



ORIGINALES

The diagnostic testing for HIV among carnival participants

A realização do teste diagnóstico para o HIV entre os participantes do carnaval

La realización del test diagnóstico del VIH entre los participantes del carnaval

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ABSTRACT:

Objective: To identify the adherence and describe the factors associated with the realization of HIV testing among carnival participants.

Method: Cross-sectional study with 557 participants. Data were collected using a questionnaire. A descriptive analysis was performed and a chi-square test was used, with a significance level of 95%.

Results: Among participants, 66.2% had been tested for HIV at least once in life, 54.2% had been tested in the last 12 months, and 83.8% had never taken the rapid test. There was a statistically significant association ($p < 0.05$) of HIV testing with the variables gender, age group, relationship, sexual practice with same-sex partners, registration in Basic Care Units and knowledge about health services that perform the free HIV testing.

Conclusion: Issues related to social, cultural, gender, and health access aspects showed to be more effective in stimulating testing than exposure to risky sexual practices.

Key words: HIV; HIV serodiagnosis; diagnosis of health situation in specific groups; health services accessibility; community health nursing.

RESUMO:

Objetivo: Identificar a adesão e descrever fatores associados à realização da testagem para o HIV entre os participantes do carnaval.

Método: Estudo transversal realizado com 557 participantes. Os dados foram coletados com auxílio de um questionário. Foi realizada análise descritiva e empregado o teste qui-quadrado com nível de significância de 95%.

Resultados: 66,2% já fizeram teste para o HIV alguma vez na vida, 54,2% realizaram nos últimos 12 meses e 83,8% nunca fizeram o teste rápido. Houve associação significativamente estatística ($p < 0.05$) na realização do teste com as variáveis, sexo, faixa etária, relacionamento, prática sexual com pessoa do mesmo sexo, cadastro em Unidades de Atenção Básica e conhecimento sobre serviços de saúde que realizem o teste gratuitamente.

Conclusão: Questões sociais, culturais, de gênero e acesso a unidades de saúde tem se mostrado mais eficientes no estímulo para a realização da testagem do que a exposição a práticas sexuais de risco.

Palavras-chave: HIV; sorodiagnóstico de HIV; diagnóstico da situação de saúde em grupos específicos; acesso aos serviços de saúde; enfermagem em saúde comunitária.

RESUMEN:

Objetivo: Identificar la adhesión y describir factores asociados a la realización de la prueba diagnóstica para el VIH entre los participantes del carnaval.

Método: Estudio transversal realizado con 557 participantes. Los datos fueron recolectados con ayuda de un cuestionario. Se realizó un análisis descriptivo y se empleó la prueba chi-cuadrado con nivel de significancia del 95%.

Resultados: 66,2% ya han hecho pruebas para el VIH alguna vez en la vida, el 54,2% se realizó en los últimos 12 meses y el 83,8% nunca hizo la prueba rápida. Se observó una asociación significativamente estadística ($p < 0.05$) en la realización del test con las variables, sexo, edad, relación, práctica sexual con persona del mismo sexo, registro en Unidades de Atención Básica y conocimiento sobre servicios de salud que realizan el test gratuitamente.

Conclusión: Cuestiones sociales, culturales, de género y acceso a unidades de salud se han mostrado más eficientes en el estímulo para la realización del test que la exposición a prácticas sexuales de riesgo.

Palabras claves: VIH; serodiagnóstico del VIH; diagnóstico de la situación de salud en grupos específicos; accesibilidad a los servicios de salud; enfermería en salud comunitaria.

INTRODUCTION

The fight against the HIV/AIDS epidemic has a historic opportunity to attain the goal of zero new infections, discrimination, and AIDS-related deaths. This ambitious proposal is underpinned by technical and scientific advances especially in the areas of diagnosis and treatment, where scientific research has shown that the early initiation of antiretroviral therapy reduces complications of the infection and the risk of new transmissions⁽¹⁻³⁾.

