

Risk Behaviors for Getting HIV Infection among the Croatian Men Who Have Sex With Men

Branko Kolarić¹, Luka Bielen² and Ira Gjenero-Margan¹

¹ HIV/AIDS Department, Croatian National Institute for Public Health, Zagreb, Croatia

² School of Medicine, University of Zagreb, Zagreb, Croatia

ABSTRACT

This study was conducted with the aim of obtaining the very first information on the sexual risk behavior of Croatian men who have sex with men (MSM). There were 1127 respondents recruited at four venues: three physical meeting places of the Croatian MSM population (disco club, bar and sauna) in Zagreb and one virtual (gay oriented web-site) meeting place of the Croatian MSM population. The overall response rate was only 19%. The rate of condom use during last anal intercourse was 59% and 56% of those who used a lubricant had chosen an incorrect product to use with latex condoms. There was no connection between drug-use and unprotected anal intercourse (UAI). Only a fifth of those who had also had sex with women (MSM/MSW) during last 12 months regularly used protection. The obtained findings will serve for focused and effective prevention activities and a basis for comparison in future research.

Key words: Croatia, MSM, MSM/MSW, behavior, drug-use

Introduction

Men who have sex with men (MSM) are worldwide at particularly high risk for acquiring and transmitting HIV infection¹. However, there has been very little systematic study of sexual risk practices and characteristics of MSM population in South-Eastern Europe. Successful international HIV prevention interventions designed to reduce sexual risk behavior of MSM were associated with a significant decrease in unprotected anal intercourse (UAI), in the number of sexual partners and with a significant increase of condom use during anal intercourse^{2,3}. The design of effective HIV prevention programs for MSM requires a clear understanding of their sexual risk behavior in relation to the type of sexual intercourse, number of sexual partners, condom use, and substance use immediately before sexual intercourse and existence of sexual intercourse with women^{4,5}. All of these factors influence individual risk of HIV infection/transmission.

It is well established that the type of sexual intercourse (oral, vaginal, anal) influences risk for HIV transmission. Per-contact risk of acquiring HIV is greater in UAI than in unprotected oral intercourse⁶. It is known that UAI is associated with sexual situation specific use of marijuana, crystal methamphetamine, ecstasy and

ketamine⁷. MSM who also have sex with women (MSM/MSW), the so-called bridging population, can transmit HIV onto a large heterosexual population.

Croatia has some special prerequisites for entrance of the HIV epidemic into the country – open borders, citizens traveling abroad, migrant workers and developed tourism industry which puts Croatian MSM population at higher risk⁸. On the other hand, having in mind that about 40% of persons with HIV infection and 44% of AIDS patients in Croatia are MSM or MSM/MSW⁹ we undertook this study to get a clearer view of the sexual risk behavior of MSM so that effective HIV prevention programs could be designed. This is the first study of this kind in Croatia.

Materials and Methods

The respondents were recruited at three physical meeting places of the MSM population (a disco club, a bar and a sauna) in Zagreb and one virtual (gay oriented web-site) meeting place of the Croatian MSM population which was chosen due to the fact that many people have turned to the Internet to seek love and sex¹⁰.

The research was conducted in a month's timeframe (November-December 2005) using an anonymous questionnaire with all the visitors of the above named places being included in the study. At a bar or a sauna each visitor received a copy of the questionnaire and after filling it in, placed it in the box prepared for returning the questionnaires. At a club, visitors received a copy of the questionnaire with an enclosed paid return envelope. The owners/staff of the bar and sauna received a reward of 2 € per questionnaire filled in by their visitors. A regular customer of the club was employed for motivating the visitors of the club to fill in the questionnaire. On the web-site, a message was sent to all registered users with a kind request to fill in the questionnaire. The only criterion for exclusion of a respondent from the study was the filling in of the questionnaire within the last month. To be able to calculate the response rate we used the denominator data as it was provided by the field researchers – the number of questionnaires delivered and the number of web-site users that had received an e-mail invitation to join the survey.

The questionnaire was created for this particular research. It consisted of 22 multiple choice questions and was divided into several parts: socio-demographic data, knowledge about HIV infection, use of drugs prior to sexual intercourse, sexual intercourse with men and sexual intercourse with women. Regarding drug use we inquired about the use of the following substances: marijuana, butyl/isobutyl nitrate (»poppers«), cocaine, amphetamine, heroin and »some other drug«. We did not investigate into multiple drug use or alcohol use, but into the most commonly used drug.

For comparison of categorical variables among groups of respondents we used the Chi-square test. For ordinal variables comparisons we used the Kruskal-Wallis test.

Results

There was a total of 1127 respondents. The overall response rate was 19% (1127/5892) and according to venue differed from 10.1 to 87.5%. The median age was 27, the minimum being 15, maximum 88 and interquartile range 10 (Table 1).

