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INTEGRATIVE REVIEW OF THE LITERATURE

Limites e obstáculos na adesão à terapia antirretroviral

Limits and obstacles in the adherence to antiretroviral therapy

Límites y obstáculos em la adhesión a la terapia antirretrovial

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ABSTRACT

Objective: To analyze and list factors and monitoring techniques related to the adherence to antiretroviral treatment. **Method:** study of integrative review of the literature from the electronic bases LILACS and MEDLINE, conducted in April and May, 2013. **Results:** factors such as education level, complexity of treatment, psychological aggravating and the relationship between health professional and the user were highlighted in adherence to ART. In this context, to monitor and measure adherence to antiretroviral therapy with the use of appropriate techniques can contribute to a significant increase of these values. **Conclusion:** it is true that there is no gold standard to ensure ideal adhesion, however, the use of correct and combined monitoring techniques, can significantly decrease the impact of several factors that predispose the ineffective adherence to AIDS treatment. **Descriptors**: Acquired immunodeficiency syndrome, Treatment refusal, Antiretroviral therapy highly active.

RESUMO

Objetivo: Analisar e elencar fatores e técnicas de monitorização relacionados à adesão ao tratamento antirretroviral. **Método:** Estudo de revisão integrativa da literatura a partir das bases eletrônicas LILACS e MEDLINE, realizado no mês de abril e maio de 2013, **Resultados**: fatores como escolaridade, complexidade do tratamento, agravantes psicológicos e a relação entre profissional de saúde e usuário tiveram destaque relevante na adesão a TARV. Nesse contexto, monitorar e medir a adesão à terapia antirretroviral com o uso de técnicas adequadas pode contribuir para um aumento significativo desses valores. **Conclusão:** é certo que não existe um padrão ouro que garanta a adesão ideal, contudo, o uso de técnicas de monitorização corretas e combinadas pode diminuir significativamente o impacto de diversos fatores que predispõem a adesão ineficaz ao tratamento da AIDS. **Descritores:** Síndrome de imunodeficiência adquirida, Recusa do paciente ao tratamento, Terapia antirretroviral de alta atividade.

RESUMEN

Objetivo: Analizar y listar factores y técnicas de monitoreo relacionados a adhesión al tratamiento antiretroviral. **Método:** estudio de revisión integradora de la literatura a partir de las bases electrônicas LILACS y MEDLINE, realizado en el mes de abril y mayo de 2013, **Resultados**: factores como escolaridad, complejidad del tratamiento, agravantes psicológicos y la relación entre profesional de salud y usuario, tuvieron destaque relevante en la adhesión a TARV. En ese contexto, monitorear y medir la adhesión a la terapia antiretroviral con el uso de técnicas adecuadas puede contribuir para un aumento significativo de esos valores. **Conclusión:** es cierto que no existe um padrón oro que garantize la adhesión ideal, com todo, el uso de técnicas de monitoreo correctas y combinadas, pueden disminuir significativamente el impacto de diversos factores que predisponen la adhesión ineficaz al tratamiento del SIDA. **Descriptores:** Síndrome de inmunodeficiencia adquirida, Negativa del paciente al tratamiento, Terapia antirretroviral altamente activa.

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INTRODUCTION

Since the decade of 80s antiretroviral drugs (ARV) have been used in the treatment of acquired immunodeficiency syndrome (AIDS). However, only from 1996, with the advent of new classes of ARV (protease inhibitors and reverse transcriptase inhibitors not nucleosides) was achieved by the combined antiretroviral therapy (HAART - Highly Active Antiretroviral Therapy), significant successes in treating people infected with HIV.[1]

Before that, from 1996, with the advent of potent antiretroviral drugs combined regimen for treatment of HIV infection, it was observed the reduction when time passing an increase of numbers of new cases of HIV infection, it is strongly suspected that the reduction of viral load in the blood and secretions of the infected could be one of the factors that would justify the delay of the epidemic increasing.[2]

