



FACTORS ASSOCIATED WITH THE CONSISTENT USE OF THE MALE CONDOM AMONG WOMEN LIVING WITH HIV/AIDS

Tatiane Cristina Faria da Silva¹
Laelson Rochelle Milanês Sousa² 
Giselle Juliana de Jesus²
Jamille Guedes Malta Argolo²
Elucir Gir²
Renata Karina Reis² 

¹ Universidade de São Paulo, Escola de Enfermagem de Ribeirão Preto. Ribeirão Preto, São Paulo, Brasil.

² Universidade de São Paulo, Escola de Enfermagem de Ribeirão Preto, Programa de Pós-Graduação em Enfermagem Fundamental. Ribeirão Preto, São Paulo, Brasil.

ABSTRACT

Objective: to analyze the factors associated with the consistent use of the male condom among women living with HIV/aids.

Method: an analytical study with a quantitative approach involving 140 women living with HIV/aids who at the time of the study had an active sexual life and receiving follow-up care at the Specialized Care Services. The data were collected by means of a questionnaire via individual interview and were later analyzed using the version 17.0 of the Statistical Package for Social Sciences software.

Results: it was identified that the longer diagnostic time ($p=0.029$); ($p=0.030$), non-use of alcohol ($p=0.022$), and other drugs ($p<0.001$) prior to intercourse were factors associated with consistent condom use.

Conclusion: strategies are needed to encourage women and their partners to use condoms in sex, as it is a proven method for the prevention of HIV transmission and acts as a barrier against other sexually transmitted infections.

DESCRIPTORS: Condoms. Women. HIV. Aids. Disease prevention.

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FATORES ASSOCIADOS AO USO CONSISTENTE DO PRESERVATIVO MASCULINO ENTRE MULHERES VIVENDO COM HIV/AIDS

RESUMO

Objetivo: analisar os fatores associados ao uso consistente do preservativo masculino entre mulheres vivendo com o HIV/aids.

Método: estudo analítico de abordagem quantitativa, envolvendo 140 mulheres vivendo com HIV/aids que no momento do estudo possuíam vida sexual ativa e estavam em acompanhamento nos Serviços de Atendimento Especializado. Os dados foram coletados por meio de questionário para entrevista individual e posteriormente analisados utilizando o *software Statistical Package for Social Sciences* 17.0.

Resultados: identificou-se que o um maior tempo de diagnóstico ($p=0,029$); conversar com o parceiro sobre métodos de prevenção para o HIV ($p=0,030$), não fazer uso de álcool ($p=0,022$) e outras drogas ($p<0,001$) antes de ter relação sexual são fatores associados com uso consistente do preservativo.

Conclusão: são necessárias estratégias que incentivem as mulheres e seus parceiros quanto ao uso do preservativo nas relações sexuais, pois além de ser um método de eficácia comprovada para a prevenção da transmissão do HIV, atua como barreira para outras infecções sexualmente transmissíveis.

DESCRITORES: Preservativos. Mulheres. HIV. Aids. Prevenção de doenças.

FACTORES ASOCIADOS AL USO SISTEMÁTICO DEL PRESERVATIVO MASCULINO EN MUJERES AFECTADAS POR VIH/SIDA

RESUMEN

Objetivo: analizar los factores asociados al uso sistemático del preservativo masculino entre mujeres afectadas por VIH/SIDA.

Método: estudio analítico de abordaje cuantitativo, con 140 mujeres afectadas por VIH/SIDA que, al momento del estudio, tenían vida sexual activa y se atendían en Servicios de Atención Especializados. Datos recolectados mediante cuestionario para entrevista individual, analizados utilizando *Statistical Package for Social Sciences* 17.0.

Resultados: se identificó que un mayor tiempo de diagnóstico ($p=0,029$); conversar con la pareja sobre métodos de prevención del VIH ($p=0,030$), no consumir alcohol ($p=0,022$) ni otras drogas ($p<0,001$) antes de mantener relaciones sexuales, constituyen factores asociados al uso sistemático del preservativo.

Conclusión: serán necesarias estrategias que incentiven a las mujeres y sus parejas a utilizar preservativo en las relaciones sexuales, ya que además de tratarse de un método de comprobada eficacia en prevención del contagio del VIH, actúa como barrera para otras infecciones de transmisión sexual.

DESCRIPTORES: Condones. Mujeres. VIH. SIDA. Prevención de enfermedades.

