Safe sex norm questionnaire for female sex workers: development and validation study in Iran

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Abstract

Objectives: The aim of the present study was to develop and validate a safe sex norm questionnaire as an appropriate instrument which would be adaptable to the FSW population.

Design: A mixed method study.

Methods: Appropriate content was prepared through literature review. Content validation indices were assessed using interviews with content experts and lay experts. A conservative approach was used to assess the inter-rater agreement among the participants about the instrument relevance and clarity. The scale content validity index was computed using the average method. Non-parametric Mokken scale analysis was used for assessing scalability and unidimensionality of the questionnaire in a sample of 170 FSWs in Tehran. To evaluate the reliability and internal consistency of the questionnaire intra-class correlation and Cronbach's alpha were employed.

Results: A list of 34 items was finalized, with subscales for actual behavioral norms and for perceived norms. The relevance of the actual and perceived norms subscales in the final questionnaire was higher than 96%; clarity of the subtests was 99% and higher. The comprehensiveness of the actual and perceived norms subscales was 85% for both. Mokken scale analysis showed that the two subscales were distinct constructs, and all items are good indicators for the constructs.

Conclusion: Our findings support that the safe sex norm questionnaire is a valid and reliable measure that would be useful to harm reduction programs and help to effective HIV prevention among female sex workers.

Keywords: content validity; safe sex norm; questionnaire; female sex worker

Introduction:

Nowadays, after about four decades of the first reports of the human Immunodeficiency virus (HIV), the HIV pandemic is one of the important public health concerns in the worldwide especially for developing countries, yet[1]. Globally, in 2016, 36.7 million people had HIV that 2.1 million of them were new HIV infections[1]. The evidence shows that the pattern of HIV transmission

in many developed and developing countries including Iran has shifted from injecting drug use to sexual transmission[2-5].

Female sex workers (FSWs) are among the most important groups at risk of HIV/AIDS, especially in the phase of the HIV epidemic that HIV transmission through sexual intercourse is increasing [3, 6]. This is related to their multiple risk behaviors such as unprotected sex, having multiple partners, drug or alcohol use before sexual intercourse, and injecting drug use. FSWs not only are at risk for HIV, but may also act as a bridge group for HIV transmission to the general population [7, 8].

FSWs' vulnerability to HIV not only depends on one's own risk behaviors, but also on the behaviors of members in one's social or sexual networks[9-11]. A growing body of literature shows the importance of social networks for HIV risk behaviors and transmission[12-19]. In addition to biological transmission through networks, social networks can enforce members' adherence to healthy or risk behaviors [20-24]. For example, Peterson and colleagues reported that men who have sex with men in the high-risk group, compared with those in the no-risk group, perceived lower positive reaction about condom use among their sexual networks [25].

One of the important social network characteristics that affects health and risk behaviors is social norms and support of network members for existing social norms [22, 25, 26]. According to the literature, social norms can be associated with several health and risk behaviors such as smoking [27, 28], exercising [29, 30], weight-control behaviors [31], use of contraception[32], exchanging sex for money and drugs[33], alcohol use[34 35, 36], injecting drug use [37], and sexual behaviors [38].

Social norms are attitudes or behaviors that are considered acceptable in a peer group or community [25, 37]. People who do not follow norms may suffer negative consequence from network or community members.

Social norms include actual norms that are the real attitudes and behaviors of people (e.g. attitudes about appropriateness of condom use in sexual relationships); and perceived norms that are people's perceptions or beliefs about how others think or act (e.g. perception about peers' condom use) [25, 39]. For research about social effects on safe sex behavior, measurement of social norms is important. Although there are some studies that measure social norms in populations of adolescents and young people who used drugs or alcohol [40], men who have sex with men [25], and injection drug users [37], there is no published scale measuring social norms about safe sex behavior among FSWs.

The aim of the present study was to develop and validate a Safe Sex Norm Questionnaire (SSNQ) as an appropriate instrument that would be adaptable to FSW populations.

