



## ORIGINALES

### Knowledge of people living with HIV/Aids about Antiretroviral Therapy

O conhecimento de pessoas vivendo com HIV/AIDS sobre a Terapia Antirretroviral  
El conocimiento de las personas que viven con el VIH/SIDA acerca de la terapia antirretroviral

Danielle Chianca de Andrade Moraes <sup>1</sup>  
Regina Célia de Oliveira <sup>2</sup>  
Adriana Vitorino Arruda do Prado <sup>3</sup>  
Juliana da Rocha Cabral <sup>4</sup>  
Cristiane Aline Corrêa <sup>5</sup>  
Marcella Maria Barbosa de Albuquerque <sup>6</sup>

<sup>1</sup> Nossa Senhora das Graças Nursing School. University of Pernambuco. Associated Program of Nursing Postgraduate Program of the University of Pernambuco / State University of Paraíba (PAPGENf UPE / UEPB). Brazil.

<sup>2</sup> PhD in Nursing. Adjunct professor of the Faculty of Nursing Nossa Senhora das Graças. University of Pernambuco. Brazil.

<sup>3</sup> Nurse. MSc in Nursing by PAPGENf UPE / UEPB. Brazil.

<sup>4</sup> Nurse. Resident of Infectology Nursing at Oswaldo Cruz University Hospital. Recife. Brazil.

<sup>5</sup> Bachelor in Nursing. Faculty of Nursing Nossa Senhora das Graças. University of Pernambuco.

<sup>6</sup> Nurse. Master in Collective Health. University of Pernambuco. Brazil.

E-mail: [dani\\_chianca@hotmail.com](mailto:dani_chianca@hotmail.com)

<http://dx.doi.org/10.6018/eglobal.17.1.274001>

Received: 09/11/2016

Accepted: 17/12/2016

#### ABSTRACT:

In order to analyze the knowledge of people living with HIV/AIDS (PLWHA) on antiretroviral therapy (ART), a descriptive, cross-sectional study with quantitative approach was carried out in the Specialized Care Services (SCS) in the municipalities of Caruaru and Garanhuns – PE, Brazil. A total of 256 PLWHA took part in the study. Data were analyzed through descriptive and inferential statistics I. It was found that the majority of respondents were male; aged 30-49 years. Only 56 PLWHA had completed high school/higher education. It was noticed that age group, religion, education and family income are significantly associated ( $p>0.05$ ) with the level of knowledge about ART. As to the knowledge on antiretroviral action, 27.7% did not know or erroneously responded that the medication acts completely destroying the HIV. Regarding the indication of ART, 82% said that it is indicated for the control of the virus. As to the duration of treatment, 12.5% mentioned that it lasts until the normal examination results are obtained. In relation to knowledge about the precautions with the use of other drugs, 25% said that they can make use of any medicine without medical advice. Gastrointestinal and psychiatric adverse effects were the most common (69.1% and 39.8%). We conclude that knowledge on therapy is an

aspect that can contribute to poor adherence and that it represents an issue to be worked by health professionals working in the SCSs.

**Keywords:** HIV; Acquired Immunodeficiency Syndrome; Anti-retroviral Agents; Patient's Knowledge on Medication.

## RESUMO:

Com o **objetivo** de analisar o conhecimento das pessoas vivendo com HIV/AIDS (PVHA) sobre a terapia antirretroviral (TARV), desenvolveu-se um estudo descritivo, transversal, de abordagem quantitativa, nos Serviços de Assistência Especializada (SAE) dos municípios de Caruaru e Garanhuns-PE, Brasil. Participaram do estudo 256 PVHA. Os dados foram analisados através de estatística descritiva e inferencial (testes: Qui-quadrado de Pearson, Exato de Fisher; e de Verossimilhança). Verificou-se que a maioria dos entrevistados eram homens; entre 30 a 49 anos. Apenas 56 PVHA apresentaram ensino médio/superior. Percebeu-se que faixa etária, religião, escolaridade e renda familiar estão significativamente associadas ( $p > 0,05$ ) ao nível de conhecimento sobre TARV. Quanto ao conhecimento acerca da ação dos antirretrovirais, 27,7% não sabiam ou referiram, erroneamente, que a medicação age destruindo totalmente o HIV. A respeito da indicação da TARV, 82% responderam que é indicada para o controle do vírus no organismo. Quanto à duração do tratamento, 12,5% referiram que este dura até a normalidade nos resultados dos exames. Sobre conhecimento acerca das precauções com uso de outros medicamentos, 25% referiram que podem fazer uso de qualquer outro medicamento, independentemente da orientação médica. Os efeitos adversos gastrointestinais e psiquiátricos foram os mais conhecidos (69,1% e 39,8%). Conclui-se que o conhecimento sobre a terapêutica trata-se de um aspecto que pode contribuir para uma adesão inadequada e que deve ser trabalhado pelos profissionais de saúde que atuam nos SAEs.

**Palavras-chave:** HIV; Síndrome de Imunodeficiência Adquirida; Antirretrovirais; Conhecimento do Paciente sobre a Medicação.

