CLINICAL SCIENCE

SEXUAL DYSFUNCTIONS AMONG PEOPLE LIVING WITH AIDS IN BRAZIL

Marco de Tubino Scanavino, Carmita Helena Najjar Abdo

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INTRODUCTION: Sexual dysfunction symptoms in patients with HIV have not been fully investigated in Brazil.
OBJECTIVES: To investigate the association between sexual dysfunction symptoms and AIDS among participants in the Brazilian Sex Life Study.
METHODS: The Brazilian Sex Life Study is a cross-sectional population study. The participants answered an anonymous self-responsive inquiry. It was applied to a population sample in 18 large Brazilian cities. Answers given by those who reported having AIDS (75) were compared with those who reported not having AIDS (control; 150). This was a case-control study nested in a cross-sectional population study.
RESULTS: In females, AIDS was associated with "sexual inactivity over the last 12 months" and "does not maintain sexual arousal until the end of the sex act" *(P < 0.05)* after adjusting for race and thyroid disease. Compared to the control group, men with AIDS had more difficulty becoming sexually aroused (they required more help from their partner to begin the sex act, they required longer foreplay than they wished, they reported losing sexual desire before the end of the sex act, and they required longer to ejaculate than they desired) *(P < 0.05)*. After adjusting for sexual orientation, sex hormone deficiency, depression, and alcoholism, only "does not have sexual desire," "have longer foreplay," and dyspareunia were associated with AIDS.
DISCUSSION AND CONCLUSIONS: The results support the hypothesis that sexual dysfunctions are associated with AIDS. Men with AIDS need more time and stimulation to develop a sexual response, and a significant portion (37%) of women with AIDS reported sexual inactivity over the last 12 months.

KEYWORDS: Sexuality; Sexual health; HIV; Erectile dysfunction; Sexual activity.

INTRODUCTION

Several factors may modify the sexual response. Beginning in youth, sexual dysfunctions are highly prevalent in all age groups. Factors such as lack of ability, poor sex education, and psychological conflicts play an important role in the development of sexual dysfunction at the start of sexual activity.[1,2] Life habits and morbid conditions become important risk factors for sexual dysfunction during aging; these factors include hypertension, diabetes, depression, heart disease, sex hormone deficiency, smoking, sedentary life style, and drug addiction.[3] Socioeconomic factors, such as education, employment and marital status, have also been related to sexual difficulties.[4]

Symptoms of sexual dysfunction include erectile dysfunction, loss of libido, premature or delayed ejaculation, orgasmic disturbances, arousal difficulties, and dyspareunia, among others.

Following the diagnosis of HIV infection among males, sexual dysfunction results from psychological factors, physical factors, and changes in sexual habits (e.g., adherence to safe sex practices).[5] Low sexual desire and erectile dysfunction may be associated with older age and depression in men with HIV.[6] Erectile dysfunction may occur as the result of the psychosocial impact of HIV diagnosis[5] following the decrease in testosterone levels that accompanies some medications,[7] testicular atrophy, or vacuolar myelopathy.[8] Highly active antiretroviral therapy (HAART) has previously been shown to provide the best clinical management for HIV-infected patients,

Sexuality Studies Program (ProSex), Institute of Psychiatry, Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo - São Paulo/SP, Brazil.
Email: scanavino@gmail.com
Tel.: +55 11 3207-6184
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as it decreases the prevalence of hypogonadism and advanced HIV disease, which are principal causes of sexual dysfunction in people infected with HIV.[7]

The most prevalent female sexual dysfunctions are low sexual desire, orgasmic dysfunction, and dyspareunia.[9,10] The most common factors associated with female sexual dysfunction are the psychosocial aspects of HIV infection and the negative body image associated with use of medications that cause lipodystrophy.[9-11]

A possible role of antiretroviral drugs in the generation of sexual dysfunction is controversial. Whereas some studies have supported a role of antiretroviral therapy in sexual dysfunction, other studies have not found such an association.[7] Many drugs commonly used for the management of co-morbidities and complications associated with AIDS or its treatment have been related to sexual dysfunction; these include megestrol, ketoconazole, antihypertensives, diuretics, benzodiazepines, antidepressants, antipsychotics, opioids, and statins.[5,7,9]

A recent review of sexual dysfunction in people infected with HIV examined the results of clinical studies published from 1999 to 2007. The prevalence rates of several sexual dysfunctions were examined: 46% presented with erectile dysfunction (range 9-74%), 39% with ejaculatory disturbances (range 36-42%), 44% with decreased libido (range 24-73%), and 27% with orgasmic disorders (range 7-49%).[7] This review identified substantial differences between studies regarding the design, selection of samples and methods, which makes them difficult to compare.

