Inconsistent condom use among socially excluded heroin users

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(Uso inconsistente del condón en los usuarios de heroina en situación de exclusión social)

Abstract

The study focused in sexual behaviour among socially excluded heroin users, identifying factors associated with inconsistent condom use. Data was collected in the cities of Granada and Seville between July and October 2000, through a structured questionnaire, to 391 participants. Twenty two and 15% of participants have made consistent use of condoms in vaginal sex in the last year with occasional and regular partners respectively. There is a greater likelihood of inconsistent condom use with occasional partners among users who had had oral sex, and who does not know if their partner(s) inject or injected drugs. For regular partners those who have an injecting partner and do not speak with their sexual partners about AIDS have a higher probability to do not use always a condom. For both groups, when always the partner is who propose the use of condoms (when used) and not themselves, the risk not to use it is near 4 times more than when thems elves propose to use it. Speaking about condoms and AIDS with mate, partners and family, and learning to negotiate the use of condoms seems to be the most important strategies to be approached for this sample, from the social and health care system in order to promote a protected sex.

Key words: Heroin users. Male condom. Sexual behaviour. Harm reduction.

Resumen

El objetivo del presente trabajo es analizar las conductas sexuales entre los usuarios de heroína, en situación de exclusión social, y conocer los factores asociados al uso inconsistente del condón en sus relaciones sexuales (coito vaginal) con parejas ocasionales y estables. Los datos fueron recogidos en las ciudades de Granada y de Sevilla entre julio y octubre de 2000, a través de un cuestionario estructurado, a 391 participantes. El 22 y el 15% de los participantes han hecho un uso consistente del condón durante el último año con sus parejas ocasionales y estables, respectivamente. Se ha encontrado una mayor probabilidad de un uso inconsistente del condón con las parejas ocasionales entre usuarios que habían practicado el sexo oral, y que desconocen si su(s) pareja(s) se inyecta drogas. En cuanto a las parejas estables, las que se inyectan y no hablan de sida entre ellos mostraron una probabilidad más alta de no utilizar consistentemente el condón. Para ambos grupos, cuando la pareja es quien siempre propone el uso del condón, el riesgo de no utilizarlo es de 4 veces más que cuando son ellos mismos quienes proponen su uso. Hablar sobre condones y sida con los amigos, las parejas y la familia, así como aprender a negociar el uso del condón, parecen ser las estrategias más apropiadas para el abordaje de esta población, de cara a promover un sexo protegido dentro del sistema sociosanitario.

Palabras clave: Heroína. Condón masculino. Conducta sexual. Reducción de daños.

Introduction

The consistent, correct use of condoms is an effective means of preventing sexual transmission of the human immunodeficiency virus (HIV)[1]. For this reason, increased condom use has become a key intervention aimed at protecting people from HIV infection both for more vulnerable groups as well as the general population[2]. Drug misusers comprise one of these vulnerable groups, given that they may behave in ways that put them at risk for HIV-infection, whether directly or indirectly related to their addiction. Intravenous drug users (IDUs) are the focus of healthcare interventions aimed at reducing risk behaviour associated with drug-abuse (e.g., needle-sharing), which have achieved positive changes towards less harmful[3,4]. Nevertheless, it would appear that IDUs are more easily convinced to stop sharing needles than to modify their sexual habits[5]. Several studies indicate that a large proportion of drug addicts use condoms inconsistently[6] depending upon the type of sexual partner; for instance, there is less frequent use in steady couples than in occasional partners[7,8] and more widespread use in the case of sexual workers' clients[9,10]. Even though modifying behaviours that make people more suscep-

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tible to infections would seem to be a relatively simple strategy, the circumstances under which intervention must be implemented are complex and require multidimensional approaches[2]. The complexity of the approach is self-evident in the case of socially excluded illicit-drug users, while the need for HIV-prevention strategies adapted to this population must also be met in the short term.

In recent years, intravenous heroin addicts in Andalusia have become a minority as inhalation has replaced injection as the main route of administration, and heroin is mainly taken mixed with cocaine (speedball)[11,12]. Some studies in Spain have described condom use among intravenous illicit-drug users[7,8,13,14], mainly in view of the fact that 65% of AIDS cases in our country occurs IDUs[15]. Although there is a lesser risk of infection associated with heroin chasing[16,17], sexual transmission is not changed in any way by this. Even when the incidence of HIV infections among IDU's have being descending in the last decade, Spain still is one of the European countries with the greater prevalence of HIV related to intravenous drug use[18]. From this point of view, drug users who carry out unprotected sex are exposed to transmit and contract this sexually transmitted disease at a higher risk than the general population. This means that drug users are a vulnerable population that requires specific approach in order to prevent infections and reinfections.