Since 2014 the Joint United Nations Programme on HIV/AIDS (UNAIDS) established a global commitment that by 2020, 90% of all people living with HIV be aware of their serology, 90% of all people diagnosed with HIV infection initiate antiretroviral therapy uninterrupted, and 90% of all people receiving antiretroviral therapy have viral suppression⁽⁴⁾.

The 90-90-90 goal provides for a cascade effect through the early identification of people living with HIV and timely initiation of health monitoring and antiretroviral treatment. There are several methodologies throughout the world to evaluate the cascade of care for people living with HIV, being a key component in the evaluation of treatment as prevention⁽⁵⁾. In Brazil, one of the indicators of evaluation of the cascade

effect is the entry of people living with HIV/AIDS (PLWHA) with CD4 cell count equal to or greater than 200 cells/mm³, which means an early diagnosis⁽⁶⁾.

Although the cascade of care is an important strategy for achieving the 90-90-90 goal, the fight against the HIV epidemic must be grounded in the principles of human rights and combined with other prevention strategies. The use of coercive strategies, which not only violate the rights of the human person but also weaken the bond and distract people from the services they need, is inadmissible⁽⁷⁾.

The political and social scenarios should also be able to ensure universal access to health monitoring, testing and treatment, especially among key populations who are generally victims of stigma, discrimination and social exclusion. There is also a need to intensify programs for the provision of condoms, control of other sexually transmitted infections, use and access to antiretroviral prophylaxis before and after exposure, and harm reduction services for people who use drugs^(4,8).

The HIV epidemic puts the entire population in a situation of vulnerability to infection. Much more than an individual problem of PLWHA, the infection reaches the collective range by putting all of us in a world where there is HIV/AIDS, bringing susceptibility to infection among everyone in the world. It is from this perspective of collective vulnerability and collective response that the epidemic that all must be engaged in prevention, harm reduction or treatment⁽⁹⁾.

There are about 34 million PLWHA in the world, with more than 2.2 million new infections and 1.7 million AIDS deaths taking place each year. In Brazil, it is estimated that there are 781,000 PLWHA, but only 649,000 (83%) are aware of their serological status. The national incidence rate is 19.7 cases per 100,000 inhabitants and the mortality rate is 5.7 cases per 100,000 inhabitants. In 2015, 405,000 PLWHA (52%) were using antiretroviral therapy and 356,000 (46%) had an undetectable viral load, with an increase of 29.4% and 50.8%, respectively, in the last two years^(6,10).

As far as serological testing for HIV is concerned, in Africa, the continent most affected by the epidemic, only 15% of adults were aware of their HIV serostatus in the last 12 months⁽¹¹⁾. In the United States of America, a report from the Centers for Disease Control and Prevention (CDC) indicated that only 45% of adults had been tested for HIV and only 10% to 12% of them had been tested in the last 12 months⁽¹²⁾. In Brazil, 33.5% of the population between the ages of 15 and 64 in 2013 had been tested for HIV at least once in their lifetime and approximately 13% had been tested in the last 12 months. The highest rates of completion of the procedure occur among women in reproductive age, probably due to the mandatory prenatal test⁽⁶⁾.

Low access coverage for HIV diagnostic tests produces a domino effect, since late initiation of antiretroviral therapy increases the risk of preventable morbidity, AIDS mortality, and transmission of the virus^(11,13). In this sense, the present study raises the following research problem: to which extent have the participants of the Carnival in Rio de Janeiro participated in HIV testing and what factors could be associated with adherence to the test? The purpose of this research was to identify adherence to HIV testing and to describe factors of behavioral, social and programmatic nature associated with HIV testing among participants of the carnival in the Rio de Janeiro sambadrome.

METHOD

Research with a cross-sectional design, product of the outreach project of the State University of Rio de Janeiro "Only Joy will Infect The Samba of Prevention will Take Over in this Carnival!". Since its creation in 1991, the project has continued to work in an uninterrupted manner, promoting health education and prevention of sexually transmitted infections/AIDS in the carnival of Rio de Janeiro.