Method:

This mixed method study (qualitative-quantitative) followed four steps for developing and validating the SSNQ. First, appropriate content was prepared through literature review and a qualitative study. Second, content validation indices were assessed for the prepared items using interviews with content experts and lay experts (FSWs). Third, the reliability of the questionnaire was evaluated in a pilot study. Finally, scalability of the items and unidimensionality of the questionnaire was explored using Mokken scale analysis based on a large sample of FSWs in Tehran (N=170).

Development of the questionnaire

Literature review

Based on the standard procedures for the development of valid and reliable questionnaires [41, 42], in the first step the relevant literature on social norms and sexual behaviors was critically assessed to recognize the social norms theory and theoretical frameworks in the previous studies, determine

the content domain of the social norm construct, and find the relevant instruments / questionnaire for adaptation. The reviewed literature provided strong evidence for association of social norm and risk behaviors [37, 43] [15, 25, 44] and highlighted the lack of a social norm scale for safe sex practices among FSWs. According to the social norms theory, a behavior is more often influenced by people's perceptions of how others think or act than by their own beliefs or behaviors [39]. Some studies have shown that following safer sex practices is associated with perceptions of supportive norms from peers and sexual partners for condom use [25, 45, 46]. Miner et al. found that condom use norms indirectly influenced unsafe sex through condom self-efficacy and safer sex intention among men who have sex with men [44]. It has been shown that social norms influence a number of HIV risk behaviors including condom use [25, 47], needle sharing [37, 48], and drug or alcohol use [40, 49]. These studies highlighted the important role of perceived network norms in HIV risk behaviors. The existing studies and instruments in the literature for related populations [25, 44, 50] were used for item generation in the SSNQ and modified to be applicable to social networks of FSWs.

In this step, the qualitative data collected in the interview with FSWs who had experience regarding social network of FSWs, sexual relationship and sex work also help to enrich and develop what has been identified in the literature regarding the concept, and considered as a valuable resource to generate questionnaire items.

Qualitative study

Given that social norms about safe sex will be specific, to some extent, for the particular population of FSWs, a qualitative content analysis study with directed approach was conducted to identify the social norms, related to sexual behaviors, in the social network of FSWs[51]. According to this approach, the qualitative data were collected and analyzed based on the social norm theory and relevant existing study's findings as a guidance for initial codes[51]. The qualitative data along with

the literature review help to identify the social norm concept definition among FSWs, and served as a resource for item generation[52]. Participants were selected through purposeful sampling. Eligibility criteria included being over 16 years old, having had sex for money in the last year, identifying themselves as sex workers, and willingness to participate in the study. To reach maximum variation in the sample, and attain good generalizability of results to FSW populations, effort was made in the sampling process to recruit FSWs with different ages, and various different places of living and work. The semi-structured in-depth interviews were conducted with the eligible participants until 'data saturation' was reached, i.e., no further additional points of view were mentioned (*n*=9). The interviews began with general questions about their experiences of sexual behavior with clients/sexual partners, common aspects of their sexual relationships, and their perception about sexual behaviors of peer friends. 'Peer friends' were defined here as other FSWs who were friends with the participants. In addition, questions were asked about peers' attitudes about safe sex. Probing questions were followed by W-questions such as where, when, how, and why.

For example, researchers asked the participants to answer questions such as, "What do you do to protect yourself regarding HIV/AIDSs?" "Do you know, what your friends do to protect themselves regarding HIV/AIDSs?" "Please explain your experience with condom use in your sexual relationships". Each interview lasted 1–1.5 h. After verbally receiving informed consent of the participants, all interviews were recorded but participant's identities were kept anonymous.

For analyzing the data, the interviews were transcribed into texts. The texts were reread several times, and initial codes were identified. Then, the codes which were semantically similar were classified into categories. To ensure accuracy and reliability of newly coded data, the previously coded interviews were reviewed again. The ethical review committee of the Social Welfare and

Rehabilitation Sciences University approved the study protocols (IR.USWR.REC.1394.187). Participants were given an explanation regarding the study purpose and provided verbal informed consent. Written informed consent was not obtained for preserving anonymity, because sex work is illegal in Iran.