TABLE 1
AGE AND RESPONSE RATE ACCORDING TO
VENUE OF RECRUITMENT

Venue	Median age (interquartile range)	Response rate n/N (%)
Online (www.gay.hr)	26 (9)	863/5012 (17.22)
Disco club	27 (8)	77/581 (13.25)
Bar	33 (11)	175/200 (87.5)
Sauna	35 (7)	10/99 (10.1)
Total	27 (10)	1127/5892 (19.1)

The summary of results is shown in Table 2.

Drug use

We did not find a statistically significant difference between drug use and frequency of condom use at intercourses during last 12 months ($p=0.16$, Chi-square test, d.f. 4) or drug use and condom use at last anal intercourse ($p=0.447$, Chi square test, d.f. 2). There was a significantly lower number of respondents who did not have intercourse during last year among drug users ($p=0.026$, Chi-square test, d.f.=2).

Sexual behaviors

Within the last year 1035/1127 (91.8%) respondents stated having oral sexual intercourse, out of which 723 (69.9%) have never used a condom during such intercourse and 63 (6.1%) had used a condom at each oral intercourse. The median number of partners with which the respondents had oral intercourse within the last year was 2, with a minimum of 2 and a maximum of 70.

Eighty-five point four percent (963/1127) of the respondents had had anal sexual intercourse in the last 12 months. Out of those 963 respondents 454 (47.1%) used a condom at each anal intercourse, 174 (18.1%) often, 101 (10.5%) sometimes, 58 (6%) rarely and 176 (18.3%) never.

Out of those respondents who had anal intercourse in the last year and used a condom at last intercourse there was 456/630 (71%) who also used a lubricant out of which a little less than half used a water based lubricant 219/456 (48%). The median number of partners with whom the respondents had anal intercourse was 1, the minimum amounting to 0 and the maximum to 100. The median number of partners with whom the respondents had other sexual activities (excluding oral and anal intercourse) was 1, the minimum being 0 and the maximum 300.

While having anal sex with man, sub-population of MSM who also have sex with women (MSM/MSW) used condoms more frequently than the rest of respondents ($p=0.021$, Chi-square test, d.f.=2).

Discussion

This was the first behavioral study on MSM population in Croatia and one of the most important findings is the fact that the Croatian MSM population was not willing to participate in the research – the overall response to the study was very low (19%) – probably due to the still strong stigmatization of the MSM population in Croatia. This implies that the scientific community interested in HIV research should make extra effort to improve the contact with the MSM population. An exception was the bar with an unusually high response rate which can be explained by an extraordinary interest of the owner/staff to motivate the respondents and having closer contact with them.

Knowledge on the possibilities of protection from HIV by using condoms was relatively high (except in the bar), but still we find there is need for improvement and reaching the desired level: we would like to make the

TABLE 2
KNOWLEDGE ABOUT HIV/AIDS, HIV TESTING AND SEXUAL
RISK BEHAVIOR OF CROATIAN MSM* N=1127 n (%)

Ever heard of HIV/AIDS	
No answer	16 (1.4)
Answered	1111 (98.6)
Yes	1104 (99.4)
No	7 (0.6)
Condom is an effective means of protection from HIV	
No answer	3 (0.3)
Answered	1124 (99.7)
Yes	850 (75.6)
No	139 (12.4)
Don't know	135 (12.0)
Undergone HIV testing	
No answer	3 (0.3)
Answered	1124 (99.7)
Never	598 (53.2)
Once	241 (21.4)
Several times	285 (25.4)
Type of drug used before sex within the last month	
No answer/ not applicable	919 (81.5)
Answered	208 (18.5)
Marijuana	82 (39.4)
Butyl/isobutyl nitrate (poppers)	61 (29.3)
Cocaine	23 (11.1)
Amphetamine	18 (8.6)
Heroin	4 (1.9)
Some other drug	20 (9.6)
Condom use during oral intercourse within the last year	
No answer/ not applicable	92 (8.2)
Answered	1035 (91.8)
Always	63 (6.1)
Often	37 (3.6)
Sometimes	76 (7.3)
Rarely	136 (13.1)
Never	723 (69.9)
Condom use during last anal intercourse	
No answer	36 (3.2)
Answered	1091 (96.8)
Yes	642 (58.7)
No	449 (41.3)

benefits of using condoms known to every citizen in Croatia, particularly in vulnerable populations. The lower level of knowledge in the bar underlines the importance of specific interventions regarding this venue.

The next important finding is that the testing rate is very low comparing to United States data¹¹ which is very concerning with respect to secondary HIV prevention measures in Croatia and implies lack of promotion of voluntary counseling and testing among MSM population.