The scenario of the study was the Sambadrome of Rio de Janeiro, place where the apogee of the carioca carnival occurs with the parades of samba schools in the samba street professor Darcy Ribeiro. The population was made up of more than 600 thousand visitors, among carnival dancers, spectators and workers who share in this cultural festival, one of the biggest events in the world. The inclusion criterion for participation in the study was to be aged 18 years or older, and illiterate or visual impaired people were excluded due to the inability to read the questionnaire, as well as people who had not practiced penetrative sexual intercourse (anal, oral or vaginal) in the last 12 months.

The sample size was calculated using formulas for finite populations, considering a sampling error of 5% and a confidence level of 95%. Five hundred and fifty-seven people were selected for convenience, met the established eligibility criteria, and thus participated in the study.

Data collection occurred on the days of the parades of the Samba Schools of the Access and Special Group in February 2016. Seven scholarship holders of the outreach project participated in the collection of data. They were distributed in the popular stands, in the odd and even sectors of circulation, and in the concentrations of people by the "Mail post" and "Balança, mas não cai". Considering that the research was to take place in a festive, competitive and cost-conscious environment, the positioning of the researchers aimed to guarantee the involvement and participation of the interviewees without disturbing the event. Therefore, the research began at 4:00 p.m., one hour before the opening of the gates to access the bleachers (time needed to gather information from the workers), and ended at 9:00 pm, due to the start of the parades.

The data collection instrument used was a questionnaire, containing variables on social aspects (sex, age, schooling, religious belief, work and conjugality), behavioral aspects (extramarital relationships, homosexual practices, sex with multiple partners, drug use, and condom use), programmatic (access to health services), and HIV testing. The preparation of the instrument took into account the objectives of the study, data obtained in previous researches carried out by the project coordinator, as well as the social and epidemiological dynamics of STI/HIV/AIDS. The instrument was subjected to a pre-test in the technical rehearsals that preceded the carnival.

The data collected were organized in a spreadsheet on the *Excel Software* version 2013, and later imported into the program *Statistical Package for the Social Science* (SPSS), version 18.0. Data analyses were performed through descriptive statistics, and measures of central tendency and dispersion were calculated for the quantitative variables. A *Pearson* chi-square test was carried out in order to verify the association between variables, with a significance level of 95%.

The development of the study met the ethical recommendations for research involving human beings as described in Resolution 466/2012 of the National Health Council, Brazil. The project obtained a favorable Opinion through protocol 223,405/2013 and CAAE 12602113.9.0000.5291 of the Research Ethics Committee of the Veiga de Almeida University.

RESULTS

Five hundred and fifty-seven people participated in the study, more than half corresponding to females (58.7%), with a mean age of 38.5 years and a standard deviation of 13.4. Regarding the serological test for HIV detection, the graph 1 shows that 369 (66.2%) of the participants had been tested at least once in their life, 302 (54.2%) had been tested in the last 12 months, and only 83 (14.9%) already done the rapid test. Among the people who had been tested in the last 12 months, 178 did so only once, 79 did it twice, and 45 had been tested three times or more.

Figure 1 - Realization of diagnostic HIV testing among participants of the carnival in the Sambadrome of the city of Rio de Janeiro, Rio de Janeiro, RJ, Brazil, 2016. (n = 557).