## RESUMEN:

Con el objetivo de analizar los conocimientos de las personas que viven con el VIH/SIDA (PVVS) en la terapia antirretroviral (ART), se ha elaborado un estudio descriptivo de corte transversal, enfoque cuantitativo, en los servicios de asistencia especializada (SAE) de los municipios de Caruaru y Garanhuns-PE, Brasil. El estudio incluyó a 256 PVVS. Los datos fueron analizados mediante estadística descriptiva e inferencial. Se encontró que la mayoría de los entrevistados eran hombres; entre 30 y 49 años. Sólo 56 PVVS presentan escuela secundaria superior. Se observó que grupo de edad, religión, educación e ingresos familiares están significativamente asociados ( $p > 0.05$ ) en el nivel de conocimiento acerca del ART. En cuanto a los conocimientos sobre la acción de medicamentos anti-retrovirales, 27,7% no sabían o habían divulgado, erróneamente, que el medicamento actúa destruyendo el VIH. Con respecto a la indicación de la HAART, 82% respondió que está indicado para el control del virus. En cuanto a la duración del tratamiento, 12,5% informó que este dura hasta la normalidad en los resultados de la prueba. El conocimiento acerca de las precauciones con el uso de otras medicinas, 25% informó que puede hacer uso de las medicinas, sin tener en cuenta consejos médicos. Los efectos adversos gastrointestinales y psiquiátricos fueron los más conocidos (69.1% y 39.8%). Se concluye que el conocimiento acerca de la terapia es un aspecto que puede contribuir a una adherencia insuficiente y que debe ser trabajado por profesionales de la salud que trabajan en pequeñas empresas agrícolas.

:

**Palabras clave:** VIH; Síndrome de la Inmunodeficiencia Adquirida; Medicamentos Antirretrovirales; Conocimiento del Paciente acerca de la Medición.

## INTRODUCTION

The discovery of acquired immunodeficiency syndrome (AIDS) and its etiologic agent, the human immunodeficiency virus (HIV), has become an important landmark in the history of global health in the late twentieth century. Despite the great progress made on scientific knowledge and therapeutic plans, this illness still has a major impact on public health<sup>(1)</sup>.

Since the introduction of antiretroviral therapy (ART), the control in viral multiplication could be perceived as well as the slower course of the disease, generating a reduction in the associated morbimortality and allowing people living with HIV/AIDS (PLWHA) to have a higher expectation and quality of life, as the aggravation started to be considered as chronic and amenable to control<sup>(2,3)</sup>.

The year 2016 had around 16 million PLWHA undergoing ART treatment worldwide, with the expectation of reaching 30 million by 2020<sup>(4)</sup>. Currently, Brazil has about 450 thousand people using ART offered by the Unified Health System. This represents an increase of 58.15% compared to 2011, when 284,390 treatments were provided<sup>(5)</sup>.

Disease control requires permanent clinical follow-up and continuous use of antiretrovirals<sup>(6)</sup>. Adherence is essential for successful treatment, but it is usually influenced by the association of several factors, inherent or not to PLWHA<sup>(7)</sup>. Thus, among the universe of factors that interfere with adequate adherence to effective antiretroviral therapy, the lack of knowledge or lack of information regarding its use and the risks of non-adherence stand out as significant variables<sup>(8)</sup>. This is due to non-adaptation to therapy, depression and psychological stress, besides the adverse effects that the medications cause. However, this scenario can be reversed by health professionals responsible for delivering and monitoring the therapy<sup>(9,10)</sup>.

Considering this aspect, care network professionals - as health promoters - should lead the exchange of knowledge in a clear way and stimulate the emancipation of subjects who make use of ART, so that they can decide on the changes of attitudes and behaviors to improve the quality of life, through the promotion of active and participatory behaviors, valuing meetings that prioritize this dialogue<sup>(11)</sup>. Knowledge of the therapeutic scheme by the patient is the basic condition for the treatment progression<sup>(12)</sup>.

Knowledge starts with the formulation of an idea about something, from the construction based on sociocultural values, previous experiences and critical reflections; it is a dynamic process in permanent construction<sup>(13)</sup>.

Failure in understanding the information and/or scarcity of guidance about ART lead to gaps in the knowledge of PLWHA, and this situation implies the possibility of irregular consumption of antiretroviral medicines or the intake of insufficient doses. As a result, the success of therapy can be compromised, and treatment options limited, prompting the transmission of multiresistant viruses with consequences for the patient and for public health<sup>(2,3,14)</sup>. In this sense, the present study aimed to analyze the knowledge of PLWHA undergoing ART.

## METHODS

This is a quantitative, descriptive, cross-sectional study conducted in two Specialized Care Services (SCS) on HIV/AIDS in the municipalities of Caruaru and Garanhuns, located in the Agreste region of the state of Pernambuco, Brazil.

The study included people aged 18 years and older, both men and women, who had been on ART for at least 1 year, and who attended services for viral and CD4 load monitoring. Mentally disabled people and pregnant women were excluded.

The sample was of the non-probabilistic stratified type. The sample size was determined considering: a) the population size of each SCS (SCS "A" with 860 people on ART and SCS "B" with 85 people on ART); b) the margin of error was of 5%; and c) the confidence level was 95%. The percentage of sample losses in both calculations was 20%.

The sample calculation resulted in 192 people in the SCS "A" and 64 people in the SCS "B", totaling 256 people. Calculations were made using the EPI-INFO® in 6.0 version.

Data were collected between May and August of 2013. Two instruments were used in the collection: a form for sociodemographic data and medical records (antiretroviral medicines prescribed); and a questionnaire to verify knowledge about ART, which was elaborated based on two studies<sup>(15,16)</sup>. The questionnaire was composed of six questions on the user's knowledge about the therapy (the answers were scored and later used to establish the level of knowledge); and one question (non-scored) to know the source of the information obtained about the therapy. The six questions involved general knowledge regarding antiretrovirals, their action, indication, duration of treatment, adverse effects and precautions, names of the drugs that make up the ART, dose and frequency prescribed by the doctor, as well as the sources of information about ART.

