HIV POSITIVITY AND ASSOCIATED FACTORS IN A COUNSELING AND TESTING CENTER

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ABSTRACT

Objective: To analyze the sociodemographic and behavioral factors associated with Human Immunodeficiency Virus (HIV) positivity in users of a Counseling and Testing Center (CTC). Method: Cross-sectional study with 5,229 users who performed the rapid HIV test, registered in the CTC’s Information System. Bivariate and multivariate analyzes were performed using binary logistic regression, presenting Odds Ratio, 95% confidence interval and p-value <0.05. Results: The prevalence of HIV infection was 5.0% (259), with greater involvement of the younger population (p=0.010). Greater positivity was observed among people living with HIV/AIDS (91.3%; p<0.001) and men who have sex with men (MSM) (20%; p<0.001). In multivariate analyzes, there was a greater association with HIV infection in model 2, which includes sociodemographic and behavioral variables, such as: the populational cut of MSM, needle sharing, MSM sexual orientation, having sexually transmitted infections (STIs) in the last 12 months, HIV-positive partner and irregular or no condom use in the last 12 months with a steady partner. Conclusion: Vulnerability to HIV was more associated with factors related to needle sharing and sexual behavior, especially MSM and steady partnerships.

Keywords: AIDS serodiagnosis. HIV seroprevalence. Serological tests. Sexual behavior. Nursing.

INTRODUCTION

Acquired Immunodeficiency Syndrome (AIDS) has shown major progress, especially due to the advancement of access to antiretroviral therapy. However, these achievements were not shared equally among the different nations, achieving in fourteen countries that reached the target 90-90-90 established for the year 2020. The global target of decreasing new infections to 500,000 has not been achieved, mentioning that the number of people infected with HIV has risen to 1.7 million. While progress has been made in some regions, such as in East and South Africa, with a 38% decrease since the year 2010, there was a 72% increase in Eastern Europe and Central Asia. In Latin America, there was a 21% increase in new HIV infections in the same period(1).

In Brazil, the Counseling and Testing Center (CTC) offer rapid tests (RT) for HIV, syphilis and hepatitis B and C and, in an attempt to improve access to diagnosis, these tests are also offered in Primary Health Care, with combined prevention actions(2). The study points out some moral, ethical, technical, organizational and political challenges for the effective incorporation of these HIV/AIDS control actions in Primary Health Care(3). Weaknesses were also pointed out by nurses when performing RT in...
Basic Health Units, related to the logistics of materials and supplies, physical structure and training, which compromise access to early diagnosis\(^4\). The Joint United Nations Program about HIV/AIDS (UNAIDS) considers that the search for diagnosis has been weakened in many countries due to stigma and discrimination, with other social inequalities and exclusions\(^1\).

Although the difficulties pointed out for the early diagnosis of HIV infection, the implementation, in the Brazilian health system, of public policies, considered as models for the world, has achieved advances in the control of mortality due to AIDS-related diseases, especially due to the offer free antiretroviral therapy (ART). However, it is observed that the epidemic shows an increase in cases among key populations, representing a challenge to meet the global objective of eradicating the AIDS epidemic in the year 2030, proposed by UNAIDS\(^2\).

Thus, it is crucial to know the factors related to HIV positivity in the population that seeks RT in the CTC. It is asked: What are the factors related to HIV positivity of the population that seeks RT in CTC?

Studies carried out in Brazilian CTC reveal the profile of users of these services\(^5-7\). However, an approach on the association of factors related to the positive diagnosis of HIV is important, with more specific analyzes with the population seeking for CTC, which is investigated in this study, considering the profile of these users. Consequently, it is expected to contribute to the planning of actions aimed at facing the epidemic, seeking specific groups for control actions, and expanding access to these populations.

Given the above, the objective of this study was to analyze the sociodemographic and behavioral factors associated with HIV positivity in users of a CTC.