The present study aims to examine sexual behaviour, among socially excluded heroin users, and to identify factors associated with the use of condoms.

Table 1. Characteristics of studied group (n = 391)

	Percentages
Gender	
Male	83.3
Female	16.7
Age	
≤ 31	44.2
> 32	55.8
City	
Granada	49.1
Seville	50.9
Daily heroin consumption (+ cocaine)[a]	90.1
Have injected drugs in the last year	32.5
Have had sexual relations in exchange for money or drugs	14.8
Have ever been in prison	62.3
Have ever received drug addiction treatment	75.3
Hepatitis C positive[b]	
Yes	44.8
No	49.0
Do not know	6.2
HIV positive[b]	
Yes	30.8
No	51.8
Do not know	17.4
Ever have other STDs[b,c]	
Yes	33.5
No	50.4
Do not know	16.1
Sexual relations with partners[d]	
Occasional	50.4
Stable	42.7
No partner in the past year	19.9
Sexual orientation	
Heterosexual	97.4
Homosexual	2.3
Bisexual	0.3

[a]Speedball (cocaine plus heroin) is the main drug used by opioid-addicts in Andalusia.
[b]Self reported.
[c]Other sexually transmitted diseases syphilis, gonorrhea, genital herpes, candidosis, pubic lice, etc.
[d]Total sum more than 100, since 13% of the participants had had sex with stable and occasional partners in the last 12 months.

Subjects and methods

This study on drugs and social exclusion was conducted on a sample group of 391 participants from Seville, Granada in the frame of a large European study that involved other eight cities. Material and methods were published elsewhere, as well as other characteristics of the participants and the study[19-21].

Participants were recruited from widely dispersed sampling points in both cities to gain maximum coverage of key zones for this population. The criteria for inclusion in the study were presence at regular gathering places for marginal, illegal drug users having consumed heroin or cocaine in the last 12 months. Interviews took place on streets, squares and other places previously identified and mapped out by the outreach team.

Procedures

Data was collected in structured, face-to-face interviews lasting approximately 60 minutes, using a World Health Organisation questionnaire adapted to our sample population on the risk of HIV infection and drug injection[22,23]. The questionnaire also included socio-demographic items, and indicators of marginalisation. All the questions on specific behaviours (i.e. drug use, have sex, have used condoms, etc.) are referred to the last 12 months.

The fieldwork was carried out in the cities of Granada and Seville between July and October 2000. In this study, since social exclusion refers to the context, we went in search of either marginalised areas (specific neighbourhoods) or areas in which the most marginalised drug users gather (soup kitchens, shooting galleries) to consume, buy drugs or get drug money.

Interviews were conducted by street educators with the help of «peers»[3,7,24-27]. This strategy was combined with snowball sampling. Since the intention of the whole study was a description of the situation of marginalized drug users, no sample size calculation was planned under statistical methods. Each research partner interviewed near 200 persons, given that the teams evaluated that number as enough to achieve the information that we were looking for.

Fieldwork included the interview, as well as the distribution of material means (syringes and/or condoms) and general information on prevention and harm-reduction related to the transmission of infectious diseases, drug use and safe sex.

Statistical analysis

The sample group's characteristics were examined against the variables of interest through descriptive analysis. This initial analysis dealt with the total group of heroin-users. The dependent variable –frequency of condom use in vaginal sex with occasional partners and regular partners– originally consisted of 5 categories, which were later combined into two: consistent use of condom (always), and inconsistent use (not always). These two levels chosen for the dependent variable are based on the premise that any frequency of condom use other than «always» may be a cause for healthcare intervention. Vaginal sex as dependent variable was chosen given that this is the more frequent sexual intercourse among this sample (94%), and that less than 3% are homosexual/bisexual males. Bivariate analyses (chi square) were performed for all the variables evaluated, comparing participants who consistently use condoms with those who do not for each kind of partner's relationship in the last 12 month: regular and occasional. Two binary logistic regression analysis was performed in order to examine the probability of inconsistent condom use in vaginal sex with occasional and regular partners. The regression models were performed with the significant variables ($p = 0.05$) from the bi-varied analysis in two steps. Gender, age and city were introduced into the regression analysis as control variables, despite their significance, given that gender stereotypes, stage in life and environmental factors might be associated with condom use. The ensuing block introduced all the variables using a (manually) a back step method. Those variables with a significance of less than 0.1 were excluded from the model in the second step.

