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Mexican Journal of Medical Research

Biannual Publication Mexican Journal of Medical Research No. 11 (2018) 1-5

Anxiety, Depression and Perception of the Quality of Life in the Patient with HIV/AIDS

Ansiedad, depresión y percepción de la calidad de vida en el paciente con VIH / SIDA

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Abstract:

Infection with human immunodeficiency virus (HIV) or acquired immunodeficiency syndrome (AIDS) as a complication is now considered a chronic disease and, although mortality and morbidity have been significantly reduced, the psychosocial impact of the disease generates painful consequences in the patient reflected in anxiety and depression. The concept of quality of life is global, multidisciplinary, and involves objective and subjective aspects. Health-related quality of life involves functioning and physical symptoms, psychological factors and social aspects. The interest of this review lies in the social impact of HIV, not only in relation to the economic and political repercussions for treatment and prevention, but also in the identification of variables related to the improvement of the quality of life of people with HIV. There is a great interest in the study of quality of life of patients with HIV / AIDS, and research has shown that there is a relationship between quality of life and psychological variables such as anxiety and depression, as well as biological parameters such as CD4 lymphocyte levels and the viral load that could perhaps be considered in health decisions and in interventions that promote protection and welfare factors. The implementation of interventions aimed at improving the quality of life of patients with HIV / AIDS throughout the evolutionary period of infection is very important.

***Key words**:*
human immunodeficiency virus; acquired immunodeficiency syndrome, quality of life, anxiety, depression

Resumen:

La infección con el virus de la inmunodeficiencia humana (VIH) o el síndrome de inmuno-Deficiencia adquirida (SIDA) como complicación se considera ahora una enfermedad crónica y, aunque la mortalidad y la morbilidad se han reducido significativamente, el impacto psicosocial de la enfermedad genera consecuencias dolorosas en el paciente y se reflejan en ansiedad y depresión. El concepto de calidad de vida es global, multidisciplinario e implica aspectos objetivos y subjetivos. La calidad de vida relacionada con la salud implica el funcionamiento y los síntomas físicos, los factores psicológicos y los aspectos sociales. El interés de esta revisión radica en el impacto social del VIH, no sólo en relación con las repercusiones económicas y políticas para el tratamiento y la prevención, sino también en la identificación de variables relacionadas con la mejora de la calidad de vida de las personas con VIH. Hay un gran interés en el estudio de la calidad de vida en la población de pacientes con VIH / SIDA, y la investigación ha demostrado que existe una relación entre la calidad de vida y las variables psicológicas como la ansiedad y la depresión, así como parámetros biológicos como los niveles de linfocitos CD4 y la carga viral que tal vez podría ser considerado en las decisiones de salud a tomar y en las intervenciones que promueven los factores de protección y bienestar. La implementación de intervenciones dirigidas a mejorar la calidad de vida de los pacientes con VIH / SIDA durante todo el período evolutivo de la infección es muy importante.

***Palabras Clave**:*
virus de la inmunodeficiencia humana; Síndrome de inmunodeficiencia adquirida, calidad de vida, ansiedad, depresión

Introduction

Currently, the world observes a significant increase of Human Immunodeficiency Virus (HIV) / Acquired Immunodeficiency Syndrome (AIDS) cases. This illness constitutes, today, public health problem due to the constant and continuous spread of the illness. The early detection of the infection is a priority strategy in public health for the orientation and diffusion of messages to prevent and timely treat the illness.[1]

The new anti-retroviral drugs have made progress in the quantity of life but not in its quality since the psychological variables affect the evolution of the infection. This paper describes the anxiety, depression and perception of the quality of life of these patients, as the psychological variables involved in the infection process.[1, 2]

The World Health Organization (WHO) conceives of mental health as the state of well-being that allows the person to work in a way that allows him to be productive and fruitful towards his community, as well as having the skills to overcome stress situations that life presents.[2] However, people with HIV have a higher classification of mental health problems than the general public. People with HIV may experience depression, anxiety, post-traumatic stress disorder, suicidal thoughts and insomnia. Studies have revealed a high prevalence of HIV infection in people with severe chronic mental illnesses.[3]