Regarding the names, dose and frequency of the antiretrovirals, correct answers were considered when agreement between all the declarations of the patients and the information in medical records could be identified, even when different nomenclatures were used for the same medication (trade name and acronyms, for example). At the time of the interview, the respondent was not allowed to consult the medical prescription or packaging of the medication or any annotation he had at hand, in order to avoid bias in the study regarding knowledge about the prescribed therapy.

The score was developed through the studies of Ceccato et al.<sup>(16)</sup> and Silva, Schenkel and Mengue<sup>(15)</sup>. Different scores were assigned for each question, considering its relevance for the safe use of medicines at the outpatient level. It was considered safe the use of ART that does not cause harm to the health and well-being of the patient<sup>(16)</sup> - Table 1.

**Table 1** - Classification of the level of knowledge about ART based on the studies by Ceccato et al.<sup>(16)</sup> and Silva, Schenkel and Mengue<sup>(15)</sup>

<b>Classification of knowledge</b>	<b>Score</b>	<b>Safety conditions in the use of medicines</b>
Good	> 8 points	It provides conditions for the safe use of the medication in all circumstances.
Regular	Between 6 and 8 points	It provides conditions for the safe use of the medication in ideal conditions without any type of intercurrent during the treatment.

Insufficient	< 6 points	It does not provide conditions for the safe use of the medication.
--------------	------------	--

\* Safe use of antiretroviral drugs corresponds to the one that does not cause harm to the health and well-being of the patient (16).

Descriptive statistical analysis was performed, using the absolute and relative frequencies. For purposes of statistical association, the variable level of knowledge was considered as dependent and classified as a qualitative, of ordinal type. Sociodemographic variables and the source of knowledge about the general ART actions were defined as independent variables and classified as qualitative variables of the ordinal type (age, family income, schooling) and nominal type (gender, religion, race/color and source of knowledge about the general ART actions). The Pearson's Chi-square test, the Fisher's exact test and the Likelihood test were used to compare qualitative variables. A margin of error of 5% and reliability of 95.0% were considered, and the SPSS® program (*Statistical Package for the Social Sciences*) version 21.0 was used for analyses.

The study complied with the national ethical norms for research involving human beings in Resolution 466/2012 of the National Health Council, with approval from the Research Ethics Committee of the Oswaldo Cruz University Hospital, Opinion n°. 205,799. All participants were informed about the purpose of the study, and those who accepted registered their agreement in the Free and Informed Consent Form.

## RESULTS

Concerning the sociodemographic characteristics, it was found that the majority of the interviewees (n = 136) were male in the age range of 30 to 49 (n = 164). Age extremes ranged from 18 to 87 years with standard deviation of 12 years and mean of 42 years. As for the self-reported race, brown people prevailed (n = 139). Only 56 PLWHA had completed high school or higher education, with people with low level of education representing the majority, including 48 illiterate participants. Regarding family income, the majority of the evaluated people (n = 158) received up to one minimum wage (MW) - Table 1.

Table 1 also analyzes the association between the level of knowledge and the sociodemographic profile in relation to age, gender, religion, schooling and income, and the association among them. It is observed that 51.2% of the PLWHA had a level of knowledge about ART classified as regular, with prominence in this classification of the age group of 50 to 59 years (78.1%), females (54.2%), Spiritist religion (70%), illiteracy (54.2%) and family income of more than one minimum wage (59.2%). In turn, 33.6% had a level of knowledge classified as insufficient, with prominence here of the age group of 30 to 39 years (35.1%), females (35%), evangelical religion (42.6%), illiteracy (45.8%) and family income of less than one minimum wage (39.2%).

Age, religion, schooling and family income were associated with the level of knowledge about ART, being significantly associated with the dependent variable (p > 0.05).

**Table 1** - Distribution of patients of the Specialized Care Services "A" and "B" (Agreste Region of Pernambuco) according to sociodemographic profile - 2013

Variable	Knowledge level						TOTAL		p value
	Good		Regular		Insufficient		n	%	
	n	%	N	%	N	%	n	%	
<b>Total group</b>	<b>39</b>	<b>15.2</b>	<b>131</b>	<b>51.2</b>	<b>86</b>	<b>33.6</b>	<b>256</b>	<b>100.0</b>	
<b>• Age range</b>									
Up to 29	6	17.1	19	54.3	10	28.6	35	100.0	p <sup>(1)</sup> = 0.027*
30 to 39	15	19.5	35	45.5	27	35.1	77	100.0	
40 to 49	16	18.4	41	47.1	30	34.5	87	100.0	
50 to 59	1	3.1	25	78.1	6	18.8	32	100.0	
60 or more	1	4.0	11	44.0	13	52.0	25	100.0	
<b>• Gender</b>									
Male	26	19.1	66	48.5	44	32.4	136	100.0	p <sup>(1)</sup> = 0.183
Female	13	10.8	65	54.2	42	35.0	120	100.0	
<b>• Race/Skin color</b>									
White	18	22.0	40	48.8	24	29.3	82	100.0	p <sup>(2)</sup> = 0.248
Brown	20	14.4	69	49.6	50	36.0	139	100.0	
Black	1	4.2	14	58.3	9	37.5	24	100.0	
Other	-	-	8	72.7	3	27.3	11	100.0	
<b>• Religion</b>									
Catholic	21	12.2	93	54.1	58	33.7	172	100.0	p <sup>(2)</sup> = 0.026*
Evangelic	8	14.8	23	42.6	23	42.6	54	100.0	
Spiritist	2	20.0	7	70.0	1	10.0	10	100.0	
Other	8	40.0	8	40.0	4	20.0	20	100.0	
<b>• Schooling</b>									
Illiterate	-	-	26	54.2	22	45.8	48	100.0	p <sup>(1)</sup> < 0.001*
Incomplete fundamental school	9	8.9	50	49.5	42	41.6	101	100.0	
Complete fundamental school	14	27.5	26	51.0	11	21.6	51	100.0	
High school/Higher education	16	28.6	29	51.8	11	19.6	56	100.0	
<b>• Family income</b>									
Less than one minimum wage	23	14.6	73	46.2	62	39.2	158	100.0	p <sup>(1)</sup> = 0.049*

Greater than or equal to one minimum wage	16	16.3	58	59.2	24	24.5	98	100.0
---	----	------	----	------	----	------	----	-------

(\*): Significant difference at 5.0% level.

