

# Nursing diagnoses in patients with Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome in outpatient care\*

Diagnósticos de enfermagem em pacientes com o Vírus da Imunodeficiência Humana/ Síndrome da Imunodeficiência Adquirida em assistência ambulatorial

Diagnósticos de enfermería en pacientes con el Virus de la Inmunodeficiencia Humana/Síndrome de la Inmunodeficiencia Adquirida en asistencia de ambulatorio

# Gilmara Holanda da Cunha<sup>1</sup>, Marli Teresinha Gimeniz Galvão<sup>2</sup>

#### **ABSTRACT**

**Objective:** To identify nursing diagnoses in carriers of the Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) in outpatient care. **Methods:** This is a descriptive study performed through the application of a questionnaire based on the theory of Orem Self-care. The sample consisted of 51 patients treated at the clinic of a public hospital in the city of Fortaleza-CE. **Results:** 17 nursing diagnoses were identified, highlighting: risk of infection, sexual dysfunction, self-care deficit for food and ineffective management of therapeutic regimen. **Conclusion:** The nursing diagnoses obtained identified the main problems presented by the carriers of HIV/AIDS, verifying deficits in self-care and health education. This study contributes to guide the nursing interventions to be appropriated and targeted to existing needs.

Keywords: Nursing diagnosis; Acquired immunodeficiency syndrome/diagnosis; Self care; Ambulatory care

#### **RESUMO**

**Objetivo:** Identificar diagnósticos de enfermagem em portadores de Vírus da Imunodeficiência Humana/ Síndrome da Imunodeficiência Adquirida (HIV/AIDS) em assistência ambulatorial. **Métodos:** Estudo transversal e descritivo realizado por meio da aplicação de um questionário com referencial na Teoria do Autocuidado de Orem. A amostra foi de 51 pacientes atendidos no ambulatório de um hospital público na cidade de Fortaleza-CE. **Resultados:** Foram identificados 17 diagnósticos de enfermagem, destacando-se risco de infecção, disfunção sexual, déficit no autocuidado para alimentação e controle ineficaz do regime terapêutico. **Conclusão:** Os diagnósticos de enfermagem obtidos identificaram os principais problemas apresentados pelos portadores de HIV/AIDS, verificando déficits no autocuidado e em educação em saúde. O estudo contribuiu para que as intervenções de enfermagem sejam adequadas e direcionadas às necessidades existentes.

Descritores: Diagnóstico de enfermagem; Síndrome da imunodeficiência adquirida/diagnóstico; Autocuidado; Assistência ambulatorial

### **RESUMEN**

Objetivo: Identificar diagnósticos de enfermería en portadores del Virus de la Inmunodeficiencia Humana/Síndrome de la Inmunodeficiencia Adquirida (HIV/SIDA) en asistencia de ambulatorio. Métodos: Estudio transversal y descriptivo realizado por medio de la aplicación de un cuestionario basado en la Teoría del Auto-cuidado de Orem. La muestra fue de 51 pacientes atendidos en el ambulatorio de un hospital público en la ciudad de Fortaleza-CE. Resultados: Fueron identificados 17 diagnósticos de enfermería, destacándose: riesgo de infección, disfunción sexual, déficit en el auto-cuidado para alimentación y control ineficaz del régimen terapéutico. Conclusión: Los diagnósticos de enfermería obtenidos identificaron los principales problemas presentados por los portadores de HIV/SIDA, verificándose déficits en el auto-cuidado y en la educación en salud. El estudio contribuye para que las intervenciones de enfermería sean adecuadas y dirigidas a las necesidades existentes.

Descriptores: Diagnóstico de enfermería; Síndrome da inmunodeficiencia adquirida/diagnóstico; Autocuidado; Atención ambulatoria

Corresponding Author: **Gilmara Holanda da Cunha** R. Gilberto Studart, 1168 - apto. 403 - Cocó - Fortaleza - CE - Brazil Cep: 60190-750 E-mail: gilmaraholandaufc@yahoo.com.br Received article 25/06/2009 and accepted 10/05/2010

<sup>\*</sup> Part of the senior research project entitled "Consulta de Enfermagem Baseada na Teoria do Autocuidado de Orem para Portadores de HIV/AIDS" (Nursing Consultation based on Orem's Self-Care Theory for Individuals with HIV/AIDS), presented to the Department of Nursing of the "Universidade Federal do Ceará" – UFC – Fortaleza (CE), Brazil.

