

Factors associated with inconsistent condom use with clients among female sex workers in Podgorica, Montenegro

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SUMMARY

Introduction Female sex workers (FSWs) are a group at increased risk for human immunodeficiency virus (HIV) infection, and inconsistent condom use with clients is a known risk factor for infection in this group.

Objective The aim of the study was to determine factors associated with inconsistent condom use with clients among female sex workers in Podgorica, Montenegro.

Methods We conducted an HIV bio-behavioral cross-sectional study in a sample of female sex workers recruited by snowball sampling.

Results A total of 142 FSWs were recruited. Eighty-one (57.0%) of them used condoms consistently with clients. HIV prevalence was 0.0%. In the multivariate analysis inconsistent condom use with clients in the previous month was associated with clients' negative personal attitude [age-adjusted odds ratio (AOR) = 22.7, 95% confidence interval (CI) = 2.3–228.0] or client's indifference (AOR = 13.0, 95% CI = 1.4–118.9) towards using condom during sex with sexual workers, decision making by clients or by mutual agreement with client about using a condom (AOR = 10.2, 95% CI = 3.7–28.0), and early age of first sex (AOR = 5.4, 95% CI = 1.6–18.5).

Conclusion Our results suggest not only the need for further promotion of condom use, information and education for FSW but also the need to strengthen negotiation skills of FSWs with clients on regular use of condoms, as well as the need to extend prevention programs to clients of FSWs.

Keywords: female sex workers; paid sex; HIV; consistent condom use

INTRODUCTION

In order to track the human immunodeficiency virus (HIV) epidemic and to target limited resources for prevention and care programs, ongoing collection of accurate data on populations at increased risk for HIV is needed. Female sex workers (FSWs) are at increased risk due to exposure to multiple sexual partners, thus increasing the probability of exposure to an HIV-infected partner, as well as due to high prevalence of bacterial and viral sexually transmitted infections (STI) that increase the probability of HIV infection once exposure occurs [1, 2]. Globally, in Europe and North America, as well as in Asia and Latin America, injection drug use either by FSWs or their steady male partners also increases risk of infection [1, 3].

Prevention of sexually transmitted HIV infection in FSWs hinges on consistent condom use (CCU) both with clients and other partners. CCU is one of the most effective and efficient ways of preventing sexual transmission of HIV and other STIs and slowing the spread of HIV where the epidemic has not yet extended into the general population [4, 5, 6]. Among female sex workers, the prevalence of CCU with clients varies in different regions and countries, from 5.8% in Indonesia, to 75.3%, 81%, and 93.4% in Croatia, the Netherlands and Chile, respectively [7–13]. To date, there have been two studies of HIV risk and con-

dom use among FSWs in Montenegro, which found that 44% and 58% of FSWs, respectively, reported consistent condom use with clients in the previous month [13, 14].

The sampling of a FSW population poses a unique challenge. In Podgorica, as well as in the whole of Montenegro, there is no registration of FSWs and most of sex work is not based in brothels. As a result, there is no feasible framework for drawing a representative population-based sample. Montenegro's small population size has implications on the practice of sex work as, unlike in other more populated European cities, both sex workers and clients express concern about being recognized. Low density of FSWs, lack of contact between FSWs and local health care services, and a high level of mistrust towards "official" agencies have made respondent-driven sampling difficult in populations of FSWs in Montenegro and other countries of Eastern Europe [15]. For these reasons, most of the studies of FSW in this area have been conducted using snowball sampling.

OBJECTIVE

The objective of this study was to determine factors associated with inconsistent condom use with clients among FSWs in Podgorica, Montenegro.

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METHODS

Setting

Montenegro, a former Yugoslav republic, is a small, newly independent country in southeastern Europe with a population of around 620,000. Podgorica, with around 200,000 inhabitants, is the capital of Montenegro. Existence of FSWs is only moderately visible in Podgorica. HIV prevalence in general population of Montenegro is 0.018% [16–18]. The annual incidence of reported HIV/AIDS cases from 2005 to 2013 varied from 1.1 to 2.2/100,000 persons. Cumulative HIV incidence between 1989, when the first case was registered, and 2013, as reported in the Annual Report on HIV/AIDS in Montenegro, is 153 persons [17]. The predominant route of HIV transmission is sexual – homosexual, bisexual, and heterosexual [17]. Targeted interventions for HIV prevention and harm reduction have been in existence in Podgorica since 2004. Currently, there is one drop-in center for FSWs in Podgorica (established in 2010) and one Center for Voluntary and Confidential HIV Counseling and Testing. The drop-in has been established and managed by non-governmental organizations (NGOs), while the Center for Voluntary and Confidential HIV Counseling and Testing is operated by the Institute for Public Health.