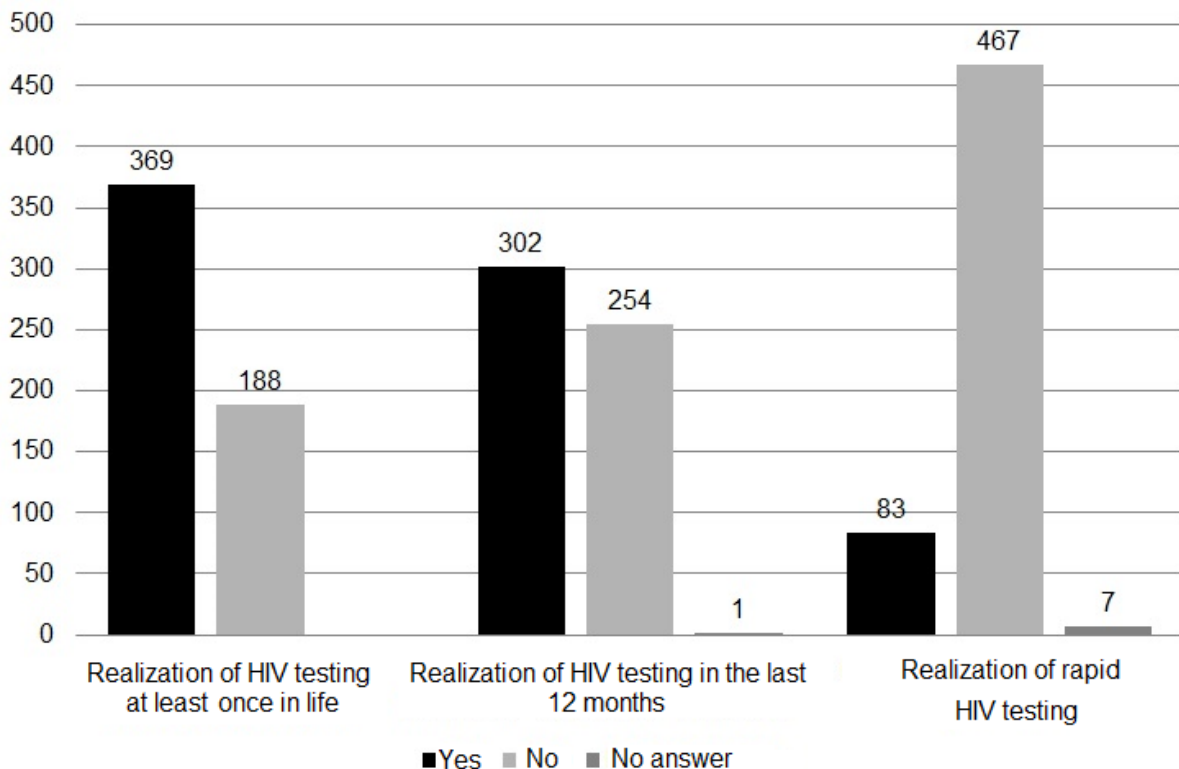


Table 1 presents the analysis of the association between the realization of HIV diagnostic testing and independent variables covering social, behavioral and programmatic aspects. The results showed significant associations ($p < 0.05$) in the following variables: gender, age group, stable relationship, being registered in a Basic Health Unit or in the Family Health Strategy (FHS), and being aware of the service that performs free diagnostic HIV testing.

Table 1 - Behavioral, social and programmatic factors associated with the realization of HIV diagnostic testing among participants of the carnival in the Sambadrome of the city of Rio de Janeiro. Rio de Janeiro, RJ, Brazil, 2016. (n = 557)

Variables	Realization of HIV diagnostic testing				p-value*
	Yes	%	No	%	
1) Sex					
Female	229	70.03	98	29.97	0.02
Male	140	60.86	90	39.14	
2. Age group					
18 to 29 years	90	51.14	86	48.86	<0.00001
Over 29 years	279	73.23	102	26.77	
3. Religious beliefs					
Yes	294	67.43	142	32.57	0.2
No	69	61.06	44	38.94	
4. Schooling					
Up to 11 years	188	63.73	107	36.27	0.1
More than 11 years	181	69.35	80	30.65	
5. Work					
Yes	317	67.59	152	32.41	0.08
No	48	57.83	35	42.17	
6. Long-term relationship					
Yes	263	69.95	113	30.05	0.007
No	106	58.56	75	41.44	
7. Extramarital relationship in the last 12 months					
Yes	33	66.00	17	34.00	0.4
No	228	71.03	93	28.97	
8. Sexual relationship with same-sex person in the last 12 months					
Yes	52	72.22	20	27,78	0.3
No	290	66.97	143	33.03	
9. More than five sexual partners in the last 12 months					
Yes	33	63.46	19	36.54	0.4
No	312	68.27	145	31.73	
10. Sex under the influence of drugs in the last 12 months					
Yes	63	68.48	29	31.52	0.8
No	281	67.39	136	32.61	
11. Condom use in all sexual relationships in the last 12 months					
Yes	126	64.95	68	35.05	0.3
No	217	69.11	97	30.89	