<sup>&</sup>lt;sup>1</sup> Nurse. Master in Pharmacology. Substitute Professor of the Department of Nursing of the "Universidade Federal do Ceará" – UFC – Fortaleza (CE), Brazil.

<sup>&</sup>lt;sup>2</sup> Nurse. Ph.D. in Tropical Diseases. Professor of the Department of Nursing of the "Universidade Federal do Ceará" – UFC – Fortaleza (CE), Brazil.

## INTRODUCTION

The acquired immunodeficiency syndrome (AIDS) is an infectious disease that has caused a complex and dynamic epidemic, characterized by profound changes throughout time, especially in terms of categories of exposure and progress of a series of political and social responses to prevent, control and treat this disease.

In Brazil, from 1980 to June 2008, a total of 506,499 cases were recorded. During these years, there were 205,409 deaths from AIDS. Currently, the epidemic is considered stable in this country. As regards the infection by the human immunodeficiency virus (HIV), it is estimated that there are 630,000 infected individuals. The Southeastern region has the highest percentages of notified cases, 60.4%, i.e. 305,725 individuals with HIV/AIDS. There was a small increase in the incidence rate in the Northeastern region and a greater one in the Northern region, as the indices rose from 6.9 and 6.8, respectively, to 10.8 and 15.2 in 2007<sup>(1)</sup>.

As professionals, nurses provide care for individuals with HIV/AIDS in different areas of health. In addition, they need to understand this disease, improve routine behavior, adopt precautionary measures to avoid accidental exposure to the virus and acquire knowledge about the clinical treatment. To achieve this, the nursing process, which is comprised of history, diagnosis, planning, implementation and evaluation, promotes individualized and adequate care for patients<sup>(2)</sup>.

The nursing process enables the use of theories that can be adapted to different patients, in any health care situation. In this context, Dorothea Orem's General Theory was developed in three parts: Self-Care Theory, Self-Care Deficit Theory and Theory of Nursing Systems<sup>(3)</sup>. The Self-Care Theory analyzes how capable of self-care the patient is, which is essential to maintain the health of individuals with HIV/AIDS.

Orem's Theory is a valid instrument to systematize health care and it is also used in studies with individuals with HIV/AIDS<sup>(4-6)</sup>, directing data collection from the history and the making of nursing diagnoses, which represent a critical judgment of the individual's, family's or community's responses to real and potential health or life process problems<sup>(7)</sup>.

Interest in studying and acquiring more knowledge about nursing diagnoses of individuals with HIV/AIDS originates from the professional experiences in the place where the present study was performed and the observation of the significant changes this epidemic has undergone throughout the years. As one of the most serious public health problems worldwide, health professionals, governments and the scientific community face AIDS with an ever-increasing frequency. Follow-up of such patients poses a challenge in several aspects,

especially due to the lack of a treatment that can effectively cure them, in addition to social and economic barriers that interfere with adherence to the therapeutic regimen.

Thus, the present study aimed to identify the nursing diagnoses of individuals with HIV/AIDS, cared for in the infectious diseases outpatient clinic of a university hospital of the city of Fortaleza, CE (Brazil).

The observation of aspects associated with self-care and the identification of nursing diagnoses play an important role in the determination of patients' needs, providing subsidies for nursing professionals to perform their work adequately, aiming at the existing problems.

#### **METHODS**

A cross-sectional descriptive study with a quantitative approach was performed in the Ambulatório de Infectologia do Hospital Universitário Walter Cantídio (HUWC - Walter Cantídio University Hospital Infectious Diseases Outpatient Clinic) of the Universidade Federal do Ceará (UFC), where adult patients with HIV/AIDS are cared for. This hospital provides consultations, laboratory and radiology tests, antiretroviral drugs and condoms. In this outpatient clinic, the UFC Department of Nursing research team, named "Assistência ao Portador de HIV/ AIDS" (Health Care for Individuals with HIV/AIDS), of which authors of this study are members, performs health education activities. It should be emphasized that the present study is part of a research project entitled "Consulta de Enfermagem Baseada na Teoria do Autocuidado de Orem para Portadores de HIV/AIDS" (Nursing Consultation Based on Orem's Self-Care Theory for Individuals with HIV/AIDS<sup>(8)</sup>.