While some sexual dysfunction studies of people infected with HIV have been performed on clinical populations, data are lacking for the general population. Most of the studies of sexual dysfunction in people infected with HIV have been performed in developed countries.[5,9,10] More information is needed for people living with HIV/AIDS in other parts of the world due to the diversity of sexual behavior in different cultures. In Latin America, many countries have unfavorable socioeconomic conditions and people have little access to basic health care. Notably, studies of sexual dysfunction among people living with HIV/AIDS in Brazil were not found in the Lilacs or Medline databases. For these reasons, we investigated the sexual function of people living with AIDS in the general population in Brazil.

Our hypothesis is that individuals with AIDS are more likely to have symptoms of sexual dysfunction that are independent of other morbid conditions and life habits that have been associated with sexual dysfunction. Therefore, the goal of this study was to describe the sexual function of individuals living with AIDS in a sample of the Brazilian general population and to analyze the association between AIDS and symptoms of sexual dysfunction.

METHODS

Design

This was a case-control study nested in a cross-sectional population study. The study was named the Brazilian Sex Life Study (BSLS) and was performed from November 2002 through February 2003.[12,13] The BSLS was a convenience sampling study carried out in 18 large cities in the five country regions (North, South, Southeast, Northeast, and Midwest).

Participants

Inclusion criteria were literate men and women older than 18 years of age.

The BSLS surveyed 5,519 individuals to determine whether they had AIDS. Of these individuals, 75 (1.36%) reported that they were living with AIDS. This group was considered the case group. The control group (150 individuals) was selected randomly by STATA statistical software from 5,444 individuals reported not living with AIDS.

Procedures

An anonymous and self-responsive questionnaire was created to investigate affective-sexual behavior. It was composed of 87 closed questions and covered the following domains: attitudes toward sexuality, sexual history, affective-sexual practices, sexual function, sexual behavior, sexual orientation, gender identity, life habits, morbid conditions, and past treatments. A pilot study of 30 individuals was performed in São Paulo. We invited people from different socioeconomic levels to answer to the questionnaire. We investigated the sexual behavior words that were more widely known throughout the population. We were able to improve the questions on specific issues of male and female sexuality.The current study included variables for sexual function, life habits, and morbid conditions.

A team of five psychologists went to parks, beaches, shopping malls and squares with intense flows of pedestrians of different social backgrounds. Promenades places were chosen because pedestrians taking a walk on a weekend would likely be more receptive to participating in the study. Psychologists wearing white lab coats were located at stands identified with a banner containing logos of the Sexuality Studies Program (ProSex) of the Institute of Psychiatry, Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo. They distributed the questionnaires to everyone willing to participate. Passers-by

completed the questionnaire at a private location in the stand. The opening page of the questionnaire explained that it was part of a scientific survey on sexual life and that the provided information and personal identification would remain confidential. Individuals took an average of 25 minutes to complete the questionnaire. The completed questionnaire was returned inside of an envelope.

The study was conducted according to the standards demanded by the Helsinki Declaration and it was approved by the Ethics Committee of Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo.

Variables

Items evaluating sexual function were as follows: "Did you have sexual intercourse during the last 12 months?", "Is the beginning of sexual intercourse spontaneous for you, so you do not need to be stimulated by your partner?", "Do you need to be stimulated by your partner to begin sexual intercourse?", "Is stimulation (foreplay) necessary for you for a long time before sexual intercourse?", "Is stimulation (foreplay) necessary for you for a short time before starting sexual intercourse?", "Do you and your partner stimulate each other (foreplay) neither for a short time or for a long time before sexual intercourse?", "If there is no previous reciprocal stimulation (foreplay), do you and your partner proceed to genital sexual intercourse?", "Do you masturbate regularly?", "Do you usually have sexual desire?", "Do you feel pain during sexual intercourse?".

Items evaluating female sexual function were as follows: "When you kiss and hug during sexual intercourse, do you feel sexual arousal and does the vagina become wet?", "Do you maintain sexual arousal and a wet vagina until the end of sexual intercourse?", "Do you reach orgasm during sexual activity (inside the vagina or outside on the clitoris)?".

