use and risk behaviour. We conducted qualitative research to further explore these relationships.

Methods

The Young Women's Health Study (YWHS) is a prospective observational study of young (15 to 29 years) women engaged in sex work in a variety of settings in Phnom Penh, Cambodia. The epidemiological aims

of YWHS are to: 1) estimate prevalence and incidence of HIV and STIs including human papilloma virus (HPV); 2) examine the socio-cultural factors and associated risk posed by ATS use and; 3) assess rates of completion and adherence to a multi-dose vaccine regimen for the prevention of HPV among eligible participants. To date, 220 young women have been enrolled in the cohort.

As part of the YWHS, we conducted 33 in-depth interviews with young women engaged in sex work in different venues including brothels or entertainment establishments, and on a freelance basis in streets, parks and private apartments in Phnom Penh. Women were recruited through neighbourhood-based outreach by study staff employed by the Cambodia Women's Development Association (CWDA), a community partner of the YWHS. Eligibility criteria were that women were aged 15 to 29 years, reported transactional sex (sex in exchange for money, goods, services, or drugs) within the last three months and understood spoken Khmer. Following a careful process of verbal and written consent, women were interviewed at the CWDA offices and the Cambodian Prostitutes Union Women's Room, a community location used by various sex worker organisations in Phnom Penh. Interviews were conducted in Khmer by trained interviewers under the supervision of two medical anthropologists, including a Cambodian national (PP), and took between 40 minutes and two hours to complete. Participants were reimbursed \$USD 5 for their participation.

Interviews were digitally-recorded and transcribed verbatim in Khmer. Transcripts were checked for accuracy against the recordings before being translated into English. Following the general tenets and principles of grounded theory (Strauss & Corbin, 1990), data were analyzed in both Khmer and English using an inductive approach. Two researchers reviewed the data, one in Khmer and one in English. Interview narratives were read and re-read and emerging themes discussed and refined to develop an initial coding scheme. Data were then formally coded in parallel by two researchers using both open and axial coding to clarify and consolidate initial themes (Ezzy, 2002). Identification of final themes and interpretation of results was performed by consensus.

Data were collected during 2009 and ethical approval for the study was provided by the Cambodian National Ethics Committee, the University of California San Francisco Institutional Review Board and the University of New South Wales Human Research Ethics Committee.

Results

Availability and use of ATS

Participants cited four broad categories of ATS used in the context of sex work in Phnom Penh: *thnam kamlang* (power drugs, including yama), *thnam samay* (entertaining drugs, including ecstasy), *thnam krovoy* (shaking drugs, including ecstasy) and *thnam samreub* (sexually arousing drugs, including Viagra and yama). Most accounts were of *thnam kamlang* and *thnam samay*, the focus of our analysis in this paper. Women reported that both pill yama and ice yama were cheap, widely available and commonly used by FSWs. Prices for yama ranged from 5,000-20,000 Riel (\$USD 1-5) per pill. Ice yama was typically purchased in sets or packages with prices ranging from 20,000-40,000 Riel (\$USD 5-10) per set/package. Women also reported swallowing ATS in pill form and inhaling or smoking ice yama (crystal methamphetamine). Most described chasing or inhaling the drug using chewing gum wrappers. Patterns of use included occasional use, binge use and frequent or heavy use.

I use it occasionally whenever I want to be happy (*laughs*) [...] once a week because I wanted to be happy or when I am upset, I wanted to use it (Sopheha, 24 year-old woman).

Participants reported that FSWs who were "addicted" to yama spent all or almost all of the income they earned from sex work on the drug.

When we are addicted to drug, no matter how much money we have, we spend all the money on it. We provide sex service to customer to earn money and just enough to spend on buying drug (Mealea, 23 year-old woman).

Functionality of ATS in the context of sex work

Women described yama as a *thnam kamlang* (power drug) which enabled them to work longer hours.

At 6 pm before they go out they make up and use drug. I can work until dawn. If we don't use, we can't work that night (Rumduol, 27 year-old woman).

[T]his drug is also called "power drug" (*thnam kamlang*) [...] women work for money to buy this drug so that they have power to continue working (Davy, 20 year-old woman).

Yama was described as increasing strength and endurance, enabling women to see more customers and avoid the need for rest or food.