In terms of mental health, there are large studies that provide the presence of indicators of mental illness among patients with HIV / AIDS in the international environment, for example, they thought that the prevalence of HIV among people with mental health problems is eight times higher than that of the general population, which led them to consider mental illness as a risk factor for a bad adherence.[4]

Mexico has about 10 million people between 18 and 65 years old with symptoms of depression. This was generally unleashed because of multiple factors. The cases double appear more in women than in the males.[4] Moreover, anxiety is a suffering that presents the highest predominance in people between 40 and 50 years old and to a lesser extent in population older than 60 years old. Women are twice as affected by this picture as men, and the disorder declines as men get older, but it increases in women.[5]

Therefore, people infected with HIV are exposed to multiple bio-psychosocial factors during all the stages of the illness: problems related to physical health, corporal image, sexuality, sexual identity, intimacy, affection, partner, family, interpersonal relations, autonomy, death, ethics, moral, religion, work, intellectual development, economy, and recreation. Often these factors can go as far as psychiatric complications, depending to a large extent on the pre-infection personality, the network of psychosocial support and of the stage of the illness. Nowadays, there are different variables such as genre, living conditions and health, that have been studied for their relation to the quality of life, while some authors have stated that depression significantly affects all the evaluated dimensions of the quality of life .[6,7] Likewise researches in the field of t HIV/AIDS show that the quality of life is worse in patients with the illness that in others with other chronic illnesses.[7]

Behavior, global perception and epidemiological characterization of HIV / AIDS

Throughout more than thirty years since the identification of the first cases, the HIV / AIDS epidemic has changed its facet several times. Initially restricted to very characteristic groups, it has entered in all society without recognizing limits.[7, 8]

And despite being a disease we have known for a long time, according to the Joint United Nations Program on HIV / AIDS (UNAIDS), the latest data reveal a new face, even with several faces depending on the region of the world in question, and it seems that in the next few years it will continue changing. In global terms, we now face an epidemic that grows among the female population and behaves more aggressively among young people, and it is still being sexually transmitted in most of the cases.[8]

According to estimates by WHO and UNAIDS, at the end of 2011 there were around 34.2 million people infected with HIV worldwide. That same year, about 2.5 million people contracted the infection, and about 1.7 million died from AIDS-related causes, including 230,000 children. That represents 700,000 new infections less than 10 years ago and 600,000 deaths less than 2005. Much of the progress is attributed to the treatment of people infected using antiretrovirals, life-saving drugs. The identified effective transmission mechanisms involve the pathways in which HIV-containing fluids are found: sexual, blood, and perinatal.[9]

Since the beginning of the epidemic, in Mexico it has been characterized as a concentrated type, that is, it has a prevalence higher than 5% in specific population groups and below 1% in the general population, and is mainly of sexual transmission. For example, recent studies have identified HIV seroprevalence among men who have sex with men up to 16.9%, and 7% among users of injection drugs.[10]

Conceptualization of HIV / AIDS from a mental health perspective

The HIV / AIDS epidemic has had a strong impact on the general population as well as on the entire scientific community. The magnitude of the problem is even greater in patients themselves, hence they must be managed in a multidisciplinary way, with special emphasis on the psychological aspect. Being notified of having an illness such as HIV / AIDS, causes an emotional instability of unpredictable reactions and a reaction that must be well handled by the health care staff who takes care of the patient.[9,10]

HIV infection has severely affected the world's population in recent times. Over the years, numerous psychiatric disorders have been described in individuals suffering from this virus: cognitive impairment, depression, delirium, psychosis, mania, and anxiety. Mental health is a complex phenomenon that is determined by various social, biological, economic, political, cultural, environmental factors such as living standards and community support and not only by the individual characteristics that each person may have as the management of thoughts , behaviors and emotions, or interactions with others.[11]