Sampling procedure and data collection

We conducted a bio-behavioral cross-sectional survey among FSWs in Podgorica from April through July 2012. Eligible participants were women, at least 18 years of age, who had at least one commercial sex partner in the previous 12 months, and who resided in Podgorica for at least three months during the previous 12 months.

We identified and recruited participants using snowball sampling. With the assistance of a local NGO that provides prevention services to FSWs (distribution of free condoms and HIV/STI educational materials and referral to HIV voluntary counseling and testing centers), we recruited six initial participants who operated in different parts of the city. These initial participants referred other FSWs from various parts of the city. Each participant received primary incentive for completing the questionnaire and for providing a blood sample to be tested for HIV, and secondary incentives for each additional person recruited into the study. We gave each participant a detailed explanation of study procedures and objectives prior to enrolment. In order to maintain confidentiality, we obtained verbal informed consent and collected no individually identifying information. We gave each respondent an identification code that linked their questionnaires and laboratory tests. Participants used the same code to obtain their HIV test results at voluntary testing and counseling centers. Participants could withdraw from the study at any stage of the study without any consequences except not getting incentive.

Measurements

We gathered data from all respondents using a standardized questionnaire, which contained questions on demographic and behavioral characteristics related to potential HIV and STI exposure [19]. Respondents completed the questionnaire by themselves, but could ask an interviewer for assistance if they had not understood a question or were unable to fill in the questionnaire by themselves.

Our main outcome measure was inconsistent condom use with a commercial sex partner (client) in the previous month. Our predictor variables were demographic characteristics (age, marital status, employment status), behavioral factors (age at first sexual intercourse, age at first paid sex, how clients are contacted, number of clients in the past week, condom use during last sex with a client, observed attitude of clients towards using condom, observed process of decision making of condom use during commercial sex, number of persons other than clients with whom participant had sex during the previous 12 months, consistency of condom use with a non-commercial sexual partner(s) during the previous month, experience with drug use, prior history of an STI, visits to a gynecologist in the previous 12 months, previous HIV testing, knowledge about HIV transmission (four questions), knowledge about HIV prevention (two questions), self-assessment of risk for HIV infection, receipt of free condoms and information from a local NGO about HIV transmission and prevention. We recoded knowledge variables to three categories: knowledgeable about HIV transmission and prevention (correct answer to all six questions), knowledgeable about HIV transmission (correct answer to all four transmission question), and knowledgeable about HIV prevention (correct answer to two questions).

Laboratory methods

We collected blood samples from all participants and tested them to detect HIV 1/2 antibodies using a rapid test with immune-chromatography technology (HIV1/2, Rapid Device, HIV Rapid, Ab1&2 Cassette, BIOTEC, UK). Confirmatory HIV 1/2 testing was done by western immunoblot (NEW LAW BLOT I/II, BIO-RAD, Marnes-la-Coquette, France).

Blood samples were tested in the laboratory of the Center for Medical Microbiology of the Institute for Public Health, which serves as a national referral center for HIV testing.

Statistical analysis

We analyzed data using SPSS/PC version 12 (SPSS Inc., Chicago, IL, USA) and used χ^2 tests and unadjusted odds ratio to assess associations between each of the defined predictors and inconsistent condom use with clients in the previous month. We included all significant predictors ($p < 0.05$) and known confounders in a multivariate logistic regression and tested the overall fit of the final model using the Hosmer and Lemeshow test.

Ethical consideration

All survey procedures were conducted by trained personnel. Ethical approval was granted by the Ethical Committee of the Institute for Public Health in Podgorica.

RESULTS

We recruited 142 FSW to participate in the study. The median age of the participants was 27 years (range: 18–50 years); 63.4% had elementary school education or less; 63.4 were single, and 88% were unemployed in the formal sector (Table 1). About one-fourth had had first paid sex before the age of 18 years. The most frequent ways of contacting clients were through friends (52.8%), bars/clubs/restaurants (16.9%), through phone calls (16.9%) or in the streets/parks (5.6%). Almost one fifth reported that they had injected drugs in the previous year; 7.7% reported having STI during the previous year. Three out of five had visited a gynecologist in the previous 12 months.