INTRODUCTION

The Human Immunodeficiency Virus (HIV) remains an important public health problem due to the increased number of people living with the virus, indicative of an upsurge in the epidemic.¹ In the world today, there are 36.7 million people living with HIV, 17.8 million of these are women.¹ In Brazil, from 2007 to June 2017, 194,217 new cases of HIV infection were reported, with 62,198 (32.1%) being in women.²

Despite the advances in clinical and pharmacological research, which has resulted in the creation of a set of new effective methods to prevent sexual transmission of HIV, coupled with the fact that Brazil has one of the best HIV/aids prevention and treatment programs in the world, the feminization process of the epidemic was not contained.³⁻⁴

The increase in the incidence of cases in the female population can be verified by the reduction in the sex ratio over the years. In 1986, for every 15 cases among men, there was one case in woman. In 2016, this ratio is 2.5 men for one woman.² This is due to the fact that women are biologically, epidemiologically and socially more vulnerable, making them three times more likely to get HIV from a male partner than a man contracting HIV from a female partner.

The male condom, offered free of charge by the Brazilian health services since 1994, was the first feasible public health response aimed at prevention among all HIV infection preventive methods. It is considered to have the biggest and easiest access, acceptance and frequency of use, besides being low cost and if compared to the others, is one of the methods that presents smaller numbers of adverse effects. However, despite the advantages and convenience, it has limitations, especially for women, as it provides little autonomy.^{2-3,6}

Negotiating the use of the male condom is one of the difficulties experienced by the female population.⁶ In this context, within the context of combined prevention, there are other prevention alternatives that expand the options, however, the condom remains a fundamental method against sexually transmitted infections (STI) and the HIV infection and their access to the entire population remains crucial especially for the most vulnerable populations.⁷

Historically, the use of condoms in relationships with fixed partners is attributed to extramarital sex. While the non-use of condoms is mistakenly considered by many couples as a way to demonstrate fidelity and confidence, culminating in a barrier not only to the use of condoms but also to communication about safe sex.^{5,8-10}

Health services need to go beyond the distribution of condoms and provide counseling and orientation on its correct use, as well as empowerment to women by providing women with information for negotiation and the adoption of more convenient prevention strategies for couples.¹¹

In view of the above, investigating HIV prevention strategies used by women living with the HIV infection is of the utmost importance, since the adoption of prevention methods has repercussions on the partners' sexual lives and on the sexual health of these women in relation to the prevention of other infections.

Thus, considering the need for current research on condom use, this study sought to analyze the factors associated with the consistent use of the male condom among women living with HIV/aids.

METHOD

An analytical study with a quantitative approach, performed in five HIV/aids specialized care services (SAE) in a city in the State of São Paulo.

Participants were chosen by non-probabilistic sampling, provided they met the pre-defined inclusion criteria: HIV positive for at least six months, sexual-affective partnership and active sex life

in the last six months, older than 18 years of age and attend a follow-up clinic in the specialized care services. Institutionalized individuals or those residing in support facilities were excluded.

140 women living with HIV/aids participated in the study. Data were collected by means of a semi-structured questionnaire for socio-demographic (age, schooling, skin color, work situation), clinical (time of diagnosis of HIV infection, undetectable viral load and presence of STI symptoms) and behavioral evaluation (number of sexual partners, talk with partner about preventative methods, use of alcohol and other drugs before intercourse, partner serology, and condom use). The instrument was developed specifically for the study.

The inconsistent use of the condom (never or sometimes uses a condom) versus a consistent use (used in all sexual relations) was considered a variable outcome.

The participants' approach occurred in rooms inside the clinic before or after the doctor's appointment, and data collection was conducted by research assistants who were previously trained by the study coordinator. Participants who met the inclusion criteria were invited while waiting to be seen.

The data were entered in an Excel spreadsheet for Windows and analyzed with version 17.0 of the Statistical Package for Social Science (SPSS) software. In the analysis of the associated factors, a Chi-square test was performed to analyze the association between sociodemographic, clinical and behavioral variables with male condom use in the last six months. The significance level was set at $p < 0.05$.

The recommendations for the development of research involving human beings were followed. All participants were informed about the study's objectives and were assured of the confidential nature of the data and anonymity. All participants signed the Informed Consent Term.

