

Sexual Behaviors and Condom Attitude among Injecting Drug Users in Hai Phong, Vietnam: Qualitative Findings

Tanvir Ahmed, Thanh N. Long, Phan T. Huong, Donald E. Stewart

Abstract—This paper presents views on condom use and the contexts of safe and unsafe sexual practices with different sexual partners and their relationships among Injecting Drug Users (IDUs) in Hai Phong, Vietnam. Fifteen IDUs participated and two local interviewers conducted qualitative semi-structured face-to-face interviews in September-October, 2012 in Vietnamese language. Data were analyzed thematically. Non-protective condom attitudes include negotiate or convince Female Sex Workers (FSW); not realizing risk, importance or necessity; partner doesn't like, and having extra money/drug from clients. On the other hand, self-awareness, family-consciousness, suspicion of STI presence, fear of getting HIV, and client negotiation sometimes resulted in a safe-sex practice. A thematic diagram was developed to present the relationship (strong/weak) between condom attitude and sexual practice (safe/unsafe) by partner types. The experiences and views reflected in the qualitative information emphasize the heightened need for safe-sex education especially among young IDUs (male/female) highlighting sexual transmission risk.

Keywords—AIDS, HIV, injecting drug user, risk behaviors, Vietnam.

I. INTRODUCTION

HIV testing in Vietnam started in 1988 and the first HIV infection was detected in 1990 [1]. The epidemic progressed within the Injecting Drug Users (IDUs) sub-population and the explosive spread was recognized in 1993 especially in southern Vietnam [2]. By the mid-1990s, the epidemic was well established among IDUs, prevalence reached 70-80% in a number of places and other at risk groups such as Female Sex Workers (FSWs) were affected. By the end of 2000, the epidemic shifted from the southern to the northern region, infecting young IDUs [3]. Eventually, Hai Phong in the northern region became one of the highest HIV burden provinces [4].

Hai Phong, the third largest city in Vietnam is situated 102 km to the east of Hanoi and 20 km from the sea. The province has enormous economic potential because of its geographic location, economic importance and effective national, regional

and international communication system. Since the introduction of open market economic policy, Hai Phong has attracted immense direct foreign investments contributing to the overall development in Vietnam. Along with development opportunities, over the years life style in the city has become modernized, especially among the young; gradually drug use and sex work flourished. Furthermore, Hai Phong is close to a well-established heroin shipment route which connects selected northern provinces with the 'Golden Triangle' (an opium producing zone), creating an ample supply of heroin at a low cost with easy access [5] thus facilitating the growth of the twin epidemics of heroin injection and HIV [6].

The first HIV infection in Hai Phong was reported in 1994. According to the sentinel surveillance data, the HIV prevalence among IDUs climbed rapidly from 1% in 1997 to 32.8% in 1998 [3]. Reaching a record peak level, the prevalence has currently levelled-off at around 60% [4]. The latest Integrated Biological and Behavioral Surveillance (IBBS) data reported 48% HIV prevalence [7]. Over the years other researches also documented high level prevalence with frequent drug and sex related risk behaviors, especially among young injectors [8], [13]. Moreover, the unsafe drug and sex related behaviors of HIV infected persons (PLHIV) provide the worrying potential to heighten the risk of a heterosexual epidemic in the future [9], [10]. The HIV epidemic in Hai Phong got momentum rapidly as a result of an early diffusion among these two high risk groups (IDUs and FSWs). In response to the drug and HIV issues and similar to other provinces, a number of pilot projects were initiated [8]. Lack of adequate policy support had interrupted the then ongoing programs. Gradually the HIV prevention services expanded and these have now reached a mature stage, with high coverage and a recent improvement in ARV treatment and methadone therapy [11].

Previous research in Hai Phong was primarily quantitative and focused on either young or HIV infected IDUs in order to document ARV adherence or methadone treatment [10], [12], [13]. There is a lack of qualitative understanding about the behavioral risk which has the potential to generate crucial insights for HIV prevention. This qualitative study highlights drug use and sexual behaviors and allows an improved understanding of the potential factors that contribute to the high level of HIV prevalence. The qualitative data focus on the experiences and views of IDUs relating to safe-injecting and safe-sex practices and thus provide insights for a deeper understanding of previously unexplored aspects of

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transmission risks. This paper presents their views on condom use and the contexts of safe and unsafe sexual practices with different sexual partners and their relationships.