**METHOD**

This is a cross-sectional, analytical study, carried out at the CTC of a large city in southern Brazil, where RT for HIV, syphilis and hepatitis B and C are carried out, free of charge and by spontaneous demand.

The population was composed of all users who sought the CTC for the HIV rapid testing, from June of 2012 to June of 2015. The user’s latest service provided was considered an inclusion criterion, as many repeat the exams periodically, and, giving a negative result, they return for new testing. Those with inconclusive results and those who did not have an HIV test were excluded.

The data were retrieved from the CTC’s Information System, by importing the official database and entering the individual report forms, with positive results. This information was compared, and the differences agreed, based on filling in the individual report form. The independent variables used were raised according to the ones in the CTC’s Information System records, such as the sociodemographic: sex, age, marital status (considered as in a unsteady domestic partnership, single, divorced, widowed and separated, and as a in a steady domestic partnership, married and ones living together), race/color (white and, among non-whites, blacks, mixed-race and yellows); the municipality of origin (considered two categories: the same municipality and others), the reason for the search (identification of the reason for taking the RT), the origin of the user(the way in which the individual found out about the service), the populational cut (specific characteristics related to the type of population), behavioral variables related to the use of licit and illicit drugs (use in the last twelve months, type of drug, needle sharing), behavioral variables related to sexual activity (sexual orientation, type of exposure, Sexually Transmitted Infections - STI - in the last year, condom use with a steady and casual partner) and the results of RT for Syphilis and Hepatitis B and C. The HIV test result was considered as a dependent variable: positive and negative.

For the age, the only continuous variable analyzed, the measure of central tendency and dispersion (mean and standard deviation - SD) was calculated, the normality of distribution was evaluated using the Shapiro-Wilk test and the difference in means through the Mann Whitney U test. The other variables were shown in the form of absolute and relative frequencies.

Bivariate analyzes among independent variables and positivity to HIV tests were processed using the binary logistic regression
method, calculating Odds Ratio (OR) with 95% confidence intervals (CI). Variables with a p-value less than 0.20 in the bivariate analysis were included in a multivariate regression model, adjusted for variables likely to error (sociodemographic and behavioral). To check the adequacy of the regression models, the Hosmer-Lemeshow test was used, the result of which varies from zero to one (0-1), the closer to 1 the better the adequacy of the model, considering the values >0.05. The analyzes were carried out using the software Statistical Package for the Social Sciences - SPSS (version 20.0).

This study was approved by the local Research Ethics Committee, decision no. 798.092, CAAE no. 35357914.0.0000.5231, in compliance with the rights of Resolution no. 466/2012 of the National Health Council.

RESULTS

Table 1. Analysis of sociodemographic variables and populational cut concerning the Human Immunodeficiency Virus (HIV) positivity, in a Counseling and Testing Center in Southern Brazil, from 2012 to 2015 (n=5229).