Almost three quarters (73.2%) reported condom use during their last sexual contact with a client, but fewer (57.0%) reported that they had always used condoms with clients in the past month; 64.8% of participants reported that they were decision makers about condom use with client. Majority of participants (88.7%) reported sexual intercourses with one or more partners other than clients in the previous 12 months. Only 23.0% of these reported consistent condom use with such partners during the month preceding the study.

Prior to participation in this survey, 33.1% of the participants reported that they had been tested for HIV. None of the FSWs in our sample were HIV positive. Only 16.2% were able to correctly answer all six HIV knowledge questions, but 69.7% understood that proper and regular condom use was protective against HIV infection, and 31.7% had received free condoms and prevention information from local NGOs; 61.3% considered themselves to be at moderate or higher risk of HIV infection.

In univariate logistic regression analysis, client's indifference or his negative personal attitudes towards using condom during sex with sexual workers, decision about condom use made by client or with mutual agreement, lack of knowledge about HIV prevention measures, not receiving HIV prevention information and free condoms from a local NGO, never being tested for HIV, early age at first sexual intercourse, and being single were all associated with inconsistent condom use with clients (Table 2).

In multivariate logistic regression analysis inconsistent condom use with clients in the previous month were associated with client's negative personal attitude [age-adjusted odds ratio (AOR) = 22.7, 95% confidence interval (CI) = 2.3–228.0] or client's indifference (AOR = 13.0, 95% CI = 1.4–118.9) towards using condom during sex with sexual workers, decision making by clients or by agreement with client about using of condom (AOR = 10.2, 95% CI = 3.7–28.0) and early age of first sex (AOR = 5.4, 95% CI = 1.6–18.5) (Table 3).

DISCUSSION

We found that 57% of FSWs in Podgorica reported that they had used condoms during each episode of commercial sex in the prior month. We also found that client's indifference or his negative personal attitude towards using condom during sex with sexual workers, decision about condom use made by client or with mutual agreement and early age at first sexual intercourse, all predicted inconsistent condom use with clients.

In earlier studies among FSWs conducted in Montenegro, the prevalence of consistent condom use in the month preceding the survey was 44% and 58%, respectively, suggesting a stagnancy of trend in risk reduction [13, 14].

The association we found between inconsistent condom use with client's indifference or negative personal attitude towards condom use during commercial sex, as well as with deciding on condom use done by clients or by mutual agreement between FSWs and client, were consistent with the results of the studies among FSWs in China, Cambodia, Korea, Sri Lanka, Ghana, and Vietnam, which found similar associations with inconsistent condom use [20–28]. Factors involved in the frequent acceptance of commercial sex without condoms probably include lack of authority, fear of losing clients and weak negotiation skills. This could be likely compounded by lack of knowledge about HIV prevention measures since 30.3% of FSW did not know that proper and regular condom can reduce risk of HIV infection, comparing with FSW population in Belgrade in neighboring Serbia, where only 15.9% of street sex workers and 11.5% of "indoor" sex workers had no knowledge of this fact [29].

Early age of first sex was found as a risk factor for inconsistent condom use in Uganda [30]. This finding could be explained by possible prevention fatigue or lower self esteem. Unfortunately, our data did not allow us to explore further this range of possible explanations.

There are a few limitations to this study. Our study is limited by imperfection of snowball sampling design and its relatively small sample size, which may lead to reduced representativeness and lack of statistical power. Nonetheless, based on independent estimates of the FSW population size in Podgorica, we assumed that our sample included the majority of the active commercial sex workers in the city. Our study also relies on self-reports of sexual practices and behaviors, which are subject to recall bias and are difficult to be verified. We hope that this study will help in gaining trust from FSWs for future bio-behavioral studies that may be able to employ different sampling methodologies, such as respondent-driven sampling or time-location sampling.