When we use it, it makes us not sleepy. So we don't sleep and we can get more customers. When I take it, I can make time to sit. If I don't take it, I would be sleepy and go to bed and have no time to make money. If I use it, I can be awake for whole night. I can sit and serve many customers, one and more after another (Any, 20 year-old woman).

Women also described how ATS use changed their demeanour, making them more comfortable and friendlier with customers.

After using it, some become more friendly to customers. When we use it, our face looks pleasant and we are friendly. We speak softly to our customers. When I don't use, I think I am still the same when I go out to find customers. But customers wonder because we speak not gently and I am not friendly like when I use drug (*laughs*) (Tin, 27 year-old woman).

Firstly, the shaking drug [ecstasy] is used at the working place because it can make us lose memory and can do naked dance so the customers also finds us pretty and they want us (Mealea, 23 year-old woman).

The preceding extracts suggest that most women perceived the impact of ATS in the sex work setting to be functional and largely positive. The literature suggests that the pharmacological properties of ATS may render them functional in the context of sex work (Hudson, 2010; Maher, 1997 & 2001). While previous research indicates that some sex workers use drugs to cope with their work (T. N. Tran, Detels, Hien, Long, & Nga, 2004), women in our study described drugs as a central and normalised part of their work *practice*. Indeed, it was striking how often women evoked concepts of power and strength in relation to their ATS use, suggesting they gained a sense of agency through their ATS use. Related to this were women's descriptions of ATS as making them 'brave' and enabling them to do things they normally would not do.

It made us powerful. It made us brave to do what we dare not to do before. [...] I just know that it made us powerful and do what we did not want to do (Srey Noch, 24 year-old woman).

I am brave [...] When we use this drug, if customers want to bring us to a faraway place, we dare to jump off from motor bike, or we dare to switch off the bike's power in order to stop it (Srey Mom, 20 year-old woman).

The extracts above suggest that ATS may prompt women to do things they had not necessarily intended to do, thus undermining the sense of agency previously described. Thus, bravery in this context also included risky physical and sexual activity. The following extract also suggests that women may fail to recognize or respond to physical injuries or harms when intoxicated.

Sometimes, when we use the drugs, we feel that we are not hungry and not tired and when for example, when we got a quarrel and we fight till we are bloody wounded or more seriously injured, we won't realize that it's hurt in our body. (Srey Noch, 24 year-old woman).

Many women also reported that ATS use could result in inconsistent condom use; a finding paralleled in studies of men who have sex with men (MSM) (Halkitis & Jerome, 2008; Prestage et al., 2007). Women in the current study described positive effects of ATS use, such as happiness, as well as a concomitant forgetfulness. It is not that women were unaware of the risk of HIV transmission, indeed as discussed elsewhere (Maher et al., under review) women described various strategies to ensure condoms were used in their sex work. It appears that ATS use distanced them from the salience of this awareness.

[I]t made us happy, not afraid and have many partners without condom [...] Yes, not afraid and disease can be transmitted [...] and dare to steal and even dare to have sex without condom and not afraid of other diseases such as AIDS (Rany, 20 year-old woman).

When using the drug, it makes us brave to face with HIV/AIDS and STDs [...] forget to use condom. Yes, so happy and forget to use condom (Roth, 19 year-old woman).

We forgot because we were happy and we did not think about it, even did not know that it was hurt. When the drugs effect gone we realized we forgot condom. It can affect womb, get HIV and STDs (Mom, 28 year-old woman).

These findings echo international findings that ATS use, particularly methamphetamine use, has an effect on sexual decision-making (Halkitis, Green, & Mourgues, 2005). A large Californian study of sexually active men and women found that methamphetamine use was associated with unprotected sex, regardless of sexual risk category or type of intercourse (Molitor, Truax, Ruiz, & Sun, 1998). In an Australian study of regular methamphetamine users, most (72%) reported being sexually active but only 35% reported consistent condom use with casual partners in the last month (Baker et al., 2004).

Women's descriptions of increased energy (strength, power), bravery and the functionality of ATS use in the context of sex work contrast with accounts from men, particularly gay men. The literature on ATS use in MSM focuses on the role of ATS use in enhancing sexual activity (Díaz, Heckert, & Sánchez, 2005; Schilder, Lampinen, Miller, & Hogg, 2005). A New York study of gay men identified several perceived benefits of methamphetamine use in the context of sexual activity including increased performance, increased endurance, increased libido, diminished inhibition and increased pain thresholds (Green & Halkitis, 2006). In contrast very few women in this study described ATS in relation to sexual desire, and increased desire was not a strong or common motivation for ATS use.