| VARIABLES | POSITIVE HIV | GROSS MODEL | ADJUSTED MODEL |
|-----------|--------------|-------------|----------------|
| AGE       |              | OR (IC95%; p-value) | OR (IC95%; p-value) |
| ≤35       | 3043         | 171         | 5.6            | 1.42 (1.09-1.84; 0.010) | 0.98 (0.43-2.23; 0.961) |
| >35       | 2186         | 88          | 4.0            | 1.00                        | 1.00                        |
| SEX       |              |             |                |                             |
| Female    | 1983         | 57          | 2.9            | 1.00                        | 1.00                        |
| Male      | 3246         | 202         | 6.2            | 2.24 (1.62-3.02; <0.001)    | 1.25 (0.44-3.55; 0.680)    |
| MARRITAL STATUS* | |             |                |                             |
| Domestic partnership | 1680 | 79 | 4.7 | 1.00 | - |
| Unsteady partnership | 3545 | 180 | 5.1 | 1.08 (0.83-1.42; 0.560) | - |
| RACE/COLOR* | |             |                |                             |
| White     | 4254         | 203         | 4.8            | 1.00                        | -                          |
| Non-White | 971          | 55          | 5.7            | 1.19 (0.88-1.63; 0.247)    | -                          |
| YEARS OF STUDY* | |             |                |                             |
| 0         | 77           | 3           | 3.9            | 0.79 (0.21-2.58; 0.697)     | -                          |
| 1 to 3    | 321          | 12          | 3.7            | 0.76 (0.40-1.42; 0.389)     | -                          |
| 4 to 7    | 1642         | 86          | 5.2            | 1.08 (0.77-1.51; 0.661)     | -                          |
| 8 to 11   | 1919         | 94          | 4.9            | 1.01 (0.72-1.39; 0.977)     | -                          |
| 12 or more| 1251         | 61          | 4.9            | 1.00                        | -                          |
| PREGNANT* |              |             |                |                             |
| No        | 1953         | 49          | 2.5            | 1.00                        | 1.00                        |
| Yes       | 30           | 8           | 26.7           | 14.13 (5.99-33.31; <0.001)  | 2.64 (0.16-44.46; 0.500)   |
| MUNICIPALITY OF ORIGIN | |             |                |                             |
| Londrina  | 4613         | 215         | 4.7            | 1.00                        | 1.00                        |
| Another municipality | 616 | 44 | 7.1 | 1.57 (1.12-2.20; 0.008) | 1.51 (0.61-3.74; 0.371) |
| POPULATIONAL CUT* | |             |                |                             |
| General population | 3844 | 67 | 1.7 | 1.00 | 1.00 |
| Men who have sex with men | 660 | 132 | 20.0 | 14.09 (10.36-19.17; <0.001) | 21.46 (3.21-143.46; 0.002) |
| Others    | 679          | 18          | 2.7            | 1.53 (0.91-2.60; 0.111)     | 1.71 (0.52-5.68;0.385)     |

*Excluded ignored cases. For the analysis of being pregnant yes or no, only women were considered.

Adjusted Model: adjusted for sex, age (continuous), marital status, race/color (white or non-white), education, history of Sexually Transmitted Infections (STI) in the last 12 months, sexual practice (heterosexual or homosexual), the reason for seeking the CTC, use of alcohol, marijuana, inhaled cocaine, injectable cocaine, crack, type of exposure, use of condoms with a steady partner in the last 12 months, use of condoms with a casual partner in the last 12 months and use of condoms with a casual partner in the last relationship. When the variable of interest was under analysis, it was not used as a control.
Behavioral variables were more important in adjusted analyzes, in which the sharing needles, sexual practice (MSM), history of STI in the last 12 months, risks of the partner (HIV-positive partner) and irregular use/non-use of condoms with a steady partner in the last 12 months were significant (p<0.05) with a greater chance of HIV positivity (Tables 2 and 3). The quality of the adjusted analysis models was considered excellent, with a Hosmer-Lemeshow test result from 0.59 to 1.00.

### Table 2. Analysis of variables related to drug use, according to the Human Immunodeficiency Virus (HIV) positivity, in a Counseling and Testing Center in Southern Brazil, from 2012 to 2015 (n=5229)