12. Condom use at the last sexual relationship					
Yes	143	66.20	73	33.80	0.4
No	203	69.05	91	30.95	
13. Condom reduces pleasure					
Yes	146	66.36	74	33.64	0.9
No	221	66.57	111	33.43	
14. Having sex using condoms is enjoyable					
Yes	165	68.18	77	31.82	0.4
No	202	64.95	109	35.05	
15. Occasions of giving up using condom at the partner's request have already occurred					
Yes	127	67.55	61	32.45	0.7
No	240	65.93	124	34.07	
16. Occasions of no use of condom for not having it at hand at the moment of sex have already occurred					
Yes	153	66.23	78	33.77	0.9
No	210	66.25	107	33.75	
17. History of infection transmitted by unprotected sex					
Yes	29	78.38	8	21.62	0.1
No	319	65.10	171	34.90	
18. Registration in a Basic Health Unit or in the Family Health Strategy					
Yes	171	76.00	54	24.00	<0.0001
No	195	59.45	133	40.55	
19. Knowledge of the service that offers HIV diagnostic testing for free					
Yes	214	73.04	79	26.96	<0.001
No	153	58.62	108	41.38	
20. Access to sites that provide condoms for free					
Yes	286	67.29	139	32.71	0.3
No	81	63.28	47	36.72	

Legend: * - *Pearson Chi-square test.*

Source: Prepared by the authors, 2016.

Table 2 shows the analysis of the association between the realization of diagnostic HIV testing in the last 12 months with the independent variables. The results showed significant associations ($p < 0.05$) in the following variables: gender, age group, stable relationship, being registered in a Basic Health Unit or in the Family Health Strategy (FHS), and being aware of the service that performs free diagnostic HIV testing.

Table 2 - Behavioral, social and programmatic factors associated with the realization of HIV diagnostic testing in the last 12 months among participants of the carnival in the Sambadrome of the city of Rio de Janeiro. Rio de Janeiro, RJ, Brazil, 2016. (n = 557)

Variables	Realization of diagnostic HIV testing in the last 12 months				p-value
	Yes	%	No	%	
1) Sex					
Female	187	57.19	140	42.81	0.1
Male	115	50.22	114	49.78	
2. Age group					
18 to 29 years	80	45.45	96	54.55	0.004
Over 29 years	222	58.42	158	41.58	
3. Religious beliefs					
Yes	239	54.94	196	45.06	0.3
No	57	50.44	56	49.56	
4. Schooling					
Up to 11 years	160	54.42	134	45.58	0.9
More than 11 years	142	54.41	119	45.59	
5. Work					
Yes	259	55.34	209	44.66	0.1
No	38	45.78	45	54.22	
6. Long-term relationship					
Yes	212	56.38	164	43.62	0.1
No	90	50.00	90	50.00	
7. Extramarital relationship in the last 12 months					
Yes	31	62.00	19	38.00	0.4
No	179	55.76	142	44.24	
8. Sexual relationship with same-sex person in the last 12 months					
Yes	47	65.28	25	34.72	0.1
No	238	54.97	195	45.03	
9. More than five sexual partners in the last 12 months					
Yes	31	60.78	20	39.22	0.4
No	254	55.58	203	44.42	
10. Sex under the influence of drugs in the last 12 months					
Yes	55	59.78	37	40.22	0.4
No	230	55.29	186	44.71	
11. Condom use in all sexual relationships in the last 12 months					
Yes	111	57.51	82	42.49	0.5
No	173	55.10	141	44.90	
12. Condom use at the last sexual relationship					

