Revista de Pesquisa Cuidado é Fundamental Online
E-ISSN: 2175-5361
rev.fundamental@gmail.com
Universidade Federal do Estado do Rio de Janeiro
Brasil

Gomes Cardim, Mariana; de Sales Norte, Monique; Nunes Moreira, Martha Cristina
Accession of children and adolescents to antiretroviral therapy: strategies for care
Revista de Pesquisa Cuidado é Fundamental Online, vol. 5, núm. 5, diciembre, 2013, pp. 82-94
Universidade Federal do Estado do Rio de Janeiro
Rio de Janeiro, Brasil

Universidade Federal do Estado do Rio de Janeiro
Revista de Pesquisa Cuidado é Fundamental Online
ISSN 2175-5361
DOI: 10.9789/2175-5361

REVIEW

Accession of children and adolescents to antiretroviral therapy: strategies for care

Adesão de crianças e adolescentes à terapia antirretroviral: estratégias para o cuidado

Adhesión de los niños y adolescentes a la terapia antirretroviral: Estrategias para el cuidado

Mariana Gomes Cardim[1], Monique de Sales Norte[2], Martha Cristina Nunes Moreira[3]

ABSTRACT

Objectives: To describe the strategies used for children and adolescents adherence to antiretroviral therapy, described in the scientific literature, and discuss the role of nursing staff across the adherence of children and adolescents with antiretroviral therapy. **Method:** An exploratory bibliography of articles selected by VHL. **Results:** We found 15 scientific works related to the theme. **Conclusion:** We found individual strategies of approach, focused on children and adolescents, and group centered on the family / caregivers. It was found that regardless of the approach used, the family / caregiver is directly involved in the disease process of the child and adolescent antiretroviral therapy. We conclude that the practice of care needs to be constantly evaluated to develop appropriate interventions for its improvement. The care strategies were shown to be the way to successful adherence to antiretroviral therapy, as were evaluative and interventional later problems related to adherence. **Descriptors:** HIV, AIDS, Antiretroviral therapy, Adherence, Intervention.

RESUMO

Objetivos: Descrever as estratégias utilizadas para a adesão de crianças e adolescentes à terapia antirretroviral, descritas na literatura científica; e discutir o papel da equipe de enfermagem frente à adesão de crianças e adolescentes à terapia antirretroviral. **Método:** Estudo bibliográfico de caráter exploratório de artigos selecionados através da BVS. **Resultados:** Encontraram-se 15 produções científicas relacionadas ao tema. **Conclusão:** Foram encontradas estratégias de abordagem individual, centrada na criança e no adolescente; e em grupo, centrada na família/cuidadores. Verificou-se que independente do tipo de abordagem utilizada, a família/cuidador está diretamente envolvida no processo saúde-doença da criança e adolescente em uso de terapia antirretroviral. Concluímos que a prática de cuidar precisa ser constantemente avaliada para que desenvolvamos intervenções apropriadas para seu aprimoramento. As estratégias de cuidado nos mostraram ser esse o caminho para o sucesso da adesão à terapia antirretroviral, pois foram avaliativas e posteriormente intervencionistas nos problemas relativos à aderência. **Descritores:** HIV, Aids, Terapia antirretroviral, Adesão, Intervenção.

RESUMEN

Objetivos: Describir las estrategias utilizadas por los niños y adolescentes de adherencia a la terapia antirretroviral, que se describe en la literatura científica, y discutir el papel del personal de enfermería a través de la observancia de los niños y adolescentes con la terapia. **Método:** Bibliografía exploratoria de los artículos seleccionados por VHL. **Resultados:** Se encontraron 15 trabajos científicos relacionados con el tema. **Conclusión:** Encontramos las estrategias individuales de enfoque, centrado en los niños y adolescentes, y el grupo se centró en la familia. Se encontró que, independientemente del método utilizado, el cuidador familiar está directamente involucrado en el proceso de la enfermedad del niño y de la terapia antirretroviral adolescente. Llegamos a la conclusión de que las estrategias de atención, se mostró a ser el camino a la adhesión satisfactoria a la terapia antirretroviral, así como los problemas posteriores de evaluación y de intervención relacionadas con la adhesión. **Descriptores:** VIH, el SIDA, El tratamiento antirretroviral, La adhesión, La intervención.