Items evaluating male sexual function were as follows: "Do you feel the pleasure of getting an erection and keeping it until the end of sexual intercourse?", "Do you always manage to maintain an erection (hard penis) until the end of sexual intercourse?", "Do you ejaculate (expel white liquid through the penis) quicker than you want?", "Do you ejaculate (expel white liquid through the penis) later than you want?", "Do you ejaculate (expel white liquid through the penis) at the desired time for you?".

Individuals that answered YES to "smoking" or "sedentary lifestyle" were considered as having that life habit.

Individuals that answered YES for having been under treatment for the following items were considered as having those morbid conditions: thyroid disease; obesity; depression; anxiety, panic, phobia; alcoholism; drug addiction; hypertension; hypercholesterolemia; diabetes; heart disease; and deficiency of sex hormones.

Statistical analysis

Pearson's chi-square test and univariate and multiple logistic models were used for this study. The dependent variable was AIDS (case) or no AIDS (controls). The independent variables were those described above for sexual function, life habits, morbid conditions, and sociodemographic characteristics. Statistically significant associations were examined between the dependent variable and the independent variables using Pearson's chi-square test. We adjusted for the independent variables associated with AIDS in the multiple logistic models for the sexual function variables. The crude Odds Ratio (OR) and the adjusted OR were estimated for the independent variables for sexual function that were associated with AIDS. The female sample population was adjusted for race and thyroid disease. The male sample population was adjusted for sexual orientation, depression, alcoholism, and sex hormone deficiency.

The OR was used as the measure of the effect of the associations. The significance level was set at $\alpha = 5\%$.

RESULTS

Sociodemographic characteristics

Table 1 shows the sociodemographic characteristics of the sample.

Of the 75 individuals in the case group, 73 reported their gender (52 male and 21 female). Of the 150 individuals in the control group, 85 were male and 65 female.

The individuals were equally distributed between the groups by age and sex.

In the female and male samples, age group, origin, religion, schooling level, employment status, and marital status in the two groups were not associated with AIDS ($p > 0.05$). Race was marginally associated with AIDS ($p = 0.6$) in the female sample, and homo- and bisexual orientations were significantly associated with AIDS ($p < 0.05$) in the male sample.

Sexual function

As can be seen in Table 2, many factors in the female sample were not associated with AIDS: spontaneous beginning of the sex act, foreplay characteristics, masturbation, sexual desire, sexual arousal, reaching orgasm, and dyspareunia ($p > 0.05$). However, lack of sexual activity

Table 1 - Distribution of sociodemographic characteristics in controls and cases.

Variables	Female					Male				
	Control		case			control		Case		
	N	%	N	%	P	N	%	N	%	P
Schooling										
Elementary school	7	10.77	5	23.81		16	19.05	16	31.37	
High school	28	43.08	10	47.62		37	44.05	24	47.06	
Higher education	30	46.15	6	28.57	0.18	31	36.90	11	21.25	0.10
Age group										
Up to 25	19	29.69	6	28.57		14	17.07	15	30.61	
26-40	19	29.69	9	42.86		38	46.34	20	40.82	
41-50	18	28.13	3	14.29		13	15.85	6	12.24	
51 or more	8	12.50	3	14.29	0.5	17	20.73	8	16.33	0.34
Regions										
Southeast	37	56.92	15	71.43		46	54.76	25	48.08	
Northeast	11	16.92	3	14.29		16	19.05	13	25	
South	13	20	1	4.76		12	14.29	9	17.31	
Midwest	2	3.08	2	9.52		9	10.71	3	5.77	
North	2	3.08	0	0	0.29	1	1.19	2	3.85	0.56
Race										
White	50	76.92	19	95		67	80.72	35	68.63	
Black/Mulatto/Other	15	23.08	1	5	0.06	16	19.28	16	31.37	0.11
Employment status										
Employed	44	75.86	13	72.22		64	79.01	39	78	
Unemployed	9	15.52	3	16.67		10	12.35	5	10	
Retired	5	8.62	2	11.11	0.90	7	8.64	6	12	0.77
Sexual orientation										
Heterosexual	57	96.61	19	0		71	92.21	37	74	
Homosexual	1	1.69	0	0		6	7.79	6	12	
Bisexual	1	1.69	0	0	1.0	0	0	7	14	0.001
Marital status										
Married/living with partner	35	53.85	8	38.10		43	51.19	23	45.10	
Single/separated/widower	30	46.15	13	61.90	0.20	41	48.81	28	54.90	0.49
Religious										
No	2	3.13	1	4.76		10	11.90	6	11.76	
Yes	62	96.88	20	95.24	0.72	74	88.10	45	88.24	0.98

Note: control = individuals without reported AIDS; case = individuals with reported AIDS. Source: Brazilian Sex Life Study (BSLS), 2002/2003.

during the last 12 months and not maintaining sexual arousal until the end of sexual intercourse were associated with AIDS ($p < 0.05$).