II. METHODS

A total of fifteen IDUs including thirteen men and two women (25 to 49 years old) from different districts in the Hai Phong province made up the study group. Semi-structured face to face qualitative interviews were conducted during September-October, 2012, supported by a facilitator guide providing the necessary probes and recording the extensive responses [14]. IDUs were selected with the help of a peer educator using a snow-balling technique and using inclusion criteria such as age, sex, risk characteristics, in order to obtain as wide a range of views and information as possible. Eligible participants (except the two female respondents) were selected from those recruited from a larger scale research initiative in Vietnam (the proposed IBBS Round-III) during which a field supervisor had asked screening questions and ensured recruitment status. The interview lasted for approximately forty-five minutes and participants were reimbursed VND 100,000 (~AUD 5) for their time and any inconvenience that resulted from their participation in the interview. A private location was chosen, considering the respondents' convenience.

The interview was conducted by two local interviewers in the Vietnamese language and audiotaped. The research was conducted ethically and clearance was sought from the university research and ethics office (Ref No: PBH/16/12/HREC). Participation was completely voluntary and anonymous and before the interview, ethical procedures, including informed consent and participants' understanding of their right to withdraw, skip and refuse any question to answer any points were presented and discussed. The scripts were transcribed and translated with double checking into English at a later date. All the study materials including audio files and interview scripts were assigned unique identification numbers. The transcripts were edited later to delete any personal identifiers mentioned during the interview. The data were categorized and coded according to themes in line with research objectives. The thematic analysis technique was used to identify, analyze and report different themes into textual data [15] and a qualitative data analysis thematic framework was adopted [16]. Key themes were compared across transcripts to identify consistencies throughout the exploratory quotes.

Major content areas highlighted drug use and sharing practices, sexual behaviors and condom use status, and access to HIV prevention services. This paper presents data related to sexual behavior and condom use status and highlights the contexts of condom and non-condom sex elaborated by the participants. The views and experiences of the participants relating to recurring themes/sub-themes are presented with the exploratory quotes in tabular format. Finally a thematic diagram has been developed to highlight the relationship (strong or weak) between condom attitude and sexual practice (safe or unsafe), by partner types. The strong and weak

relationship could be interpreted respectively as reflecting the high/low probability of the event occurring (safe or unsafe sexual practice). The process of labelling a relationship as strong or casual was critical and judged after repeated reviews of a series of motivator words, stress, and context during the qualitative discussion.

The first author was the major researcher and maintained overall engagement during the data collection process. He monitored the interview sessions and undertook discussion with interviewers after each interview, checking completeness and consistencies for ensuring data quality. He performed the data analysis manually and drafted the manuscript.

III. RESULTS

A. Socio-Demographic Characteristics

Table I shows the socio-demographic characteristics of the participants. Out of 15, most (13) are male, with the two female injectors included employed as FSWs. The majority of the participants are older with around two-thirds (9) in the 30-39 years age group and the remainder either less than 30 years (4) or above 40 years (2). All the participants belong to the Vietnamese Kinh ethnic group. They are also, except for one participant, permanent residents in Hai Phong province. Likewise all except one have been living in Hai Phong province for long time. The level of completed formal education of participants falls into two categories: those who have completed primary or secondary (13); and those who have completed college or university level education (2). Seven participants are currently married; one is living alone; and the rest are cohabitating either with their wives and children (7) or parents and other family members (7). Three participants are unemployed but others (12) are involved with some forms of non-regular unstable casual work such as motor bike driver, mechanic, and small informal business. Those who have no work mostly rely on their family for support. Among those who are working, a majority (8) earn less than five million VND per month; only four earn an average five million VND or more. In terms of overall family income, the majority (12) earns less than ten million VND in a month and the monthly income for the rest (3) is ten million VND or more.