In Brazil, as an effective strategy to combat AIDS, there is the policy of universal free distribution of antiretroviral drugs to HIV carriers. Indicators show the positive effects of this policy, as the mortality reduction, reduction of hospitalizations and reduced incidence of opportunistic infections and HIV vertical transmission.[1] In addition, data points out a significant reduction in mortality from 40% to 70%, in the period of 1996 to 2005.[3] Five years after diagnosed, on average 82% of carriers of the virus were alive, which confirms the benefits of universal offering of ART (Antiretroviral Therapy) in the survival of people living with HIV/AIDS in Brazil.[3]

The success of this strategy - free universal access - suffers, however, influence of levels of adherence to antiretroviral treatment, which has been prioritized in the public policies of some countries.[4] In the patient's perspective, the membership reduces the risk of virologic failure, increases survival, reduces the risk of progression to AIDS and the development of resistant viral strains, in addition to improving the quality of life. In the perspective of public health, the adherence is potentially able to reduce the risk of HIV transmission and of resistance to antiretroviral drugs.[5]

On the other hand, the non-adherence to new drugs for AIDS is regarded as one of the most menacing dangers for the effectiveness of the treatment in the individual plan, and for the dissemination of virus-resistance, in the collective plan. This is because the new therapeutic regimes seem to require the individual who adheres to the processing complex integration between knowledge, skills and acceptance, as well as other important factors related to the environment and to the health care.[6]

Adherence is understood as the establishment of a joint activity in which the patient is not a mere follower of medical advice, but understands and agrees with the recommended prescription.[7] In this perspective, adherence must be understood as a dynamic process of mutual responsibility between the patient and the health team.

The non-adherence is found in different diseases, especially in chronic diseases. However, in many areas of medicine, taking 75-80% of prescription drugs is considered great. In the case of patients with HIV/AIDS that make use of HAART, it is associated with the treatment failure, when membership is 80%.[8]

In this context, the difficulties of patients´ adherence to ART are numerous and range from the complexities inherent in treatment, passing through unfavorable socioeconomic contexts, psychosocial aspects, even health service limitations provided. Thus, the knowledge of the factors related to non-adherence among HIV-positive patients, as well as the elucidation of their methods of monitoring adherence to the treatment regimen, represent an important aspect to be considered in the success of therapy.[8]

The aim of this study is therefore to analyze the main factors that interfere in the adhesion to the treatment of AIDS patients, as well as list some effective techniques in the process of monitoring of adherence to treatment with antiretroviral drugs.

The existence of a public policy of universal access to antiretroviral medication in Brazil causes studies on adherence to ART are of great importance, to provide better understanding of the problem and appropriate performance of professional teams to ensure good health and quality of life of people living with HIV/AIDS.[1]

METHOD

Study of integrative literature review, complying with the following steps: identification of the theme and selection of the guiding question; establishing the criteria for the selection of the sample; definition of the information to be extracted from selected studies; assessment of studies included in the integrative review and, finally, the interpretation of results and presentation of review.[9]

To guide this research the following questions were formulated: what factors interfere with the adherence to the treatment of patients with AIDS? What are the effective techniques in the process of monitoring of adherence to treatment with antiretroviral drugs?

The bibliographic survey was conducted in April and May of 2013 in three databases indexed: Latin American Literature in Health Sciences (LILACS), Scientific Electronic Library Online (SciELO) and Medical Literature Analysis and Retrieval System Online (MEDLINE). For the proper refinement of the collection, criteria for inclusion were: Articles in Portuguese and English, available electronically in full; articles that discuss the theme adherence to antiretroviral therapy, published from 2000 to 2013 period. Therefore, articles with year of publication below 2000 and duplicates were excluded. The cut of the studied period is justified to ensure the timeliness of the data, focusing on the trends of investigations analyzed.

For the survey of the articles, the controlled descriptors of Virtual Health Library for the Health Sciences were used, such as "acquired immunodeficiency syndrome" and "patient´s Refusal of treatment" and "high-activity antiretroviral therapy."