Validation of the questionnaire

For assessing the validity of the questionnaire, a first draft was sent to fifteen experts including four social science experts with experience in theories of social norms and social network analysis, two mental health experts who had work experience related to female sex workers in Iran, one epidemiologist, and eight FSWs as lay experts [53]. In this step the FSWs (n=8) were selected purposefully based on some criteria including; being over 16 years old, having had sex for money in the last year, identifying themselves as sex workers, being alert, having more communication with other FSWs, and willingness to participate in the study. To explain the study aims to the experts/lay experts, the questionnaire was sent along with the definition of the social norm and of the content validity indices (relevance, clarity, and comprehensiveness of the instrument), and with indications for how to score the questions, a cover letter, and a response form. Relevance was defined as the quality of the questions to reflect the relevant content. Clarity was defined as simplicity and clarity of the questions in terms of wording and content. Instrument comprehensiveness was defined as coverage of all relevant content by the list of questions. Each index, as recommended by Lynn [53], was rated on a four-point Likert type scale (1=inappropriate/unclear, 2=somewhat appropriate/clear, 3=appropriate/clear, 4=quite appropriate/clear). In addition, all experts were encouraged to edit the questions' wording to improve the clarity, delete superfluous questions, and suggest additional questions. At this step, also the qualitative face validity of the questionnaire was assessed. The questionnaire was designed

for application through face-to-face interviews, to allow for the varying literacy levels among FSWs and increase the precision of data collection.

Reliability of the questionnaire

After evaluation of the questionnaire's content validity, a pilot study was performed among 28 FSWs who were over 16 years old, identified themselves as sex workers, and were willing to participate in the study. Convenience sampling was used for recruiting the participants. These FSWs, who also satisfied the inclusion criteria of the study, were interviewed and completed the questionnaire. After a two weeks interval, the respondents filled in the questionnaire again.

Scalability of the items and unidimensionality of the questionnaire

After the pilot study, the final version of instrument was determined. To explore the scalability of the items the resulting questionnaire was administered to a large sample of FSWs in Tehran (N=170), and Mokken scale analysis was used [54]. Snowball sampling was used for recruiting the participants. The data collection chain process continued until 5 waves that the snowball extinct by itself. Mokken scale analysis is a non-parametric latent trait scale model, suitable for binary and categorical items. It was applied earlier to design and construct multi-item questionnaires measuring health constructs in the field of public health [55, 56]. This method uses Loevinger's H coefficients to measure scale homogeneity for the item pairs, the items, and the entire scale. This coefficient indicates the quality of the scale; items with a low H value are candidates for removal from the scale. According to recommendations [45] a scale with $0.3 \leq H < 0.4$ is considered a weak scale; between $0.4 \leq H < 0.5$ a medium scale; and only when $H \geq 0.5$ is it considered a strong scale.

Statistical Analysis

A conservative approach was used to determine the inter-rater agreement [57] among the participants about the instrument relevance and clarity [58]. The item content validity index (I-CVI) for an item was defined as the proportion of experts and lay experts who chose the item as "appropriate/clear" or "quite appropriate/clear" for clarity. A cut-off point 80% was considered as the acceptable level for this index.

The scale content validity index (S-CVI) was calculated based on the average method (S-CVI/Ave) as recommended by Polit and Beck [58]. In this approach, first, the four-option choices of each item (inappropriate, somewhat appropriate, appropriate, and quite appropriate) were combined to binary choices appropriate vs. inappropriate. Then, the proportion of "appropriate" responses was calculated across items and experts (including lay experts). The same procedure was conducted for relevance. The acceptable value for S-CVI/Ave was set at 90% [58].

Comprehensiveness of the instrument was assessed by the proportion of experts who chose the instrument comprehensiveness as appropriate. The acceptable comprehensiveness was 80%.