CONCLUSION

As the most important factors affecting the inconsistent condom use during sex with clients, our study has identified the following: clients' insistence on not using condom or clients' indifference towards condom use; allowing clients to have bigger influence over the decision on

Table 1. Demographic and behavioral characteristics of female sex workers, Podgorica, Montenegro, 2012

Variables		n	%
Age group (years)	18–24	50	35.2
	25–30	70	49.3
	31–40	17	12.0
	41+	5	3.5
Level of completed education	Elementary school or less	90	63.4
	Secondary	47	33.1
	University	5	3.5
Marital status	Married	12	8.4
	Regular partner	40	28.2
	Single	90	63.4
Employment status (formal sector)	Full time	3	2.1
	Part time	14	9.9
	Unemployed	122	88.0
Age at first sex (years)	≤14	32	22.6
	15–17	79	55.6
	≥18	31	21.8
Age at first paid sex (years)	≤14	7	4.9
	15–17	29	20.4
	18–24	64	45.1
	≥25	42	29.6
Number of clients during last week	≤2	55	38.7
	3–4	40	28.2
	5–7	29	20.4
	≥8	18	12.7
Use of condom during last sex with client	Yes	104	73.2
	No	38	26.8
Consistent use of condom with clients during previous month	Yes	81	57.0
	No	61	43.0
Attitude of most clients towards using condoms	Insist on condom use	23	16.2
	Prefer condom but willing to have sex without condom if not available	33	23.2
	Do not care	58	40.8
	Insist on sex without condom	28	19.7
Decision maker on using a condom during sex with client	Sexual worker by herself	92	64.8
	Client	7	4.9
	Agreement (together with client)	43	30.3
Number of persons other than clients with whom she had sex during last year	0	16	11.3
	1	56	39.4
	2–3	42	29.6
	4–7	23	16.2
	≥8	5	3.5
Consistent use of condom with other than clients whom she had sex during previous month	Yes	29	23.0
	No	97	77.0
Used illegal drugs by injection route during previous 12 months	Yes	26	18.3
	No	116	81.7
Had symptoms of a sexually transmitted infection during last year	Yes	11	7.7
	No	131	92.3
Visited a gynecologist during previous 12 months	Yes	84	59.2
	No	58	40.8
Ever tested for HIV	Yes	47	33.1
	No	95	66.9
Correctly answered all six questions about HIV transmission and prevention	Yes	23	16.2
	No	119	83.8
Correctly answered all four questions about HIV transmission	Yes	49	34.5
	No	93	65.5
Correctly answered both questions about HIV prevention	Yes	60	42.3
	No	82	57.7
Knows that proper and regular condom use can reduce risk of HIV	Yes	99	69.7
	No	43	30.3
Self-assessment of risk for HIV	No or low risk	55	38.7
	Moderate risk	40	28.2
	High or very high risk	47	33.1
Received free condoms and information about HIV transmission and prevention from an NGO	Yes	45	31.7
	No	97	68.3
Result of HIV rapid screening test	Reactive (positive)	0	0
	Nonreactive (negative)	142	100.0

n – number of participants (female sex workers) in sample

Table 2. Correlates of inconsistent condoms use during last month by female sex workers with clients, Podgorica, 2012 (univariate logistic regression)

Variables	n/N	Sample prevalence (%)	Unadjusted OR (95% CI)	p-value	
Attitude of most clients towards using condoms	Insist on condom use [#]	1/23	4.3	1.00	
	Prefer condom but willing to have sex without condom if not available	19/33	57.6	29.9 (3.6–248.6)	0.002
	Do not care	25/58	43.1	16.7 (2.1–132.1)	0.008
	Insist on sex without condom	16/28	57.1	29.3 (3.4–249.1)	0.002
In general, the decision on using a condom during sex with client is made by	Sexual worker by herself [#]	23/92	25.0	1.00	
	Client or mutual agreement	38/50	76.0	9.5 (4.2–21.2)	0.000
Correctly answered both questions about HIV prevention [§]	Yes [#]	20/60	33.3	1.00	
	No	41/82	50.0	2.0 (1.0–3.9)	0.049
Received free condoms and HIV information from an NGO	Yes [#]	13/45	28.9	1.00	
	No	48/97	49.5	2.4 (1.1–5.1)	0.023
Ever tested for HIV	Yes [#]	14/47	29.8	1.00	
	No	47/95	49.5	2.3 (1.1–4.8)	0.027
Age at first sex (years)	≥18 [#]	8/31	25.8	1.00	
	≤17	53/111	47.7	2.6 (1.1–6.4)	0.033
Marital status	Married or regular partner [#]	16/52	30.8	1.00	
	Single	45/90	50.0	2.2 (1.1–4.6)	0.027
Age group (years)	18–24 [#]	20/50	40.0	1.00	
	≥25	41/92	44.6	1.2 (0.6–2.4)	0.600