Among the 15 participants, seven are infected with HIV; all of them are male. The majority of the HIV positive participants became aware about their status between 2006 and 2010. Five of the participants are registered with clinics and have started ARV treatment, but one has not registered with any clinic so far. One of them also started methadone therapy in 2012. All the infected participants identified frequent sharing of needles and syringes (N/S) and other injecting equipment as the mode of acquiring the virus.

B. Sexual Behaviors

All the participants had their first sexual experience around their early twenties and commented that the early sexual experience of one person often influences other friends to engage in sexual activity. A majority had their first sexual

episode with FSWs at hotels. Some also reported having the first sexual experience with their girlfriends. Among the married respondents in the qualitative discussion, all except for one had a current sexual partner (regular) other than wives at the time of interview. Two of the unmarried participants (one older male and one young female) had a current regular sexual partner. However, both the married (5) and unmarried (4) participants used to have regular sexual partners in the past. Nevertheless, regardless of having a regular sexual partner, the discussion revealed that all of them had frequently visited FSWs in the past.

TABLE I
 SOCIO-DEMOGRAPHIC CHARACTERISTICS

Characteristics	Categories	Number (N=15)
Gender	Male	13
	Female	2
Age (range: 25-49 years)	Less than 30 years	4
	30-39 years	9
	40 or plus	2
Ethnicity	Kinh	15
Place of living	Hai Phong	14
	Other province	1
Duration of living in Hai Phong	Permanent	14
	Temporary	1
Education	Primary/secondary	13
	College	2
Marital status	Currently married	7
	Unmarried	8
Living status	Co-habiting	14
	Alone	1
Employment status	Casual/non-regular work	12
	No work	3
Income level (range 2m-7m)	Less than 5 m VND	8
	5 m VND or more	4
HIV status	Positive	6
	Negative	9

The context for the visit to a FSW was different and varied according to marital status, ability/inability to have sex with wife and having extra money. Being unmarried and having additional money are the most cited reasons for the young participants to engage in sex with FSWs. Young participants often visit FSWs and enjoy time together when they can obtain additional money. They organize different types of celebration events such as birthday parties, festivals or cultural events. On the other hand, the older participants (married and unmarried) discussed different experiences relating to their visits to FSWs. Table II presents exploratory quotes and highlights the context for engaging in commercial sex.

C. Last Sexual Intercourse

The participants mentioned different types of sexual partners. The most common sexual partner for the married male participants was wife and FSWs. All the young unmarried participants mentioned FSWs. The female participants mentioned clients and sexual partner (regular). They classified clients into two categories such as regular and non-regular clients.

The experiences that the participants described, relating to their last sexual episode with the different types of partners, was quite multifaceted and this highlights the possibility for

increased transmission risk. Among the married participants six had their last sexual intercourse with their wife and one with his sexual partner (regular). Among the unmarried participants, the males had their last episode with FSWs while one female participant had her last sexual encounter with a client. The period since the last sexual episode varied from 'yesterday' to 'last month' with wife or sex partner (regular) whereas there is a longer period (six months) in the case of having sex with FSWs.

Hotels are the most frequently cited places for the participants to have sex. According to the participants young and new FSWs can be found in the hotels and karaoke rather than the streets. As highlighted during discussion, the availability of money is crucial in the case of having sex either with a FSW or a partner. Only when they have extra money they plan for a sexual event.

D. Views on Condom Use

Participants' views on condom use are crucial because they influence the probability of safe sex practice while having sex with a FSW, wife or a sexual partner (regular). In general, the IDUs are relatively less positive about using condoms, because of their involvement in high risk activities associated with drug use (sharing of N/S and other items). However, because of improved knowledge about sexually transmitted infection (STI) and HIV transmission, IDUs have changed their behavior and interest in using condoms, depending on a number of contexts surrounding drug use and sexual practices. As Table III indicates, the participants highlighted different types of attitude towards condoms, which varied according to sexual partners.