RESULTS

Among the 140 women participating in the study, 109 were older than 35 years of age, there was a predominance for the age group between 35 and 44 years (42.1%). Regarding schooling and work situation, 103 (73.6%) reported having less than 11 years of schooling and 69 (49.3%) were employed. Half of the participants self-declared as being white (Table 1).

Table 1 – Sociodemographic characterization of women living with HIV/ aids. Ribeirão Preto, SP, Brazil, 2016/2017. (n=140)

Variables	n(%)
Age	
18-24	4 (2.9)
25-34	27 (27)
35-44	59 (42.1)
45 or older	50 (35.7)
Schooling	
Less than 11 years	103 (73.6)
More than 11 years	37 (26.4)
Color	
White	70 (50)
Black	21 (19.3)
Brown	47 (33.6)
No response	2 (1.4)
Work status	
Employed	69 (49.3)
Unemployed	43 (30.7)
Other	26 (18.6)
On leave from work	2 (1.4)

Regarding the clinical aspects of HIV, 91 (65%) had a diagnosis time equal to or greater than five years, 108 (77.1%) had an undetectable viral load and 116 (82.9%) reported no STI symptoms (Table 2).

In the majority of cases, 125 (89.3%) had a sexual partner and 72 (51.4%) had conversations about preventive methods with their partners. Regarding the use of alcohol and other drugs before sexual intercourse, 94 (67.1%) reported not using alcohol and 125 (89.3%) reported not using other drugs (Table 2).

Table 2 – Distribution of clinical and behavioral variables of women living with HIV / AIDS. Ribeirão Preto, SP. Brazil, 2016/2017. (n=140)

Variable	n(%)
Diagnostic time	
Between 2 and 4.9 years	49 (35)
Equal or longer than 5 years	91 (65)
Viral load	
Detectable	32 (22.9)
Undetectable	108 (77.1)
Previously Sexually Transmitted Infections	
Yes	32 (22.9)
No	108 (77.1)
Sexually Transmitted Infection Symptoms	
Yes	24 (17.1)
No	116 (82.9)
Nº of sexual partners	
1 partner	125 (89.3)
2-4 partners	12 (8.6)
5 or more partners	03 (2.1)
Talk with partner about prevention method	
Yes	72 (51.4)
No	68 (48.6)
Use of alcohol before sexual intercourse	
Yes	46 (32.9)
No	94 (67.1)
Use of drugs before sexual intercourse	
Yes	15 (10.7)
No	125 (89.3)

It was observed that the consistent use of the male condom is higher among women above 35 years of age. However, there was no statistically significant association of condom use with sociodemographic variables: age, color, schooling, work situation and partner serology, as can be observed in table 3.

Table 3 – Sociodemographic factors associated with condom use among women living with HIV/aids. Ribeirão Preto, SP, Brazil, 2016/2017. (n=140)

Variables	Condom use		Total	p-value*
	Consistent	Inconsistent		
Age (in years)				0.240
18 - 24	1 (1.2)	3 (5.3)	4 (2.9)	
25 - 34	14 (16.9)	13 (22.8)	27 (19.3)	
35 - 44	34 (41.0)	25 (43.9)	59 (42.1)	
45 or older	34 (41.0)	16 (28.1)	50 (35.7)	
Work status				0.909
Employed	40 (48.2)	29 (50.9)	69 (49.3)	
Unemployed	25 (30.1)	18 (31.6)	43 (30.7)	
Other	17 (20.5)	9 (15.8)	26 (18.6)	
On leave from work	1 (1.2)	1 (1.8)	2 (1.4)	
Schooling				0.421
Less than 11 years	59 (71.1)	44 (77.2)	103 (73.6)	
More than 11 years	24 (28.9)	13 (22.8)	37 (26.4)	
Color				0.465
White	40 (48.2)	30 (54.5)	70 (50.7)	
Non-white	43 (51.8)	25 (45.5)	68 (49.3)	
Partner serology				0.207
Positive	25 (30.1)	25 (58.3)	50 (35.7)	
Negative	40 (48.2)	20 (35.1)	60 (42.9)	
Unknown	18 (21.7)	12 (21.1)	30 (21.4)	

* Chi-square

Consistent condom use was higher among women with HIV diagnosis time equal to or greater than 5 years ($p=0.029$) and also among those who were able to maintain a dialogue with their sexual partners about preventive methods ($p=0.030$). On the other hand, in relation to the behavioral factors, it was observed that the variables alcohol consumption ($p=0.022$) and other drugs ($p<0.001$) before sexual intercourse were shown to be associated with inconsistent condom use (Table 4).