[1]Technologist in Public Health of the Institute Fernandes Figueira; PhD in Child Health by IFF/FIOCRUZ. E-mail: maricardim@gmail.com. [2]Clinical Nurse Specialist in Child Health. Doing masters in Nursing at UNIRIO.E-mail: moniquenorti@hotmail.com. [3]Psychologist, Master in Public Health, PhD in Humanities / Sociology; Analyst Manager in Senior Health; Professor at the Post-graduate in Health of Child and Women. E-mail: moreira@iff.fiocruz.br.

INTRODUCTION

During the daily practice of working in the sector of Pediatric Infectious Diseases with children and adolescents with HIV / AIDS and have use of antiretroviral therapy, we can observe a high degree of non-adherence to therapy. This becomes more evident when we find often medications down the bed mattress and presence cries and appeals at the time of administration of the same.

In the specific case of antiretroviral therapy, the currently recommended treatment regimens are presented with a high degree of complexity. Several different drugs, with two to three doses a day (which may interfere in the diet), with a large number of tablets or capsules, drugs in solution form with unpleasant taste and used indefinitely, which greatly hinders the adherence to long term.

The advent of antiretroviral therapy has improved the quality of life in all stages of HIV infection, allowing greater survival to people with this virus. Opportunistic infections are mostly treatable, but there is need for good adhesion of medications to control these events.[1]

Adherence to treatment is defined as:

> [...] A multifactorial process that is comprised of a partnership between those who care and who care; respect to frequency, constancy and perseverance in relation to health care seeking. Therefore, the link between professional and patient is a factor structuring and consolidation of the process, so you should be considered for that efetive.[2:94]

Thus, a good adherence to treatment permeates several steps as to properly take antiretroviral drugs, follow the correct doses for the pre-set time, and adhere to the health service charge (multidisciplinary team).[1]

Thus, when the focus is on customer pediatric, the issue of membership also encompasses the figure caregiver, that needs to be made aware of the importance of their participation in treatment and guided in the best way possible, about the likely difficulties and ways of driving appropriate. This is because "the new AIDS drug regimens appear to require the 'stick' complex integration of knowledge, skills and acceptance, and other important factors related to the environment and health care."[3:01]

The impact of the spread of HIV among children and adolescents occurs in several ways. In addition to the difficulties imposed by the disease, discrimination and stigmatization are potential barriers to their integration into the community. When you have access to health care, the need for frequent visits to the health interferes with daily routine, making adherence to treatment. In addition, the constant exposure to multiple drugs and the risk of side effects may result in changes in their normal development.

Alongside advances in antiretroviral therapy, greater access to diagnostic resources and better structuring of services offered significant decrease in mortality and increased survival.[4] Since the beginning of the AIDS epidemic in the 80s until today, much has been done to provide better quality of life for those living with HIV, and among other actions, is the universal distribution of drugs, stressing that Brazil was the first third world country to adopt such a measure.[3]

The chronicity of AIDS implies adherence to a complex drug regimen and prolonged. Studies have shown that compliance failures increase the risk of incomplete viral suppression and the development of drug-resistant viral strains available5, which implies not only the reduction of other therapeutic possibilities for the patient as well as the possibility of virus spread resistance in the community.

Thus, the multidisciplinary team and nursing assume a prominent role in this scenario requiring some care strategies to act against the question of adherence to antiretroviral therapy in children and

adolescents, in view of the consequences of non-adherence to both the individual as at the collective level.

In this direction, this study aims to describe the strategies used for children and adolescent's adherence to antiretroviral therapy, described in the scientific literature, and discussing the role of nursing staff across the non-adherence of children and adolescents with antiretroviral therapy.

METHODOLOGY

This is a bibliographic study of exploratory character. The literature is developed based on material already prepared, consisting mainly of books and scientific articles. Much of the exploratory studies can be defined as literature searches.[6]

The steps for implementing a written review of the literature basically consist in raising reading selection, access and analysis of potential literature.[7]

Thus, first survey was conducted of scientific production using the Virtual Health Library (VHL) through the following databases: Database of Nursing (BDENF), Latin American and Caribbean Health Sciences (LILACS), Health in Adolescence (ADOLEC) and International Literature on Health Sciences (MEDLINE). To further enrich our literature sources were used in own bibliographic reference of the items already found previously in VHL from Google Scholar.