In the male sample, the following factors were not associated with AIDS: sexual activity during the last 12 months, masturbation, sexual desire, and sexual arousal ($p > 0.05$). However, the following factors were associated with AIDS: not spontaneously beginning sexual acts, 'genital sex without previous reciprocal stimulation (foreplay)' or 'having shorter' or 'longer foreplay', not maintaining sexual arousal until the end of sexual intercourse, dyspareunia, and longer time to ejaculate than desired ($p < 0.05$).

Life habits and morbid conditions

As can be seen in Table 3, the following factors were not associated with AIDS ($p > 0.05$) in the female study population: sedentary habits; sex hormone deficiency;

Table 2 - Frequency distribution of controls and cases according to sexual function.

Variables	Female					Male				
	Control		case			control		case		
	N	%	N	%	P	N	%	N	%	P
Sexual activity during the last 12 months										
No	8	12.50	7	36.84		4	4.76	3	5.88	
Yes	56	87.50	12	63.16	0.01	80	95.24	48	94.12	1.0
The beginning of the sex act										
Spontaneous	34	54.84	12	66.67		68	81.93	31	62	
Not spontaneous	28	45.16	6	33.33	0.42	15	18.07	19	38	0.01
Foreplay										
Neither short or long	41	65.08	14	70		54	64.29	20	38.46	
Go ahead to genital sex without foreplay	2	3.17	1	5		1	1.19	4	7.69	
Short	5	7.94	1	5		6	7.14	10	19.23	
Long	15	23.81	4	20	0.92	23	27.38	18	34.62	0.006
Masturbation										
No	38	61.29	10	50		31	36.90	14	28	
Yes	24	38.71	10	50	0.37	53	63.10	36	72	0.29
Sexual desire										
No	9	13.85	2	9.52		0	0	2	4.17	
Yes	56	86.15	19	90.48	0.72	84	100	46	95.83	0.13
Sexual arousal (lubrication/erection)										
No	18	28.57	3	16.67		19	22.89	14	33.33	
Yes	45	71.43	15	83.33	0.37	64	77.11	28	66.67	0.21
Sexual arousal/pleasure maintained until the end of sexual intercourse										
No	6	9.52	6	31.58		2	2.41	8	16.33	
Yes	57	90.48	13	68.42	0.01	81	97.59	41	83.67	0.005
Reach orgasm										
No	13	20.31	4	21.05		---	---	---	---	
Yes	51	79.69	15	78.95	1.00	---	---	---	---	---
Dyspareunia										
No	52	81.25	16	80		84	100	44	88	
Yes	12	18.75	4	20	1.00	0	0	6	12	0.002
Time to ejaculate										
Is satisfactory	---	---	---	---		56	68.29	21	51.22	
Is shorter than I want	---	---	---	---		23	28.05	12	29.27	
Is longer than I want	---	---	---	---	---	3	3.66	8	19.51	0.01

Note: control = individuals without reported AIDS; case = individuals with reported AIDS. Source: Brazilian Sex Life Study (BSLS), 2002/2003.

depression; anxiety, panic or phobia; alcoholism; obesity; smoking; drug addiction; diabetes; hypertension; heart disease; and hypercholesterolemia. Thyroid disease showed a marginal association with AIDS (p=0.06).

In the male sample, the following factors were not associated with AIDS ($p > 0.05$): sedentary habits; thyroid disease; anxiety, panic or phobia; obesity; smoking; drug addiction; diabetes; hypertension; heart disease; and hypercholesterolemia. Sex hormone deficiency, depression, and alcoholism were associated with AIDS ($p < 0.05$).

Multiple logistic regression

As shown in Table 4, lack of sexual activity during the

Table 3 - Frequency distribution of controls and cases according to risk factors for sexual dysfunction.