To estimate the reliability and internal consistency of the questionnaire, intra-class correlation (ICC) and Cronbach's alpha were employed. For both, values higher than 0.7 were considered acceptable. The ICC was estimated by the correlations between total scores of the questionnaire in the pilot sample measured at two time points with a ten days to two weeks interval. Also, as a complement to the traditional Cronbach's alpha, the reliability coefficient was assessed by Mokken scale analysis using the N=170 sample. This coefficient is an unbiased estimate of the reliability, instead of a lower bound for the reliability as the traditional Cronbach's α. Mean (SD) and frequency (%) were used for descriptive results of the FSWs. For the scale analysis the Mokken package [48] in the R software (http://www.R-project.org) was used. All other statistical analyses were performed using SPSS version 20 (IBM Corp., Armonk, NY, USA).

Result:

Literature review

The questionnaires and also questions in the literature which applied for the item generation and construction the SSNQ were including condom norm questionnaires with 6 questions[25], peer norm questionnaire with 8 questions[59], social norm scale with 3 items, that measures people's perceptions of their friends' attitudes toward using condoms[60], some questions that were used to measure corresponding norms and also perceived behavioral norms for HIV risk behaviors among men in a South African[47], and also some questions about network normative beliefs that were used in a study to measure attitudes towards consistent condom and multiple concurrent partnerships among young Tanzanian men[61].

In the item generation step, using the related questionnaires and questions in the literature review and also results of the qualitative FSWs interviews, a list of 31 items was generated. After removing redundancy and duplication among the items, 28 items remained in the first draft of the SSNQ. Of these, seventeen were related to the actual norms subscale (ANS) and eleven related to the perceived norms subscale (PNS).

Qualitative study

Nine semi-structured in-depth interview were conducted. The results of the qualitative study showed that FSWs' sexual behaviors, especially condom use, were different with clients and sexual partners/lovers. This finding was considered for the questionnaire construction, and each item was generated separately for clients and sexual partners or lovers. Thirty-six subcategories and seven main categories were extracted through data analysis in the qualitative study. The main categories were including "Agreement by men (clients or sexual partners) to use condoms", "Condom use in sexual relationships with clients", "Dependence of females on the opinion of her

sexual partner or lovers in sexual relationships", "Determination by men (clients or sexual partners) of the type of sexual relations and condom use", "Being forced to accept unsafe sexual relationships due to financial and emotional needs", and "Unwillingness of the women to use condoms during sexual intercourse". According to the extracted codes, subcategories and categories of the qualitative study, social norms in the social network of the FSWs were defined conceptually as; *safe sex norm are sexual attitudes and behaviors that are affected by male authority, willingness and desire (e.g. for condom use), and tend to be accepted by the female*. This definition was considered in the construction of the questionnaire and served as a main source for the items generation.

Content validity:

In the second step, feedback was collected from the seven experts and eight lay expert FSWs about relevance, clarity, and comprehensiveness of the 28 items (seventeen items for ANS and eleven items for PNS). The experts suggested 12 new items that could help cover all components of the safe sex norms, compare an individual's own behavior with corresponding social norms, and potentially combine individual behaviors to construct the group norms in FSWs social network. In terms of clarity of the items, some experts and lay FSWs suggested to use colloquial words that based on opinion's expert team, some of the suggestions were applied in the questionnaire and some of them in the guiding interview. For example, "lover or boyfriend" was used instead of "sexual partner". This suggestion was applied in the guiding interview. Also, some suggested to use "friends" instead of "peer friends". As the verb "follow him" in questions number 11 and 12, "How much do you accept your sexual partner's decision about condom use and kind of sexual relationship and follow him?" did not make sense to the participants, it was changed to "How much

do you accept your sexual partner's decision about condom use and kinds of sexual relationship?" These suggestions were applied in the questionnaire.