Sometimes, it makes me sexually aroused after smoking it [...] it has a strong effect. That's right. Not tired and remain sexually aroused (Rumduol, 27 year-old woman).

Indeed, one woman reported that while she used Yama recreationally, she specifically avoided it in the context of her work because Yama decreased her libido, resulting in her having “no feeling for sex”.

I don't use any drug during my sexual intercourse. I use it only when I want to be happy. I don't use it during sex. If we use it, we have no feeling for sex because it is so dry, no fluid and I don't have sex feeling. If I use drug, I do not go to work. Because it is difficult for me, so I reduced using it and I stop it now (Sopheha, 24 year-old woman).

Impacts on health

In general, women raised few health effects associated with ATS. In addition to the sexual risk taking described above, some women mentioned the negative effects of ATS use on physical health. These were often focused on short term effects, specifically when the effects of the drugs wear off. Withdrawal from psychostimulants, including ATS, is characterized by fatigue, lethargy, sleep disturbances, appetite disturbances, depressed mood, psychomotor retardation and cravings for the drug (McGregor et al., 2005).

But, when it is over, in the end, it makes me weak, fatigue, my heart shake and feel hot after I finish work [...] When we use it we have no appetite, can't eat, sick often and getting worse [...] Chest pain [...] When we're sick we stay in bed. When we have rest we gain back energy (Rumduol, 27 year-old woman).

But when the drug effect is diminished, it makes us difficult in our body. It makes us want to use more drugs, and our body is hurt again (Srey Noch, 24 year-old woman).

Women also drew attention to the potential impact of ATS use on their ability to generate income by negatively impacting physical appearance, characterized as a loss of beauty.

[T]he body looks so black and skin is dry, has no water. So we look ugly and it is hard to earn money because being a sex worker, we need to look pretty. When we use drug, we look so ugly, so skinny. We cannot eat. We have stomachache. It's so difficult (Sopheha, 24 year-old woman).

It makes us lose beauty (Tin, 27 year-old woman).

Women also mentioned the potential for mental health side-effects related to their ATS use.

When I used it a lot, I feel confused and forgetful (Srey Mom, 20 year-old woman).

[S]ome also get mental problem. It depends on people. Those who use it and think a lot can have mental problem (Cheata, 18 year-old woman).

I tell the truth. When I use it for almost a day I see customers as policeman and I ran alone. They said that I am paranoid (*bek*). When I see customer, I see him as policeman. I said it is crazy to go down to see policeman. When it is quiet, I walk slowly to see that policeman. I am completely paranoid. [I see] policeman is chasing me when I am paranoid. [In fact] customer is asking me and there is no policeman. I used it for a day and a night without sleep so I am paranoid now. I am scared (Phalla, 19 year-old woman).

ATS use with and by sex work clients

The literature suggests that many women start using or use methamphetamine because of their sex partners (Cheng et al., 2009; T. Tran, Detels, Long, Van Phung, & Lan, 2005). Echoing this, women reported that use of ATS by clients was common and clients often provided drugs or encouraged sex workers to use them.

I used to smoke with customers only. Yes. I know only smoking and I use the pill drug. [...] Some customers give us money to buy it, and some customers have it along. [...] Customers have desire, but they can't have sex because they have sex feeling, but his sex organ is not erected. (*laughs*) [...] We negotiate price for money so we do not provide sex in exchange for drug (Tin, 27 year-old woman).

Some customers take me to guesthouse and pay me and they also give me drugs to be happy together. [Did you smoke it?] It depends on us. If we want to use, we can use. If not, it is fine. They didn't force us (Chenda, 28 year-old woman).

While almost all women reported that clients encouraged and sometimes pressured them to use ATS, accounts of forced or non-consensual use, such as the one below, were rare.

At my workplace, some customers drink the shaking pill (*Thnam Krovi*). I worked and I used to drink in a situation that a customer put the drug in my drink and I did not know. I drank it, and kept shaking. (Sophea, 24 year-old woman)

Some women felt that clients introduced and encouraged FSWs to use ATS because they wanted them to be "happy". This resonates with women's descriptions above of ATS changing their demeanour.