Yes	126	58.60	89	41.40	0.3
No	160	54.42	134	45.58	
13. Condom reduces pleasure					
Yes	121	55.25	98	44.75	0.8
No	180	54.22	152	45.78	
14. Having sex using condoms is enjoyable					
Yes	135	56.02	106	43.98	0.4
No	164	52.73	147	47.27	
15. Occasions of giving up using condom at the partner's request have already occurred					
Yes	104	55.32	84	44.68	0.7
No	196	54.00	167	46.00	
16. Occasions of no use of condom for not having it at hand at the moment of sex have already occurred					
Yes	127	54.98	104	45.02	0.8
No	171	54.11	145	45.89	
17. History of infection transmitted by unprotected sex					
Yes	25	67.57	12	32.43	0.08
No	259	52.97	230	47.03	
18. Registration in a Basic Health Unit or in the Family Health Strategy					
Yes	136	60.44	89	39.56	0.01
No	163	49.85	164	50.15	
19. Knowledge of the service that offers HIV diagnostic testing for free					
Yes	178	60.96	114	39.04	<0.001
No	122	46.74	139	53.26	
20. Access to sites that provide condoms for free					
Yes	236	55.66	188	44.34	0.2
No	64	50.00	64	50.00	

Legend: * - *Pearson Chi-square test.*

Source: Prepared by the authors, 2016.

Table 3 shows the association between the realization of the rapid HIV testing and the independent variables. The results show that significant associations ($p < 0.05$) were observed in the following variables: sex, age group, long-term relationship, having had sexual relationship with same-sex person in the last 12 months, having had sexual relationship with five sexual partners or more in the last 12 months, being registered in a basic health unit or in the FHS and being aware of the service that performs HIV diagnostic testing for free.

Table 3 - Behavioral, social and programmatic factors associated with the realization of rapid HIV diagnostic testing among participants of the carnival in the Sambadrome of the city of Rio de Janeiro. Rio de Janeiro, RJ, Brazil, 2016. (n = 557)

Variables	Realization of the rapid HIV testing				p-value
	Yes	%	No	%	
1) Sex					
Female	38	11.69	287	88.31	0.007
Male	45	20.00	180	80.00	
2. Age group					
18 to 29 years	18	10.40	155	89.60	0.03
Over 29 years	65	17.24	312	82.76	
3. Religious beliefs					
Yes	61	14.12	371	85.88	0.4
No	19	17.27	91	82.73	
4. Schooling					
Up to 11 years	45	15.41	247	84.59	0.8
More than 11 years	38	14.79	219	85.21	
5. Work					
Yes	70	15.12	393	84.88	0.3
No	9	10.98	73	89.02	
6. Long-term relationship					
Yes	64	17.20	308	82.80	0.04
No	19	10.67	159	89.33	
7. Extramarital relationship in the last 12 months					
Yes	11	22.92	37	77.08	0.2
No	51	15.99	268	84.01	
8. Sexual relationship with same-sex person in the last 12 months					
Yes	21	29.58	50	70.42	<0.001
No	56	13.08	372	86.92	
9. More than five sexual partners in the last 12 months					
Yes	16	32.00	34	68.00	<0.001
No	62	13.72	390	86.28	
10. Sex under the influence of drugs in the last 12 months					
Yes	18	20.00	72	80.00	0.1
No	60	14.56	352	85.44	
11. Condom use in all sexual relationships in the last 12 months					
Yes	35	18.32	156	81.68	0.1
No	43	13.87	267	86.13	

