

ADHERENCE TO ANTIRETROVIRAL THERAPY IN ADULTS WITH HIV/AIDS TREATED AT A REFERENCE SERVICE

ADESÃO À TERAPIA ANTIRRETROVIRAL EM ADULTOS COM HIV/AIDS ATENDIDOS EM UM SERVIÇO DE REFERÊNCIA

ADHESIÓN A LA TERAPIA ANTIRRETROVIRAL EN ADULTOS CON VIH/SIDA ATENDIDOS EN UN SERVICIO DE REFERENCIA

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ABSTRACT

Objective: to identify the adherence to antiretroviral therapy in adults with HIV / AIDS and the factors associated with this behavior. **Method:** a cross-sectional study with 172 people with HIV / AIDS, in which questionnaires were used to assess adherence to antiretroviral treatment and to identify sociodemographic and behavioral aspects. Data were analyzed using descriptive and inferential statistics. **Results:** there was a prevalence of men (57.6%), with a mean age of 43.4 (\pm 11.8 years), single (38.9%), incomplete primary school education (57.1%), and without paid work (66.9%) and heterosexual (87.8%). A low / insufficient adherence prevailed (62.2%). Significant associations with gender ($p = 0.0026$), schooling ($p = 0.0094$) and forms of HIV transmission ($p = 0.0283$) were observed. There was a greater chance of men and participants with incomplete secondary level education with low / insufficient adherence. **Conclusion:** treatment adherence in people with HIV/AIDS is low/inadequate and associated with sociodemographic and behavioral factors.

Keywords: HIV; Medication Adherence; Adult.

RESUMO

Objetivo: identificar a adesão à terapia antirretroviral de adultos com HIV/AIDS e os fatores associados a esse comportamento. **Método:** estudo transversal com 172 pessoas com HIV/AIDS, em que foram utilizados os questionários para avaliação da adesão ao tratamento antirretroviral e identificação dos aspectos sociodemográficos e comportamentais. Os dados foram analisados por meio das estatísticas descritiva e inferencial. **Resultados:** houve predomínio de homens (57,6%), com idade média de 43,4 (\pm 11,8 anos), solteiros (38,9%), primeiro grau incompleto (57,1%), sem trabalho remunerado (66,9%) e heterossexuais (87,8%). Adesão baixa/insuficiente prevaleceu (62,2%). Foram observadas associações significativas com o sexo ($p=0,0026$), escolaridade ($p=0,0094$) e forma de transmissão do HIV ($p=0,0283$). Constatou-se maior chance de homens e dos participantes com ensino médio incompleto de adesão baixa/insuficiente. **Conclusão:** a adesão ao tratamento das pessoas com HIV/AIDS é baixa/insuficiente e associa-se a fatores sociodemográficos e comportamentais.

Palavras-chave: HIV; Adesão à Medicação; Adulto.

RESUMEN

Objetivo: identificar la adhesión a la terapia antirretroviral de adultos con VIH / Sida y los factores asociados a este comportamiento. **Método:** estudio transversal con 172 personas con VIH /Sida en el cual se utilizaron cuestionarios para evaluar la adhesión al tratamiento antirretroviral e identificar los aspectos sociodemográficos y comportamentales. Los datos se analizaron a través de las estadísticas descriptiva e inferencial. **Resultados:** hubo predomínio de hombres (57,6%), con edad media de 43,4 (\pm 11,8 años), solteros (38,9%), escolaridad primaria incompleta (57,1%), sin trabajo remunerado (66,9%) y heterossexuales (87,8%). Prevalció la adhesión baja / insuficiente (62,2%). Se observaron asociaciones significativas con el sexo ($p = 0.0026$), escolaridad ($p = 0.0094$) y forma de transmisión del VIH ($p = 0.0283$). Se constató una mayor probabilidad de hombres y de participantes con escolaridad secundaria incompleta de adhesión baja / insuficiente. **Conclusión:** la adhesión al tratamiento de las personas con VIH/sida es baja / insuficiente y está asociada con factores sociodemográficos y comportamentales.

Palabras clave: VIH; Cumplimiento de la Medicación; Adultos.

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INTRODUCTION

Despite the changes in the profile of the HIV/AIDS epidemic and all innovative discoveries linked to antiretroviral treatment, this epidemic is still considered a worrying and challenging situation for researchers, health professionals, people living with HIV/AIDS and their families.