Variables	Female					Male				
	Control		case			control		case		
	N	%	N	%	P	N	%	N	%	P
Life with sedentary habits										
No	36	63.16	9	50		52	70.27	28	65.12	
Yes	21	36.84	9	50	0.32	22	29.73	15	34.88	0.56
Thyroid disease										
No	56	96.55	2	3.45		73	98.65	37	92.50	
Yes	12	80	3	20	0.06	1	1.35	3	7.50	0.12
Sex hormone deficiency										
No	53	98.38	13	86.67		74	100	37	92.50	
Yes	5	8.62	2	13.33	0.44	0	0	3	7.50	0.04
Depression										
No	55	94.83	13	86.67		72	97.30	34	85	
Yes	3	5.17	2	13.33	0.27	2	2.70	6	15	0.02
Anxiety, panic, phobia										
No	51	87.93	14	93.33		70	94.59	37	92.50	
Yes	7	12.07	1	6.67	0.47	4	5.41	3	7.50	0.47
Alcoholism										
No	57	98.28	15	100		73	98.65	35	87.50	
Yes	1	1.72	0	0	0.79	1	1.35	5	12.50	0.02
Obesity										
No	49	84.48	12	80		69	93.24	38	95	
Yes	9	15.52	3	20	0.46	5	6.76	2	5	1.0
Smoking										
No	58	100	14	93.33		73	98.65	37	92.50	
Yes	0	0	1	6.67	0.20	1	1.35	3	7.50	0.12
Drug addiction										
No	58	100	15	100		73	98.65	38	95	
Yes	0	0	0	0	---	1	1.35	2	5	0.28
Diabetes										
No	56	96.55	15	100		72	97.30	38	95	
Yes	2	3.45	0	0	0.62	2	2.70	2	5	0.61
Hypertension										
No	53	91.38	14	93.33		69	93.24	34	85	
Yes	5	8.62	1	6.67	0.64	5	6.76	6	15	0.19
Heart disease										
No	57	98.28	14	93.33		72	97.30	38	95	
Yes	1	1.72	1	1.67	0.37	2	2.70	2	5	0.61
Hypercholesterolemia										
No	51	87.93	13	86.67		67	90.54	35	87.50	
Yes	7	12.07	2	13.33	0.54	7	9.46	5	12.50	0.75

Note: control = individuals without reported AIDS; case = individuals with reported AIDS. Source: Brazilian Sex Life Study (BSLS), 2002/2003

Table 4 - Univariate and multiple logistic model of case and control groups according to sexual function.

Variables	Crude OR	adjusted OR*	95% CI	P
Female*				
Sexual activity during the last 12 months				
No	1	1		
Yes	4.08	4.96	1.05-23.27	0.02
Sexual arousal maintained until the end of sexual intercourse				
No	1	1		
Yes	4.38	4.88	1.00-25.31	0.03
Male**				
Maintain sexual desire until the end of the sex act				
No	1	1		
Yes	7.90	13.26	1.00-176.86	0.03
Dyspareunia				
No	1	1		
Yes	---	---	---	0.04
Time to ejaculate				
Satisfactory	1	1		
Shorter than I want	1.57	0.84	0.26-2.68	
Longer than I want	7.33	3.72	0.51-27.16	0.43
The beginning of the sex act				
Spontaneous	1	1		
Not spontaneous	2.72	1.96	0.69-5.52	0.19
Foreplay				
Neither short or long	1	1		
Go ahead to genital sex without foreplay	10.8	10.91	0.48-245.42	
Short	4.5	3.05	0.68-13.60	
Long	2.11	3.10	1.04-9.24	0.03

Note: *=variables adjusted for race and thyroid disease; **=variables adjusted for sexual orientation, alcoholism, depression, and deficiency of sex hormones; control = individuals without reported AIDS; case = individuals with reported AIDS. Source: Brazilian Sex Life Study (BSLS), 2002/2003.

last 12 months and does not maintain sexual arousal until the end of the sex act were associated with AIDS after adjusting for race and thyroid disease in the female study sample.

In the male sample, does not have sexual desire, requires long foreplay, and dyspareunia were associated with AIDS after adjusting for sexual orientation, deficiency of sex hormones, depression, and alcoholism. However, the following factors were no longer significantly associated with AIDS after the model was adjusted: not spontaneously beginning sex acts, genital sex without foreplay, short foreplay, and time to ejaculate shorter than desired or longer than desired.