For the development of this research, we used the advanced form available at BIREME using the following subject descriptors: HIV or AIDS, antiretrovirals or HAART (highly active antiretroviral therapy), and patient cooperation or non-cooperation of the patient (equivalent to adherence and non-adherence to treatment, respectively). We also used the word membership and limited to articles involving children and adolescents who were included among the years 2000 to 2010.

After use of descriptors, keyword and limits were found several articles, and performed the reading and selection of abstracts according to the object of this study. Finally, the analysis was done, after access to the publication in full of scientific output corresponding to the selected abstracts.

Thus, 15 articles were selected. Data analysis was performed using categorical analysis proposed by Bardin where:

> It is processed from a break-up text units in categories according regrouping analog. Points out that among the different possibilities of categorization, this work may be favored by opting for research themes or thematic analysis, in this case, your application provides speed and efficiency. [8:42]

To facilitate the process of categorization of studies, we built a tool (Table 1) containing information such as title and subject matter of each selected item.

Table 1 - Titles and objects of study of selected scientific production

TÍTLE	OBJECT OF STUDY
Efficacy of a pill-swallowing training intervention to improve antiretroviral medication adherence in pediatric patients with HIV/AIDS[9]	Técnica de treinamento de engolir pílula para melhoria dos resultados da aderência à terapia anti-retroviral em pacientes pediátricos.
Long-term observation of adolescents initiating HAART therapy: three-year follow-up[10]	Resultados virológicos e imunológicos de três anos de acompanhamento de adolescentes infectados pelo HIV.

The use of cell phone reminder calls for assisting hiv-infected adolescents and young adults to adhere to highly active antiretroviral therapy: a pilot study[11]	Ligações diárias através do telefone celular para adolescentes e adultos jovens infectados por HIV em início do regime HAART.
Reported adherence as a determinant of response to highly active antiretroviral therapy in children who have human immunodeficiency virus infection[12]	Adesão auto-relatada por crianças que vivem com HIV/Aids
Hospital-Based Directly Observed Therapy for HIV-Infected children and adolescents to assess adherence to antiretroviral medications[13]	A aderência às medicações anti-retrovirais por crianças e adolescentes HIV-positivos suspeitos de não adesão ou que tenham tido falhas em outras intervenções para melhorar a adesão através de uma "terapia hospitalar diretamente observada".
Validação e reprodutibilidade de uma escala de auto-eficácia para adesão ao tratamento anti-retroviral em pais ou cuidadores de crianças e adolescentes vivendo com HIV/Aids[14]	Escala de auto-eficácia para adesão ao tratamento anti-retroviral em crianças e adolescentes com HIV/Aids.
Assessment of adherence to antiviral therapy in HIV-Infected children using the Medication Event Monitoring System, Pharmacy Refill, Provider Assessment, Caregiver Self-Report, and Appointment Keeping[15]	Utilização do Sistema de Monitorização Eletrônica de Medicações em monitorar a adesão ao HAART em crianças infectadas pelo HIV em comparação com outros métodos de avaliação da adesão.
Assessing medication adherence in adolescents with HIV when Eletronic Monitoring is not feasible[16]	Três diferentes métodos de adesão auto-relatada
Adherence to antiretroviral therapy in HIV-Infected pediatric patients improves with Home-Based intensive nursing intervention[17]	Adesão à medicação anti-retroviral por crianças e adolescentes através do atendimento domiciliar de enfermagem
Use of Multisystemic Therapy to improve antiretroviral adherence and health outcomes in HIV-Infected pediatric patients: evaluation of a pilot program[18]	Programa de terapia multisistêmica para melhorar a aderência e o regime de saúde em crianças HIV-positivas que tem alta carga viral e ausência de resistência viral
Gastrostomy tube insertion for improvement of adherence to highly active antiretroviral therapy in pediatric patients with human immunodeficiency virus[19]	Uso da gastrostomia para melhorar a adesão ao HAART em crianças infectadas pelo HIV.
A family group approach to increasing adherence to therapy in HIV-Infected youths: results of a pilot Project[20]	Utilização do grupo familiar para aumentar a aderência à terapia antiretroviral em jovens infectados pelo HIV.
The TREAT (Therapeutic Regimens Enhancing Adherence in Teens) Program:	Avaliação da adesão de jovens ao esquema anti-retroviral.

theory and preliminary results[21]	
Family experiences with pediatric antiretroviral therapy: responsibilities, barriers, and strategies for remembering medications[22]	Experiências familiares com fatores relacionados à responsabilidade com o regime medicamentoso, barreiras para adesão e estratégias para lembrar de administrar as medicações.
Integrating adherence to highly active antiretroviral therapy into children`s daily lives: a qualitative study[23]	Avaliação da aderência de crianças que recebem HAART através do auto-relato dos cuidadores e resultados laboratoriais.