Results

Table 1 shows the principal characteristics of the target group, where the majority were over 32 years old (55.8%) and were male (83.3%). High percentages can be observed for some marginality indicators, such as daily heroin consumption in nearly 90% of participants and more than half (57.6%) having served time in prison. The prevalence of self reported disease ranges between 30.8% (HIV) and 44.8% (Hepatitis C). The per-

Table 2. Sexual behaviour and condom use for occasional and regular partners relations

	Occasional partner (n = 197) %	Regular partner (n = 167) %
Vaginal sex	93.9	94.0
Frequency of condom use in vaginal sex		
Always	22.3	14.8
Sometimes	68.5	56.1
Never	9.2	29.0
Oral sex	92.1	90.1
Frequency of condom use in oral sex		
Always	10.9	6.9
Sometimes	27.4	16.6
Never	61.7	76.6
Anal Sex	46.5	57.9
Frequency of condom use in anal sex		
Always	15.9	11.6
Sometimes	62.5	57.9
Never	21.6	30.5
Non-use of condom is because…[a]		
Both are positive to HIV	13.2	16.8
Less sensitivity or pleasure, not liked	38.1	53.3
Other form of contraception used	1.0	3.0
I know there is no risk, because		
I know/trust the person	50.8	49.1
We practise low-risk sex (no penetration)	10.2	5.4
Does not have condoms	23.9	1.8
Other	7.6	3.0
Use of condom is because…		
One or other positive to HIV	18.9	19.7
To avoid pregnancies	21.3	64.1
To avoid infections	59.2	13.7
Other	0.6	2.6
If your partner does not want to use a condom, what do you do?		
Never happens	0.0	19.7
Sex without condom	40.7	66.7
Have low-risk sex (no penetration)	15.3	7.7
No sex	12.4	3.4
Assess partner's appearance	23.2	0.0
Other	8.5	2.6
Uses condom less under the effects of alcohol	36.5	40.5
Uses condom less under the effects of a drug	37.6	34.7
Partner(s) injects drugs (currently or in the past)	23.4	19.8

All the questions are referred to the last 12 months.
Sexual relations with occasional and regular partners are not mutually exclusive.
[a]Multiple-choice question.
HIV: human immunodeficiency virus.

centage of participants who had had sex with regular and occasional partners in the last 12 months are 50.4% and 42.7% (13% of them had had sex with both kind of partners). Sexual orientation of the sample is almost totally heterosexual (97.4%).

Table 2 describes sexual behaviour and condom use in relations with casual and regular partners. The most practiced sex was vaginal (94%), for both groups. The proportion of consistent condom use with occasional partners is 22.3 and 14.8% with regular partners. Consistent use of condoms in terms of oral and anal sex is also higher with occasional partners than with stable partners. The main reasons cited for not using a condom with occasional partners are reduced sensitivity or pleasure in sexual relations associated with condoms and trusting or knowing the partner. Also, 23.9% cite not having access to condoms. For regular partners, the main reason to do not use condoms are that both are HIV+ and to use other form of contraception. The main reason for condom use varies between occasional and regular partners, with 59.2% of occasional sexual partners stating avoidance of infection as the reason, while

Table 3. Significant comparisons for condom use in vaginal sex for occasional partners