There are, currently, 34.9 million people living with HIV/AIDS in the world. In Brazil, since the first cases registered in 1980, 830,000 cases of AIDS have been reported.¹ The advent of antiretroviral therapy (HAART), through Brazilian Law no.9,313/96, allowed the access of thousands of people to the treatment, causing a significant reduction in morbidity and mortality rates by HIV/AIDS.²⁻⁴

In June 2016 there were approximately 18.2 million people on antiretroviral therapy in the world. In Brazil, until December of 2015, this setting was of 455,000 people.¹ In terms of global coverage of antiretroviral therapy, it can be observed that the evolution was more significant in Eastern and Southern Africa, where coverage increased from 24% in 2010 to 54% in 2015, reaching a total of 10.3 million people. In South Africa, 3.4 million people had access to treatment, followed by Kenya, with almost 900,000 people.⁵

Among the Brazilian states with the highest incidence of HIV/AIDS, Santa Catarina stands out, with 31.9 cases every 100 thousand inhabitants.⁶ This setting worries and instigates researchers in the area to explore issues related to HIV/AIDS, like: what is the adherence to antiretroviral therapy of adults with HIV/AIDS? And what factors may be related to these people's adherence?

Antiretroviral therapy aims to combat the virus, treat opportunistic diseases and strengthen the immune system. The major purpose of this treatment is to reduce plasma viral load to undetectable levels, thereby reducing mortality and significantly improving the quality of life of people living with HIV/AIDS.^{7,8} However, the potential benefits of such therapy are not being used to their full capacity, due to difficulties of adherence to very demanding therapeutic methods that can still bring side effects to some of its users.

Research results show low adherence to the treatment from people with HIV/AIDS, which may be associated to the complexity of the prescribed therapeutic methods, the side effects they cause, such as nausea and vomiting, difficulties in drug intake, dosing schedules, difficult social conditions, low educational level, family beliefs, mental disorders, difficulties with daily routines and family perception about the value of medication.⁹⁻¹²

In addition to the reasons cited above, the following obstacles can also be highlighted: precariousness or absence of affective social support, as well as the perception by the person that this support is insufficient, non-acceptance of seropositivity, poor relation of the user with the doctor and with the other professionals of the health team, negative beliefs and insufficient information about the disease and treatment, inappro-

priate empowerment of the subject, organizational difficulties to adapt the treatment requirements to daily routines, and alcohol and other types of drug abuse.¹¹⁻¹³

There are multiple factors linked to the adherence to the treatment of people living with HIV/AIDS, characterizing adherence as a complex process.⁷ We are faced with a dynamic, multifactorial behavior that involves sociodemographic, clinical and behavioral aspects, requires shared decisions and responsibilities between the user, the health team and the social support network, besides an approach that addresses socio-cultural and subjective singularities, aiming to improve the quality of life of people living with HIV/AIDS.¹⁰⁻¹²

It is necessary to conduct researches that enable a better understanding of this phenomenon. An accurate evaluation of adherence and aspects related to this process is fundamental for the adequate planning of the care of people with HIV/AIDS. Such clarifications may contribute to the development of strategies to promote adherence to antiretroviral therapy for people living with HIV/AIDS.¹⁴

From this perspective, the present study aims to: identify the adherence to antiretroviral therapy of HIV/AIDS adult patients treated at a state outpatient clinic, reference in infectology, as well as factors related to their adherence.

METHOD

This is a cross-sectional study carried out in a state outpatient clinic, reference in Infectology, located in a city of the state of Santa Catarina.

The study included adults with HIV/AIDS. The population of the study was calculated based on the ratio of visits that took place monthly in the outpatient clinic, that is, an average of 800 visits, of which 300 in the field of Infectology. The mean number of visits to Infectology was obtained by analyzing the three months prior to data collection, between April and June of 2010. Based on this relationship, the sample size of the study was calculated according to the SEstatNet® website, and the result was 168, considering this non-probabilistic sample. There were no sample losses, since 172 adults with HIV/AIDS participated in the study.

The inclusion criteria used were: adults with HIV/AIDS registered in the service using antiretroviral therapy for more than three months. Individuals who were illiterate or had used illegal drugs in the last six months were excluded of the survey.

Data were collected by the researcher and a trained interviewer between July and December 2010, in order to perform a homogeneous collection without interferences in the participants' answers.

To assess adherence, the "Cuestionario para La Evaluación de La Adhesión al Tratamiento Antiretroviral" (CEAT-VIH), tested and validated for Brazil, was used.¹⁵⁻¹⁷ It is a self-applicable

instrument with 20 questions, which evaluates adherence to antiretroviral therapy. It has a multidimensional approach, since it covers the main factors that can influence the adherence behavior to the treatment. The total score of the questionnaire score is obtained by summing the responses to all items (minimum possible value of 17, maximum possible value of 89) and allows to identify a global index of adherence to antiretroviral treatment, through the following classification: low/insufficient adherence (score ≤ 74), good/adequate adherence (score between 75 and 79) and full adherence (score ≥ 80). The higher the score, the higher the degree of adhesion.

In addition to this instrument, a structured questionnaire was used with questions related to sociodemographic (age, sex, paid work, marital status, scholary) and behavioral aspects (sexual orientation, how HIV was acquired).