| VARIABLES | POSITIVE HIV | GROSS MODEL | ADJUSTED MODEL |
|-----------|--------------|-------------|----------------|
| **DRUG USE IN THE LAST TWELVE MONTHS**<sup>a</sup> |
| No | 3677 | 163 | 4.4 | 1.00 | 1.00 |
| Yes | 1550 | 94 | 6.1 | 1.39 (1.07-1.81; 0.013) | 1.30 (0.57-2.99; 0.531) |
| **USE OF ALCOHOL**<sup>b</sup> |
| Never used | 3800 | 169 | 4.4 | 1.00 | 1.00 |
| Use and/or have used | 1427 | 88 | 6.2 | 1.41 (1.08-1.84; 0.011) | 0.91 (0.41-2.02; 0.812) |
| **USE OF INHALED COCAINE**<sup>c</sup> |
| Never used | 4922 | 234 | 4.8 | 1.00 | 1.00 |
| Use and/or have used | 305 | 23 | 7.5 | 1.63 (1.05-2.55; 0.031) | 1.44 (0.81-2.57; 0.216) |
| **USE OF INJECTABLE COCAINE**<sup>d</sup> |
| Never used | 5202 | 254 | 4.9 | 1.00 | 1.00 |
| Use and/or have used | 25 | 3 | 12.0 | 2.65 (0.79-8.93; 0.314) | 1.99 (0.51-7.73; 0.318) |
| **USE OF CRACK**<sup>e</sup> |
| Never used | 5045 | 244 | 4.8 | 1.00 | 1.00 |
| Use and/or have used | 182 | 13 | 7.1 | 1.51 (0.85-2.69; 0.160) | 1.16 (0.58-3.23; 0.664) |
| **NEEDLE SHARING**<sup>f</sup> |
| No | 3691 | 155 | 4.2 | 1.00 | 1.00 |
| Yes | 27 | 10 | 37.0 | 13.41 (6.04-29.79; <0.001) | 19.24 (6.68-55.41; <0.001) |

<sup>a</sup>Excluded blank/ignored cases.  
<sup>b</sup>Adjusted Model: adjusted for sex, age (continuous), marital status, race/color (white or non-white), education, history of Sexually Transmitted Infections (STI) in the last 12 months, sexual practice (heterosexual or homosexual), the reason for seeking the CTC, using alcohol, marijuana, inhaled cocaine, injectable cocaine, crack, type of exposure, use of condoms with a steady partner in the last 12 months, use of condoms with a casual partner in the last 12 months and use of condoms with a casual partner in the last relationship. When the variable of interest was under analysis, it was not used as a control.

### Table 3. Analysis of variables related to sexual behavior, according to the Human Immunodeficiency Virus (HIV) positivity, in a Counseling and Testing Center in Southern Brazil, from 2012 to 2015 (n=5229).

| VARIABLES | POSITIVE HIV | GROSS MODEL | ADJUSTED MODEL |
|-----------|--------------|-------------|----------------|
| **SEXUAL PRACTICE**<sup>g</sup> |
| Heterosexual | 3835 | 112 | 2.9 | 1.00 | 1.00 |
| Men who have sex with men (including bisexuals) | 829 | 135 | 16.3 | 6.47 (4.97-8.14; <0.001) | 13.97 (7.05-27.64; <0.001) |
| **STI IN THE LAST 12 MONTHS** |
| No | 4803 | 202 | 4.2 | 1.00 | 1.00 |
| Yes | 426 | 57 | 13.4 | 3.52 (2.57-4.81; <0.001) | 2.38 (1.18-4.84; <0.001) |
| **PARTNER RISK**<sup>h</sup> |
| Drug use | 112 | 8 | 7.1 | 1.00 | 1.00 |
| HIV seropositive | 268 | 58 | 21.6 | 3.59 (1.65-7.79; 0.001) | 79.55 (5.55-1140.92; 0.001) |
| Have or had STI | 160 | 5 | 3.1 | 0.42 (0.13-1.32; 0.137) | 1.46 (0.07-29.57; 0.804) |
| Others | 74 | 32 | 43.2 | 9.90 (4.22-23.26; <0.001) | 35.76 (3.19-401.38; 0.004) |
| **USE OF CONDOM IN THE LAST 12 MONTHS WITH A STEADY PARTNER**<sup>i</sup> |
| Regular use | 654 | 15 | 2.3 | 1.00 | 1.00 |
| Irregular use/non-use | 3967 | 166 | 5.4 | 2.44 (1.43-4.16; 0.001) | 2.55 (1.03-6.31; 0.043) |
| **USE OF CONDOM IN THE LAST 12 MONTHS WITH A CASUAL PARTNER**<sup>j</sup> |
| Regular use | 612 | 30 | 4.9 | 1.00 | - |
| Irregular use/non-use | 1805 | 106 | 5.9 | 1.21 (0.79-1.83; 0.369) | - |
| **USE OF CONDOM IN THE LAST RELATIONSHIP WITH A CASUAL PARTNER**<sup>k</sup> |
| Regular use | 370 | 44 | 11.9 | 1.00 | 1.00 |
| Irregular use/non-use | 1316 | 79 | 6.0 | 0.47 (0.32-0.69; <0.001) | 0.60 (0.33-1.10; 0.101) |