12. Condom use at the last sexual relationship					
Yes	36	16.98	176	83.02	0.4
No	42	14.43	249	85.57	
13. Condom reduces pleasure					
Yes	36	16.74	179	83.26	0.4
No	47	14.24	283	85.76	
14. Having sex using condoms is enjoyable					
Yes	40	16.67	200	83.33	0.3
No	42	13.73	264	86.27	
15. Occasions of giving up using condom at the partner's request have already occurred					
Yes	32	17.20	154	82.80	0.3
No	51	14.21	308	85.79	
16. Occasions of no use of condom for not having it at hand at the moment of sex have already occurred					
Yes	37	16.37	189	83.63	0.4
No	44	13.97	271	86.03	
17. History of infection transmitted by unprotected sex					
Yes	9	25.00	27	75.00	0.1
No	72	14.85	413	85.15	
18. Registration in a Basic Health Unit or in the Family Health Strategy					
Yes	46	20.63	177	79.37	0.002
No	36	11.11	288	88.89	
19. Knowledge of the service that offers HIV diagnostic testing for free					
Yes	64	22.22	224	77.78	<0.000001
No	18	6.92	242	93.08	
20. Access to sites that provide condoms for free					
Yes	68	16.27	350	83.73	0.1
No	14	10.94	114	89.06	

Legend: * - Pearson Chi-square test.

Source: Prepared by the authors, 2016.

The tables converge to demonstrate that being registered in a basic health unit or in the FHS and knowing the service that performs HIV diagnostic testing for free are the factors that had a significant association ($p < 0.05$) with the realization of the test at least once in life, in the last 12 months, and with the realization of the rapid test.

DISCUSSION

Brazil has taken on the global commitment proposed by UNAIDS to achieve the goal of 90% of people living with HIV/AIDS by 2020 to be aware of their serology, with the main interventionist measure being the access to diagnostic methods⁽⁴⁾. The present study indicates that only 66.2% of the participants had already undergone the serological exam ever in their lives and 54.2% did so in the last 12 months. Research conducted in Brazil in 2013 shows that 33.5% of the population had at least one HIV test in their lives, 13% in the last 12 months. Among women, the percentage of HIV testing was 40%, 56% higher than that found among men, where only 26% reported having undergone HIV testing at least once in life⁽⁶⁾. Regarding men who have sex with men, a survey conducted in Salvador (Brazil) found that 44.1% of the interviewees had already been tested for HIV, a result higher than that found among men in general⁽¹⁴⁾.

In Spain, a study conducted in 2011 found that about 55% of the Spanish population had previously undergone HIV testing, mainly immigrants. Among those who had never been tested for HIV before, the main barriers mentioned were: low perception of risk and concern about the loss of anonymity⁽¹⁵⁾.

In the United States of America, a research conducted between 2011 and 2013 found that 19% of people aged 15-44 had been tested for HIV in the last 12 months, among which 22% were women and 16% men. Higher percentages of HIV testing were seen in people aged 15-34, non-Hispanic blacks, people with same-sex partners, and people with multiple partners⁽¹⁶⁾.

It is notable that gender issues still permeate the conduct of HIV testing. Investigations suggest that the greater participation of women in the test is associated with the indication of the test during prenatal care and the strong public policy framework directed at women, while the first comprehensive health policy targeting men in Brazil was launched in the year of 2008. Notwithstanding the programmatic aspects, masculine cultural issues make them believe that they are strong, providers and virile and, therefore, they deny the presence of diseases, considering that care is associated with feminine issues^(7,17).

The recruitment of people for HIV counseling and testing remains low, mainly due to the stigma directed at people living with the virus. A study carried out in a South African community sought to improve attitudes and acceptance of voluntary counseling and testing services through an educational intervention. After the intervention, it was observed that the knowledge of the population about HIV/AIDS increased, the stigma against people living with HIV decreased, and the proportion of HIV testing increased from 40% in 2014 to 70% in 2008⁽¹⁸⁾. Furthermore, a study conducted in Uganda also identified that an educational activity and the approximation of the health services with the local population, with respect to HIV counseling and testing, led to the reduction of risk behaviors, stigma and discrimination associated with the infection and increased testing from 18.6% to 62%⁽¹⁾.