(1): According to the Pearson's Chi-Square test.

(2): According to the Fisher's exact test.

(3): According to the likelihood test.

Table 2 shows the distribution of PLWHA according to the general knowledge about ART (action, indication, duration of treatment and precautions). Regarding knowledge about the action of ART, 27.7% of PLWHA did not know or erroneously responded that the medication acts by totally destroying HIV. In contrast, when questioned about the indication for ART, the majority (82%) answered that this therapy is used for the control of HIV, thus protecting the body from opportunistic diseases.

Regarding knowledge about the duration of ART treatment, 12.5% of the interviewees reported that the treatment lasts until normal test results are obtained, 71.1% reported that the treatment lasts forever and 16.4% they did not know. Regarding knowledge about precautions with the use of other medicines, 65.6% answered that they can use other medicines, provided they do it under medical supervision. On the other hand, 9.4% did not know, and 25% said they could use any other medicine regardless of medical advice.

Regarding the knowledge about the side effects caused by ART, gastrointestinal effects were indicated by most PLWHA (69.1%), followed by psychiatric ones (39.8%). Neurological effects, metabolic effects and cardiovascular effects were the least known by the interviewees, 9%, 5.1% and 4.7%, respectively. Still, 17.6% reported that they did not know the side effects that ART could cause.

**Table 2** - Distribution of people living with HIV/AIDS from Specialized Care Services "A" and "B" (Agreste Region of Pernambuco) according to general knowledge about ART (action, indication, duration of treatment and precautions) and side effects caused by its use, - 2013

Variable	N	%
<b>Total</b>	<b>256</b>	<b>100.0</b>
<b>• Knowledge about the action of ART</b>		
The medication acts by completely destroying the virus	34	13.3
The medication acts by controlling the virus	185	72.3
Did not know	37	14.4
<b>• Knowledge about the indication of ART</b>		
Indicated to cure HIV/AIDS	21	8.2
Indicated to control HIV and protect against opportunistic diseases	210	82.0
Did not know	25	9.8
<b>• Knowledge about the duration of ART treatment</b>		
The treatment lasts until normal test results are obtained	32	12.5
The treatment lasts forever	182	71.1
Did not know	42	16.4

• **Knowledge about precautions with the use of other drugs by people on ARVT**

It is possible to make use of any other medicine	64	25.0
It is possible make use of another medicine but under medical supervision	168	65.6
Did not know	24	9.4

• **Knowledge of the side effects that ART can cause**

Gastrointestinal effects	177	69.1
Psychiatric effects	102	39.8
Neurological effects	23	9.0
Metabolic effects	13	5.1
Cardiovascular effects	12	4.7
Did not know	45	17.6

Table 3 shows the distribution of PLWHA, according to knowledge about the prescribed ART. Only 13.7% of the population knew the name of the medicines that make up the ART. Regarding the dose(s) and the frequency of use of ART, these were known by the majority of the population, 80.1% and 82.4%, respectively.

**Table 3** - Distribution of people living with HIV/AIDS from Specialized Care Services "A" and "B" (Agreste Region of Pernambuco) according to knowledge about ART - 2013

Variable	Have knowledge		Do not have knowledge	
	N	% <sup>(1)</sup>	N	% <sup>(1)</sup>
Total	256	100.0	256	100.0
• <b>Knowledge about prescribed ART</b>				
Correct names of antiretrovirals (2)	35	13.7	221	86.3
Correct dose(s) of antiretroviral drugs (2)	205	80.1	51	19.9
Correct frequency of taking antiretrovirals (2)	211	82.4	45	17.6

(1): Percentage values were obtained from the total number of 256 patients analyzed.

(2): The name(s) of the antiretroviral(s), and the prescribed dose(s) and frequency were considered correct when it was possible to identify agreement between all the declarations of the patients and the information in the medical records, even when different nomenclatures were used for the same medication (trade name and acronyms, for example).

Table 4 shows that the majority of the interviewees reported to have received guidance on ART from the doctor (92.9%) and other professionals (60.2%) of the outpatient clinic - SCS. TV programs, other people who use the therapy and research on the internet obtained the following percentages: 28.1%, 24.6% and 21.1%, respectively. Guidance from nurses of the outpatient clinic - SCS (10.5%) and health education groups (6.6%) were not prevalent.

The comparison of the distribution of general ART scores between the sources of information was significant in relation to the outpatient service's doctor, other people who use the therapy, internet search, magazines and pamphlets, outpatient service's nurses and health education groups, indicating that they are associated with knowledge on ARVT ( $p < 0.05$ ).