After assessing the relevance and clarity, the draft questionnaire was finalized. It consisted of 34 questions all using 5-point Likert response scales (see Appendix). The IRA indices, using a conservative approach for the relevance and clarity of the 34 questions, were 92.3 % and 85%, respectively.

The relevance of the actual and perceived norms subscales in the final questionnaire by using S-CVI/Ave approach were 97.1%, 96.8%, respectively. Also, the clarity of these subscales were 99%, 99.6%. The comprehensiveness of the actual and perceived norms subscales were both 85%. The items, with their values for clarity and relevance, are shown in Table 1.

Reliability:

Of the 28 FSWs who participated in the first survey pilot, only one was not accessible for the re-test step (N=27). The mean age of the participants was 34.6 (SD=7.45). Among the participants (N=27), 26% lived in a shelter, a temporary place for the homeless to sleep at night which has been created by government or non-government organization, 4% in park, 52% lived alone or with family or friends in home, and 4% lived with sexual partner. Many of them had a secondary education (40 %) and high school education or diploma (33 %). About seven percent of them had university education. Also, 40 % of the participants were divorced and 33% of them were single. The average time for completing the questionnaire by interview was 17 minutes.

Cronbach's alpha for the actual and perceived norms subscales were 0.93 and 0.89, respectively. Also according to Mokken scale analysis on the sample of 170 FSWs, the reliability coefficients for the actual and perceived norms subscales were 0.97 and 0.96, respectively. The ICCs for the actual and perceived norms subscales were estimated as 0.88 and 0.83, respectively.

Scalability of the items and unidimensionality of the questionnaire:

For the scale and reliability analysis, data were collected from a large sample of 170 FSWs in Tehran who were over 16 years old, identified themselves as sex workers, and were willing to participate in the study. Snowball and purposeful samplings was used for recruiting the participants. Mean age of the participants was 34.5 (SD=7.6). Most of the participants were divorced (N=100, 59%). The majority of them lived with their girlfriends and 33% of them had an income between 150-300 USD. According to some evidence the average poverty line for urban households in Tehran is estimated about 800 USD per month [62]. The mean age at first sex work was 24.8 (SD=6.7). Many participants (N=60, 35%) reported to never use condoms in their sexual relationships. Regarding HIV status, 31 (18%) never had a HIV test and didn't know about their HIV status, but 11 (8 %) reported themselves as being HIV positive. The socio-demographic characteristics of the participants are reported in detail in table 2.

Mokken scale analysis was carried out separately for both scales, the actual and perceived SSNQ, resulting in Loevinger *H*-coefficient for the scales larger than 0.5, characterizing them as strong scales. All items have item-wise *H* coefficients more than 0.4, characterizing the large majority of items as strong ($H \geq 0.5$) and a few of them as medium ($0.4 \leq H < 0.5$). The Pearson correlation between the two subscale scores was 0.64. The results of the Mokken scale analysis and also scoring of the subscales are shown in detail in appendix.

Discussion:

The first step to assess the role of social norms on risk sexual behaviors is the development of a valid and reliable instrument that is compatible to the context of use. The assessment of the content validity, using experts and lay experts' views, was an important step in development and validation of SSNQ questionnaire with acceptable relevance, clarity and comprehensiveness.