The sample was comprised of 51 patients with HIV/AIDS, who began to be followed in the outpatient clinic between July and December 2006. Data were collected through interviews, with the help of a questionnaire based on Orem's Theory, which required objective and descriptive responses, including the patient's identification, socio-demographic data and questions about self-care, such as: use of antiretroviral drugs, performing physical activities, eating habits, sleeping, acceptance of diagnosis/disease, changes in life after diagnosis, leisure activities, sexual activity and hygiene habits. The questionnaire was created and validated by researchers, especially for this purpose. After data were collected, nursing diagnoses were made, according to the North American Diagnosis Association (NANDA) Taxonomy.

Criteria of inclusion were as follows: to be aged 18 years or older, to have a confirmed diagnosis of HIV infection, to be followed in the HUWC Infectious Diseases Outpatient Clinic, and to have signed an Informed Consent Form. The criterion of exclusion was the presence of a mental disease or any condition that

528 Cunha GH, Galvão MTG.

interfered with the responses to the questions made by the researcher.

Data were tabulated in the *Microsoft Excel* software and the results were expressed as absolute and relative frequencies, being subsequently discussed in the perspective of the literature available. The SPSS 16.0 statistical *software* was used to verify the existence of an association between patients' sex and the presence of certain diagnoses. To achieve this, Fisher's exact test was applied, a test used with small samples to calculate the probability of association between different characteristics<sup>(9)</sup>, considering a p value< 0.05 as statistically significant.

This research project was submitted to the UFC Research Ethics Committee, according to the Conselho Nacional de Saúde (National Health Council) Resolution 196/96 on research involving human beings<sup>(10)</sup>, and approved on February 23<sup>rd</sup>, 2006, under Protocol 17/06.

#### **RESULTS**

Among the 51 individuals with HIV/AIDS, 32 were males (62.7%). The age group with the highest prevalence in men and women was between 31 and 40 years. With regard to marital status, 29 patients (56.8%) were married and 24 (47.0%) had between five and eight years of education, as shown in Table 1.

**Table 1** - Socio-demographic characterization of individuals with HIV/AIDS, cared for in the Infectious Diseases Outpatient Clinic. Fortaleza, CE, Brazil, 2006.

Characteristic	N	Male		male	Total		
	n	%	n	%	n	%	
Sex	32	62.7	19	37.3	51	100.0	
Age group*							
<u>&lt; 20</u>	1	3.1	1	5.2	2	4.0	
21 - 30	8	25.0	6	31.5	14	27.5	
31 - 40	13	40.7	9	47.5	22	43.1	
41 - 50	6	18.7	3	15.8	9	17.6	
<u>≥</u> 51	4	12.5	-	-	4	7.8	
Marital status							
Married	16	50.0	13	68.6	29	56.8	
Single	15	46.8	3	15.7	18	35.4	
Divorced/Separated	1	3.2	3	15.7	4	7.8	
Years of education**							
1 - 4	8	25.0	4	21.0	12	23.5	
5 - 8	11	34.4	13	68.5	24	47.0	
9 - 12	08	25.0	2	10.5	10	19.7	
<u>≥</u> 13	05	15.6	_	_	5	9.8	

<sup>\*</sup>Mean age: male sex: 36.09 years and female sex: 32.26 years.

\*\*Mean number of years of education: male sex: 8.37 years and female sex: 6.42 years.

The questions about self-care used in the data collection were the basis for the identification of problems and making of nursing diagnoses, according to NANDA taxonomy. These questions are shown in Table 2 and

described below, followed by the nursing diagnoses that originated them.

**Table 2 -** Questions about self-care of individuals with HIV/AIDS, cared for in the Infectious Diseases Outpatient Clinic. Fortaleza, CE, Brazil, 2006.