	Not always (n = 143), %	Always (n = 41), %		Not always (n = 143), %	Always (n = 41), %
Age (years)[a]			When condoms are used		
< 31	17.0	27.1	what are the main reasons?[d]		
> 32	83.0	72.9	One of us is HIV+	15.6	32.4
City[b]			Prevent pregnancy	26.2	10.8
Granada	72.0	14.6	Prevent possible infections	58.2	56.8
Seville	28.0	85.4	Who usually proposes to use condoms?[b]		
Changed behaviours as a result			I, almost always	25.8	58.5
of hearing about AIDS?[d]			My partner	44.4	12.2
Yes	69.9	85.4	Sometimes I, sometimes my partner	29.8	29.3
No	30.1	14.6	Partner(s) of these last 12 months		
Use condoms more frequently[b]			injects drugs currently		
Yes	37.1	70.7	or in the past?[b]		
No	62.9	29.3	Yes	28.6	19.5
Reduce the number of sexual partners[a]			No	34.9	78.0
Yes	75.5	87.8	Do not know	36.5	2.4
No	24.5	12.2			
Injecting drugs less (more chasing)[d]			How often do you talk about…		
Yes	9.1	0.0	…HIV/AIDS with your mates?[a]		
No	90.9	100.0	Frequently	19.6	35.9
Quit injecting drugs[a]			Sometimes	63.6	51.3
Yes	32.2	17.1	Never	16.8	12.8
No	67.8	82.9	…HIV/AIDS with your sexual partner(s)?[b]		
Any drug treatment because of drug use[d]			Frequently	12.9	41.7
Yes	69.9	85.4	Sometimes	87.1	58.3
No	30.1	14.6	…HIV/AIDS with your family?[c]		
Have you ever had or have Hepatitis C[a]			Frequently	6.6	21.1
Yes	50.7	36.6	Sometimes	25.5	36.8
No	42.3	61.0	Never	67.9	42.1
Do not know	7.0	2.4	…condom use with your mates?[c]		
Have you ever had or have other STD (no HIV)[b]			Frequently	6.3	20.0
Yes	42.0	19.5	Sometimes	78.2	55.0
No	35.0	75.6	Never	15.5	25.0
Do not know	23.0	4.6	…condom use with your sexual partner(s)?[c]		
Have you carried out oral sex[b]			Frequently	23.0	47.4
Yes	96.4	72.2	Sometimes	77.0	52.6
No	3.6	27.8	…condom use with your Family?[b]		
Have you carried out anal sex[b]			Frequently	0.7	15.8
Yes	49.6	25.0	Sometimes	9.5	28.9
No	50.4	75.0	Never	89.8	53.3

[a]$p < 0.1$; [b]$p < 0.001$; [c]$p < 0.01$; [d]$p < 0.05$. Chi square test used.
HIV: human immunodeficiency virus; STD: sexually transmitted diseases.

64.1% in stable partners use condoms to avoid pregnancies. More than one third of participants who have had sexual relations with occasional or regular partners acknowledge having used condoms less frequently under the effects of alcohol or drugs. Finally, 23.4% of the partners in occasional relations were intravenous drug-users, compared to 19.8% in regular relations.

Comparisons with significant differences between participants who consistently use condoms during vaginal sex and those who do not are shown in table 3, for occasional partners and in table 4 for regular partners. For both groups, those participants in Granada, who have not ever been in drug treatment, ever had sexually transmitted diseases, have had oral sex in the last year, do not use condoms more frequently because of AIDS, for whom the main reason to use condom in not prevent possible infections and who do not speak frequently about AIDS or condom use with their family, friends or sexual partner show a higher percentage of inconsistency condom use. Those who usually propose the use of condoms to their sexual partners show higher percentages of consistent condom use. Participants who have had sexual relationship with occasional partners showed also significant differences in other variables. Those aged 31 or younger, hepatitis C positive, who had carried out anal sex, and had not reduced the number of sexual partners, or stop injecting or injected less since hearing about AIDS present higher percentages of inconsistent condom use. Those who does not know if their occasional partner in the last 12 months injected drugs show higher percentage of inconsistent condom use. This situation differs from regular partners, where none of them said that did not know, and those who their partners did not injected presented higher percentages of consistent condom use.

Table 5 shows the two logistic regression models for the probability of condom use during vaginal sex with occasional and regular partners: always vs. not always No correlations between condom use and indicators of both marginality and health can be found within this models. For both groups, participants from Seville have a lesser probability of inconsistent condom use than those from Granada. A greater probability to do not use always a condom with occasional partners are for those participants who had had oral sex, and who does not know if their partner(s) inject drugs currently or in the past. When always the partner is who propose the use of condoms (when used) and not their selves, the risk to do not use it is almost 6 more times. For regular partners we found the same pattern for this variable, with an OR of 4.83, however not statistically significant (p = 0.093). For this group, does who have a IDU or former IDU partner and do not speak with their sexual partners about AIDS have 9 and 4.5 more times of probability, respectively, to do not use always a condom. The Hos-

Table 4. Significant comparisons for condom use in vaginal sex for regular partners