Although no statistically significant association was observed, 79.5% of the women who had an undetectable viral load had higher rates of condom adherence.

Table 4 – Clinical and behavioral factors associated with condom use among women living with HIV / AIDS. Ribeirão Preto, SP, Brazil, 2016/2017. (n=140)

Variables	Condom use		Total	p-value*
	Consistent	Inconsistent		
HIV diagnosis time (in years)				0.029
2-4.9	23 (27.7)	(45.6)	49 (35.0)	
> or =5	60 (72.3)	31 (54.4)	91 (65.0)	
Viral load				0.419
Detectable	17 (20.5)	15 (26.3)	32 (22.9)	
Undetectable	66 (79.5)	42 (73.7)	108 (77.1)	
Number of sexual partners				0.079
1	77 (92.8)	48 (84.2)	125 (89.3)	
2-4	06 (7.2)	06 (10.5)	12 (8.6)	
5 or more	00 (00)	03 (5.3)	03 (2.1)	
Types of sexual partners				0.855
Fixed	68 (81.9)	46 (80.7)	114 (81.4)	
Casual	15 (18.1)	11 (19.3)	26 (18.6)	
Conversation with partner				0.030
Yes	49 (59)	23 (40.4)	72 (51.4)	
No	34 (41)	34 (59.6)	68 (48.6)	
Alcohol use				0.022
Yes	21 (25.3)	25 (43.9)	46 (32.9)	
No	62 (74.7)	32 (56.1)	94 (67.1)	
Use of other drugs				<0.001
Yes	02 (2.4)	13 (22.8)	15 (10.7)	
No	81 (97.6)	44 (77.2)	125 (89.3)	
Previous Sexually Transmitted Infection				0.309
Yes	12 (14.5)	12 (21.1)	24 (17.1)	
No	71 (85.5)	45 (78.9)	116 (82.9)	
Sexually Transmitted Infection Symptoms				0.215
Yes	22 (26.5)	10 (17.5)	32 (22.9)	
No	61 (73.5)	47 (82.5)	108 (77.1)	

*Chi-square

DISCUSSION

In this study, it was possible to observe factors related to the use of male condoms among women living with HIV. It was identified that a longer diagnosis time ($p=0.029$), talking with the partner about HIV prevention methods ($p=0.030$), non-use of alcohol ($p=0.022$) and other drugs ($p=0.001$) before having relations have been associated with consistent condom use.

Thus, it was verified that being aware of the diagnosis (equal to or greater than five years) was associated to the consistent use of condoms. However, studies indicate that Brazilian women living with HIV report higher rates of inconsistent condom use when compared to men.¹¹

In contrast, a study on the difficulties of living with HIV/aids produced reports of people in relationships. They present difficulties in condom negotiation due to the resistance from both men and women, indicating unprotected and risky sexual behaviour.

Although studies show women with inconsistent condom use, the experience of a positive HIV diagnosis is related to the theme of women. The approach and access to information on HIV has been described as positive by encouraging consistent condom use. In Canada, educational workshops for HIV prevention among women presented satisfactory results increasing knowledge about STIs and generating confidence in relation to condom use.¹³

Another associated factor was having a dialogue with the partner. In this study, 59% of women who consistently used condoms discussed condom use with their partner, which indicates that maintaining communication is critical to the prevention of the sexual transmission of HIV.¹⁴⁻¹⁵

Dialogue makes it possible to share the responsibility for the sexual health of the couple by removing the exclusive decision from the man. Educational actions with a focus on promoting dialogue can bring relevant contributions to HIV prevention.¹⁶

In this regard, behavioral HIV prevention interventions aimed at improving the communication skills of sexual partners on safe sex may increase involvement in protective behaviors and reduce the risk of infection. A systematic review study on the efficacy of HIV prevention interventions that increase the frequency of communication on safe sex and condom use has shown that such interventions are effective.¹⁷

The results indicated that participants who were exposed to individual HIV prevention interventions with components of communication skill training on safer sex had more frequent discussions with partners increasing condom use.¹⁷

In cases where there is no appropriate dialogue between partners, women living with HIV may refrain from sexual activities, especially married women living in a serodiscordant relationship, as reported in a study performed in Nigeria.¹⁸