OR – odds ratio; CI – confidence interval

[#]Referent value[§]Composite indicator consisted of the following two questions: 1. Can sexual intercourse with only one, faithful and uninfected partner, reduce risk of HIV infection?; and 2. Can proper and regular use of condoms reduce risk of HIV infection?**Table 3.** Independent correlates of inconsistent condom use in the previous month by female sex workers with clients, Podgorica, Montenegro, 2012 (multiple logistic regression)

Variables	AOR	95% CI	p-value	
Attitude of most clients towards using condoms	Insist on condom use [#]	1.00		
	Prefer condom but willing to have sex without condom if not available	27.3	2.8–271.2	0.005
	Do not care	13.0	1.4–118.9	0.023
	Insist on sex without condom	22.7	2.3–228.0	0.008
In general, the decision on using a condom during sex with client is made by	Sexual worker by herself [#]	1.00		
	Client or mutual agreement	10.2	3.7–28.0	0.000
Age at first sex (years)	≥18 [#]	1.00		
	≤17	5.4	1.6–18.5	0.007
Correctly answered both questions about HIV prevention [§]	Yes [#]	1.00		
	No	2.4	0.9–6.2	0.060
Received free condoms and HIV information from an NGO	Yes [#]	1.00		
	No	2.1	0.5–8.2	0.284
Ever tested for HIV	Yes [#]	1.00		
	No	0.8	0.2–3.3	0.760
Marital status	Married or regular partner [#]	1.00		
	Single	1.7	0.6–4.5	0.292
Age group (years)	18–24 [#]	1.00		
	≥25	2.4	0.9–6.9	0.093

AOR – adjusted odds ratio

[#]Referent value[§]Composite indicator consisted of the following two questions: 1. Can sexual intercourse with only one, faithful and uninfected partner reduce risk of HIV infection?; and 2. Can proper and regular use of condoms reduce risk of HIV infection?

condom use; making decision on condom use based on mutual agreement between FSWs and clients, as well as the early age of FSWs at the time of first sexual intercourse. Although the last mentioned factor can hardly be influenced by any kind of intervention, according to similar studies and experiences from Thailand, all other above mentioned factors can be influenced primarily through

better health education of both FSWs and clients about the importance of regular and proper use of condoms in preventing HIV and other STIs, as well as through expanding specific health education programs among FSWs, targeting improving negotiation skills with clients in order to stress the importance of condom use or even to make it a precondition to sexual intercourse with clients.