Mental health also includes conditions such as depression, anxiety, epilepsy, dementia, schizophrenia, and developmental disorders in childhood, some of which have been worsened in the last years. In this sense, to ensure that the population maintain mental health, besides physical health, depends to a large extent on the successful implementation of public health actions, to prevent, treat and rehabilitate. People with good mental health reflect in their coexistence, work and recreation the unfolding of their potential, as well as the good functioning of their affective, behavioral and cognitive aspects. The maintenance and recovery of physical health lies in the importance of a good mental health.[11, 12]

People with HIV have higher rates of mental health problems than the general public. People with HIV may experience depression, anxiety, post-traumatic stress disorder, suicidal thoughts and insomnia.[12]

Depression

According to data from the WHO around the world, about 350 million people suffer from depression, many of which do not receive adequate treatment nor diagnosis due to stigma or lack of resources, which turns I a serious situation because a person with untreated depression may have a decreased quality of life and even become suicidal. In Mexico, about 10 million people

between 18 and 65 years old suffer from depression, usually triggered by some factor such as economic problems; there are twice as many cases in women as there are in men.[12, 13]

In the International Classification of Diseases (ICD-10), the depressive episode with the following code (F32) is distinguished by a decline of mood that significantly alters behavior, so the person will present anhedonia, reducing energy causing less activity, fatigue, sleeping and eating habits, has ideas of uselessness and low self-esteem. It is classified as mild, moderate or severe depending on the duration of the disease and its intensity.[13]

The "Beck Depression Inventory" (BDI), is the most used test to know the seriousness of depression. This test consists of twenty items with four response options (0-3), the maximum score is sixty-three points. In Mexico, the test was validated in 1998 by Jurado et al.[14.15]

Depression and HIV / AIDS

Depression is very frequent among patients with chronic diseases, characterized by having the highest under-registration and sub-treatment within psychiatric comorbidities [15]. In the case of patients infected with HIV, depression is usually two to four times more frequent than in the general population, considered as one of the most frequent psychiatric comorbidities and the one with the highest incidence after the diagnosis of the infection.[16]

Depression is the most common mental health disorder among HIV patients. There is an association between HIV status, depression and substance use. Poor adherence to medications is also common in depressed patients. This can lead to many medical problems such as resistant strains of HIV virus, decreased CD4 count and increased viral load. Patients with chronic depression have twice the risk of mortality from an AIDS-related cause than those who do not have depressive symptoms.[17] Quality of life also decreases in patients with depressed HIV who have lower physical and mental health than non-depressed patients.[18]

In a crossover study of 100 depressed, HIV-positive and negative patients, it was found an increase in anxiety severity among HIV-positive patients, sufficient for 90% to meet the criteria for Generalized Anxiety Disorder (GAD) according to ICD10. Poor HIV status care was associated with increased anxiety and in the same study the prevalence of depression in patients with HIV infection is reported to be about 35%.[19]

It is important to know how many of the depressive episodes that occur in patients with HIV infection correspond to a first and only episode, and how many are framed within a chronic mood disorder. It is a poorly studied topic, since most research has focused on estimating the prevalence point and / or the last year, rather than the prevalence of life. There are also few reports on the prevalence of depression before and after contracting HIV.[19]

On the other hand, it has been reported that depression itself may adversely affect the evolution of HIV infection, with a worse immune status expressed in a lower CD4 + T lymphocyte count, higher viral load, disease progression and higher mortality.[18,19] In women, higher mortality would not depend exclusively on conditions directly associated with HIV, but also on a higher frequency of accidents, acts of violence and overdoses of alcohol and drugs.[19,20] This is also reflected in the fact that patients with depressed HIV infection make significantly more use of health care systems than their non-depressed counterparts.[21]

Anxiety

Anxiety and anguish according to the linguistic roots and their idiomatic use have the same meaning: Anxiety derives from the Latin "anxietas", which means "state of agitation, restlessness or anxiety" and anguish comes from the Latin "anguish" which includes meanings such as "Angostura, difficulty, affliction, grief, and oppressive fear without precise cause, narrowness of place or time".[22]