They give use because they want us to be happy, be not worried of anything when we are sad, look unhappy. So they want us to be happy like them [...] They give us when we are not happy, look sad. After a while, we are happy when we use it, and we don't think of anything. When we take the drug, we don't think of anything, only happiness (Any, 20 year-old woman).

Requests for unprotected sex were more common among intoxicated clients and strategies typically employed by women to negotiate condom use (Maher et al., under review) were reported to be less effective in this context: "It is useless to talk. I have to follow him".

They usually force me not to use condom. [...] I do not agree. They want to hit me and they don't pay me. I said I won't enter [have sex] if they don't use condom (Bophha, 24 year-old woman).

ATS, particularly methamphetamine, use has been associated with 'hypersexuality', including "sexual marathons", among MSM (Green & Halkitis, 2006; Semple, Zians, Strathdee, & Patterson, 2009) and heterosexual methamphetamine users (Semple, Patterson, & Grant, 2004). Echoing this literature, women in the current study reported that ATS use by clients often delayed ejaculation and resulted in prolonged sexual activity.

Some customers use it to have a longer sex. I did not know the customer uses drug and he had sex with me for more than one hour. [...] Some customers listen to me and pay some money when I said they have sex too long and I want to stop. They know they use drug and have longer sex, so they give us money (Srey Sor, 25 year-old woman).

Last time, a customer who comes from abroad put the sexual feeling increasing drug (*thnam samreub*) for himself and in his partner's glass while he went to the bathroom. In only 10 minutes after that, they had sex for one hour and a half and without using any condom. (Mealea, 23 year-old woman)

Few women reported being paid more for longer transactions. While increased risk of HIV and STI infection as a result of tissue damage associated with extended sex is biologically plausible (Sutcliffe et al., 2009) there was limited awareness of the risks associated with both short and long-term ATS use, including the risk of HIV/STI infection associated with unprotected sex and tissue damage as a result of extended sexual activity and, in the longer term, diminished capacity for income generation through dependence and/or physical degeneration.

Conclusions

Women in Cambodia continue to experience significant and cumulative personal and community trauma, including poverty, familial rejection, social dishonour, sexual exploitation, violence, political conflict, migration, and the aftermath of war (Ebihara, Mortland, & Ledgerwood, 1994). The health system is not well developed and psychosocial impairment is common (Dubois et al., 2004). Cambodian women's roles are proscribed by cultural and social values regarding obedience and respect (to one's husband, parents, and social superiors) and maintaining harmony in social relations (Kulig, 1994). Men, especially husbands, have sexual entitlement over female partners (Kulig, 1994). Few women may see prospects for alternatives to their situation or potential for future health. Mistrust shapes all aspects of their lives, including interactions with the health care system (Orie, Etsuko, & Atsuko, 2005; Yanagisawa, Mey, & Wakai, 2004). HIV prevention and care are no exception. Understanding how these social, cultural and historical factors shape young women's risk behaviors, sex work and drug use is crucial to the development of successful prevention programs.

Most of the women who participated in this study had little formal education and few options for sustainable income generation other than sex work. For many women, ATS use increased functionality, enabling them to cope with the conditions of their work, including long working hours and high volume sexual transactions. However, ATS use also increased the potential for risky sexual practices, including inconsistent condom use and extended sexual transactions. The sexual risk taking described by women, unprotected sex and prolonged sexual activity, expose sex workers to increased risk of HIV/STI infection. Participants associated ATS with increased sexual desire by men and this was reinforced by clients who sought to use ATS with FSWs in the context of commercial sex transactions. It appears that for some of the FSWs in our study ATS use was an acceptable and central, if not expected, part of their work.

While some women described harms associated with their use of ATS, generally related to unprotected sex and negative impacts on their ability to work, these were outweighed by strong perceived benefits in terms of workplace functionality. ATS use by FSWs is also functional for male clients and bosses, some of whom are involved in supplying women with drugs. While recognizing the functionality of ATS use in this context, there is a need to increase awareness of the risks associated with both short and long-term use, including the risk of HIV/STI infection associated with unprotected sex and tissue damage as a result of extended sexual activity and, in the longer term, diminished capacity for income generation through dependence and/or physical degeneration.