	Not always (n = 132), %	Always (n = 23), %
City[a]		
Granada	56.1	13.0
Seville	43.9	87.0
Use condoms more frequently as a result of hearing about AIDS[b]		
Yes	34.1	56.5
No	65.9	43.5
Any drug treatment because of drug use[c]		
Yes	73.5	91.3
No	26.5	8.7
Have you ever had or have other STD (no HIV)[d]		
Yes	38.6	13.0
No	43.9	82.6
Do not know	17.4	4.3
Have you carried out oral sex[b]		
Yes	91.5	77.7
No	8.5	22.3
When condoms are used what are the main reason?[b]		
One of us is HIV+	18.8	18.2
Prevent pregnancy	72.9	54.5
Prevent possible infections	8.2	27.3
Who usually proposes to use condoms?[b]		
I, almost always	21.6	39.1
My partner	38.6	13.0
Sometimes I, sometimes my partner	39.8	47.8
Partner injects or injected drugs?[d]		
Yes	34.1	4.3
No	65.9	95.7
How often do you talk about…		
…HIV/AIDS with your mates?[b]		
Frequently	23.7	39.1
Sometimes	59.5	30.4
Never	16.8	30.4
…HIV/AIDS with your sexual partner(s)?[d]		
Frequently	22.1	47.8
Sometimes	77.9	52.2
…HIV/AIDS with your family?[a]		
Frequently	8.9	34.8
Sometimes	30.9	34.8
Never	30.2	30.4
…condom use with your mates?[c]		
Frequently	12.4	30.4
Sometimes	60.5	39.1
Never	27.1	30.4
…condom use with your sexual partner(s)?[a]		
Frequently	19.2	68.2
Sometimes	80.8	31.8
…condom use with your Family?[a]		
Frequently	4.0	26.1
Sometimes	10.5	17.4
Never	85.5	56.5

[a]$p < 0.001$; [b]$p < 0.05$; [c]$p < 0.1$; [d]$p < 0.01$. Chi square test used.
HIV: human immunodeficiency virus; STD: sexually transmitted diseases.

Table 5. Adjusted odds ratio (OR) estimates for inconsistent use of condoms in vaginal sex for occasional and regular partners

	OR (95% CI)	p
With occasional(s) partners[a]		
Seville vs. Granada	0.09 (0.03-0.30)	0.001
Age (≤ 31 vs. < 32)	0.97 (0.31-3.04)	0.961
Female vs. male	0.20 (0.03-1.52)	0.119
Have carried out oral sex (vs. no)	6.67 (1.20-37.06)	0.030
Who proposes to use condoms		
I do, almost always	–	0.060
My partner	5.88 (1.32-26.15)	0.020
Sometimes I do, sometimes my partner	3.24 (.82-12.72)	0.093
Partner (s) inject or injected drugs		
Do not know	–	0.063
Yes	0.18 (0.01-2.19)	0.177
No	0.08 (0.01-0.84)	0.035
With regular(s) partners[b]		
Seville vs. Granada	0.06 (0.01-0.26)	0.001
Age ≤ 31 vs. > 32	1.01 (0.93-1.09)	0.933
Female vs. male	1.04 (0.24-4.52)	0.961
Who proposes to use condoms		
I do, almost always	–	0.243
My partner	4.83 (0.77-30.53)	0.094
Sometimes I do, sometimes my partner	1.74 (0.42-7.22)	0.445
Partner injects or injected drugs (vs. no)	9.27 (0.77-111.65)	0.080
Does not speak with partner about AIDS		
often (vs. speak often)	4.47 (1.17-17.04)	0.028

[a]Hosmer-Lemeshow goodness of fit test p = 0.167.
[b]Hosmer-Lemeshow goodness of fit test p = 0.857.
OR: odds ratio; CI: confidence interval.

mer-Lemeshow goodness of fit test was not significant in any of the models.

Discussion

The present study has examined sexual behaviour and practices associated with risk of HIV-infection among socially excluded heroin users, mainly chasers. Among the results we found a low percentage of participants who claim to have made consistent use of condoms in vaginal sex with occasional partners (22.3%), not only in absolute terms, but also in comparison with other studies in Spain on opioid dependent persons (around 40%[7,8,28] and with the general population in Andalusia 57.8%[29]). In addition, as in other studies, condom use was less frequent among regular partners than with occasional partners[7,8].

We found a positive association of condom use with drug-treatment. This could stem from contact with health services and the interventions they recommend to patients, although this association disappear after adjusted for other variables. It may be assumed that patients under drug treatment have received advice and support from health professionals regarding harm reduction associated with drug-use and HIV-infection[30]. The integration of heroin addicts into the healthcare network is, and must continue to be, one of the central objectives in Public Health policies, adapting the available treatments to this specific population's characteristics and needs, not only to treat the addiction, but also to work towards harm reduction and focus on the problems associated with drug use.