The data were stored and analyzed using Statistical Analysis software (SAS) version 9.2, and the descriptive analysis of the variables was performed using absolute and relative frequencies, mean and standard deviation. The statistical tests that aided the inferential analysis were: χ^2 test (chi-square) and Fisher's exact test. The value of $p < 0.05$ was considered as the level of statistical significance.

This study was approved by the Human Being Research Ethics Committee (CEP) of the Federal University of Santa Catarina (UFSC), protocol no. 565/2009. Participants signed the Free and Informed Consent Form (TCLE), as recommended by Resolution 466/12 of the National Health Council (CNS).

RESULTS

Most of the study participants were men (57.6%), with a mean age of 43.4 ± 11.8 years, single (38.9%), less than high school (57.1%), with no paid work (66.9%) and who declared themselves heterosexuals (87.8%) (Table 1).

A low/insufficient adherence score prevailed among the participants, followed by good/adequate and full adherence (Table 2).

Regarding the inferential analyses, significant associations were observed with sex ($p = 0.0026$) and educational level ($p = 0.0094$). Men had 3.34 times higher chance (CI: 1.11-10.07) of presenting low/insufficient adherence than women. Participants with less than a college degree had a chance 0.46 times greater (CI: 0.15-1.46) of presenting the same score.

Another significant association ($p = 0.0283$) was between adherence and the way the patient acquired HIV. The majority of patients acquired HIV through sexual intercourse (66.9%), but a low/insufficient score of adherence was observed in people who contracted HIV through the use of injectable drugs (79.2%), according to Table 3.

Table 1 - Distribution of adults with HIV/AIDS according to socio-demographic and behavioral variables, Florianópolis, 2010

Sociodemographic variables	n	%
Gender		
Male	99	57.6%
Female	73	42.4%
Age		
N	171	
Mean	43.4	
Standard deviation	11.8	
Median	42.0	
Marital status		
Not informed	5	
Single	65	38.9%
Married	59	35.3%
Domestic partnership	4	2.4%
Separated	19	11.4%
Divorced	9	5.4%
Widower	11	6.6%
Educational level		
Not informed	4	
Elementary school	12	7.1%
Less than elementary school	96	57.1%
High school	37	22.0%
Less than high school	9	5.4%
Bachelor's degree	7	4.2%
Some college, no degree	7	4.2%
Paid work		
Yes	57	33.1%
No	115	66.9%
Sexual Orientation		
Heterosexual	151	87.8%
Homosexual	18	10.5%
Bisexual	3	1.7%

Table 2 - Distribution of people with HIV/AIDS, according to the classification of the adherence score. Florianópolis, 2010

Adherence score	n	%
Low/insufficient adherence	107	62.2
Good/adequate adherence	49	28.5
Full adherence	16	9.3

Table 3 - Association of sociodemographic and behavioral variables with the adherence score. Florianópolis, 2010

Sociodemographic and behavioral variables	Low/Insufficient membership		Regular membership		Full adherence		p Value	OR (CI 95%) Low or irregular chance of joining	
	N	Low adherence rate	N	Regular adherence rate	N	Full adherence rate			
Gender							0.0026		
Male	72	72.70%	22	22.2%	5	5.1%		3.34	(1.11 a 10.07)
Female	35	47.90%	27	37.0%	11	15.1%		1.00	
Age							0.2072*		
N	106.0		49.0		16.0				
Mean	44.3		40.9		45.1				
Standard deviation	10.4		13.4		14.4				
Median	44.0		39.0		49.0				
Educational level							0.0094		
Elementar school comp/incomp	76	70.40%	25	23.1%	7	6.5%		1.00	
High school comp/incomp	19	41.30%	21	45.7%	6	13.0%		0.46	(0.15 a 1.46)
College comp/incomp	9	64.30%	3	21.4%	2	14.3%		0.42	(0.08 a 2.23)
How was HIV acquired							0.0283		
Sexual intercourse	63	54.80%	41	35.7%	11	9.6%		1.00	
Use of injectable drugs	38	79.20%	7	14.6%	3	6.3%		1.59	(0.42 a 5.96)
Don't know	3	60%	1	20.0%	1	20.0%		0.42	(0.04 a 4.13)
Others	3	75%	0	0.0%	1	25.0%		0.32	(0.03 a 3.32)

ANOVA test*

DISCUSSION

This study made it possible to evaluate the adherence of people with HIV/AIDS to antiretroviral therapy in a state outpatient clinic, reference in Infectology, through CEAT-VIH. The data obtained by this self-report instrument showed that the majority of participants had low/insufficient adherence. This finding confirms others on the adherence to antiretroviral therapy of people with HIV/AIDS.^{7,19}

The concern about adherence to antiretroviral therapy should be a reality in health services and requires a multiprofessional intervention.^{13,20} Antiretroviral therapy should preferably be initiated only when the importance of adherence to treatment is clarified and accepted by the patient. The bond with the health team is essential for adherence to treatment.¹³ Unsatisfactory adherence results, such as those found in this study, should provoke a reflection on the daily practice of professionals working in this context, as well as on methods used to intervene in adherence levels.