TABLE II
 CONTEXT OF INVOLVING IN SEX WITH FEMALE SEX WORKERS

Recurring sub-themes	Exploratory Quotes
Unmarried status	<i>I visited many female sex workers (and had sex with them) before my marriage. But after (my marriage) I have got my wife and really I do not need to go to female sex workers now and do not need to spend my additional money (participant 30-39 years old).</i>
Unable to have sex with wife/partner (regular)	<i>I visited to female sex workers during the time of pregnancy of my wife. Later, she had developed some infection due to pregnancy related complexities and surgery. (For this reason) I continued having sex with female sex workers after the birth of my child for a long time (participant 40plus years old).</i>
Having extra money	<i>I had the last sexual intercourse with female sex worker in a hotel near the rail lines. At that time I had some money with me. I had some stuff (heroin), and then I went with my friends (participant less than 30 years old).</i>

Participants described their experiences (current or past) of sexual behavior (safe or unsafe). Most mentioned that sexual desire is higher among young and new users than the older and long-time users. Accordingly, the views on sexual behaviors of some young participants were particularly interesting. Because of a high sexual desire they were often involved in sexual behaviors with FSWs. They frequently negotiated for non-condom sex acts with them. Others repeated that 'lack of risk awareness', 'not considering as important' and 'not considering as necessary' were the frequently appearing

contexts for unsafe sexual practices.

However, the views were different in case of having sex with a FSW, sexual partner (regular) or wife. Some respondents were genuinely convinced about the absence of risk while having sex with their wives and thus did not consider the importance of using condoms. Also, many of them did not consider the use of a condom with their sexual partners (regular) was necessary. The female participants highlighted four commonly appearing contexts such as 'clients do not like to use condom', 'partner does not want', and 'getting extra money or drug' for their involvement in unsafe practices with clients (regular and non-regular) and partner. As a result the context of a non-condom sex act differed according to the types of sexual partner and status of the respondents such as age, and marital status.

TABLE III
 CONTEXTS OF NON-CONDOM SEX ACTS

Recurring sub-themes	Exploratory Quotes
Not considered as important	<i>This is not necessary for husband and wife to use condoms. It is essential for having sex with female sex workers. Now I have sex only with my wife. (For this reason), I do not use condoms (participant 40 plus years old married). I have not a wife. I did not use condoms while sex with my partner or sometimes with female sex workers. For many times, I reconsider my behaviour, I think using condoms with female sex workers is the safest way (participant 30-39 year old unmarried).</i>
Not considered as necessary	<i>I usually do not use it (condoms). Because, first I do not like it and second, the commercial sex workers allow me to do it like this (without condoms). Sometimes, I use condoms, only because many of them (female sex workers) do not allow (sex) without condoms. They make me use (condoms) (participant less than 30 years old unmarried).</i>
Negotiate/convince female sex workers	<i>There was no disease before (HIV and STI) and I had unprotected sex with commercial sex workers. Later I heard about a number of diseases which I might get because of not using condoms during sex with female sex workers (participant 30-39 years old unmarried). Actually it (use of condoms during sex with clients) depends on my mood and my drug use condition (in a 'high' state or not). If I have a good feeling sometimes I agree for non-condom sex and get some extra money (clients offer extra money for non-condom sex). It depends on my mood. Clients do not like to use condoms. Because it reduces the feeling and they do not feel very comfortable (participant less than 30 years old female).</i>
Lack of awareness	<i>I do not do this (non-condom sex acts) with all clients. If they are my regular clients, then I do not use and when I have extreme craving for this (heroin), they give me extra money or drug and I take it (participant less than 30 years old female).</i>
Exchange drug or extra money	<i>My partner (also an IDU and 12 years older than me) does not want to use condoms. When I asked him (for using condom) he replies we did not use in the beginning we do not need to use it (condom) now (participant 25 years old female IDU).</i>
Partner does not want	

In contrast to such unsafe practices, some participants practiced safe sex and described their experiences and highlighted their protective condom attitudes. Mostly, the HIV

infected participants engaged in safe sex behaviors and the primary reason for this was to protect their family. The frequently appearing reasons include 'family consciousness' and 'scared of getting HIV infection'. Apart from these reasons, female participants highlighted a number of contexts when they used condoms while having sex with either clients or partners such as 'suspicion of presence of STI' in partner, and successfully 'negotiated safe sex with clients'. Another reason provided for protective condom attitudes was 'desire to avoid pregnancy' - interestingly, condom use was regarded as a way to protect against pregnancy, rather than STI and HIV transmission.