DISCUSSION

We are not aware of other studies of sexual dysfunction symptoms and AIDS in the general population. Therefore, this study can only be compared with studies using clinical samples. Compared to this study, clinical studies have shown a higher prevalence of female sexual dysfunction, ranging from 25% to 84%. It is possible that these higher rates are explained by the likelihood that people in clinics will have more co-morbid conditions.

The higher frequency of sexual inactivity during the last 12 months in the female case group (36%) in this study is in agreement with a study of females with HIV/AIDS, of which 28% reported having no sexual partners for an average of 69 months.[14] The female case group more frequently reported not maintaining sexual arousal until the end of the sex act compared to the control group. This difference is an important point that has not been well investigated by other studies. In addition, it may explain female sexual inactivity because these women seem to find sex unsatisfactory.

Almost 50% of the male case group reported ejaculatory symptoms, and 33% of the men living with AIDS in our study reported erectile dysfunction. These high frequencies are consistent with those found in clinical studies of males living with HIV/AIDS.[7] Male dyspareunia is not commonly reported in the literature, possibly because it is not regularly investigated in studies of male sexual function. We suggest that the incidence of male dyspareunia deserves further study in future clinical studies of men living with HIV/AIDS in Brazil. Interestingly, the male case group and the male control group differed more widely in morbid conditions as compared to sexual dysfunction. Depression is often associated with AIDS,[15] and alcoholism is a very common morbid condition in Brazil.[16] Depression, alcoholism, and sex hormone deficiency are often associated with sexual dysfunction.[1,2,3] The fact that some sexual dysfunction symptoms (sexual desire not maintained until the end of the sex act, longer foreplay than desired, and dyspareunia) maintain statistical association with AIDS after adjusting for sexual orientation, depression, alcoholism, and sex hormone deficiency supports the hypothesis that sexual dysfunction symptoms are associated with AIDS in males independent of other factors.

We also observed that men living with AIDS need more time and stimulation to develop a sexual response than do men without AIDS (they need more help from their partner at the beginning of the sexual act, they need longer foreplay than desired, they more often report not maintaining sexual desire until the end of the sexual act, they take longer to ejaculate than desired). Many factors may influence this disturbance, including dyspareunia as an inhibiting factor of the sexual response.[17] Unfortunately, we did not have access to pharmacological information, which is a limitation of this study. Many medications commonly used by HIV-infected patients may disturb the sexual response. Among the factors

investigated in this study, alcoholism can disturb sexual arousal,[18,19] and depression and sex hormone deficiency may inhibit the sexual response.[20,21] As a result, the loss of statistical significance for "time to ejaculate longer than desired" and "not spontaneously beginning sexual acts" in the multiple logistic regression analysis is likely due to similar levels of association with AIDS, and with the mentioned morbid conditions.

The absence of blood exams was another limitation of this study and required the use of reported data. As no more than one-third of the Brazilian population was tested for HIV, the number of individuals living with HIV/AIDS may be underestimated. In addition, the questions in this study referred to AIDS and not HIV because we realized during the pilot study that the term HIV would not be understandable for some of the Brazilian population. It must therefore be considered that sexual function in people living with AIDS is probably more disturbed than in HIV-seropositive people due to the clinical conditions of and medication use by individuals living with AIDS. Another limitation is the strategy used to select the sample. Sample selection by convenience allows for the study of factors associated with dependent variables, but it prevents the generalization of the results as it is not a representative sample.As 37% of the female case group reported no sexual activity during the last 12 months, some may have made the mistake of answering about sexual function before the last 12 months, as most women answered all questions regarding sexual function. This possible confusion should be considered when analyzing the association between AIDS and the variables that investigate female sexual function. However, only "maintain sexual excitement until the end of the sexual act" was associated with AIDS among women.

The individuals who reported having been under treatment for some diseases were considered as having morbid conditions. Some of these morbid conditions were associated with AIDS in our study, but we do not know if these morbid conditions were current. It may be important to note that most of them are chronic diseases.

There are several strengths to this study. First, it compared sexual function among individuals living with AIDS to that among individuals without AIDS using a general population sample. Moreover, it contributes to the literature suggesting that sexual dysfunction should be considered as a potential co-morbid condition of AIDS by the AIDS clinical care programs in Brazil. This condition requires further investigation in people living with HIV/AIDS. Our study also stimulates sexual dysfunction research in clinical samples of people infected with HIV, which is easier to evaluate with the use of standardized instruments.

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