Among the sociodemographic characteristics, there were significant associations between the variable adherence and sex, since the chance of men not adhering to the treatment was 3.34 times greater than that of women. However, some cases differed from the data found in this study, such as a study car-

ried out in a reference center for infectious diseases in Natal, Rio Grande do Norte, and another in the city of Ribeirão Preto.^{7,11} In this direction, another research has shown that, adherence to treatment in chronic diseases may not be related to sex, even though in some specific contexts the male sex is significantly associated with non-adherence, as in the case of this study.²¹

Epidemiological data from 2016 showed that there are still more cases of HIV among men than among women, but this difference has been decreasing over the years. A proportional increase in the number of AIDS cases among women can be observed by the sex ratio (number of cases in men divided by the number of cases in women). In 1989, the sex ratio was about six cases of AIDS in males for each case in females. By 2015, there were 2.4 cases in men for each in women.²²

Regarding the marital status, the majority of the participants declared themselves single. Similar studies had the same evidence.^{13,23} This characteristic is in accordance with the epidemiological profile presented in the last Brazilian bulletin.¹⁴

Another variable investigated in the study was paid work, where were found that 66.9% did not exercise any paid activity. This professional situation was verified in other realities, with low income being a factor related to low adherence.¹³

Another significant association the study found was regarding the educational level. The analysis found that people

with a college education had a 71% lower chance of irregular adherence than those with elementary education. Studies have shown that the lower the education level, the greater the percentage of people infected with the AIDS virus.^{13,14} One of these studies also showed that people with a higher education level were more frequent among the adherents, corroborating the findings of the present study, who found that the chances of good/regular and full adherence are higher in the individuals with higher educational levels. These findings indicated that people with a few years of education had less access to information on disease and treatment, which led to insufficient understanding of the role of HAART, affecting the adherence.¹⁴

Another study also found an association between more adherence and educational level (more than 10 years of study), and it was pointed out that the low adherence is linked to the difficulty of understanding that patients with a lower educational level have, because it is a complex treatment.¹²

Studies have reported low economic status, poverty, illiteracy, and low educational level as important risk factors for low adherence.^{12,13} The educational level issue has been put through some consideration, since respecting the uniqueness of patients cared for is a duty of the professionals, and they should be prepared to address adherence with less educated people, so that knowledge and information also reach them effectively.

The present study also found a significant association between the way the patient acquired HIV and adherence, with a non-adherence rate of 93.8% in patients who acquired HIV from using injectable drugs. It was not possible to state whether patients, although they reported not using more drugs, were really free of the contact and the influence of their use. Other researches have shown that the use of alcohol and illicit drugs is an indicator of non-adherence.¹¹ In addition, some studies have also brought the use of drugs and psychoactive substances as a predictor of non-adherence.^{9,13}

Drug use can influence the adherence of people with HIV, and people who use psychoactive drugs may present confusion and difficulty in understanding their treatment, which reflects in their adherence.^{18,24} In the setting studied, although most patients acquired HIV through sexual intercourse, it was found that people who contracted HIV through injectable drugs had a higher rate of low adherence. This reiterated that the use of drugs and adherence to antiretroviral treatment is a theme that is being explored by academics in the area and is a relevant challenge in the care of people who use drugs and are living with HIV/AIDS.^{18,24,25}

The present study demonstrated the importance of assessing the adherence to HAART, as well as the factors associated with this behavior, to promote the health of people living with HIV/AIDS. However, there are still few publications on the topic, and the scientific production on the theme has not reached maturity yet, as reported by a bibliometric study.²⁶

CONCLUSION

The population of this study shows low/insufficient adherence to the antiretroviral therapy. In addition, such adherence may be associated with sociodemographic and behavioral factors such as gender, educational level and the way the person acquired HIV.

This study is believed to portray the need for further research related to adherence, such as those using a combination of instruments to measure adherence, with comparable data such as self-reports, pill count, registration of pharmacy dispensing, electronic devices, among others, since only a self-report can limit the identification of the degree of adhesion.

Adherence to antiretroviral treatment of people with HIV/AIDS involves multiple aspects that must be explored in the services that provide care to these people. By identifying the degree of adherence to antiretroviral treatment and the factors associated with this adherence, it is possible to reorganize and plan care practices for people with HIV/AIDS, thus identifying the best strategies for strengthening their adherence to antiretroviral therapy in the area of care management.

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