Salf ages avections	Male		Fe	male	Total		
Self-care questions	n	%	n	%	n	%	
Adequate use of							
antiretroviral drugs							
Yes	19	59.5	9	47.4	28	55.0	
No	9	28.1	5	26.3	14	27.4	
Does not apply*	4	12.5	5	26.3	9	17.6	
Physical activity							
Yes	11	34.3	1	5.20	12	23.5	
No	21	65.7	18	94.8	39	76.5	
Adequate eating habits							
Yes	26	81.3	12	63.2	38	74.5	
No	6	18.7	7	36.8	13	24.5	
Adequate sleep							
Yes	23	71.9	18	94.8	41	80.4	
No	9	28.1	1	5.20	10	19.6	
Acceptance of							
diagnosis/disease							
Yes	28	87.5	14	73.7	42	82.4	
No	4	12.5	5	26.3	9	17.6	
Changes in life after							
diagnosis							
Yes	28	87.5	16	84.3	44	86.3	
No	4	12.5	3	15.7	7	13.7	
Leisure activities							
Yes	29	90.7	15	79.0	44	86.3	
No	3	9.3	4	21.0	7	13.7	
Changes in sexual activity							
Yes	26	81.3	15	79.0	41	80.4	
No	6	18.7	4	21.0	10	19.6	
Hygiene habits							
Adequate	24	75.0	13	68.5	37	72.5	
Inadequate	8	25.0	6	31.5	14	27.5	

<sup>\*</sup>Patients who do not use antiretroviral drugs.

Of all the 51 individuals with HIV/AIDS cared for, 42 (82.4%) were symptomatic and used antiretroviral drugs. Of these, 14 (27.4%) did not adhere to treatment adequately, missing certain doses of medication. Thus, ineffective therapeutic regimen management was diagnosed, characterized by the failure to include treatment regimens into daily routines and to verbalize a difficulty regarding prescribed regimens, associated with the complexity of these therapeutic regimens and deficient knowledge.

Only 12 patients (23.5%) performed physical activity, this being a more frequent practice in men. Nonetheless, intolerance to physical activity was a diagnosis characterized by verbal reports of fatigue or discomfort when exercising, associated with general weakness.

With regard to eating habits, information about breakfast, lunch and dinner was evaluated, in addition to the presence of factors that interfere with oral ingestion, such as anorexia, nausea, vomiting, oral pain

**Table 3 -** Nursing diagnoses of individuals with HIV/AIDS, cared for in the Infectious Diseases Outpatient Clinic, according to sex. Fortaleza, CE, Brazil, 2006.

Nursing diagnoses	Male		Female		Total		
Nursing diagnoses	n	%	n	%	n	%	p-value
Risk for infection*	32	100	19	100	51	100	-
Sexual dysfunction	21	65.6	13	68.4	34	66.6	1.000
Feeding self-care deficit	10	31.2	10	52.6	20	39.2	0.150
Ineffective therapeutic regimen management	9	28.1	5	26.3	14	27.4	1.000
Insomnia	9	28.1	4	21.0	13	25.4	0.743
IN**: risk for more than body requirements	9	28.1	3	15.7	12	23.5	0.496
Deficient knowledge	4	12.5	6	31.5	10	19.6	0.145
Impaired skin integrity	5	15.6	1	5.2	6	11.7	0.391
Social isolation	2	6.2	3	15.7	5	9.8	0.348
Diarrhea	2	6.2	2	10.5	4	7.8	0.622
IN: less than body requirements	1	3.1	3	15.7	4	7.8	0.139
IN: more than body requirements†	-	-	3	15.7	3	5.8	0.046
Activity intolerance	2	6.2	-	-	2	3.9	0.523
Anxiety	1	3.1	-	-	1	1.9	1.000
Situational low self-esteem	1	3.1	-	-	1	1.9	1.000
Fear	-	-	1	5.2	1	1.9	0.372
Impaired dentition	-	_	1	5.2	1	1.9	0.372

<sup>\*</sup>Risk for infection: Fisher's exact test could not be applied, because all patients had the diagnosis. \*\*IN: Imbalanced nutrition.  $\dagger$ IN: more than body requirements, the proportion of women with this diagnosis was significantly higher than that of men (p < 0.05).

or difficulty in swallowing. The eating habits of 13 patients (24.5%) were considered inadequate, because it included a diet that was poorly nutritious and occurred at irregular times. The diagnosis of feeding self-care deficit was identified, characterized by the inability to swallow due to the presence of oral candidiasis and inability to prepare nutritious foods, and associated with factors such as feelings of discomfort, weakness or tiredness.

"Imbalanced nutrition: less than body requirements" was a diagnosis characterized by weight loss with inadequate food intake, lack of appetite and diarrhea, associated with biological and psychological factors resulting from the disease. In addition, the diagnoses of "imbalanced nutrition: risk for more than body requirements" and "imbalanced nutrition" were obtained: both diagnoses had eating in response to internal stimuli, such as concerns about the disease and feeling of anxiety, as risk factor and defining characteristic, respectively.