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REFERENCES

- Estébanez P, Fitch K, Nájera R. HIV and female sex workers. *Bull World Health Organ.* 1993; 71:397–412. [PMID: 8324860]
- Cwikel JG, Lazer T, Press F, Lazer S. Sexually transmissible infections among female sex workers: an international review with an emphasis on hard-to-access populations. *Sex Health.* 2008; 5:9–16. [DOI: <http://dx.doi.org/10.1071/SH07024>] [PMID: 18361849]
- Hamers FF, Downs AM. HIV in central and eastern Europe. *Lancet.* 2003; 361:1035–44. [DOI: 10.1016/S0140-6736(03)12831-0] [PMID: 12660072]
- Davis KR, Weller SC. The effectiveness of condom use in reducing heterosexual transmission of HIV. *Fam Plann Perspect.* 1999; 31:272–279. [DOI: 10.1363/3127299] [PMID: 10614517]
- Cayley WE Jr. Effectiveness of condoms in reducing heterosexual transmission of HIV. *Am Fam Physician.* 2004; 70(7):1268–1269. [PMID:15508535]
- Weller S, Davis K. Condoms effectiveness in reducing heterosexual HIV transmission. *Cochrane Database Syst Rev.* 2002; (1):CD003255. [DOI: 10.1002/14651858.CD003255] [PMID: 11869658]
- Basuki E, Wolffors I, Deville W, Erlaini N, Luhpuri D, Hargono R, et al. Reasons for not using condoms among female sex workers in Indonesia. *AIDS Educ Prev.* 2002; 14:102–116. [PMID: 12000229]
- Van Veen MG, Götz HM, Van Leeuwen PA, Prins M, Van de Laar MJW. HIV and sexual risk behaviour among commercial sex workers in the Netherlands. *Arch Sex Behav.* 2010; 39:714–723. [DOI: 10.1007/s10508-008-9396-z] [PMID: 18815876]
- Soto RJ, Ghee AE, Nunez CA, Mayorga R, Tapia KA, Astete SG, et al. Sentinel surveillance of sexually transmitted infections/HIV and risk behaviors in vulnerable populations in 5 Central American countries. *J Acquir Immune Defic Syndr.* 2007; 46:101–111. [DOI: 10.1007/s10508-008-9396-z] [PMID: 17972366]
- Barrientos JE, Bozon M, Ortiz E, Arredondo A. HIV prevalence, AIDS knowledge and condom use among female sex workers in Santiago, Chile. *Cad Saude Publica.* 2007; 23:1777–1784. [DOI: <http://dx.doi.org/10.1590/S0102-311X2007000800004>] [PMID: 17653395]
- Bradley J, Moses S, Blanchard JF, Rajaram S, Ramesh BM, Verma S, et al. Assessing reported condom use among female sex workers in southern India through examination of condom availability. *Sex Transm Infect.* 2010; 86(Suppl 1):i44–48. [DOI: 10.1136/sti.2009.038398] [PMID: 20167730]
- Nemoto T, Iwamoto M, Colby D, Witt S, Pishori A, Le MN, et al. HIV-related risk behaviors among female sex workers in Ho Chi Minh City, Vietnam. *AIDS Educ Prev.* 2008; 20:435–453. [DOI: 10.1521/aeap.2008.20.5.435] [PMID: 18956984]
- Štulhofer A, Laušević D, Božičević I, Bačak V, Mugoša B, Terzić N, Drglin T. HIV risks among female sex workers in Croatia and Montenegro. *Coll Anthropol.* 2010; 34:881–886. [PMID: 20977077]
- Laušević D, Mugoša B, Vratnica Z, Terzić N, Strahinja R, Labović I, et al. HIV and Risk behaviours among sex workers in Montenegro in 2010. Podgorica: Institute for Public Health; 2010.
- Simic M, Johnston LG, Platt L, Baros S, Andjelkovic V, Novotny T, Rhodes T. Exploring barriers to 'respondent driven sampling' in sex worker and drug-injecting sex worker populations in Eastern Europe. *J Urban Health.* 2006; 83(6 Suppl):i6–15. [DOI: 10.1007/s11524-006-9098-6] [PMID: 17109206]
- Institute of Public Health. Health Statistical Yearbook 2012 of Montenegro. Podgorica, Montenegro; 2014: 191–192. Available at : <http://www.ijzcg.me/wp-content/uploads/2014/12/Godisnjak-2012.pdf>
- Institute of Public Health, Center for Disease Control and Prevention. Annual Report on HIV/AIDS in Montenegro for 2013. Institut of Public Health, Podgorica, Montenegro; May 2014.
- European Centre for Disease Prevention and Control. HIV/AIDS Surveillance in Europe 2008. Stockholm, Sweden; 2009. Available at: http://ec.europa.eu/health/sti_prevention/docs/ecdc_hiv_aids_surveillance_in_europe_en.pdf
- Behavioural surveillance surveys: guidelines for repeated behavioural surveys in populations at risk of HIV. Arlington: Family Health International, 2000. Available at: http://www.who.int/hiv/strategic/en/bss_fhi2000.pdf Accessed on 15 February 2015.
- Lau JT, Zhang J, Zhang L, Wang N, Cheng F, Zhang Y, et al. Comparing prevalence of condom use among 15,379 female sex workers injecting or not injecting drugs in China. *Sex Transm Dis.* 2007; 34(11):908–916. [DOI: 10.1097/OLQ.0b013e3180e904b4] [PMID: 18049424]
- Wong ML, Lubek I, Dy BC, Pen S, Kros S, Chhit M. Social and behavioural factors associated with condom use among direct sex workers in Siem Reap, Cambodia. *Sex Transm Infect.* 2003; 79:163–165. [DOI: 10.1136/sti.79.2.163] [PMID: 12690144]
- Shin S, Kang HS, Chang SB. Commercial sex workers' condom use behavior in Korea. *Taehan Kanho Hakhoe Chi.* 2004; 34:1477–1482. [PMID: 15687790]
- Samarakoon S, Thayaparan P, Sivayogam S. Condom use among female sex workers in Colombo, Sri Lanka. In XV International Conference on AIDS, Bangkok, Thailand, 11–16 July 2004. Abstract ThPeC7412. Available at : <https://ias2009.org/Default.aspx?pageId=12&abstractId=2175604>
- Adu-Oppong A, Grimes RM, Ross MW, Risser J, Kessie G. Social and behavioral determinants of consistent condom use among female commercial sex workers in Ghana. *AIDS Educ and Prev.* 2007; 19:160–172. [DOI: 10.1521/aeap.2007.19.2.160] [PMID: 17411418]
- Takahashi T, Akabayashi A, Kai I, Cabigon J, Ohi G, Naka K. Social and behavioral factors associated with condom use among female commercial sex workers (CSWs) in Tarlac, the Philippines. *Environ Health Prev Med.* 1998; 2:167–171. [DOI: 10.1007/BF02931696] [PMID: 21432536]
- Kayembe PK, Mapatano MA, Busangu AF, Nyandame JK, Musema GM, Kibungu JP, et al. Determinants of consistent condom use among female commercial sex workers in the Democratic Republic of Congo. Implications for interventions. *Sex Transm Infect.* 2008; 84:202–206. [DOI: 10.1136/sti.2007.028324] [PMID: 18055581]
- Tran TN, Detels R, Lan HP. Condom use and its correlates among female sex workers in Hanoi, Vietnam. *AIDS Behav.* 2006; 10:159–167. [DOI: 10.1007/s10461-005-9061-7] [PMID: 16477510]
- Tran TT, Le CL, Nguyen TL. Factors associated with inconsistent condom use among female sex workers in Nha Trang, Vietnam. *Asia Pac J Public Health.* 2008; 20:370–378. [DOI: 10.1177/1010539508322485] [PMID: 19124331]
- Ilić D, Šipetić S, Bjegović V. Risk of HIV infection Among Indoor and Street Sex Workers and Their Use of Health Services in Belgrade, Serbia. *Srp Arh Celok Lek.* 2010; 138(3-4):219–224. [DOI: 10.2298/SARH1004219I] [PMID: 20499504]
- Bukenya J, Vandepitte J, Kwikiriza M, Weiss HA, Hayes R, Grosskurth H. Condom use among female sex workers in Uganda. *AIDS Care: Psychological and Socio-medical aspects of AIDS/HIV.* 2013; 25(6): 767–774. [DOI: 10.1080/09540121.2012.748863] [PMID: 23216336]