For critical analysis of articles found the reading and interpretation of descriptive studies selected integrative review, through the identification of ideas in common, or the different knowledge about the theme between studies, as well as conflicting content proposed objectives. It was later performed the synthesis of the results and compiled the findings presented in this study.

The authors used in this study were properly referenced, respecting and identifying research sources, observing ethical rigor regarding intellectual property of scientific texts that have been analyzed with regard to use of the content and citation of parts of the consulted works.

To perform the analysis of the sample, an adapted instrument[10] was used that contemplated the following aspects: article title; name of the authors; studied intervention; results and final thoughts/conclusions.

In order to maintain the quality of the studies, the pre-selected articles were evaluated as relevant and methodologically appropriate, using the form for evaluation of studies prepared by the Critical Appraisal Skills Programme (CASP).[11] Studies that reached a score of seven, of a maximum of 10 points, were included in the sample.

RESULTS E DISCUSSION

The initial sample found were selected by using the criteria of inclusion, exclusion and relevance of a total of 25 articles that constitute the final sample of this study.

From the studies found, there were 8 original articles included, 10 review articles of literature, 7 integrative review articles, having the year 2010 with the highest number of publications, developed mostly by professional doctors and nurses. To characterize the scientific production of the studies analyzed, there were 10 reviews of literature, 6 cross-sectional studies, 4 analytical studies, 3 cutting retrospectives and 2 observational studies.

For a better understanding of the theme, the factors that interfere with treatment adherence with antiretroviral drugs to AIDS patients were grouped in: Peculiarities of treatment; Disease-related factors; Socio-demographic factors; Psychosocial factors; Factors related to the health service.

Peculiarities of treatment
Research report that the complexity of the treatment generates meaningful results on non-adherence of patients to HAART, i.e. the number of doses, the number of drugs, the

side effects and changes in lifestyle are factors that can lead to a decrease in treatment adherence.[12]

In this way, the difficulties of adherence in HIV/AIDS derive in part, the complexity of the ART, to the extent that some medications need to be taken with food, others on an empty stomach, or in temporal sequences combined with other medications, which require organization and commitment of the patient in relation to their treatment.[1]

A relevant factor to be highlighted, is the total number of prescribed pills/day. Studies show that for each pill swallowed, the risk increases for non-adherence in 1.12 (12%) and that is 3.2 times every 10 pills.[13]

Researches reveal that patients with HIV, tolerate more side effects than patients with less severe chronic diseases like high blood pressure or diabetes.[14] Corroborating this result, in Brazilian study, the authors found that the "side effects absence" raised in 7.6 times the risk of non-aherence[(6)]. However, the occurrence of lipodystrophy, is an example of the adverse consequences of the use of ART, which is still today in great challenge both for HIV-positive people as for health teams[1].

Disease-related factors

Studies show that adherence to HAART was significantly lower among customers with lower CD4+ cell count, suggesting that when they are ill, its manifestation becomes more intense, the adherence can be compromised. This may be related to two factors: the cognitive and physical limitation and lower social support with the advancement of the disease[12] i.e., the degree of evolution and severity of disease directly affect the adherence of the bearer of AIDS to the treatment regimen.

In addition, the absence of symptoms, as indicative of improvement, the fact the patient feeling better, and the improvement in the indicators of laboratory tests are factors that favor the adherence.[13] On the other hand, the absence of immediate therapeutic advantages, the need to control and periodic medical monitoring, as well as the report of feeling bad associated with the use of medication, can encourage the abandonment of therapy, affecting the adherence.[14]

It is worth noting that the improvement of symptoms in some cases, can lead to interruption of treatment because the person assesses that there is no need for medication, only returning to use it when feeling bad[13] what makes this controversial this indicator and often inconclusive.

Socio-demographic factors

The association between variables demographics (gender, age, ethnicity, educational level and income) and adherence to ART has been investigated with controversial results.[14] Study with Brazilians HIV positive found that, between demographics and clinical variables, only education level presented significant association with adherence, being this most satisfying among people with more years of study.[15] it is assumed, so that people with a few years of study have less access to information about the disease and treatment, leading to insufficient understanding about the role of the ARV and the potential losses of non-adherence.