<sup>g</sup>Excluded blank/ignored cases.  
<sup>h</sup>Homosexual women excluded.  
<sup>i</sup>Adjusted Model: adjusted for sex, age (continuous), marital status, race/color (white or non-white), education, history of Sexually Transmitted Infections (STI) in the last 12 months, sexual practice (heterosexual or homosexual), the reason for seeking the CTC, using alcohol, marijuana, inhaled cocaine, injectable cocaine, crack, type of exposure, use of condoms with a steady partner in the last 12 months, use of condoms with a casual partner in the last 12 months and use of condoms with a casual partner in the last relationship. When the variable of interest was under analysis, it was not used as a control.

The reasons for seeking the CTC most mentioned by users were “exposure to a risky
situation” 47.4% (n=2477), “knowing serological status” 23.3% (n=1220), “referral by health services” 13.0% (n=679), “check previous results” 1.8% (n=94) and other reasons 14.5% (n=759). The only reason associated with positive HIV result, in an analysis model adjusted for confusion factors, was “checking previous results”, with 44.7% positivity (OR: 268.06, 95% CI 20.12-3571.91; p<0.001). The most reported type of exposure to HIV was through sexual intercourse (94.5%), and it is also the type of exposure with the highest HIV positivity (5.1%), however, with no significant difference in bivariate analyzes. It is noteworthy that individuals who did not report a risky situation presented considerable HIV positivity(4.2%).

In an adjusted model, patients with hepatitis B were more likely to have HIV co-infection (OR: 13.18, 95% CI 1.15-150.76; p=0.038), with 12.5% among HIV patients, compared to 4.6% in the others. The presence of positive Venereal Disease Research Laboratory (VDRL) and hepatitis C tests were also greater in HIV patients, respectively 14.3% and 9.3%, compared to 4.2 and 5.4% for negative cases of HIV. However, in an adjusted model, there was no statistical significance for syphilis or hepatitis C co-infection.

DISCUSSION

The purpose of this study was to analyze the sociodemographic and behavioral factors associated with HIV positivity in all users who sought a CTC in the South of Brazil from 2012 to 2015. The prevalence of HIV infection was 5.0%, higher than the average for the general national population estimated at 0.4% for more than two decades, with variations for specific populations\(^6\)\(^9\) and that of other Brazilian studies, with values from 0.6% to 3.3%\(^7\)\(^9\), however, similar to that found in another Brazilian CTC that was 5.51%\(^2\). In the multivariate analysis, it was observed that the chances of HIV positivity were similar among individuals younger than or equal to 35 years old and those older than 35 years old. However, the literature points out that younger groups have more vulnerable behaviors. It is considered that, due to the long interval between infection and the diagnosis of HIV/AIDS, older individuals may have acquired HIV in adolescence\(^7\). The profile of greater vulnerability among young people is related to the difficulty in commit to prevention methods, besides to the distorted perception that the epidemic is under control, factors that hinder the process of discussing prevention and diagnosis, especially with young people who have not experienced the beginning of the epidemic\(^10\).

The population clipping with the most HIV positive cases was the person living with HIV/AIDS (PLWHA) and MSM, showing significance in the gross analysis, the latter had an association in the two adjusted models. The variable PLWHA was not adjusted in the multivariate analysis due to the inconsistency presented, that is, these individuals already had HIV infection when they looked for the service to perform the RT. It is considered that negative cases result from the difficulty of understanding between being a PLWHA or living with someone who has the infection. Study shows a high prevalence of HIV in MSM, assessing that exposure to infection is identified by the influence of biological factors, aspects of social life, mental health, affective experiences, discrimination suffered, perceptions and expectations\(^9\). The UNAIDS report presents Brazil with the highest number of PLWHA in Latin America; it is one of 15 middle-income countries that account for three-quarters of the HIV pandemic. The epidemic in the country is still concentrated in key populations, such as injecting drug users, sex workers, homosexuals, bisexuals and other MSM\(^11\)\(^-\)\(^12\).