TABLE IV
 CONTEXTS OF CONDOM SEX ACTS

Recurring sub-themes	Exploratory Quotes
Suspicious about STI	<i>Sometimes I get doubt that he (my partner) got some STI disease. When I doubt this type of infection I tell him to use condoms because it is good for both of us (participant 25 years old unmarried).</i>
Family consciousness	<i>Whatever I am, I need to keep my wife safe. I need to keep my wife healthy so that she could raise my child. Whatever diseases I have, I try to protect my wife from any types of risk (36 years old HIV infected married participant).</i>
Client negotiation (empowerment of FSW)	<i>I only do not use it (condoms) when the female sex workers do not allow me to use. Nowadays, they (female sex workers) are also aware about HIV and STI transmission. They often not agree for sex without condom. For this reason, I sometimes did use condoms with them (female sex workers) (30-39 years old unmarried HIV infected).</i>
Protection against pregnancy	<i>I need to use condoms with clients for two reasons. Firstly I will not get pregnant and secondly I will not be infected with diseases. I use condoms with clients and I get less money (clients offer higher money for having sex without condoms). Once I get infected with diseases where do I get money? It is best to avoid it (non-condom sex). But it is very hard to say ('no' to the clients when they offer higher money) (participant <30 years old female IDU). My wife sometimes wants to have sex without condom.</i>
Scare about HIV infection	<i>But when she thinks about the diseases she becomes scared. For this reason, I use condoms. We are really afraid when we think about this disease (participant 30-39 years old married HIV infected).</i>

Each of the views on condom use with different types of sexual partners was analyzed, to highlight any patterns in safe and unsafe practices by participant categories. Fig. 1 lists major condom attitudes (protective and non-protective) towards engaging in safe or unsafe sexual behaviors according to sexual partners. Based on participant views, experiences and comments, a relationship diagram was developed (Fig. 1) which shows the strong and casual linkages with safe and unsafe practices. According to the results, young males (married and unmarried) and young female participants were mostly engaged in unsafe practices whereas HIV infected males and older married persons engaged in protected sex with wife and FSW, respectively.