**Table 4** - Distribution of adults living with HIV/AIDS from Specialized Care Services "A" and "B" (Agreste Region of Pernambuco) according to the source of information on antiretroviral therapy - 2013

Variables	Good		Regular				Insufficient				Total				p value		
	Yes		No		Yes		No		Yes		No		Yes			No	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%		N	%
<b>General Guidelines About ARVT come from:</b>																	
Outpatient service's Physician	34	87	5	13	126	98	3	2.3	76	89	10	12	19	7.1	237	92.9	P <sup>(1)</sup> =0.011*
Other outpatient service's professionals	22	56	17	44	80	62	50	39	52	60	35	40	154	60	102	39.8	P <sup>(1)</sup> = 0.845
Tv programs	24	62	15	39	38	29	92	80	19	22	92	71	72	28	184	71.9	P <sup>(1)</sup> = 0.147
People who use the therapy	15	39	24	62	41	32	89	69	7	8	80	92	63	25	193	75.4	P <sup>(1)</sup> = 0.000*
Search on the Internet	17	44	22	56	29	22	101	78	8	9.2	79	91	54	21	202	78.9	P <sup>(1)</sup> = 0.000*
Magazines and pamphlets	13	33	26	67	22	17	108	83	4	4.6	83	95	217	85	39	15.2	P <sup>(1)</sup> = 0.000*
Outpatient service's nurses	7	18	32	82	16	12	114	88	4	4.6	83	95	27	11	229	89.5	P <sup>(1)</sup> = 0.051*
Health education groups	7	18	32	82	9	6.9	121	93	1	1.1	86	99	17	6.6	239	93.4	P <sup>(1)</sup> = 0.002*
FHS nurse	1	2.6	38	97	7	5.4	123	95	6	6.9	81	93	14	5.5	242	94.5	P <sup>(1)</sup> = 0.612
Family Health Program's physician	0	0	39	100	4	3.1	126	97	5	5.7	247	97	9	3.5	247	96.5	P <sup>(1)</sup> = 0.250

(\*): Significant difference at 5.0% level.

(1): According to the Pearson's Chi-Square test.

(2): The values were obtained based on the total number of 256 patients analyzed.

## DISCUSSIONS

It was found that the sociodemographic variables of the individuals are similar to the studies already produced in Brazil<sup>(17,18)</sup> and compatible with the data presented in the last epidemiological bulletin of the Ministry of Health in 2014<sup>(19)</sup>.

The early initiation of the use of antiretroviral therapy by PLWHA has been one of the reasons for the success of Brazilian policy, especially in the international context. The country has always followed the world's innovations, and today it offers three-in-one pills (3TC/d4T/NVP) as first-line choice. The challenges remain, and the country is still

on the front line in adopting innovative technologies for diagnostic, prevention, treatment and quality care<sup>(20)</sup>. In this context, it is known that adherence to ART is a positive predictor of quality of life and survival of people living with HIV/AIDS, mainly for improving immunity, controlling viral replication, slowing the progression of the disease and preventing opportunistic diseases. Despite all the benefits, many PLWHA have difficulties in adherence, related to the clinical repercussions of the treatment, difficult access to the service and, consequently, to medicines, social stigma against the disease and lack of knowledge about ART<sup>(22)</sup>.

The present study ratified a Brazilian study that evidenced that the educational level of PLWHA is an important factor for the quality of the knowledge about HIV/Aids. Thus, high schooling represents a better level of knowledge regarding ART<sup>(22)</sup>.

Another study reports that when patients became aware of their health-disease process, it was possible to increase survival with the use of medications, to live with quality and to feel motivated to make proper treatment. Thus, a routine discussion between health professionals and users about the fact that HIV/AIDS is a chronic illness, incurable to date and requiring daily, continuous and permanent treatment is of paramount importance. In addition, the explanation of the mechanism of action of the medication, indication of ART, drug interaction, as well as the advantages of adherence to treatment, aiming at a greater involvement of users in the maintenance of their health, is of great value<sup>(23)</sup>.

Furthermore, it was possible to observe that the majority of respondents (72.7%) had general knowledge about ART. Such a finding may favor the country in meeting certain established criteria of the "90/90/90" target, namely: 90% of PLWHA knowing their serological status, 90% of PLWHA following ART and 90% of people on ARVT, so as to reach viral suppression by the year 2020. The correct knowledge about ART is a recognized favorable factor for the follow-up of the treatment and inhibition of viral replication<sup>(24)</sup>.

The difficulties encountered in the use of ART highlight the decision of HIV-positive people to change their lifestyle, to manage and accept certain adverse effects. They raise the need for support actions by the health team that may bring positive contributions to the reality of each individual<sup>(25)</sup>.

As complaint of side effects, most of the interviewees highlighted the presence of gastrointestinal problems such as vomiting, nausea and malaise, ratifying other studies<sup>(23,25,21)</sup>. The presence of side effects may contribute to inadequate adherence.

In this study, it was evidenced that the vast majority (86.3%) of the respondents did not know the names of the drugs that make up the prescribed ART regimen. Regarding the lack of information, some studies show that around 50% of the information provided by the doctor during the consultation is quickly forgotten, but those patients whose doctors are always testing the patients about their degree of knowledge of the recommendations given are much more likely to keep the information than those whose doctors did not mind with this aspect<sup>(26)</sup>. Based on this evidence, nursing assessment and subsequent interventions, such as guidelines on forms of contagion, name of medications, treatment, prevention against illnesses, and HIV/AIDS evolution is necessary, besides the social and psychological support, in order to minimize the negative effects of the disease on seropositive individuals and thus obtain better results and helping the living with a chronic disease<sup>(27)</sup>.