The analysis of scientific articles in question, dealing with strategies for adherence to antiretroviral therapy in children and adolescents living with HIV / AIDS, from its contents, pointed to some directions. Thus, information from these categories emerged from the analysis understood as:

- Strategies of adherence to antiretroviral therapy used by children, adolescents and their caregivers: the organizational routine of families to care;

- Strategies for assessing health professionals regarding adherence of children and adolescents to antiretroviral therapy: evidence for care, and

- Intervention strategies for children and adolescents adherence to antiretroviral therapy used by health professionals: solutions found in the practice of caring.

RESULTS AND DISCUSSION

Strategies of adherence to antiretroviral therapy used by children, adolescents and their caregivers: the organizational routine of families to care

The articles selected for this category address the strategies used by children/adolescents and caregivers to organize your daily life in search of a good adherence to antiretroviral therapy.

With the advent of HAART, the rate of morbidity and mortality from HIV/AIDS in children and adolescents with HIV had reduced considerably and it was improving the quality of life of patients and their families.

Thus, family members, especially caregivers, tend to face new challenges, such as disclosure, initiation and continuation of schooling, adherence to a complex drug treatment and long-term, the arrival of puberty and sexual initiation.

With these situations that are difficult to deal with, relating to the treatment and aspects of everyday life, patients and/or their caregivers (many of them also seropositive) adopt strategies that facilitate the daily membership organization of families seeking the well-being, psychological and physical social development of children/adolescents.

Some authors bring in their studies that the use of reminders such as calendars, clocks, alarm clock, "individual boxes of pills" (pill box) are of great importance for caregivers, children and adolescents, as they help to remember the time of administering/taking antiretroviral medication.[22,23] The authors also emphasize that at the time of antiretroviral medications incorporates the daily

routine of the family, reminders are used less, because they become habits. Caregiver's stress, these same studies when there is organization of the daily routine, to integrate the administration of antiretroviral medications to this routine is easier and involves taking the medications every day, at the same times.[22,23]

The strategy used by caregivers to provide antiretroviral medications along with meals or other foods tasty and appetizing have been featured in these same studies, setting up, in most cases, as an effective strategy.[22,23]

Other strategies were also highlighted as used by caregivers to remember the timing of administering medications as: pair taking medication with other activities or before / after performing them; take the medication at the same times of their caregivers, children / adolescents or other person involved with treatment resemble the caregiver time to administer medications; making schemes written with the times and doses of each medication not forget to administer them to children and adolescents.[23]

From the strategies used by families that have been described previously, we found that each of them is related to a specific difficulty of the accession process, in order to better explicit this relationship was built table 2.

Table 2 - relationship between the strategies used and difficulties to the treatment

STRATEGIES	DIFFICULTY
Use of calendars, alarm clocks, clock alarms, "individual boxes of pills (pill box)	Schedules of medications
Take antiretroviral medications along with meals or with food with pleasant taste	Taste/schedules of medications
Organization of daily routine	Schedules of medications
Reconcile the medication outlet with other activities or before/after you perform them; take the medications in the same timetables of their caregivers; children/teens or someone else involved with treating remind caregiver from administer medications.	Time to take the medicines
Schemas written with the dosage of each medication	Schedules/doses of medications

Analyzing the framework constructed can highlight that the greatest difficulty encountered by caregivers, children and adolescents refers to the memory of times when taking medications is necessary to create strategies that these schedules are adhered to strictly. Do not forget that the suitability of these times the daily routine reflects the careful organization of daily family life.

Regarding the taste of medications, only one strategy was addressed to children and adolescents were able to ingest medications minimizing its bad taste. This strategy also reduces the difficulty associated with the unpleasant taste of the medication may also reduce the side-effects of these drugs antiretroviral specific, for example, the occurrence of vomiting.