A total of ten patients (19.6%) mentioned inadequate sleep. The diagnosis of insomnia was characterized by reporting one's dissatisfaction with sleep and difficulty in falling asleep and remaining asleep, associated with disease-related stress.

With regard to the acceptance of diagnosis, 42 individuals with HIV/AIDS (82.4%) responded positively, at least at the time of the interview. In addition, they also accepted the treatment measures required to maintain their health. However, 44 patients (86.3%) stated there were abrupt changes in their lives, especially in

terms of sexual activity. The diagnosis of sexual dysfunction was present in 41 patients (80.4%), characterized by real or perceived limitations imposed by the disease or therapeutic regimen, associated with altered body structure and the process of becoming ill.

The diagnoses of anxiety, situational low self-esteem and fear were identified in few patients. Anxiety was characterized by insomnia, nervousness and decreased productivity, associated with the health status. The diagnosis of situational low self-esteem was characterized by one's evaluation of one's own inability to deal with situations or events, related to functional loss resulting from the disease. Fear was a diagnosis characterized by reporting increased tension, associated with one's separation from the support system in a potentially stressful situation.

Regular leisure activities were reported by 44 patients (86.3%); however, after the diagnosis of HIV seropositivity, activities became lighter, such as short trips and religious events. Previously, activities had been tiring and they had been performed at night time. Among the patients who did not have regular leisure activities, the diagnosis of social isolation was identified, characterized by feelings of rejection being expressed, associated with an altered state of well-being, resulting from the HIV infection.

In terms of hygiene habits, maintaining personal hygiene and cleaning food, clothes and domestic utensils were observed. Of all patients analyzed, 14 (27.5%) had inadequate hygiene habits, such as not taking showers daily, not washing or preparing foods adequately, and

530 Cunha GH, Galvão MTG.

not using razor blades and nail clippers individually. Lack of hygiene was found to be more than just self-care deficit, thus being diagnosed as deficient knowledge, characterized by guidance on disease treatment being followed inaccurately. This was associated with lack of interest in learning, low educational level and lack of familiarity with information resources. In addition, lack of economic resources, resulting from poverty, should be considered.

Of all nursing diagnoses, the most prevalent was risk for infection, present in 51 patients of the study, including risk factors such as immunosuppression, inadequate secondary defenses, lymphopenia and deficient knowledge. The diagnosis of impaired skin integrity was present in six patients (11.7%), who had oral and vaginal candidiasis, characterized by the invasion of body structures, due to an immunological deficiency.

Diarrhea was a diagnosis found in four patients (7.8%), being characterized by at least three liquid stools per day, associated with infectious processes and adverse drug effects. Impaired dentition was characterized by the presence of caries, caused by inefficient oral hygiene, economic barriers and lack of access to professional care, and it was present in one patient only.

Data from Table 3 show the 17 nursing diagnoses obtained in the study, the distribution per sex and p-value, representing the significance level, according to Fisher's exact test. This test was used to verify whether the presence of certain diagnoses is associated with the patient's sex. Statistical significance (p< 0.05) was only found for the diagnosis of imbalanced nutrition: more than body requirements, present in women exclusively.

### **DISCUSSION**

The number of male patients (62.7%) in the Infectious Diseases Outpatient Clinic was higher than that of female patients (37.3%). A similar fact was found in other studies including individuals with HIV/AIDS<sup>(5,6,11)</sup>. In general, these data reflect a national dynamics, where the incidence of HIV infection is higher in men than women<sup>(1)</sup>.

As previously mentioned, the diagnosis of risk for infection was the most prevalent, being found in all 51 patients of the study, something that has been observed in other studies on the same theme<sup>(4-5)</sup>. This occurs because the HIV infection is characterized by a profound immunosuppression that predisposes one to opportunistic infections and progressive dysfunction of multiple organs<sup>(12)</sup>. In this sense, a study performed in a geriatric unit of a university hospital in São Paulo found that all elderly individuals had a diagnosis of risk for infection as a result of physiological changes associated with aging, exposure to invasive procedures and the

possibility of cross-infection(13).

A total of 14 patients (27.4%) with ineffective therapeutic regimen management were found. This diagnosis was identified in another study including individuals with HIV/AIDS<sup>(6)</sup>, in addition to studies that were aimed at hypertensive and elderly patients<sup>(14-15)</sup>, showing that adherence to drug therapy is something that requires constant attention.