The focus of nursing is directed to the realization of nursing consultations, starting from the sharing and construction of knowledge in a joint and non-vertically and integrated manner, to stimulate adherence to treatment, promote the knowledge about ART and the adoption of healthy life styles in order to minimize side effects, thus aiming to improve the PLWHA's quality of life. Accordingly, it is necessary to plan the consultations that aim at the sustainability of the changes over time so that the transformation in life habits be initiated and maintained<sup>(28)</sup>.

In this context, Almeida<sup>(29)</sup> describes the importance of nursing consultation for this clientele, pointing that a study carried out at the clinic of infections of the Clinical Hospital of Porto Alegre that involved the creation of an adherence program in which the nursing consultation was included in the process, there was an improvement among patients in the coping with the disease, leading to increased levels of adherence.

Studies carried out in several countries have shown that in order to produce good quality information, it is necessary that this be done taking the patient's needs into account, and that these patients be involved in the process along with the multidisciplinary health team<sup>(26)</sup>.

It is also observed that there is a low demand for nursing consultations in the SCSs and that guidance on ART comes, for the most part, from the medical professionals who perform outpatient care. In this sense, it is known that the link in SCS starts in the hosting, being this fundamental for adherence to the treatment. Within this perspective of reception, the nurses are the multiprofessional team members that play a fundamental role in the first consultation, when the user-professional-service link is established<sup>(30)</sup>. Macêdo et al.<sup>(31)</sup> report that the nursing consultation is used to provide guidance and information about the disease, as well as to encourage the patient's to participate in the care process, allowing nurses to place themselves in a differentiated role.

SCSs, as health services, are privileged and strategic places to promote health education actions aimed at humanized knowledge construction about the importance of adherence to ART and to the routine of treatment in the patients' lives; it is essential to contemplate health education for the prevention of illness and the promotion, recovery and maintenance of the health of this population<sup>(23,32)</sup>. Nurses can also be the articulators of educational actions, as can offer a service in which the PLWHA feel welcomed, so that the trust in the team is established, and a link between both parties, each of them understanding their responsibility for the therapy<sup>(30)</sup>.

## CONCLUSION

It is possible to mention that the knowledge about the therapy is an aspect that can contribute to an inadequate adherence to treatment and that must be worked by the health professionals who work in the SCSs, as well as the nurses, through guidance addressing treatment-related mechanisms that may interfere with adherence: action, indication, duration, precautions, and adverse effects of antiretrovirals.

In addition, the lack of knowledge or confusion in the names of the antiretroviral drugs mentioned in this study are important findings for non-adherence to wrong treatment or medication, which poses a risk to the safety of PLWHA, as regards the possibility damage to health.

On the other hand, PLWHA had a low percentage of information/knowledge about ART, which may have been resulted from the guidance given by nurses of the SCSs. This fact may be related to the routine of the service, where the clinical and therapeutic follow-up of people undergoing antiretroviral treatment is almost always performed by the physician. Therefore, the fact that the low percentage of reference to ART information mentioned by the people undergoing treatment comes from health education groups constitutes a vast field for action, given the importance of promoting these activities to maintain the care with treatment and to improve the PLWHA's quality of life.

Nurses and other professionals working in SCSs can use strategies such as the implementation of health education groups in outpatient services, as there are no groups in the services studied, with the prospect that, through them, adequate knowledge about ART be promoted so links between PLWHA and the service be strengthened.

We hope that this study contributes to the comprehension of HIV/AIDS and serves for comparison with other studies that address the issue of knowledge about ART by PLWHA in order to provide subsidies for the strengthening of actions that promote the rational use of antiretrovirals and thus patient safety.

## REFERÊNCIAS

1. Unaid - the joint united nations programme on hiv/aids. Global report: UNAIDS report on the global AIDS epidemic. Geneva, 2013. Disponível em: <[http://www.unaids.org/sites/default/files/media\\_asset/UNAIDS\\_Global\\_Report\\_2013\\_en\\_1.pdf](http://www.unaids.org/sites/default/files/media_asset/UNAIDS_Global_Report_2013_en_1.pdf)> [Acesso em 2016 fev 26].
2. Picelli I, Díaz-Bermúdez XP. Será que esse remédio vai valer a pena mesmo? Estudo antropológico sobre a adesão às terapias antirretrovirais entre grupos de mútua ajuda de pessoas vivendo com HIV/aids. Saude soc. 2014 [acesso em 2016 fev 26]23(2) 496-509. Disponível em: <[http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0104-12902014000200496](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-12902014000200496)>
3. Fiuza MLT, et al. Adesão ao tratamento antirretroviral: assistência integral baseada no modelo de atenção às condições crônicas. Esc. Anna Nery R. Enferm. - Bra-. 2013 [acesso em 2016 fev 26]17(4) 740-748. Disponível em: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S1414-81452013000400740](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1414-81452013000400740)
4. Nações unidas no Brasil. Vice-chefe do UNAIDS destaca papel do Brasil no combate ao HIV, 2016. Disponível em: <https://nacoesunidas.org/vice-chefe-unaid-destaca-papel-do-brasil-no-combate-ao-hiv/> [Acesso em 2016 fev 26].
5. Ministério da Saúde, Secretaria de Vigilância em Saúde, Programa Nacional de DST/Aids. Boletim epidemiológico. Brasília: Ministério da Saúde, 2015. Disponível em: <[http://www.aids.gov.br/sites/default/files/anexos/publicacao/2015/58534/boletim\\_aids\\_11\\_2015\\_web\\_pdf\\_19105.pdf](http://www.aids.gov.br/sites/default/files/anexos/publicacao/2015/58534/boletim_aids_11_2015_web_pdf_19105.pdf)>. [Acesso em 2016 fev 27].
6. Ministério da Saúde, Secretaria de Vigilância em Saúde, Programa Nacional de DST/Aids. Protocolo clínico e diretrizes terapêuticas para manejo da infecção pelo HIV em adultos. Brasília: Ministério da Saúde, 2013. Disponível em: <[http://www.aids.gov.br/sites/default/files/anexos/publicacao/2013/55308/protocolo\\_final\\_31\\_7\\_2015\\_pdf\\_30707.pdf](http://www.aids.gov.br/sites/default/files/anexos/publicacao/2013/55308/protocolo_final_31_7_2015_pdf_30707.pdf)>. Acesso em: 15 abr. 2013 [Acesso em 2016 fev 27].
7. Silva R, et al. Limites e obstáculos na adesão à terapia antirretroviral. R de Pesq: cuidado é fundamental Online -Bra-. 2014 [acesso em 2016 jan 12]6(4) 1732-1742.