A study performed in Africa indicated that women find it difficult to discuss prevention methods with their partner due to differences in gender and power.¹³ However, black American women were successful in discussing HIV testing with partners and an increase in trust between the couple was noted.¹⁹

Training aimed at partner communication skills in HIV-based HIV prevention interventions can increase the frequency of condom communication and use among populations at risk of HIV infection.¹⁷

Among African American women, consistent condom use was predicted by the following variables: greater awareness of the relevance of condom negotiation, less fear of negotiating condom use, and having talked to sexual partners about prevention.²⁰

The use of psychoactive substances such as alcohol and other drugs has also been associated with inconsistent condom use. Other authors point out that the use of these substances may determine decision making or affect a person's critical judgment.²¹

The influence of condom use as a way of preventing HIV transmission in sexual intercourse is perceived, since under the influence of alcohol 43.9% of the women participating in this study did not use condoms and under the influence of other drugs 22.8% did not use condoms, which connotes a significant percentage of women in need of a barrier method other than condoms. Research developed in Central America corroborated these results, and showed that frequent consumption of alcoholic beverages was associated with inconsistent condom use.²²

In addition, a study with university women found that marijuana use was associated with an increased likelihood of involvement in unprotected sex when it came to romantic partners.²³

It is well known that the factors "use of psychoactive substances" and "HIV infection" is evident and considered a public health problem. The use of such substances may have an influence on the difficulty of reducing new cases of HIV.^{3,16}

Although it did not observe a statistically significant difference, this study identified that 80.7% of the women who reported an inconsistent use of the condom reported having a fixed partner. The

male condom has always been the main means of preventing the sexual transmission of HIV, but only the use of this barrier method has become insufficient since its use in all sexual relations is not valued among couples in long-term relationships, as they start to trust one another.⁹⁻¹⁰

Corroborating with the above idea, results of a study carried out in Minas Gerais showed that for married / consensual unions, condom use decreased by 17.3% with advancing age in the age group of 16 and 24 years and by 7.1 in the 45 and 65 age group.¹⁰

In this sense, strong global investment in new approaches to biomedical HIV prevention, such as microbicides, pre-exposure prophylaxis (PrEP), post-exposure prophylaxis (PEP), test and treat, treatment as prevention and vaccines, becomes plausible as new approaches to prevention are adopted as integrated tools for the strategy to promote the use of condoms in HIV/aids prevention policies with a broad population reach.¹⁹

With the expansion of HIV prevention methods, a combination of methods is necessary to achieve the 90,90, 90 target proposed by the United Nations Program on HIV/aids (UNAIDS) for 2020. In this scenario, as a means to achieve this target, UNAIDS has established the importance of keeping viral load undetectable, which is already being adopted in countries with higher incomes, in order to reduce the risk of HIV transmission.¹

However, it is important to emphasize that in addition to undetectable viral loads, condom use is still an important tool for HIV prevention, since it contributes to the prevention of most other STIs.³ In addition, studies indicate that condoms are understood by the population as the most effective method to prevent STIs.²⁴

As a limitation of the study it is possible to highlight the centralization of the sample in a geographical location as well as the response bias for behavior-related issues and adoption of preventive measures.

CONCLUSION

The importance of using condoms in sexual relationships as a means of preventing sexual transmission of HIV is evident, however, it is known that sole use of the male condom is no longer sufficient for effective prevention among women due to the sociodemographic factors, cultural and behavioral factors highlighted in this study. Consequently, there is a need to implement combined prevention strategies, with a view to broadening the preventive options for women, especially those who find it difficult to use the male condom.

In conclusion, there is a need for communication strategies that encourage women and partners to use condoms in their sexual relations, as it is still considered one of the best tools to combat the increase of the HIV pandemic. Therefore, it is necessary to monitor women living with HIV/aids more closely, so that they feel empowered to choose and adhere to the best method of prevention according to their life context, in which the condom can be included. Due to limited studies on this theme in the country, Additional studies are needed to identify the main preventive methods adopted by women in the context of combined prevention.