Patients are classified into two clinical categories to begin antiretroviral therapy (ART): asymptomatic infection and symptomatic infection. All individuals with a symptomatic stage infection were benefited by ART<sup>(16)</sup>. The concept of adherence to drugs means drug use in at least 80% of all patients, observing times, doses and length of treatment<sup>(17)</sup>.

Although Brazil is a model in the world because it has a program that functions well against the HIV/AIDS epidemic, access to antiretroviral drugs is not universal. Despite the free distribution, social and economic inequality causes problems related to adherence. Moreover, the great number of pills taken daily and the adverse effects are factors responsible for low adherence to drug treatment<sup>(18-19)</sup>.

Only 12 patients (23.5%) practiced physical activity regularly and some reported a reduction in their ability to work. The literature states that an asymptomatic HIV-positive patient can perform physical activities without restrictions and avoid excessive training; a symptomatic HIV-positive patient, not completely debilitated, can exercise according to their capacity and presence of symptoms, although they should reduce physical activities during acute crises; in contrast, an HIV-positive patient with AIDS should avoid physically exhausting activities and reduce exercises during acute crises<sup>(16)</sup>.

With regard to nutritional status, twenty patients (39.2%) showed feeding self-care deficit, with irregular dietary habits and decreased appetite due to the disease. Another study including individuals with HIV/AIDS found that this diagnosis was present in 55 patients (91.6%)<sup>(5)</sup>. "Imbalanced nutrition: less than body requirements" was a diagnosis that occurred in four patients (7.8%), in addition to being identified in other studies<sup>(4,6)</sup>. Thus, it is considered that the patient may not understand the feeding/nutrition/immunity/health relationship. It is important that a healthy diet contributes to increase T CD4 lymphocytes and reduces problems resulting from diarrhea, loss of muscle mass, lipodystrophy and other AIDS symptoms<sup>(20)</sup>.

Insomnia was found in 13 patients (25.4%). Diagnoses associated with sleep were also observed in other studies involving individuals with HIV/AIDS<sup>(5-6)</sup> and elderly individuals<sup>(13,15)</sup>. The diagnosis of diarrhea was reported by four patients (7.8%) and it may be associated with the infectious process, inadequate feeding

and adverse effects of antiretroviral drugs. It should be emphasized that intestinal infection by pathogens is a common problem in AIDS patients, especially in tropical areas<sup>(21)</sup>. Diarrhea was also reported in other studies including individuals with HIV/AIDS<sup>(6,22)</sup>.

Changes in the life of patients after the diagnosis occurred especially in terms of leisure, sexuality, work, relationships and daily routine. The decrease in alcohol use, lower participation in nigh-time events and social isolation, due to the stigma caused by the disease, are significant aspects in the life of these individuals.

One patient showed low self-esteem, characterized by self-negative verbalizations about body image, due to weight loss. The diagnosis of fear of death was identified in one patient exclusively. As there is no cure for AIDS yet, it is not rare that infected individuals fear death, and the assessment of quality of life is essential to identify critical domains among individuals with HIV/AIDS<sup>(23)</sup>.

In the context of changes in life, it is observed that the family appears as a unit of care and represents a source of help for the individual with AIDS, especially because it contributes to their physical and psychological balance. However, the meanings attributed to the disease by culture can affect family behavior, who may either provide support or discriminate and exclude the person with HIV/AIDS from the their group.

The diagnosis of sexual dysfunction had a high frequency, once it was present in 34 patients (66.6%), as a result of the fear of being rejected and contaminating a partner, trauma due to their being infected by a steady partner whom they trusted, or regret caused by prostitution, homosexuality and infidelity. The literature affirms that it is common to find individuals who prevented their sexual activities from occurring or who had their sexual performance affected, thus revealing moments of crisis experienced by individuals with HIV<sup>24</sup>.

A total of ten patients (19.6%) had the diagnosis of deficient knowledge, associated with lack of interest in learning, low level of education, little familiarity with information resources, and cognitive limitation. This diagnosis was also present in other studies, showing the same defining characteristics (5-6,22). Thus, the need of health education for these individuals becomes visible.