Another difficulty in the chart relates to the doses of the medications. The strategy used was the description of dosage regimens in the form of writings. These schemes besides facilitating the memory on the doses to be taken, also reinforced the schedule of medications.

Thus, it was possible to verify this category the patients themselves and their families sought strategies to organize your daily life for good adherence to treatment especially with regard to mind the schedules of medications. This organization is extremely relevant to the family we learn that some barriers associated with non-adherence to antiretroviral therapy reflect the family disorganization, and forgetfulness, occupation with other activities not reserving a time to take the medications and changes in daily routine.[22]

Strategies of evaluation of health professionals regarding adherence of children and adolescents to antiretroviral therapy: evidence for care

Various strategies to evaluate adherence to antiretroviral therapy are used by health professionals to determine the adherence rate to this therapy, creating evidence for nursing care.

Evaluations are carried out to: identify factors influencing adherence, non-adherence or poor adherence, to create intervention strategies in adherence difficulties encountered, or to assess the effectiveness of strategies already in place with the ultimate goal of achieving adherence antiretroviral therapy> 95% as recommended by the Guideline for the Use of Antiretroviral Agents in Pediatric HIV Infection.[24]

Some authors have as main strategy evaluation studies of self-reported adherence.[12, 16, 20] This self-reporting can be done by caregivers and / or by children or adolescents. The questionnaires formulated by the authors were applied by health professionals, including nurses. In other studies, self-reported adherence is cited along with other strategies to assess adherence to antiretroviral therapy.[13,15]

The self-reported adherence is an easy way to obtain compliance data during clinical consultations. The interview guide is formulated by health professionals, in order not to judge attitudes and emphasizing the importance of collecting data real grip on the three days preceding the clinic visit. It is also suggested that self-reported adherence may overestimate adherence because of the desire of children / adolescents and their families to please the health professional who accompanies them. Moreover, this strategy reflects only one recent behavior; it is difficult to remember a forgotten dose beyond three days.[12]

Some authors used beyond self-reports, laboratory tests to confirm the results obtained with this strategy.[12,13,15] Thus it can be concluded that this strategy, by itself, cannot claim the child or adolescent is adherent to antiretroviral therapy.

Another strategy evaluation highlighted is the membership fee to antiretroviral therapy obtained by nurses. There was a questionnaire in which nurses collected information on the timing of medications and doses missed, and the reasons for these doses have not been taken. After gathering this information, it was estimated a rate of adherence to antiretroviral therapy. An advantage that can be highlighted in this method is that it is easily applicable in the clinical consultation. One disadvantage associated with this strategy is that there is an overestimation of adherence rate compared to other self-reports.[16]

In this same study, the author brings as a new evaluation strategy to daily phone call. This strategy involves making a call a day for three consecutive days to research participants. They were questioned about their daily activities, including the use of antiretroviral medications in the last 24 hours. The limitations to the use of this strategy are: cannot be made during the clinic visit, the lead time is restricted to describe all the behavior of the participant during the last 24 hours, and remember all that was done during that day is tiring and laborious.[16]

When faced with situations of non-adherence to antiretroviral therapy in the use of these strategies of self-report, it is important to make explicity for children, adolescents and their caregivers the best way to achieve a satisfactory rate (> 95%) of adherence to effective load reduction viral, not pre-judging not to feel discouraged.[16]

Farley et al compares, in his research, the method of monitoring electronic medication container and other methods, such as information on the antiretroviral pharmacy refill, evaluation of compliance by health professionals and self-reported adherence of caregivers. The author also uses laboratory tests to confirm the results obtained with electronic monitoring. The conclusion shows that the electronic monitoring achieves a better virological response associated method information refueling of antiretrovirals by the pharmacy, compared to other methods mentioned above.

Analyzing the use of this method we can say that a device is very expensive and cannot be provided by any health service for its high cost. It is an effective method, and is used as a "gold standard" in measuring adherence. A limitation of this device is that by being an electronic device, there may be a malfunction. Another limitation is that there is no guarantee that the recipient will open for the patient to ingest the medication, even if it is the correct time to take them.