The high HIV prevalence documented among women in the YWHS coincides with significant economic and policy changes that highlight the need for urgent attention to vulnerable young women in Cambodia. The recent intensification of anti-prostitution and anti-trafficking efforts (Plummer, 2009;

UNIAP, 2009) has reportedly resulted in increased numbers of women working as freelance sex workers on the street and in other high risk settings, and reduced access to prevention interventions, including condoms. Within this context - and despite recent declines in overall HIV prevalence (Saphonn et al., 2005) - our results suggest that ATS use by FSWs and their clients promotes inconsistent condom use and increase vulnerability to HIV/STI infection.

Elsewhere the presence of social, family and occupational supports and obligations has been associated with the 'controlled' use of drugs, including heroin and cocaine (Blackwell, 1983; P. Cohen & Sas, 1994; Zinberg, 1984), refuting causal links between the pharmacological properties of drugs and adverse health outcomes. Indeed our data suggest that the functionality of ATS use and its normalization in this setting may account, in part, for the high prevalence of ATS use among FSWs in Cambodia (Couture et al., 2011). This also goes to psychosocial explanations for drug use, such as a way of coping with sex work (T. N. Tran et al., 2004). Narratives from the women in our study of ATS use as functional and facilitating a sense of power and agency, contrast with those found in the literature on MSM, where ATS use has been situated within discourses of enhanced sexual activity (Díaz et al., 2005; Schilder et al.) and sexual risk (for example, Halkitis et al., 2005). Our results suggest that the effects of ATS use on sexual risk may be mediated by functionality. While these findings contribute to our knowledge of drug use by women involved in sex work, they also suggest that further research is needed to better understand the impact of "set and setting" (Zinberg, 1984) on patterns of drug use, and the gendered dynamics that have are so clearly demonstrated by our findings.

Consistent condom use requires the insistence on condom use by the sex worker and acceptance by the sex client in order to be effective. Male clients influence sexual risk taking by FSWs as a result of their economic power, however clients seeking unprotected sex with FSWs may be more likely to seek out those who use drugs or to offer women drugs, in order to manipulate this vulnerability to negotiate sex without condoms (Johnston, Callon, Li, Wood, & Kerr, 2010). Evidence suggests that the male clients of street-based sex workers are more likely to request sex without a condom than clients attending indoor sex settings (Shannon et al., 2008)

Current approaches to prevention focus on empowering FSWs to negotiate condom use. However, these strategies may fail to appreciate the complexities of commercial sex transactions where drug use, including ATS use, is involved. Our highlight the need for a harm reduction framework to be applied to the intersection of drug use and sex work (Cusick, 2006). There is a need for research which seeks to better understand the decision making and risk reduction practices of FSWs and their clients in this setting and how they are mediated by ATS use. Attempts to better regulate the conditions of sex work to provide safer working environments (Day & Ward, 2007; Goodyear & Cusick, 2007), including timed transactions, should be explored. There is also a need to consider the role of interventions beyond condom use including the potential place of harm reduction and drug treatment options in reducing HIV/STI risk in this setting. Progress in relation to the development of substitution therapy for methamphetamine users has been slow (Vocci & Appel, 2007), although research on pharmacological interventions is occurring (Elkashef et al., 2007; Johnson et al., 2008). And while behavioural interventions designed to reduce HIV risk among methamphetamine users have been developed, most interventions have been designed to target MSM in developed countries (Rawson et al., 2006) rather than FSWs in resource-poor settings. As a result, current harm reduction interventions fail to account for gender-power relations and the social, cultural and economic factors that shape commercial transactions in different settings.

ATS use is increasing dramatically throughout Asia (Farrell, Marsden, Ali, & Ling, 2002; Kulsudjarit, 2004; McKetin et al., 2008). In Cambodia, where the United Nations Office on Drugs and Crime estimates

there are 500,000 drug users, approximately 30,000 tablets of yama are consumed daily (UNODC, 2007). Methamphetamine in pill form has been the leading drug of abuse in recent years with consistent increases since 2003 and crystal methamphetamine (ice yama) use has been increasing since 2006 (McKetin et al., 2008; UNODC, 2007). Our results contextualize and describe some of the consequences of ATS use among young women involved in the sex and entertainment industry in Cambodia. In this setting, where one in four young FSWs are infected with HIV, there is an urgent need to raise awareness of the risks associated with ATS use, to provide women with sustainable options for income generation that do not risk their health (Marten, 2005), to better regulate the conditions of sex work, and to work with FSWs and their clients to develop and promote culturally appropriate harm reduction interventions.

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