What makes anxiety pathological is basically its intensity and duration beyond comprehensible. Fear is a normal reaction to dangers or threats from the outside, that is, fear is an understandable reaction to an identifiable external object. Pathological anxiety and anguish are seemingly unmotivated reactions (nonobjective or unrecognizable with no sense), the experience of an indefinite fear, usually independent from external objective circumstances.[22, 23]

Anxiety is the most seen disorder by the general practitioner with a prevalence among the general population of about 3% and between 5% and 7% among patients attending the primary care visit. In addition, it is a condition that presents the highest prevalence in people between 40 and50 years old and to a lesser extent in population over 60 years old. Women are two times more affected by this picture than men and the disorder reduces its incidence as men get older, but it increases in women.[23]

Anxiety disorders are the most common disorders according to WHO, in primary care services, in the world. Within the adult population there is a prevalence of 12%, for anxiety disorders. This same organization states that anxiety disorders are those that start earlier, with a median of 15 years, and reach the highest prevalence between 25 and 45 years old, being higher in women than in men. According to other studies, prevalence rates for any anxiety disorder are found throughout the life span between 10.4% and 28.8%.[23, 24]

According to the diagnostic manual of the American Psychiatric Association IV (DSMIV-R) symptoms should be present, although they may vary, over a period of 6 months consisting of a constant concern about their health, family, work, and economic situation. This condition usually affects in a negative way the social and work relationship. Many patients have nonspecific somatic symptoms (insomnia, headache, muscle aches, fatigue and symptoms of gastrointestinal distress). It is important to rule out any other medical pathologies such as hypoglycemia, cardiomyopathy, among others as well as psychiatric conditions such as depression, to mention one. Some substances such as caffeine, alcohol, amphetamines, anorectics, among others, can cause anxiety symptoms.[24, 25]

Compared to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR and DSM-5), the International Classification of Diseases (ICD-10) for the diagnostic criteria for generalized anxiety disorder (WHO)do not require concerns to be excessive and hard to control, and require the presence of 4 of 22 symptoms (including 5 of the 6 symptoms that contain DSM-IV-TR and DSM-5).[25]

The Beck Depression Inventory (BDI) is a questionnaire that evaluates the prolonged state of anxiety and has been designed to minimize the presence of those symptoms related to depression. It consists of 21 items or symptoms that the patient values from 0 to 3 according to the degree of discomfort they have had during the last 7 days. Using a sample of patients with

various anxiety disorders, four factors have been identified that reflect subjective, neurophysiological, autonomic and panic aspects of anxiety.[25]

Anxiety and HIV / AIDS

People infected with HIV are exposed to multiple biopsychosocial factors during all stages of the disease, problems related to physical health, body image, sexuality, sexual identity, intimacy, affection, couple, family, interpersonal relationships, autonomy, death, ethical, moral and religious concepts, work, intellectual development, economics, and recreation, are common. Many times these factors can become psychiatric complications, depending to a great extent on the personality structure prior to infection, the psychosocial support network and the disease stage.[26]

Anxiety disorders are very common in HIV / AIDS. The most frequent emotion in individuals with HIV infection is insecurity about the future and fear of illness. Anxiety can manifest as an attack of panic or aggressiveness, which generally leads to ineffective medical care, perception - true or false - of discrimination, etc. These patients should be referred for psychotherapeutic and / or pharmacological treatment.[26]

The prevalence rates at 6 months of generalized anxiety are between 15% and 20%, and are similar for seropositive and seronegative homosexual men but are higher than the rates for heterosexual men with a low risk of HIV infection. Research has found that depression, along with anxiety, is a contributing factor to the evolution of HIV infection and that there is a relationship between anger and a more rapid evolution of HIV to the AIDS phase.[27]