In our research, marijuana and »poppers« are used more commonly and heroin less than other authors

Reasons for not using condoms during last anal intercourse	
No answer/ not applicable	700 (62.1)
Answered	427 (37.9)
»Intercourse was not a risky one«	136 (31.9)
»I was overwhelmed with passion and I didn't think«	61 (14.3)
»I don't like sex with condoms«	48 (11.2)
»I did not have a condom on me at that moment«	34 (7.9)
»The partner did not want to use a condom«	19 (4.4)
»Condoms are too expensive«	3 (0.7)
Other reasons	126 (29.5)
Lubricant use during last anal intercourse	
No answer	44 (3.9)
Answered	1083 (96.1)
Yes	723 (66.8)
No	360 (33.2)
Most frequently used lubricants within the last year	
No answer/ not applicable	327 (29.0)
Answered	800 (71.0)
Water based lubricant	356 (44.5)
Body lotion/milk	214 (26.8)
Vaseline	157 (19.6)
Oil/butter	18 (2.3)
Something else	55 (6.8)
Intercourse with women within the last year	
No answer	55 (4.9)
Answered	1072 (95.1)
Yes	383 (35.7)
No	689 (64.3)
Condom use during intercourse with women within the last year	
No answer/ not applicable	744 (66.0)
Answered	383 (34.0)
Always	78 (20.4)
Often	19 (5.0)
Sometimes	16 (4.2)
Rarely	20 (5.2)
Never	250 (65.3)

*Percentages for »no answer/ not applicable« pertain to percentages from the total sample. All other percentages are percentages from the total number of participants who answered the question.

found^{12,13}. As the light drugs use has been shown to be a risk^{14–16} for entering into sexual intercourse without protection, additional research and analyses are required to try to identify which sub-population uses drugs more frequently and aim focused interventions towards those subpopulations^{4,17}. In this research we found no statistically significant difference in having UAI with respect to drug use.

The fact that more than 40% of the overall respondents have not used a condom at last anal intercourse is of great concern. There are many contextual factors that

influence the decision to engage in UAI^{18,19}. Our results suggest that the decision (of having UAI) was based mostly on trust into the HIV status of the partner or happened due to not thinking of risk or not finding pleasure in sexual intercourse using condoms which is consistent with the results of other studies worldwide^{20–25}, and is not satisfactory – HIV risk is obviously influenced by some other psychological dimensions of personality and not solely by the knowledge factor itself. A little over a third of the respondents had sexual intercourse with women (MSM/MSW) in the last 12 months, and only a fifth of them regularly used protection which is consistent to finding in Croatia's neighboring country – Hungary²⁶. From this reason we can conclude that the so called bridging population's behavior is very risky and that there is danger of transmitting the outbreak from the MSM into the general population through a heterosexual route of transmission. In contrast, an interesting result which differs from recent scientific literature^{11,24} is that the Croatian MSM/MSW sub-population practices safer sex with male partners more often than those men who do not practice sex with women ($p=0.021$, Chi-square test, d.f.=2). The reason for this would probably be that they find sexual intercourse with women less risky than sexual intercourse with men.

With respect to condom use, the rate lubricant use during last anal intercourse is even less than what has been found in other studies²⁷. Furthermore, among those who did use it, less than a half of the respondents have used a water-based product.

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To conclude, while the results of the first survey on Croatian MSM population suggest a relatively high level of knowledge, we are still not satisfied with the high level of risk behaviors. The obtained findings will serve for focused and effective prevention activities and as a baseline for a future time-location research of risk behavior trends within the framework of Second generation surveillance of HIV infection in Croatia²⁸.

The main limitation of the study is the generalizability of the results. Even though we could not dare to speak of any level of representativity of the results, the sample size does give a certain weight to the information obtained. Through good cooperation with nongovernmental organizations, we hope for a better response of the MSM population in future studies, all with the purpose of decreasing risk for HIV in a population which for the time being, seems to be at greatest risk for this infection in Croatia.

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B. Kolarić

Croatian National Institute of Public Health, Rockefellerova 7, 10000 Zagreb, Croatia
e-mail: branko.kolaric@hzzjz.hr

RIZIČNA PONAŠANJA ZA HIV INFEKCIJU MEĐU HRVATSKIM MUŠKARCIMA KOJI PRAKTICIRAJU SEKS S MUŠKARCIMA

S A Ž E T A K

Istraživanje je provedeno s ciljem dobivanja prvih informacija u rizičnim seksualnim ponašanjima u hrvatskih muškaraca koji prakticiraju seks s muškarcima (MSM). U studiju je bilo uključeno 1127 ispitanika iz tri fizičke (bar, sauna i disko klub) lokacije u Zagrebu i jedne virtualne (web stranica namijenjena gay populaciji) lokacije na kojima se okuplja Hrvatska MSM populacija. Ukupna stopa odziva bila je samo 19%. Učestalost korištenja kondoma pri zadnjem analnom odnosu bila je 59%, a 56% onih koji su koristili lubrikant izabralo je sredstvo neadekvatno za korištenje s lateks kondomima. Nije pronađena povezanost između korištenja droga i učestalosti nezaštićenog analnog odnosa. Samo petina ispitanika koji su imali seksualni odnos sa ženama u zadnjih 12 mjeseci redovito je koristila kondom. Rezultati istraživanja koristit će za ciljane preventivne aktivnosti i kao baza za praćenje trenda ponašanja u budućnosti.