- Disponível em: <  
[http://www.seer.unirio.br/index.php/cuidadofundamental/article/view/3148/pdf\\_1309](http://www.seer.unirio.br/index.php/cuidadofundamental/article/view/3148/pdf_1309) >
8. Souza C, et al. Transtorno bipolar e medicamentos: adesão, conhecimento dos pacientes e monitorização sérica do carbonato de lítio. Rev Latino-am Enfermagem – Bra. 2013 [acesso em 2016 fev 25]21(3) 1-8. Disponível em: <  
[http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0104-11692013000200624](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-11692013000200624)>
9. Moraes DCA, et al. Terapia antirretroviral: a associação entre o conhecimento e a adesão. R de Pesq: cuidado é fundamental Online -Bra-. 2015 [acesso em 2016 jan 17]7(4) 3563-3573. Disponível em: <  
[http://www.seer.unirio.br/index.php/cuidadofundamental/article/view/5040/pdf\\_1753](http://www.seer.unirio.br/index.php/cuidadofundamental/article/view/5040/pdf_1753)>
10. Pereira LB, et al. et al. Fatores sociodemográficos e clínicos associados à TARV e à contagem T-CD4. RBCS. 2012 [acesso em 2016 jan 25]16(2) 149-160. Disponível em: <  
<http://periodicos.ufpb.br/ojs/index.php/rbcs/article/view/11544/7321>>.
11. Pereira AV, Vieira ALS, Amâncio FA. Grupos de Educação em Saúde: aprendizagem permanente com pessoas soropositivas para o HIV. Trab. educ. saúde (Online). 2011 [acesso em 2016 fev 04]9(1) 25-41. Disponível em: <  
[http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S1981-77462011000100003](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1981-77462011000100003)>.
12. Motta MGC, et al. Vivências do adolescente com HIV/AIDS. Reme -Bra-. 2014 [acesso em 2016 mar 03]18(1) 181-187. Disponível em: <  
<http://www.reme.org.br/artigo/detalhes/917>>
13. Silva SL. Gestão do conhecimento: uma revisão crítica orientada pela abordagem da criação do conhecimento. Ci. 2014 [acesso em 2016 fev 27]33(2) 143-151. Disponível em: <  
<http://www.scielo.br/pdf/ci/v33n2/a15v33n2.pdf>>.
14. Tietzmann DC, et al. Prevalências de adesão à terapia antirretroviral e fatores associados em pacientes adultos de três centros urbanos do Sul do Brasil. Aletheia. 2013 [acesso em 2015 fev 25]41 154-163. Disponível em: <  
<http://pepsic.bvsalud.org/pdf/aletheia/n41/n41a12.pdf>>.
15. Silva T, Schenkel EP, Mengues SS. Nível de informação a respeito de medicamentos prescritos a pacientes ambulatoriais de hospital universitário. Cad. Saúde Pública. 2000 [acesso em 2016 fev 27]16(2) 449-455. Disponível em: <  
[http://www.scielo.br/scielo.php?pid=S0102-311X2000000200015&script=sci\\_abstract&tlng=pt](http://www.scielo.br/scielo.php?pid=S0102-311X2000000200015&script=sci_abstract&tlng=pt) >
16. Ceccato MGB, et al. Compreensão de informações relativas ao tratamento anti-retroviral entre indivíduos infectados pelo HIV. Cad. Saúde Pública. 2004 [acesso em 2016 mar 07]20(5) 1388-1397. Disponível em: <  
<http://www.scielo.br/pdf/csp/v20n5/34.pdf> >
17. Castro AP, et al. Perfil socioeconômico e clínico dos pacientes internados com HIV/Aids em Hospital de Salvador. Rev Baiana Enferm. 2013 [acesso em 2016 mar 01];37 (suplemento1): 122-132. Disponível em:< [http://files.bvs.br/upload/S/0100-0233/2013/v37nSupl\\_1/a3429.pdf](http://files.bvs.br/upload/S/0100-0233/2013/v37nSupl_1/a3429.pdf) >. Acesso em 01 mar. 2016.
18. Costa TL, Oliveira DC, Formozo. Qualidade de vida e AIDS sob a ótica de pessoas vivendo com o agravo: contribuição preliminar da abordagem estrutural das representações sociais. Cad. Saúde Pública. 2015 [acesso em 2016 fev 25]31(20) 365-376. Disponível em: <  
[http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0102-311X2015000200365](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102-311X2015000200365)>
19. Ministério da Saúde, Secretaria de Vigilância em Saúde, Programa Nacional de DST/Aids. Boletim epidemiológico. Brasília: Ministério da Saúde, 2014. Disponível em: <  
[http://www.aids.gov.br/sites/default/files/anexos/publicacao/2014/56677/boletim\\_2014\\_final\\_pdf\\_15565.pdf](http://www.aids.gov.br/sites/default/files/anexos/publicacao/2014/56677/boletim_2014_final_pdf_15565.pdf) >. [Acesso em 2016 fev 27].