Needle sharing in the main analyzes remained associated with HIV positivity, despite the variables in the adjustment models. National data show a decrease in HIV infection among injecting drug users over the years, declining from 6.2% in the year 2008 to 2.5% in the year 2019 among men and from 2.4% to 1.0% among women, in the same period\(^12\). Literature review on Harm Reduction considers that the inclusion of drug addicts in the health care and social assistance network contributes so that the individual can rethink their relationship with drugs. Thus, from a joint action with the addict, it becomes possible to outline strategies that aim to promote health, social insertion and respect
their dignity, making them co-responsible for their treatment(13).

Individuals who had STIs in the last year were more diagnosed with HIV, remaining associated with a greater possibility of HIV positivity when adjusted to both models. It was observed that the association between STI and drug use is strongly associated with vulnerability to HIV(14).

Regarding the use of a condom in the last twelve months, users who reported not using it or using it irregularly had more positive cases of HIV, showing significance with a steady partner and greater chance of positivity among individuals who did not make use of it continuously. Not using a condom during sexual intercourse is a factor that increases the risk of HIV transmission. The population’s awareness of this instruction is essential to reduce the risk of HIV and other STIs, apart from the individual’s serology(15). Data released by the Ministry of Health, based on a population survey, indicate that 94% of Brazilians are aware of the use of condoms, which is the best way to prevent STIs/HIV/AIDS. Yet, only 23.5% of the sexually active population reported using a condom in all sexual intercourse in the last twelve months with any partner, 19.9% with a steady partner and 54.9% with a casual partner(16). In this context, UNAIDS proposes combined prevention, that is, new ways to prevent HIV transmission, such as using treatment as prevention, previously andpost-exposure prophylaxis(17).

Individuals who reported using condoms in the last relationship with a steady and casual partner showed higher HIV positivity, although among casual partners, there was a statistical difference for those who reported not using condoms. This fact indicates that the use in the last relationship does not suggest the sequence use of condoms; the findings of non-use or irregular use, in the last 12 months, are also considered to be greater among positive HIV users. Thus, the variable “condom use at the last sexual intercourse” may not be a good indicator for analysis, proving to be controversial and poorly supported in more refined analyzes. Also, the result found in the bivariate analysis that the non-use of condoms in casual relationships would be a protective factor for HIV, was overruled, when considering the multivariate analysis, in which this variable fails in significance concerning the behavioral model. This analysis is supported by the wide dissemination of scientific research, which points to the use of condoms as a protective factor for HIV. It should be noted that male and female condoms are devices that impact the reduction of transmission, not only of HIV, but also of other STIs, besides preventing unwanted pregnancies(6,7,11).

In the investigation about “risk of the steady partner”, the highest prevalence of HIV was observed among individuals who responded having “HIV-positive partner”, with a greater chance of getting the infection, including in the multivariate analysis. This data may indicate the non-adoption of preventive practices among serodiscordant partners and non-adoption of ART. A study that evaluated the potential impact of antiretroviral therapy, found that the viral load was shown to be persistently lower with the use of ART, reaching 70% lower when compared to those who did not use it(18).

The RT carried out for syphilis (FTA-abs, confirmed by the VDRL) and hepatitis B (HBsAg), showed a higher percentage of HIV positivity, possibly related to the similar method of transmission among these STIs. Seroprevalence of syphilis in HIV patients in the region of the municipality of Recife in the state of Pernambuco, Brazil (18.4%) (19) was greater than that found in the present investigation and varied in specific population groups, as showed in a study with pregnant women (0.3%) (20) and MSM (39.6%) (21).