Half of the participants in this study admit to assessing the looks of partners (occasional) as a strategy for deciding whether or not to wear a condom. This strategy is in contrast with the fact that a large majority of these participants believe that one can «look alright» and yet still be an HIV-carrier. In a qualitative study on alternative strategies to condom use among drug-users, considering one's partner to be «clean and decent» is believed to be a way of reducing the risk of infection[5]. Such assessment of appearance may be based on indicators unrelated to HIV, although an indirect relationship is assumed. Therefore, it could be that trust in one's partner based on appearance may not be so much what that appearance reveals about being an AIDS-carrier, but rather about whether the person is perceived to be reliable in general, conferring a degree of credibility on his or her words and actions. Understanding the nature of relationships and how they work allows us to adapt interventions and formulate healthcare messages related to recipients' perceptions[31,32]. These results suggest [the need for] a point of intervention which addresses the fact that a person may be an HIV-carrier and not know it (nearly 20% of this sample group did not know if was HIV positive), which would in turn foster a more active role in decision-making based on users' own arguments.

Talking about AIDS and condom with mates, friends and partners is associated with having protected sex. Using a condom requires a certain degree of planning, at least having one on hand when the need arises; this contrasts with the characteristic compulsiveness of opiate addicts, driven by the daily need to get their dose[33]. In Andalusia condoms can be easily obtained without charge in a lot of social and health care resources (i.e. non governmental associations; public service of sexuality counselling), but even this can be out of the daily route of a drug dependent person. Talking about AIDS and condom use is a healthy strategy, not only for sharing perceptions and opinions on the subject, but to help in the planning of what to do and how to go about it. This study once again brings into focus the relevance of using peer groups in harm-reduction strategies[7], and to reach them through any health or social services and try to 'talk' about that. If talking with friends and partners about condoms can influence their use, then working directly with such peer groups may be an effective way to get the message across. Nevertheless, in the

multivariate model, only for stable partners, speak with them about AIDS remain significant.

One of the most consistent associations among regular and also occasional sexual (vaginal) relations that distinguish between those who always had had protected sex in the last 12 months (than those who did not) was: who propose to use condoms. When the decision to wear a condom relies on the partner, the participants have a higher probability (five more times) to may be not using it. This association has being shown in other studies[34-37]. For example, Harvey et al[34] found that condom use were higher among women who reported hat they make decisions about using condoms alone or with their partner as compared to those who reported that their partner makes those decisions. Probably who hold the power in a relationship will make the decision of use or not a condom[36]. Nevertheless, to have protected sex depends on the ability to negotiate the use of condoms[37], skills that can be developed.

The choice to use a condom does not depend solely on the person's predisposition to do so, but rather depends on social factors and their impact on decision making[32]. This would imply that our intervention strategies must be based upon the needs and characteristics of the target population and planned accordingly from within, alongside and for that population. This study highlights the importance of making the widest possible array of treatment options available, adaptable to the profiles of drug addicts. This will enable them to be in contact with the social and health network and to take an active part in intervention strategies targeting them and their groups. Speak about condoms and AIDS with mate, partners and family; and learn to negotiate the use of condoms seams to be the most important strategies to be approached for this sample, from the social and health care system in order to promote a protected sex.

This study shows several limitations, some of them inherent in cross-sectional models with non-random samples of data derived from self-reporting statements. Self-reported statements are conditioned for several reasons: the moment, the place, the time needed to be answered, the interviewer, the relation of the interviewer with the participant, and the contents of the questionnaire. We do not find any reason to do not trust the report of a drug user, mostly when the confidentiality is assured and whatever the answer, they will not have consequences (sanctions) for them[38]. Given that was an intentional sample and no power calculation were made, and that in the comparisons, some groups remained with a small size, the conclusions of this study must be taken cautiously. Also, we did not measure the response rate or the reason for refuse to participate. Socially excluded drug users, are a hidden and hard to reach population, and it is very difficult to 'know' his total size[25, 27,39]. One of the main factors associated with the inconsistent use of condoms is the City of recruitment. This difference could be due to local, contextual diversity or, given that is an intentional sample, to variations in the procedure of recruitment. Finally, we only analyzed the use of condoms in vaginal sex with heterosexual occasional or regular partners. This must be considered for any conclusion derived from this study.

Despite the several limitations, this study sheds light on sexual behaviour associated in a population ordinarily difficult to access, making way for improvements in intervention policies aimed at prevention.

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