Фактори повезани са недоследном употребом кондома приликом сексуалних односа са клијентима међу сексуалним радницама у Подгорици у Црној Гори

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КРАТАК САДРЖАЈ

Увод Сексуалне раднице у југоисточној Европи представљају групу лица која су изложена повећаном ризику за ХИВ инфекцију. Недоследна употреба кондома током сексуалних односа са клијентима представља фактор ризика за ХИВ инфекцију за припаднице ове групе.

Циљ рада Циљ овог рада је био утврђивање фактора повезаних са недоследношћу коришћења кондома током сексуалних односа с клијентима у популацији сексуалних радница у Подгорици.

Методе рада Спроведена је биобихејвиорална студија пресека у којој су испитанице из узорка регрутоване методом грудве снега.

Резултати Укупно су регрутоване 142 испитанице. Њих 81 (57,0%) током последњих месец дана пре испитивања конзистентно је користило кондоме током сексуалних односа са клијентима. Међу испитаницама нису идентификована лица са ХИВ инфекцијом. Мултиваријатна анализа је пока-

зала да је недоследна употреба кондома током сексуалних односа са клијентима повезана са негативним ставом ($AOR = 22,7$, 95% $CI = 2,3-228,0$) или равнодушношћу клијента ($AOR = 13,0$, 95% $CI = 1,4-118,9$) према коришћењу кондома током сексуалних односа са сексуалним радницама, одлучивањем од стране клијента или договарањем са клијентом о коришћењу кондома ($AOR = 10,2$, 95% $CI = 3,7-28,0$), као и раним узрастом у време првог сексуалног односа ($AOR = 5,4$, 95% $CI = 1,6-18,5$).

Закључак Резултати наше студије сугеришу да је, поред даљег здравственог просвећивања и промовисања доследне употребе кондома, неопходно ојачати преговарачке вештине сексуалних радница са клијентима око обавезне употребе кондома. Такође, требало би проширити здравствено-едукативне програме на клијенте сексуалних радница.

Кључне речи: сексуалне раднице; плаћени секс; ХИВ; доследна употреба кондома

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