The topic of death anxiety has been extensively researched in chronic and terminally ill patients, including HIV / AIDS patients, as it profoundly affects quality of life, adherence to treatment and course of the disease[28].Conceptual, instrumental and descriptive studies (estimation of parameters and comparison of them in relation to socio-demographic variables, such as age, marital status and schooling) have been done; the relationship between anxiety and death with the course and symptoms of the disease, and with protective factors such as religiosity and social support.[29]

Quality of life

WHO defines health as a state of physical, mental and social well-being and not just as an absence of disease. The description of this concept over the last decade considers that other factors that are unique to the different populations from their geographical, social, academic, labor, economic and family contexts, may somehow affect the welfare of the individual as a whole.[30] Quality of life has been defined as a situation of coherence between personal dreams, ambitions, hope for the future, present life style and experiences, which is aligned with the WHO's definition of health.[31]

The definitions of quality of life are multiple, but they can be grouped into categories according to the aspects to which they give them the highest value: living conditions, satisfaction with life and living conditions, and satisfaction with life [32]. In recent decades, life in chronic patients has increased dramatically, because of both the high incidence and prevalence of this type of disorder and because of its permanent nature, which leads to important changes in living habits and styles.[33]

Quality of life in patients with HIV / AIDS

Quality of life has become one of the main objectives in research on HIV infection because, due to the advances in treatment with antiretroviral therapy, there was a decrease in opportunistic infections, and an increase of survival rates.[34]

HIV / AIDS affects the economic, social and health system by increasing health care expenditures, decreasing numbers of economically active people, social isolation and limiting access to education; in addition, it deteriorates the physical, psychological and social well-being of infected people, and with that, their quality of life.[35]

Towards the change in the path of HIV infection for chronic diseases, improving the quality of life of people living with HIV / AIDS has become one of the main objectives of clinical practice and research in the field. Studies on the quality of life among people living with HIV / AIDS indicate that they are affected by numerous individual, cultural, social and emotional factors related to the impact of the diagnosis, treatment and everyday coexistence of a chronic disease. Living conditions and health have been studied for their relationship with quality of life, while some authors have pointed out that depression significantly affects all the evaluated dimensions of quality of life.[35]

Today, with the development of effective interventions and treatments for HIV through antiretroviral drugs, it has been observed that affected people can live longer with the virus, in addition to the comorbidities that characterize it, which qualify the disease as chronic. Therefore, the determination of the quality of life of patients with HIV / AIDS makes it possible to estimate the burden of the disease, the response to new treatments and the self-learning in the management of the disease, based on specific actions that provide the patient of well-being through a planning that is adapted to the physical, psychological, social, environmental, self-perceptive and spiritual needs of the patients, reducing the great expense generated to the health care sector.[35,36]

The study of the quality of life related to health in people living with HIV becomes relevant in a context where the disease is considered chronic, increasing life years of people who suffer it. In this sense, the revision of the living conditions in this population would allow to understand the effect of the treatments and the psychosocial factors that affect the well-being and the benefits of living longer and fundamentally the recognition and identification of the aspects of improvement of the quality of life, general and specific, useful for effective interventions.[36]

Currently, there are two types of study in relation to living conditions in people living with HIV / AIDS. A group of them specifically study the morbidity and mortality in people living with HIV as measures of quality of life; however, it has been found that these measures do not necessarily consolidate as good predictors of well-being, adherence to treatment and time of survival at present. On the other hand, there are studies that measure subjective aspects such as subjective well-being, satisfaction with life and Health-Related Quality of Life, which allow a more comprehensive understanding of the person's experience with the illness, with strong and consistent associations with levels of adherence to treatment or morbidity. Since health-related quality of life measures subjective aspects, much of it, especially in relation to the social environment, could also assess the impact of the persistent discrimination and

stigma that a disease, such as HIV, generates in the life of the individual.[36, 37]