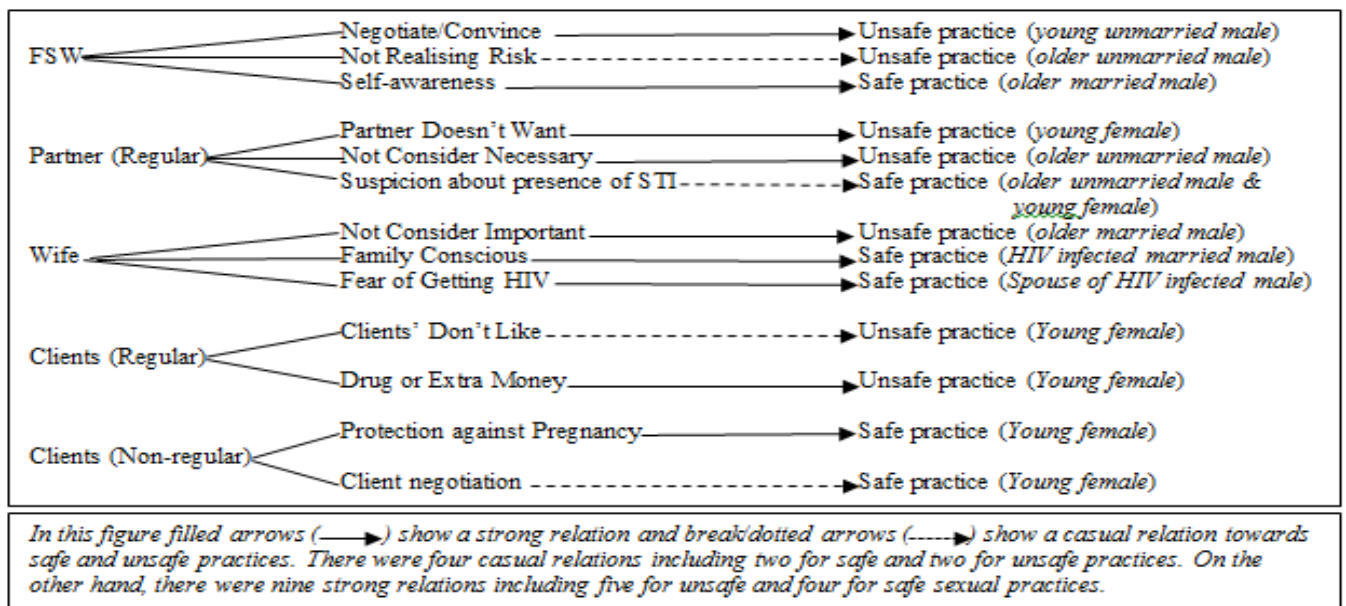


Fig. 1 Views on condom, sexual partner & safe and unsafe sexual practice

IV. DISCUSSION

Sexual transmission of HIV as a result of unsafe behaviors by key population groups including male and female IDUs is critical in relation to the potential for an expanded epidemic in Vietnam [17]. Our findings underscore the current difficulty and provide an important insight via a qualitative understanding of the sexual transmission risk among IDUs in Hai Phong and the rich contextual description of different circumstances relating to safe and unsafe practices. These qualitative findings supplement previous quantitative research [13], [18] and affirm the presence of a significant potential sexual risk. A mixed group such as (i) young male (unmarried), (ii) older male (married and unmarried), and (iii) young drug injecting females continue the risk behaviors which have the potential to fuel a heterosexual epidemic in the future. As highlighted, there were two types of relationships, either with a strong or weak link between condom attitude and partner types which resulted in a protected or unprotected sexual act.

This research has identified seven non-protective attitudes towards condom use while having sex with different types of partners (wife, FSW, sexual partner (regular), and clients (regular and non-regular)). Among the young unmarried males with a strong relationship, being able to convince or negotiate with a FSW for not using a condom is a major non-protective condom attitude. This finding is critical in terms of HIV transmission and helps to explain low condom use among young IDUs in Vietnam [10], [19] especially in Hai Phong [13] and FSWs [20]. It also highlights the interests of FSWs to engage in non-protected sex acts by accepting a higher offer (money or drugs) from clients [21]. Similarly, older unmarried males highlight another non-protective attitude towards condom use as eventually they did not use a condom while having sex with FSWs. Although the relationship between

them was found to be weak, they did not identify this as a transmission risk. The same group of older unmarried males also highlights another risky attitude towards their (regular) sexual partners by not considering it necessary to use condoms with them. A strong non-protective attitude to condom use exists in the case of the (regular) sexual partner which would result in an unprotected sex act. Partner objection or dislike has also been previously reported as a primary reason for unprotected sex with regular partners [22]. Older unmarried males highlight overlapping risk behaviors between partners and FSWs; however, the present research did not document a sexual partner (regular) among young unmarried males. Similarly, the group of older married males did not use condoms while having sex with their wives because of a strong non-protective condom attitude such as 'did not consider it as important'. Our study did not generate sufficient findings that would highlight the unsafe sexual involvement of older married IDUs. According to our findings they did not link to any other risk groups and were not engaged in unsafe sexual practices. Therefore, their unsafe sexual behaviors with their wives did not overlap. The drug use behaviors of this group, however, may put their wives at risk of contracting HIV infection.