Glikman et al used in their study, the Directly Observed Therapy (DOT) as a strategy for assessing adhesion. The DOT is a direct method to measure adherence. In this study, the DOT was performed during a hospital stay "elective", to develop specific research. It lasted for a week and was aimed at children and adolescents who had good adherence to antiretroviral therapy. At admission the patients and their caregivers were responsible for administering their own medications, at the same times they took home. The observation of taking the medication was made by nurses from the hospital and was able to collect information such as adverse effects of medications, forgetfulness or delay in taking the prescribed doses, and psychosocial problems. During hospitalization, patients and their caregivers were given educational lectures to physicians, nurses, nutritionists and social workers about the program HIV / AIDS. Laboratory tests were collected before and after hospitalization, which assisted in the evaluation of treatment effectiveness.

A limitation of the DOT is the fact of having to be the hospital, which is not interesting for the participants, especially when the focus is on pediatric clientele. The fact that the patients were admitted to the hospital in order to be seen as taking the medication can lead participants to police themselves to the utmost to avoid losing timing of medications, since they were being watched and monitored by nurses. The strategy was effective for that moment, requiring follow-up of these patients.

Costa et al used in their study a range of self-efficacy for adherence to antiretroviral therapy as a strategy evaluation. The author adapted this scale, which was used in adults, children and adolescents. This self-efficacy corresponds to the subject's judgment about their ability to successfully perform a specific pattern of behavior, in case the membership, regular monitoring of the prescription. The methodology used was interviews, conducted by health professionals with caregivers of these children and adolescents. The choice of caregivers responding to questionnaires given by the immaturity mainly linguistic and cognitive development of children who are still too young to respond to questions. The study aimed to validate this scale, as well as test their reproducibility in children and adolescents. At the end of the study, we were able to achieve the goals.

It was possible to verify that the six studies selected for this category, five used laboratory tests to confirm the effectiveness of the evaluation strategy used. It concludes with this that

laboratory tests are of paramount importance when we report the evaluation methods of antiretroviral therapy adherence.

The results from these assessment strategies show us evidence that can be used to improve the practice of care provided by health professionals to children and adolescents in antiretroviral therapy, since they define the factors influencing non-adherence or poor adherence treatment. Therefore, health professionals can better plan the care and create intervention strategies specific to each patient and family.

Intervention strategies for children and adolescents adherence to antiretroviral therapy used by health professionals: solutions found in the practice of caring

Intervention strategies are effective ways to bring the points of greatest problems of children and adolescents adherence to antiretroviral therapy.

These strategies were divided in this category, basically setting up two approaches: one individual, focused on children and adolescents, and another group centered on the family / caregivers.

The modification of AIDS grievance with high lethality to chronic illness has passed the physical and psychological development of children and adolescents with HIV. 5 Interventions will perform against adjustment difficulties these patients to the complex system of antiretrovirals that is offered to them, often without choice options, seeking solutions to improve the practice of caring.

Some authors have shown in their studies some forms of intervention strategies group. [17,18,20,21] This approach is interesting from the moment that the participants in these groups experience the same experiences of illness and treatment, and may share the same feelings and learnings.

The group interventions found in the articles analyzed were developed in the homes of study subjects or in health institutions. Interventions at the residence of the families who participated in the studies were conducted through home visits. Basically, the objectives of these visits were: to promote health education with a focus on adherence to antiretroviral therapy and clarification on HIV / AIDS; lift the barriers encountered for proper adhesion and possible interventions in these difficulties; observe the administration / ingestion of antiretrovirals by or caregivers of children and adolescents. Health professionals responsible for these interventions were psychologists, social workers and nurses.

The study showed that the intervention made by nurses observed an increased focus on the issue of health education, promoting greater knowledge and understanding about HIV infection, causes of non-adherence to antiretroviral therapy and appropriate ways to solve those problems that are prohibitive for good adhesion. This form of intervention by nurses allows carers, children and adolescents participate effectively in their treatment as to realize the benefits with the proper use of this therapy, such as: decreased viral load, increasing the percentage of CD4 T cells, decreased virus-resistance and delayed clinical progression of the disease.

The intervention group made intra-institutional addressed two different groups: one with primary focus on family / caregivers seeking to resolve family conflicts, and another focusing on adolescents extended to their families / caregivers. In these groups shows the importance of the family to be involved in the treatment of children and adolescents to adequate adherence to antiretroviral therapy. It is noteworthy that a good relationship between the family members, with demonstrations of confidence and realization of dialogues, can increase levels of membership.