Contrary to most existing social norm questionnaires[25, 37, 59], the SSNQ includes both actual behaviors related to norms (actual norms subscale: ANS) and perceived norms (perceived norms subscale: PNS) in terms of condom use and drug or alcohol use before or with sexual intercourse. The results of this study indicate high content validity for all items and for the total SSN questionnaire. According to the I-CVI, each question had appropriate content validity [58]. For the scales as a whole the average CVI approach , recommended by Polit and Beck [58, 63], indicated excellent content validity. The comprehensiveness value for the questionnaire indicated that the questionnaire is appropriately inclusive and covers the key aspects of the SSN construct. Thus, there is good evidence that the questionnaire has good relevance, clarity, and comprehensiveness to measure critical aspects of a safe sex norm construct for FSWs in the Iranian culture. The results of Mokken scale analysis support the scalability of the items and the unidimensionality of the two sub scales, which means that all items belong in the scale, measure a common latent variable in each subscale, and can be strong indicators of the latent variable, the safe sex norm. Therefore, according to the requirements of Mokken scale analysis [45,46], these scales can order the participants based on their scores of the safe sex norm. The high correlation between the mean sores of the two scales ($r = 0.64$) means that the safe sex behaviors of the FSWs (actual norm) is strongly related to their perception of safe sex behaviors of their friends (perceived norm); while still the two subscales measure distinct latent variables. This finding is very important to HIV intervention in the social network of FSWs. When trying to promote safe sex behavior among FSWs, it can be beneficial to consider the behavior of their network members, especially their friends' and peers' behaviors, in addition to FSWs' own behaviors. This supports continuing with further research regarding FSWs as part of a social network with its own specific social norms.

Through these norms the members may affect the behavior of other network members, especially their peer friends. Further research of this kind is conducted, in which the SSNQ is being used. The good reliability of the SSNQ corresponds to Peterson et al. who reported appropriate reliability for their condom norm scale with 6 questions [25]. Also, it is consistent with Miner et. al's study about assessing people' perceptions of their friends' attitudes toward using condoms, reporting alpha of 0.77 for his social norm scale with 3 items [44].

Some strengths of the present study are the following. A new social norm questionnaire (SSNQ) has been developed and validated for FSWs, a population which is difficult to reach, and for a topic that is sensitive: their sexual behavior. This was achieved through a coproduction process with FSWs themselves. The SSNQ captures the key concept of social norm, both actual behavior and perceived norms, knowledge of which is of fundamental importance for safe sexual behavior among FSWs. The sample used for validating the SSNQ has aspects of strength and limitation at the same time. A limitation is that it was not a random sample. A strength is that, for this population which is very hard to reach, a reasonable sample size of 170 was obtained which came from diverse venues in Tehran. Therefore, we think that the sample may be regarded as fairly representative. Due to the limitations of sample size and non-random selection, the items may not represent full range of views across all FSWs. However, for this type of population, a random sample may be impossible to obtain. A further limitation of this study is that the reliability and validation of the SSNQ are based on data from FSWs in Teheran. We have no information about other cities, smaller towns, or other countries. For using in other countries, adaptation and new testing is recommended.

Conclusions

According to the results of the present study, we conclude that the SSNQ is a measurement of safe sex norm of FSWs with good content validity and reliability. It is composed of two subscales, for actual and for perceived norms, which both have good unidimensionality (homogeneity) properties. The SSNQ would be useful for application in harm reduction programs, and may help effective HIV prevention among FSWs. We think the SSNQ could also be used in other contexts, with similar populations; however, for such purposes it may need contextual adaptation. Further study is suggested to conduct a construct validity which provide greater evidence to support the validity of the questionnaire.

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Ethical approval

Ethics approval for this study was obtained from the ethical review board of the University of Social Welfare and Rehabilitation Sciences, Tehran, Iran.

Contributors

Jorjoran Shushtari Z, Hosseini SA, sajjadi H, Salimi Y, Shahesmaeili A, and Snijders T contributed in the study design, data collection and writing manuscript drafts. Jorjoran Shushtari Z and Snijders T assisted in the analysis of the data, writing and critically reviewing multiple manuscript drafts. All authors have read and approved of the submission of the manuscript.

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Conflict of interest

The authors declare no conflict of interest.