The most mentioned reason for seeking the CTC was “exposure to risky situations”, a fact that may indicate that users use this service due to some situation of vulnerability. The reasons with the greatest HIV positivity were “checking the test results” and “referral by health service”, which reinforces the assertion of users looking for the service having a previous understanding of the test results. Seeking the CTC for “knowing serology” was considered a protective factor for HIV, pointing out that, probably, these users are valuing early diagnosis for prevention.

The role of the health professional is noteworthy as a transforming agent in detecting a condition of vulnerability to HIV and referring
to the CTC, these being the most mentioned regarding the origin of the user. However, it is highlighted the weakness of the action with the vulnerable population to HIV who does not seek health services for the diagnosis. A study in which the nurse was the main executor of the RT for HIV, identified weaknesses for carrying out these tests, related to the logistics of materials and supplies, physical structure, training to carry out counseling, and the demand for improvements in permanent education actions. Such difficulties can be minimized by granting the necessary materials and supplies, with integration between the CTC and Primary Health Care services, situational diagnosis, and external actions, besides establishing lines of care for HIV/AIDS and focused personalized care\(^{(4)}\).

The limitations of this study are inherent to those found in research with secondary data, such as the absence of some information, due to failure on filling out the CTC’s Information System form during the interview with the user. Nevertheless, the presented data show factors associated with HIV positivity among the population attended at the CTC, which can support public policies for infection control.

**CONCLUSION**

The factors associated with HIV positivity were: MSM, needle sharing, STIs in the last 12 months, irregular use, or non-use of condoms with a steady partner in the last 12 months and having an HIV-positive partner. Therefore, the greatest chance of having the infection comes from issues related to sexual behavior and needle sharing.

In this regard, actions aimed at these themes will reduce the individual’s chances of having HIV, that is, the implementation of educational actions aimed at committing to safe sexual behavior, with the use of condoms and harm reduction programs for the use of intravenous drugs. Although these prevention strategies are recommended in Brazil, it is considered that this action should be more impacting. The nurse, as the main executor of rapid tests and counseling, has a major role in the control of HIV, by the established health policies. Strategies to expand access to early diagnosis, especially in groups identified as most vulnerable, besides the institution of ART to grant the non-transmission of HIV are necessary for effective infection control. It is suggested to carry out future studies with the proposal of interventionist research, to build practical strategies on the behaviors associated with HIV, identified in this study with the most vulnerable population.
Objetivo: analizar los factores sociodemográficos y comportamentales asociados a la positividad al VIH en usuarios de un Centro de Consejería y Pruebas. **Método:** estudio transversal con 5.229 usuarios que realizaron la prueba rápida para VIH, registrados en el Sistema de Información del Centro. Los análisis bivariados y multivariados fueron realizados utilizando la regresión logística binaria, con presentación del OddsRatio, intervalo de confianza de 95% y p-value <0,05. **Resultados:** la prevalencia de infección por el VIH fue de 5,0% (259), con mayor acometimiento de la población más joven (p=0,010). Se observó mayor positividad entre las personas viviendo con VIH/sida (91,3%; p<0,001) y hombres que hacen sexo con hombres (HSH) (20%; p<0,001). En los análisis multivariados se confirmó mayor asociación a la infección por el VIH en el modelo 2 que incluye las variables sociodemográficas y comportamentales como: el recorte poblacional de HSH, el compartir jeringas, la orientación sexual HSH, tener enfermedades de transmisión sexual (ETS) en los últimos 12 meses, compañero seropositivo para VIH uso irregular o la falta del uso de preservativo en los últimos 12 meses con compañero fijo. **Conclusión:** la vulnerabilidad al VIH fue más asociada a los factores relacionados al compartir jeringas y al comportamiento sexual, especialmente los HSH y los compañeros fijos.

**Palabras clave:** Infecciones por coronavirus, Pandemias, COVID-19, Revisión.

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