The studies reinforce the need for investments to reduce the programmatic vulnerabilities through the provision of educational activities and the approximation of health services to the population. The data of this research corroborate the cited studies with the finding that participants who were aware of the health services that

perform HIV testing free of charge and who were registered in Basic Health Units or Family Health Teams had performed HIV testing more often than those who did otherwise.

The diagnosis of people living with HIV/AIDS is a global commitment to tackle the epidemic. The search for new technologies is imperative for factual effective responses. The advent of rapid testing has revolutionized the access to diagnosis. Besides the immediate result, the test is easy to perform and does not require a laboratory structure, presenting the possibility of testing populations in regions of difficult access or temporary populations. To achieve the ambitious goal of making 80% of the population aware of their HIV status by 2010, the Kenyan government has invested heavily in the provision of rapid testing, either at health facilities, or out of the units through community bases, door-to-door testing and self-testing. Qualitative analyses showed that the population that accepted the door-to-door test had fear of the stigma and emotional vulnerability associated with receiving the result in public facilities. This explains that about 60% of people were tested for the first time through this new methodology of HIV testing⁽³⁾.

The low demand for health institutions or the refusal to go to those places due to fear of stigma and discrimination was also addressed in a meta-analysis. The results indicate that some strategies that have been adopted to ensure a better coverage of HIV testing include: mobile unit testing, door-to-door testing, community testing, self-testing, and testing at workplaces and schools. Tests performed outside health institutions increase the chance of diagnosis of people with elevated CD4 levels, but have a lower positivity rate among those seeking health units⁽¹⁰⁾.

A study conducted with twenty-three health workers from a reference hospital in infectious diseases in Florianópolis (Brazil) identified that HIV/AIDS prevention strategies have been rethought. As condom use is not a constant reality in the life of the population, preventive actions should include a wide set of strategies that range from sex education to early diagnosis⁽¹⁹⁾.

Although the result of the present investigation does not portray the multiple forms of the offer of diagnostic methods for HIV, it is notable that we can still advance the offer of rapid tests. Although basic health units and the Family Health Strategy (FHS) are associated with a more frequent HIV testing, yet many people may not be covered with screening for fear of attending institutions because of the stigma and discrimination still surrounds the HIV epidemic.

In this sense, the study invites other researchers to analyze the supply and adherence to HIV testing, especially the effectiveness of the multiple ways of offering the test (door-to-door, self-test, mobile units, etc.) and prioritizing the meeting with the most vulnerable and non-affiliated populations.

The limitation of this study is the use of a questionnaire as data collection instrument in a dynamic and festive environment, which may have influenced the inattention of people in the moment of responding to the research questions, considering that the information on testing is self-reported. However, the results show congruence with the literature, demonstrating an increase in the number of tests over the years, probably due to the massive investment in the expansion of rapid testing in Brazil, besides campaigns of the Ministry of Health and the expansion of the FHS, especially in Rio de Janeiro.

CONCLUSION

The present study sought to identify the adherence to HIV testing among carnival participants in the Rio de Janeiro sambadrome. The results showed that 66.2% of the participants had undergone testing at least once in their lives, 54.2% had been tested in the last 12 months and 14.9% had already undergone rapid HIV testing. Among the analyzed variables, age group, having knowledge about places that offer free HIV testing, and being registered in a BHU or in the FHS were statistically significant factors for HIV testing once in life, in the past 12 months, and for the rapid testing. Data showed that more than half of the population had already been tested for HIV, but we have not yet reached the goal of making 90% of the PLWHA aware of their HIV status. Efforts are therefore still needed to increase the coverage of testing and to maintain a periodicity, especially among the most vulnerable populations.

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