Housing conditions and income are identified as low-risk factors, interfering only when they affect access to treatment, in Brazil they are factors of little impact that offer universal distribution of medicines for AIDS.[13]

It is worth mentioning that social behavior related factors make the difference between sex and treatment adherence. Study revealed that women who took care of two or more children were least adherent when compared to those who had no sons.[16]

In relation to age group, generally speaking, adherence increases with age, except over 75 years old. Searches still reveal an association between non-adherence and younger individuals, as well as an increase in the adherence between older individuals.[16]

Taking into account the ethnicity study in Brazil showed that the black race presents 6.48 times more risk of non-adherence than white or yellow races[6]. In another study, the authors showed that there was a relative risk of non-adherence of 1.7 in relation to no white ethnicity.[12]

Psychosocial factors

Psychosocial variables reflect significantly from patient´s adherence to ART, autovalorização feelings, positive perception of the ARV, acceptance of seropositivity, use of strategies for dealing with forgetfulness and understanding about the need for high levels of adherence were mentioned in study as facilitators in the various realities aspects, generating satisfactory values of adherence.[7]

Another variable of interest in research in the field of health psychology is the self-esteem, feelings of less value might encourage negligence in care health reasons[8], moreover, psychiatric disorders primarily the state of clinical depression, extreme anxiety and social isolation are also associated with non-adherence to treatment.[6]

The consumption of alcohol is important to be highlighted because it is associated with worse prognosis in patients with AIDS. Its problematic use can reduce the patient's adherence to HAART, in addition to providing risk behaviors such as use of other drugs and to increase the frequency of depression.[16]

It is clear therefore, the importance of consolidating the bond and the reception in health teams, as a way of strengthening ties between users and healthcare professionals, providing monitoring and social support to HIV-positive patient, in order to address doubts about the ART and keep that individual integrated society, with coping high capacity, thus diminished the risk of abandonment of the treatment.

Factors related to the health service

In HIV/AIDS, the relationship with the user must be characterized by a posture of reception, to the care of specific demands and their participation in planning and decision-making about their own treatment.[1]

Paiva et al. highlighted the complexity of adherence to ARV stems from changes in everyday life for daily use of medicines. The authors pointed out that the side effects (nausea, dizziness, malaise), as well as the difficulties of communication between patients and health professionals are of great importance in adherence.[17]

Given this, studies confirm the positive relationship between adherence and the good quality of care, with emphasis on the relationship with health professionals.[13.14] This aspect is considered essential to treatment adherence, having relationship with customer perception about the professional competence, the quality and clarity of communication, the provision of professionals to involve clients in decisions regarding treatment with the feeling of support, with satisfaction with the team and adequate information about the treatment and the severity of side effects.

Moreover, the difficulty of access to health services, which is related since the distance from the user´s housing to assistance until the trouble appintment of follow-up consultations, as well as the existence of social support programs, such as support for users´ children, rehabilitation of drug addicts, transport assistance, among others,[12.14] are factors that interfere with adherence to the treatment of AIDS patients.

Monitoring and evaluation of treatment adherence

Monitoring and measuring adherence to antiretroviral therapy has been a major challenge for health professionals, since there are no methods or procedures capable of ensuring the adoption of a suitable standard as regards the adherence of a person. On the other hand, the trustworthiness of the measure of adherence to antiretroviral treatment is essential to assess proposed interventions, improve the follow-up treatment and prevent viral resistance.

Currently, the methods used for measuring anti-retroviral adherence include indirect and direct measures. Among the indirect measures there are the self-report, the electronic monitoring of medicines (electronic medication monitoring), the count of pills and the records relating to the withdrawal of medicines from the pharmacy. Direct measures are less widely used and include the detection of antiretroviral drugs or their blood metabolisers.[7]

Self-report

Considered the most widely used method in monitoring the treatment adherence in AIDS patients, the self-report presents advantages for being a low-cost technique that requires very little time to be applied, in addition to providing listening and discussion of motives and difficulties relating to missed doses and possible solutions to improve adherence to treatment.