20. Ministério da Saúde, Secretaria de Vigilância em Saúde, Departamento de DST/AIDS e Hepatites Virais. Histórias da luta contra a AIDS. Brasília: Ministério da Saúde, 2015. Disponível em: <[www.aids.gov.br/sites/default/files/.../fasciculo\\_01\\_pdf\\_28749.pdf](http://www.aids.gov.br/sites/default/files/.../fasciculo_01_pdf_28749.pdf)> [Acesso em 2016 fev 27].
21. Silva ACO, et al. Qualidade de vida, características clínicas e adesão ao tratamento de pessoas vivendo com HIV/AIDS. Rev Latino-am Enfermagem – Bra. 2014 [acesso em 2015 fev 25]22(6) 994-1000. Disponível em: <[www.scielo.br/pdf/rlae/v22n6/pt\\_0104-1169-rlae-22-06-00994.pdf](http://www.scielo.br/pdf/rlae/v22n6/pt_0104-1169-rlae-22-06-00994.pdf)>
22. Irfi G, Soares RB, Souza SA. Fatores Socioeconômicos, Demográficos, Regionais e Comportamentais que Influenciam no Conhecimento sobre HIV/AIDS. Economia. 2010 [acesso em 2016 mar 01]11(2) 333–356. Disponível em: <[http://www.anpec.org.br/revista/vol11/vol11n2p333\\_356.pdf](http://www.anpec.org.br/revista/vol11/vol11n2p333_356.pdf)>
23. Santos WJ, et al. Barreiras e aspectos facilitadores da adesão à terapia antirretroviral em Belo Horizonte MG. REBEn. 2011 [acesso em 2016 mar 01]64(6) 1028-1037. Disponível em: <[http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0034-71672011000600007](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0034-71672011000600007)>
24. Mercosul. Aids/HIV no Mercosul. CIHIV Mercosul. 2015 [acesso em 2016 fev 25]. Disponível em: <[http://www.aids.gov.br/sites/default/files/anexos/publicacao/2015/58585/revista\\_mercosul\\_pdf\\_19164.pdf](http://www.aids.gov.br/sites/default/files/anexos/publicacao/2015/58585/revista_mercosul_pdf_19164.pdf)>.
25. Gontijo DT, et al. “Deixo ela no canto e vou tocar minha vida”: significados de viver com HIV para homens com adesão irregular à terapia antirretroviral. RBPS. 2013 [acesso em 2016 mar 03]26(4) 480-488. Disponível em: <<http://ojs.unifor.br/index.php/RBPS/article/view/3112/pdf>>
26. Castro RFA, Vieira APGF. Influência da informação oral e escrita sobre antirretrovirais no conhecimento de usuários com HIV/AIDS. RBPS. 2010 [acesso em 2016 mar 03]23(3) 251-259. Disponível em: <<http://ojs.unifor.br/index.php/RBPS/article/view/2024/2319>>
27. Okuno MFP, et al. Qualidade de vida, perfil socioeconômico, conhecimento e atitude sobre sexualidade de “pessoas que vivem” com o Vírus da Imunodeficiência Humana. Rev Latino-am Enfermagem - Bra-. 2015 [acesso em 2016 mar 10]23(2) 192-199. Disponível em: <[www.scielo.br/pdf/rlae/2015nahead/pt\\_0104-1169-rlae-3424-2542.pdf](http://www.scielo.br/pdf/rlae/2015nahead/pt_0104-1169-rlae-3424-2542.pdf)>
28. Koniak-Griffin D, et al. Couple-focused human immunodeficiency virus prevention for young Latino parents: randomized clinical trial of efficacy and sustainability. Arch Pediatr Adolesc Med.2011[acesso em 2016 mar 10]165(4) 306-312. Disponível em: <<http://www.ncbi.nlm.nih.gov/pubmed/21464378>>
29. Almeida EL. Adesão dos Portadores do HIV/AIDS ao tratamento: Fatores Intervenientes. Reme -Bra-. 2011 [acesso em 2016 mar 10]; 15(2):208-216. Disponível em: <[www.reme.org.br/artigo/detalhes/27](http://www.reme.org.br/artigo/detalhes/27)>
30. Pereira FW, et al. Estratégias para a adesão ao tratamento de gestantes soropositivas ao vírus da imunodeficiência humana. R de Pesq: cuidado é fundamental Online -Bra-. 2015 [acesso em 2016 mar 10]7(3) 2796-2804. Disponível em: <[http://www.seer.unirio.br/index.php/cuidadofundamental/article/view/3799/pdf\\_1625](http://www.seer.unirio.br/index.php/cuidadofundamental/article/view/3799/pdf_1625)>
31. Macêdo SM, et al. Consulta de Enfermagem ao Paciente com HIV: Perspectivas e Desafios Sob a Ótica de Enfermeiros. REBEn. 2013 [acesso em 2016 mar 12] 66(20

196-201. Disponible em: <  
[http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0034-71672013000200007](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0034-71672013000200007)>  
32.Padoin SM, et al. Terapia antirretroviral del AIDS en adultos mayores de 50 años: prevalencia y clasificación de los no adherentes. Enfermería Global. 2013 [acceso em 2016 mar 12]; 12(31):68-85. Disponible em: <http://revistas.um.es/eglobal/article/view/151521/149881>

ISSN 1695-6141

© [COPYRIGHT](#) Servicio de Publicaciones - Universidad de Murcia