REFERENCES

1. Programa Conjunto das Nações Unidas sobre HIV/aids (UNAIDS), Brasil. [Internet] [cited 2017 Aug 17]. Available from: <http://unaid.org.br/prevencao-combinada/>
2. Ministério da Saúde (BR). Boletim Epidemiológico Aids - DST. Brasília (BR): Ministério da Saúde; 2015.
3. Grangeiro A, Ferraz DCG, Zucchi EM, Días-Bermúdez PX. The effect of prevention methods on reducing sexual risk for HIV and their potential impact on a large-scale: a literature review. *Rev. Brasileira de Epidemiologia* [Internet]. 2015 [cited 2017 Aug 17];18(suppl.1):43-6. Available from: <https://dx.doi.org/10.1590/1809-4503201500050005>
4. Rocha S, Vieira A, Lyra J. Silenciosa conveniência: mulheres e Aids. *Rev Bras Ciênc Polít* [Internet]. 2013 [cited 2017 Aug 20];11:119-41. Available from: <https://dx.doi.org/10.1590/S0103-33522013000200005>
5. LaCroix JM, Pellowski JA, Lennon CA, Johnson BT. Behavioural interventions to reduce sexual risk for HIV in heterosexual couples: a meta-analysis. *Sex Transm Infect* [Internet]. 2013 [cited 2017 May 23];89(8):620-7. Available from: <https://doi.org/10.1136/sextrans-2013-051135>
6. Villela WV, Sanematsu M. Mulheres com HIV/aids: elementos para a construção de direitos e qualidade de vida. São Paulo (BR): Instituto Patrícia Galvão [internet];2003 [cited 2017 Feb 23]. Available from: <http://www.giv.org.br/Publica%C3%A7%C3%B5es/Dossie-Mulheres-com-HIV-AIDS.pdf>
7. Prefeitura de São Paulo. Prevenção combinada do HIV/aids [internet];2018 [cited 2018 Feb 18]. Available from: <http://www.prefeitura.sp.gov.br/cidade/secretarias/saude/dstaid/index.php?p=245395>
8. Madureira, VSF, Trentini M. Relações de poder na vida conjugal e prevenção da AIDS. *Rev Bras Enferm* [Internet]. 2008 [cited 2017 May 18];61(5):637-42. Available from: <https://dx.doi.org/10.1590/S0034-71672008000500017>
9. Araújo TME, Monteiro CFS, Mesquita GV, Alves ELM, Carvalho KM, Monteiro RM. Risk factors for HIV infection in adolescents. *Rev Enferm UERJ* [Internet]. 2012 [cited 2017 May 18];20(2): 242-7. Available from: <http://www.e-publicacoes.uerj.br/index.php/enfermagemuerj/article/view/4072/2864>
10. Guedes HM, Cabral LOC, Costa MVDB, Reis AFD, Pereira SG, Oliveira-Ferreira F. Risk behavior for the Human Immunodeficiency virus among motel clients. *Rev Latino-Am Enfermagem* [Internet]. 2012 [cited 2017 Ago 12];20(3):536-42. Available from: <https://dx.doi.org/10.1590/S0104-11692012000300015>
11. Reis RK, Melo ES, Gir E. Factors associated with inconsistent condom use among people living with HIV/aids. *Rev Bras Enferm* [Internet]. 2016 [cited 2017 Ago 12];69(1):40-6. Available from: <https://dx.doi.org/10.1590/0034-7167.2016690106i>
12. Jesus GJ, Oliveira LB, Souza CJ, Queiroz AAFL, Gir E, Reis RK. Difficulties of living with HIV/aids: Obstacles to quality of life. *Acta Paul Enferm* [Internet]. 2017 [cited 2017 Dez 12];30(3):301-7. Available from: <https://dx.doi.org/10.1590/1982-0194201700046>
13. Logie CH, Okumu M, Ryan S, Yehdego DM, Lee-Foon N. Adapting and pilot testing the Healthy Love HIV and sexually transmitted infection prevention intervention with African, Caribbean and Black women in community-based settings in Toronto, Canada. *Int J STD AIDS* [Internet]. 2018 [cited 2018 Mar 19];29(8):751-9. Available from: <https://dx.doi.org/10.1177/0956462418754971>
14. Dourado I, MacCarthy S, Reddy M, Calazans G, Gruskin S. Revisiting the use of condoms in Brazil. *Rev bras epidemiol* [Internet]. 2015 [cited 2017 Nov 01];18(Suppl1):63-88. Available from: <https://dx.doi.org/10.1590/1809-4503201500050006>