CONCLUSIONS

Research has shown that there is a relationship between quality of life and the psychological variables of anxiety and depression. The anxiety and depression present in HIV-infected patients, the quality of life and, consequently, the influence of antiretroviral drugs on the clinical, immunological and psychological aspects, as well as the health status perceived by the patient, were evaluated. Some authors conclude that the prevalence of depression and anxiety in these patients is very high and even higher than that of people with other chronic diseases. It is also evident that quality of life is more deteriorated in HIV-infected patients in advanced stages than in patients suffering from other chronic diseases. One aspect that the authors point out is that depression has a significant impact on quality of life and, on the other hand, that depressed patients may present a distorted perception of health improvements produced by antiretroviral treatments as a consequence of the alterations in the state of mind. Although there is no detailed discussion on biological parameters in HIV, they are important in the quality of life. Although there is evidence of a clear relationship between CD4 lymphocyte count and health-related quality of life, antiretroviral treatments have prolonged the life of these patients. An important aspect that arises is the consideration of the quality of life in this population. Therefore, quality of life is an objective within psychological intervention of patients infected by HIV / AIDS. However, most of the studies that have been conducted on quality of life have been carried out in the field of health, a key component of quality of life.

REFERENCES

Protto JP, Schaaf D, Fidel Suárez M. Entorno epidemiológico y respuesta a la epidemia del VIH en Bolivia. Rev. Panam. Salud Pública. 2008; 23: 4 288-294.

World Health Organization (WHO). Salud mental: un estado de bienestar. [Online] 2013. Available from: HYPERLINK http://www.who.int/features/factfiles/mental_health/es/

Wagner G, Kanouse D, Koegel P. Correlates of HIV antiretroviral adherence in persons with serious mental illness. AIDS Care. 2004; 16: 501–506.

Benjet C, Borges G, Medina-Mora M, Fleitz-Bautista C. La depresión con inicio temprano: prevalencia, curso natural y latencia para buscar tratamiento. Salud Pública Méx. 2004; 46: 417–24.

Boletín de la ANMM. El trastorno de ansiedad generalizada. Rev. Fac. Med. 2013; 56: 53-55.

O'Connel K, Skevington K, Saxena S, WHOQOL HIV Group. Preliminary development of the world Health Organization's Quality of Life HIV instrument (WHOQOL HIV): analysis of the pilot version. Soc. Sci. Med. 2003; 57: 1259-75.

Martín I, Cano R, Pérez de Ayala P, Aguayo M. Calidad de vida, aspectos psicológicos y sociales en pacientes con infección VIH avanzada. An. Med. Interna. 2002; 19: 20-28.

Rosales L, Ponce S, Rodríguez-Álvarez M. La situación actual del VIH/SIDA en el mundo. Gac. Méd. Méx. 2010; 146: 408-10.

Velez H, Rojas W, Borrero J, Restrepo J. Manual de VIH/SIDA y otras infecciones de Transmisión Sexual. In. Colombia: Corporación para investigaciones biológicas; 2011; 7-18.

Bautista Arredondo S, Romero Martínez M, Conde C. Resultados principales de la encuesta de sero-prevalencia en sitios de encuentro de hombres que tienen sexo con hombres México: Letra S, Sida, Cultura y Vida Cotidiana A.C.; 2013; 15-38.

Torres Fermán IA et al. La salud mental, una aproximación a su estudio en poblaciones vulnerables. Med. Salud Soc. 2013; 3: 1-33.

World Health Organization (WHO). Recommendations on the diagnosis of HIV infection in infants and children. Available from http://www.who.int/hiv/pub/. 2012; paediatric/diagnosis/en/index.html.

Organización Panamericana de la Salud (OPS). Clasificación Estadística Internacional de Enfermedades y Problemas Relacionados con la Salud (CEI-10). OPS. OMS. 1992.

Jurado S, Villegas E, Méndez La estandarización del Inventario de Depresión de Beck para los residentes de la ciudad de México. Salud Ment. 1998; 21: 26–32

Asch S K. Underdiagnosis of HIV. Who are we missing? Gen. Inter. Med. 2003; 18: 450-60.

Wolff C, M. RA, Wolff R. M. Prevalencia, factores de riesgo y manejo de la depresión en pacientes con infección por VIH. Rev. Chil Infect. 2010; 27: 65-74.