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526 Table1: Clarity and relevance of each item for actual and perceived safe sex norms.
527

Actual safe sex norms items	**Relevance**	**Clarity**
How often do you use condoms in sexual relationships with your (1) sexual partner or lover (2) regular clients (3) temporary clients, who do not know well	100%	100%
How much does your sexual partner or lover accept your request to use condom in sexual relationships?	100%	100%
How much does your client accept your request to use condom in sexual relationships?	100%	100%
How important is to you that use condom during sex with your (1) sexual partner or lover (2) regular clients (3) temporary clients, who do not know well	100%	100%
How much do you insist on condom use even if your partner did not want to use a condom?	100%	100%
How much do you insist on condom use even if your client did not want to use a condom?	100%	100%
How much do you accept your sexual partner's decision about condom use and type of sexual intercourse?	100%	100%
How much do you accept your client's decision about condom use and kinds of sexual relations?	100%	100%
How much do you agree with abstinent of sexual relationships without condom use?	80%	80%
How important is it to you to use condoms all the time in sexual relationships with sexual partners?	100%	100%
How important is to you to use condoms all the time in sexual relationships with clients?	100%	100%
How likely is it for you to cut your sexual relationship, if your sexual partner doesn't accept your request for condom use?	100%	100%
How likely is it for you to cut your sexual relationship, if your client doesn't accept your request for condom use?	100%	100%
Perceived safe sex norms items		
How many of your friends do you think use condoms in sexual relationships with her (1) sexual partner or lover (2) regular clients (3) temporary clients, who do not know well	100%	100%
How many of your friends' clients do you think accept your friends' suggestion for condom use?	100%	100%
How many of your friends' sexual partner do you think accept your friends' suggestion for condom use?	100%	100%
How important do you think is to your friends to use condom with: (1) regular clients (2) temporary clients, who do not know well (3) sexual partner	100%	100%
How many of your friends insist on condom use even if her partner or lover doesn't want to use condoms?	100%	100%
How many of your friends insist on condom use even if her client doesn't want to use condoms?	100%	100%
How many of your friends do you think accept her sexual partners' decision for condom use?	100%	100%
How many of your friends do you think accept her clients' decision for condom use?	100%	100%

How many of your friends do you think agree with abstinence of sexual relationships without condom use?	80%	80%
How many of your friends do you think use condoms all the time in sexual relationships with clients?	100%	100%
How many of your friends do you think use condoms all the time in sexual relationships with her sexual partner?	100%	100%
How many of your friends do you think cut their sexual relationships, if her sexual partner doesn't accept her request for condom use?	80%	100%
How many of your friends do you think cut their sexual relationships, if her client doesn't accept her request for condom use?	80%	100%

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530 Table 2. Characteristics of the study sample, their social support and condom use frequency (N=
531 170)

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Variables		Mean (SD) or No (%)
Age		34.48 (7.58)
Marital status	Single	28 (16.5)
	Married	22 (12.9)
	Divorced	100 (58.8)
	Concubine	11 (6.5)
	Widowed	9 (5.3)
Educational level	Illiterate	5(2.9)
	Primary education	18 (10.6)
	secondary education	68(40.0)
	High school or Diploma	73 (42.9)
	University degree	6 (3.5)
Having children	Yes	120 (70.6)
	No	50 (29.4)
Total monthly income	less than 50 USD	16 (9.4)
	50-150 USD	50 (29.4)
	150- 300 USD	63 (37.1)
	More than 300 USD	41(24.1)
Place of living	Park, street, vehicle or bus station	9 (5.3)
	Shelter	38 (22.4)
	Girl friends or relative's home	21(12.4)
	Lover or Sexual partner's home	20(11.8)
	Personal home	69(40.6)
	Group(Team) home	13(7.6)
Living with whom	Sexual partner (spouse, lover, boyfriend)	39 (22.9%)
	Girlfriends	50 (29.4%)

	Parents	18 (10.6%)
	Sibling	4 (2.4%)
	Children	9 (5.3%)
	Female in shelter	17(10%)
	Alone	33(19.4%)
Age at first sex work		24.8 (6.69)
Number of sex work in the last month		10.26 (6.39)
HIV test	Yes	139 (81.8)
	No	31 (18.2)
Condom use in the last month	Always	16 (9.4 %)
	Often	13 (7.6%)
	Sometimes	32 (18.8%)
	Rarely	49 (28.8%)
	Never	60 (35.3%)