15. Williams BG, Granich R. The global HIV/aids epidemic - progress and challenges. *The Lancet* [Internet]. 2017 [cited 2017 Aug 27];390(10092):333. Available from: [https://dx.doi.org/10.1016/S0140-6736\(17\)31920-7](https://dx.doi.org/10.1016/S0140-6736(17)31920-7)
16. Crankshaw TL, Voce A, Butler LM, Darbes L. Expanding the relationship context for couple-based HIV prevention: Elucidating women's perspectives on non-traditional sexual partnerships. *Soc Sci Med* [Internet]. 2016 [cited 2017 Aug 27];166:169-76. Available from: <https://dx.doi.org/10.1016/j.socscimed.2016.08.020>
17. Gause NK, Brown JL, Welge J, Northern N. Meta-analyses of HIV prevention interventions targeting improved partner communication: effects on partner communication and condom use frequency outcomes. *J Behav Med* [Internet]. 2018 [cited 2018 Mar 20];41(4):423-40. Available from: <https://dx.doi.org/10.1007/s10865-018-9916-9>
18. Adekanle DA, Olowookere SA, Adewole AD, Adeleke NA, Abioye-Kuteyi EA, Ijadunola MY. Sexual experiences of married HIV positive women in Osogbo, southwest Nigeria: role of inappropriate status disclosure. *BMC Women's Health* [Internet]. 2015 [cited 2017 Mar 17];15:6. Available from: <https://dx.doi.org/10.1186/s12905-015-0164-7>
19. Pinheiro TF, Calazans GJ, Ayres JRJM. Condom use in Brazil: an overview of the academic production on HIV/aids prevention (2007-2011). *Temas Psicol* [Internet]. 2013 [cited 2017 Nov 06];21(3):815-36. Available from: <https://dx.doi.org/10.9788/tp2013.3-ee07en>
20. Crosby RA, DiClemente RJ, Salazar LF, Wingood GM, McDermott-Sales J, Young A, et al. Predictors of consistent condom use among young African American women. *AIDS Behav* [Internet]. 2013 [cited 2017 Nov 06];17(3):865-71. Available from: <https://dx.doi.org/10.1007/s10461-011-9998-7>
21. Monteiro AL, Villela WV. A criação do Programa Nacional de DST e Aids como marco para a inclusão da idéia de direitos cidadãos na agenda governamental brasileira. *Psicol Política* [Internet]. 2009 [cited 2017 Nov 06];9(17):25-45. Available from: http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1519-549X2009000100003&lng=pt&tlng=pt
22. Peacock E, Andrinopoulos K, Hembling J. Binge drinking among men who have sex with men and transgender women in San Salvador: correlates and sexual health implications. *J Urban Health* [Internet]. 2015 [cited 2017 Nov 06];92(4):701-16. Available from: <https://doi.org/10.1007/s11524-014-9930-3>
23. Javier SJ, Abrams JA, Moore MP, Belgrave FZ. Change in Risk Perceptions and Marijuana and Cigarette Use Among African American Young Adult Females in an HIV Prevention Intervention. *J Racial Ethn Health Disparities* [Internet]. 2017 [cited 2017 Nov 25];4(6):1083-91. Available from: <https://dx.doi.org/10.1007/s40615-016-0313-1>
24. Genz N, Meincke K, Maria S, Carret MLV, Corrêa ACL, Alves CN. Sexually transmitted diseases: knowledge and sexual behavior of adolescents. *Texto Contexto Enferm* [Internet]. 2017 [cited 2018 Apr 04];26(2):e5100015. Available from: <https://dx.doi.org/10.1590/0104-07072017005100015>

NOTES

AUTHOR CONTRIBUTION

Study design: Silva TCF, Jesus GJ, Argolo JGM, Reis RK;

Data collect: Silva TCF, Jesus GJ, Argolo JGM.

Data analysis and interpretation: Sousa LRM, Gir E, Reis RK.

Discussion of the results: Sousa LRM, Jesus GL, Gir E, Reis RK.

Essay writing and / or critical review: Sousa LRM, Reis RK, Gir E.

Review and final approval of the final version: Silva TCS, Sousa LRM, Jesus GJ, Argolo JMG, Gir E, Reis RK.

RESEARCH ETHICS COMMITTEE APPROVAL

Approved by the Research Ethics Committee of the University of *Escola de Enfermagem de Ribeirão Preto da Universidade de São Paulo*, Certificate of Presentation for Ethical Appreciation: opinion 52012515.0.0000.5393. Opinion No. 2.358.625.

CONFLICT OF INTEREST

No any conflict of interest.

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CORRESPONDENCE AUTHOR

Renata Karina Reis

rkreis@eerp.usp.br