Cook J, et al. Depressive symptoms and AIDS-related mortality among a multisite cohort of HIV-positive women. Am. J. Public Health 2004; 94: 1133-1140.

Trépanier LL, Rourke SB, Bayoumi AM, Halman MH, Krzyzanowski S, Power C. The impact of neuropsychological impairment and depression on health-related quality of life in HIV-infection. J. Clin. Exp. Neuropsychol. 2005; 27: 1-15.

Jin H, et al. Depression and suicidality in HIV/AIDS in China. J. Affect Disord. 2006; 94: 269-75.

Treisman GA, Angelino A. Interrelation between psychiatric disorders and the prevention and treatment of HIV infection. Clin. Infect. Dis. 2007; 45: 313-317.

Olantunji B, Mimiaga MJ, O'Cleirigh C, Safren SA. A review of treatment studies of depression in HIV. Top HIV Med. 2006; 14: 112-24.

Academia, Española Real. Diccionario de la lengua española In Madrid SA. Madrid: (22nd ed.); 2001.

Boletín de la ANMM. El trastorno de ansiedad generalizada. Rev. Fac. Med. UNAM. 2012; 21(3): 1-2.

Testal J, Calderon CS, Garcelán SP. From DSM-IV-TR to DSM-5: analysis of some changes. Int. J. Clin. Health Psicol. 2014; 14: 221-231.

Steer RA, Clark DA, Beck AT, Ranieri WF. Common and specific dimensions of self-reported anxiety and depression: the BDI-II versus the BDI-IA. Behav. Res. Ther. 1999; 37: 183-90.

Rovira MD, Uriz E, Rodríguez C, Vila A. Comportamiento y actitud de los profesionales de enfermería hospitalaria ante los pacientes VIH positivos. Enfermería Clin. 1993; 4: 135-141.

Lederman J, et al. Progression to AIDS, a clinical AIDS condition and mortality: Psychosocial and physiological predictors. Psychol. Med. 2002; 32: 1059-1073.

Safren S, Gershuny BS, Hendriksen E. Symptoms of posttraumatic stress and death anxiety in persons with HIV and medication adherence difficulties. AIDS Patien. Care STDS 2003; 17: 657-664.

Miller AK, Lee BL, Henderson CE. Death anxiety in persons with HIV/AIDS: A systematic review and meta-analysis. Death Stud. 2012; 36: 640-663.

Ntshakala TT, Mavundla TR, Dolamo BL. Quality of life domains relevant to people living with HIV and AIDS who are on antiretroviral therapy in Swaziland. Curationis 2012; 35(1): 87.

Douaihy A, Singh N. Factors affecting quality of life in patients with HIV infection. AIDS Read. 2001; 11: 450-461.

Ruvalcaba N, Salazar J, Fernández-Berrocal F. Indicadores sociales, condiciones de vida y calidad de vida en jóvenes mexicanos. Rev. Iberoamer. Psicol. Cien. Tecnol. 2012; 5: 71–80

Vinaccia S, et al. Calidad de vida, Personalidad resistente y apoyo social percibido en pacientes con diagnóstico de Cáncer de Pulmón. Psicol. Salud. 2005; 15: 207–221.

Trépanier LL, Rourke SB, Bayoumi AM, Halman MH, Krzyzanowski S, Power C. The impact of neuropsychological impairment and depression on health-related quality of life in HIV-infection. J. Clin. Exp. Neuropsychol. 2005; 27: 1-15.

ONUSIDA. La Epidemia de SIDA. Situación en diciembre de 2006. Programa conjunto de las naciones unidad sobre VIH/SIDA. 2006; 4-94.

Ruiz Perez I, et al. Health-related quality of life of patients with HIV: impact of sociodemographic, clinical and psychosocial factors. Qual Life Res. 2005; 14: 1301-10.

González-Puente JA, Sánchez-Sosa JJ.. Systematic assessment of quality of life in HIV patients at three clinical stages of the infection. J. Clin. Health Psychol. 2001; 1: 519-528.