The non-protective condom attitudes of young females resulted in the remaining three types of unsafe sexual practice contexts. There were two major non-condom attitudes such as 'partner does not want' and 'clients (regular) do not like' which often resulted in unsafe practices with young drug injecting females who are also engaged in sex work. Although this research labelled the non-condom sex act with clients (regular) as casual, there was a strong relationship between non-protective attitudes to condom use and unsafe sex acts with their sexual partners (regular). Furthermore, 'having drugs or extra money from clients (regular)' highlighted

another risky attitude which usually resulted in unsafe practices. Young drug injecting FSWs highlighted distinct risk characteristics because of sexual activities with partner, clients (regular) as well as drug use behaviors which habitually resulted in unsafe practices either with partner or clients (regular or non-regular). The risky behaviors among drug injecting young FSWs might well fuel the heterosexual epidemic and gradually transfer the infection to the wives, in general, and sexual partners, in particular, of the clients visiting them. Previous research in Vietnam has also highlighted drug injecting FSWs as a critical group to target for enhanced prevention, because of drug use behaviors and engagement in risky practices with clients and partners [23], [24].

On the other hand, our research documents a number of protective attitudes towards condom use with these partners on different occasions. HIV infected IDUs or their spouses mostly exhibited a safe sex attitude which includes 'family consciousness' and 'fear of getting HIV infection'. Unlike previous research, our findings did not highlight the risky sexual activities among the HIV infected IDUs. One reason could be the age of the participants as most of the HIV infected participants were in their late thirties, except for one. The participants might have experienced decreasing sexual desire because of long drug using history and thus were less likely to be involved in risky sexual activities. Another reason includes the ongoing ARV treatment of participants which make most of them regularly weak and tired. Similarly, the older married males did not engage in risky sexual activities because of their strong condom attitude including 'self-awareness' in using condoms with FSWs. Furthermore, both older married males and young females often engage in protected sex acts with their sexual partners (regular) because of their casual condom attitude such as 'suspicion of STI presence'.

The young females have also demonstrated a protective attitude towards condom use and explained that generally clients would not be interested in having sex with a FSW showing STI symptom which would, in turn, result in reduced numbers of clients and thereby affect their income. Under such circumstances, FSWs who are also drug injecting would face difficulty in getting money for drugs. Similarly, 'protection against pregnancy' was another interesting protective condom attitude found among young female participants. They described a strong protective condom attitude as 'to avoid pregnancy' and thus engage in safe sex with clients (non-regular). Another interesting protective condom attitude includes 'client negotiation by FSWs' which occasionally resulted in safe sex practice with clients (non-regular). Previous research among FSWs in Hanoi documented an increase in condom use because of FSW ability to negotiate with clients [25]. The FSW empowerment issue is crucial in successful negotiation for condom use. It was found that clients offer more money for having sex without condom and that FSWs find this difficult to refuse and often accept such an offer. Safe sex education should emphasize client negotiation and make FSWs aware of the risk

before falling into the trap of unprotected sex in exchange for a higher reward.

We acknowledge that our study has potential limitations. First of all, the selected participants were not representative of the IDUs in Hai Phong, rather, they were predominantly older males in their thirties and mid-forties. However, having a mixed group did help to obtain a range of information. They described their experiences and attitudes in detail which provided valuable insights regarding sexual practices. Our findings mostly relied on subjective description and indirect responses about their drug injecting friends. The information obtained was typically rich in content which was consonant with other research in Vietnam [9], [26].

We are also aware that certain issues such as sexual risk behavior among the HIV infected persons, and risks associated with multiple partner involvement have emerged in relevant research [18], [27] and that this type of sexual risk has an alarming potential for the spread of a heterosexual epidemic in the future. However, our data did not identify the sexual risk behaviors of HIV infected persons, likewise a majority of our participants reported single partner relations. Also, this paper did not focus on the experiences of HIV prevention services used by the participants. Although many of them acknowledged receiving free condoms from programs, they did not identify them as a significant protective factor relating to condom use and hence are not included in this paper. Bearing these limitations in mind, we consider that our findings provide insights for an understanding of sexual transmission, and document situations determining protective and non-protective condom attitudes with different types of sexual partners, and their relationships.

V. CONCLUSION

Our findings suggest that the risk of HIV transmission exists because of unsafe sexual behaviors among young male and female IDUs and provide insights for designing and implementing intervention strategies. The protective attitudes towards condom use should be further facilitated and non-protective attitudes need to be addressed, to convert them into safe sex practices. For this to happen, safe sex education needs to be tailored according to the categories of sexual partner and strengthened within the current prevention program.

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