The nursing diagnoses here presented come from patients living in the Northeastern region of Brazil, more specifically in the state of Ceará, an area where socioeconomic problems and adverse climatic conditions cause an increase in vulnerability to HIV and other diseases, thus determining a different pattern of illness and death in the population. By comparing the results of this study with others on the same theme, it was observed that certain nursing diagnoses were similar, confirming that patients with HIV/AIDS encounter

common problems.

Certain diagnoses here identified also occurred frequently in patients in other contexts, such as elderly individuals and those with heart conditions and hypertension, especially "ineffective therapeutic regimen management". In view of this fact, information from this study can be used in other studies to compare results and to know the nursing diagnoses in the context of AIDS. In addition, this information can be partly applied to patients in other contexts or health services.

The validation technique was used to confirm each diagnosis, when patients confirmed the information and nursing diagnoses made after data collection. However, it should be considered that human beings may be complicated and diverse, when the object of study is the individual experience or reaction, rather than the disease itself.

These aspects can generate difficulties in the identification of diagnoses and interfere with the result of the research, especially when it comes to a stigmatizing disease, such as AIDS, and particularly when sexuality is put in question. By performing the stages of systematization of nursing care, a relationship of support between nurse and patient is established, enabling the real health needs to be revealed and contributing to the accuracy of diagnoses obtained.

#### **CONCLUSION**

It could be observed that individuals with HIV/AIDS, cared for in the HUWC Infectious Diseases Outpatient Clinic, were stable with regard to the progression of this disease, although having deficient knowledge about therapeutic measures and self-care. These findings resulted in 17 nursing diagnoses, with the following standing out: risk for infection, sexual dysfunction, feeding self-care deficit and ineffective therapeutic regimen management.

It is necessary for individuals in this study to understand that self-care is essential to maintain their health and that outpatient follow-up, in addition to consultations, tests and medications, is an opportune moment to clarify questions about the disease. It should be emphasized that patients' psychological and social aspects must be considered, once these can change as a result of AIDS-related stigma, which was characterized by the identification of diagnoses, such as social isolation, sexual dysfunction, deficient knowledge, fear and situational low self-esteem.

One limitation found in this study was the fact that the sample was comprised of 51 patients only, which occurred due to the Infectious Diseases Outpatient Clinic of the above mentioned hospital being open once a week exclusively. However, other studies on the same theme used a similar sample size, which allows the findings of this study to be representative.

The need to develop studies on nursing care systematization should be emphasized, once this is essential for the nurse's autonomy and better patient care.

The identification of diagnoses is important to improve health care for individuals with HIV/AIDS, because this enables interventions to be aimed at the existing problems, taking into consideration the context of each patient and the resources they have to achieve better quality of life.

#### REFERENCES

- Brasil. Ministério da Saúde. Programa Nacional de DST e AIDS. Boletim Epidemiológico AIDS/DST Ano V, n° 01, 27ª à 52ª semanas epidemiológicas, julho a dezembro de 2007 e 01ª à 26ª semanas epidemiológicas, janeiro a junho de 2008. Brasília (DF): Ministério da Saúde; 2008. Bol Epidemiol AIDS/DST. 2007/2008;5(1).
- Potter PA, Perry AG. Histórico de enfermagem. In: Potter PA, Perry AG, organizadoras. Fundamentos de enfermagem. Rio de Janeiro: Elsevier; 2005.p.299-318.
- Foster PC, Janssens NP. Dorothea E. Orem. In: George JB, organizadora. Teorias de enfermagem: dos fundamentos à prática profissional. Porto Alegre: Artes Médicas Sul; 2000. p.90-107.
- 4. Lima GS, Cavalcante TMC, Isabella APJ, Magalhães AS. Assistência de enfermagem a um paciente infartado portador de HIV, baseada na teoria do autocuidado: estudo de caso. Acta Paul Enferm. 2007;20(4):452-7.
- 5. Silva MR, Bettencourt ARC, Diccini S, Belasco A, Barbosa DA. Diagnósticos de enfermagem em portadores da Síndrome da Imunodeficiência Adquirida. Rev Bras Enferm. 2009;62(1):92-9.
- Caetano JA, Pagliuca LMF. Autocuidado e o portador do HIV/AIDS: sistematização da assistência de enfermagem. Rev Latinoam Enferm. 2006;14(3):336-45.
- North American Nursing Diagnosis Association. Diagnósticos de enfermagem da NANDA: definições e classificação 2009-2011. Porto Alegre: Artmed; 2010.
- 8. Cunha GH. Consulta de Enfermagem baseada na Teoria do Autocuidado de Orem para portadores de HIV/Aids [monografia]. Fortaleza: Universidade Federal do Ceará. Departamento de Enfermagem; 2006.
- 9. Armitage P, Berry G. Statistical methods in medical research. 3a ed. Oxford: Blackwell; 1994. 620 p.
- 10. Brasil. Ministério da Saúde. Conselho Nacional de Saúde. Comissão Nacional de Ética em Pesquisa. Resolução n. 196/ 96, de 10 de outubro de 1996: aprova as diretrizes e normas regulamentadoras de pesquisa envolvendo seres humanos. Brasília: Ministério da Saúde; 1996.
- Parenti CF, Pereira LMR, Brandão ZS, Silvério AP. Perfil dos pacientes com AIDS acompanhados pelo Serviço de Assistência Domiciliar Terapêutica do município de Contagem, estado de Minas Gerais, Brasil, 2000-2003. Epidemiol Serv Saúde. 2005;14(2):91-6.
- Bozzette SA, Ake CF, Tam HK, Chang SW, Louis TA. Cardiovascular and cerebrovascular events in patients treated for human immunodeficiency virus infection. N Engl J Med. 2003;348(8):702-10. Comment in: N Engl J Med. 2003 Nov 20;349(21):2065-7. N Engl J Med. 2003;348(8):679-80. N