However, there are some challenges to this technique, as the tendency of patients in overestimted adherence for fear of disappointing or upsetting the health professionals, in addition to the need of a professional-user relationship based in the reception and in the bond, allowing the patients report honestly and trustworthy on topics relating to their treatment.[18]

Count of pills

This method can be ineffective if the patient does not feel welcomed or do not have a good relationship with the health team to report difficulties with the treatment. Thus, he can empty the bottle before bringing it or even omit the fault in ingestion of the

medication. Another point to be considered is that the count of pills requires a good organization of the pharmacy´s own records in order to correctly identify the date on which the patient sought the drugs, the number of pills he tooks and when he should return to get another amount.[7]

It is worth pointing out that the surprise factor decreases the ability of the patient to empty the bottle before counting, however it can strengthen to him the feeling of policing or distrust of the team about his behavior of adherence. Furthermore, any intervention that might damage the relationship between patient and health team should be considered counterproductive.[19]

Registration of Pharmacy dispensing of ARV

The use of pharmacy records as a measure of adherence is very common in establishments which has control over the dispensation of antiretroviral drugs. One of the indicators of adherence levels can be the date of withdrawal of medicines from the pharmacy compared with the expected date. This measure is based on the possibility that patients who seek their medications on time tend to take them more correctly than those who delay even in the withdrawal of their medicines from the pharmacy. [7]

Electronic monitoring of medicines

This method consists in the use of bottles of medicines adapted with a microprocessor on the lid that marks the time and date when the bottle was opened, and the presumed dose withdrawal. The information is stored until it is downloaded on the computer.

The benefits of electronic monitoring include the ability to verify, including the interval between doses, in addition to the number of times that the bottle was opened and the drug ingested. However, challenges such as the difficulty of measuring if the medicine removed was actually ingested, and delayed processing of information for the computer and the high cost of each bottle, limit the use of this technique.[7]

Monitoring of levels of ARV medicine

The monitoring of ARV drug levels in the blood has been considered a direct and objective measure of adherence to medicines that can be used both in the clinic and in research. The analysis is made by the result of a blood test that indicates levels of present medication.

Despite being an objective measure, presents several desadvantages. The main one is that the blood test is only able to reflect the ingestion of the drug in the last 24 hours, i.e. patients aware that they will draw blood can take the VRA the day before, without, however, they were taking the medicines regularly earlier. Another limitation is that results may vary due to factors such as interaction with other medications or with certain foods. However, the factor that most hampers its use on a large scale is the high cost, in addition to the need for equipment and procedures standardized collection.[7]

CONCLUSION

The present study identified factors and techniques directly related to adherence and its monitoring in patients undergoing antiretroviral treatment. It is true that there is no gold standard to ensure optimum adherence, however, the use of correct monitoring and combined techniques, can significantly decrease the impact of several factors that predispose the adherence ineffective to AIDS treatment.

In this context, it is clear that, despite medical advances in discovery increasingly accessible and effective drug, challenges for adherence of users in ART continue, since it is a treatment that extends throughout the patient's life, to combat a disease that has no cure yet, and therefore can produce side effects that accompany the user HIV-positive for long periods of time.

It is essential, therefore, that the health teams recognize the non-adherence as a phenomenon that must be tackled systematically in an action associated with the user, family and multidisciplinary team, recognizing promptly factors that interfere in the adherence, and seeking to reduce their impacts on the treatment, in order to narrow distances between the patient and the health team, making the monitoring of adherence a healthy and successful process. In this way, each user must be treated individually to have their difficulties identified and worked according to their needs. Thus, it is possible to provide the patient with humanized and reception care, focusing on an ahderence capable of delivering the re-establishment of health and citizenship of each individual.

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