- Engl J Med. 2003;349(19):1869-70; author reply 1869-70.
- 13. Sakano LM, Yoshitome ÁY. Diagnósticos e intervenções de enfermagem em idosos hospitalizados. Acta Paul Enferm. 2007;20(4):495-8.
- Manzini FC, Simonetti JP. Consulta de enfermagem aplicada a clientes portadores de hipertensão arterial: uso da teoria do autocuidado de Orem. Rev Latinoam Enferm. 2009;17(1):113-9.
- Santos ÁŚR, Souza PA, Valle AMD, Cavalcanti ACD, Sá SPC, Santana RF. Caracterização dos diagnósticos de enfermagem identificados em prontuários de idosos: um estudo retrospectivo. Texto & Contexto Enferm. 2008;17(1):141-9.
- Kuchenbecker R, Ferreira J, Barcellos NT. Infecção pelo HIV em adultos. In: Duncan BB, Schmidt MI, Giugliani ERJ. Medicina ambulatorial: condutas de atenção primária baseadas em evidências. Porto Alegre: Artmed; 2004. p.1418-39.
- 17. Leite SN, Vasconcellos MPC. Adesão à terapêutica medicamentosa: elementos para a discussão de conceitos e pressupostos adotados na literatura. Ciênc Saúde Coletiva. 2003;8(3):775-82.
- Barroso LMM, Pereira KC, Almeida PC, Galvão MTG. Adesão ao tratamento com anti-retrovirais entre pacientes com AIDS. Online Braz J Nurs. [Internet] 2006 [citado 2009 Jan 11]; 5(2): [cerca de 15 p.]. Disponível em: http:// www.uff.br/objnursing/index.php/nursing/article/ vievArticle/290/56.
- Gir E, Vaichulonis CG, Oliveira MD. Adesão à terapêutica anti-retroviral por indivíduos com HIV/AIDS assistidos em uma instituição do interior paulista. Rev Latinoam Enferm. 2005;13(5):634-41.
- Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Programa Nacional de DST/AIDS. Manual clínico de alimentação e nutrição na assistência a adultos infectados pelo HIV. Brasília: Ministério da Saúde; 2006.
- 21. Rossit AR, Gonçalves AC, Franco C, Machado RL. Etiological agents of diarrhea in patients infected by the human immunodeficiency virus-1: a review. Rev Inst Med Trop Sao Paulo. 2009;51(2):59-65.
- 22. Vaz MJR, Barros SMO. Gestantes infectadas pelo HIV: caracterização e diagnósticos de enfermagem. Acta Paul Enferm. 2002;15(2):7-17.
- Santos ECM, França Júnior I, Lopes F. Qualidade de vida de pessoas vivendo com HIV/AIDS em São Paulo. Rev Saúde Pública = J Public Health. 2007;41(Supl 2):64-71.
- 24. Freitas MRI, Gir E, Rodrigues ARF. Dificuldade sexual vivenciada por mulheres em crise de HIV-1. Rev Latinoam Enferm. 2000;8(3):76-83.