Other studies analyzed discourse on individual approaches with regard to intervention strategies to promote adherence to antiretroviral therapy in children and adolescents.

Evidenced the use of gastrostomy (GTT) to improve adherence to HAART. The insertion of GTT was performed during the stipulated time for the study and analyzed the period before and after the placement of this device. Children who inserted the GTT had problems with adherence, and made to achieve viral suppression more effective and lasting.

This type of method to promote adherence becomes relevant when we look at the results. For the authors, the family / caregivers felt more satisfied with the treatment, because with the GTT is decreased time spent on administration of medications. Children who participated in the study tolerated the GTT and were more motivated to adhere to antiretroviral therapy because they felt less unpleasant taste, and side effects caused by drugs. These advantages have meant that there was an improvement in adherence and quality of life of these children. However, one should take into account that it is a highly invasive procedure.

One study noted an intervention by an individual training to swallow pills for children and adolescents in order to improve adherence to antiretroviral therapy. With the technique we found that younger children made fewer sessions than older children or teenagers. According to the authors, the Children aged less often were in the beginning of use of the therapy or had never used, proving to be more easy to learn, since previous experiments had no unpleasant as regards the taking of drugs under formula of pills.

The training was offered by psychologists showing that, every day, nursing loses more space for other professions, since this care in administering medications has always been directly related to the tasks performed by nurses.

Another study introduces the use of the cell phone to aid in remembering the schedules of medications being observed, as well as the strategies used by caregivers, constant concern with forgetfulness or delay in taking antiretrovirals. Study participants were adolescents who used the therapy and had no satisfactory adherence to treatment and experienced troubled family environments. It offered them a cell phone, where they received daily calls, and the number of calls decreased gradually during certain weeks of the study.

A reflection on this study is that adolescents have a large factor for noncompliance: the presence of disturbed environments. With this we can conclude that family conflicts are predictors of poor adherence to antiretroviral therapy. A possible solution to this problem would be the promotion of family meetings to discuss conflicts and to find ways of resolving obstacles to adherence.

We conclude that category that regardless of the approach, whether individual or group, family / caregiver is directly involved in the disease process of the child and adolescent antiretroviral therapy.

The caregiver becomes an important figure as it is fully responsible for the therapeutic success of the child who does not have a cognitive function to be responsible for his treatment, and partly responsible for the regimen of the teenager, who despite all the conflicts that arise this caregiver relationship / the cared often still cannot totally blame for their treatment by the lack of maturity, lack of understanding / knowledge of the benefits arising from the use of correct therapy and be legally dependent on their caregiver / family .

Speaking a bit of a multidisciplinary team, current studies confirm the positive relationship between adherence and quality of care, especially the relationship with health professionals. This is seen as critical to treatment adherence, having regard: with the customer's perception of competence that meets the professional, the quality and clarity of communication, the willingness of professionals to engage customers in decisions regarding treatment, with the feeling of support, satisfaction with the team, and with adequate information about treatment and severity of side effects. We include in

this process of care involves client / health professional, family / caregiver, for the most part; they are accompanying children and adolescents to participate directly in the consultation and treatment.

A multidisciplinary team of nursing and play an important role when it comes to educational activities, identifying potential problems of adherence to antiretroviral therapy and intervention proposals analyzed in this category in order to find solutions that can improve the practice of care and adherence to antiretroviral therapy in children and adolescents.

CONCLUSION

Identify problems related to adherence to antiretroviral therapy and resolve them are major challenges for the healthcare team. With this study we found that care strategies are needed to ensure adequate adherence to antiretroviral therapy by children, adolescents and caregivers / family. A good team interaction and multidisciplinary nursing with these families, giving the necessary support to help them reach their treatment goals, is also another factor that should be considered.

The objectives of this study were obtained from the moment we found in the scientific literature used various strategies used by health professionals in order to improve adhesion, either by the caregiver, whether by children / adolescents.

The role of the multidisciplinary team is to promote adherence, even if there are many barriers to this process to be completed successfully. The nurse plays a key role within this team since their actions have a practical aspect, the administration of medications, and educative.

Health education is something of great importance, because through it is possible that nurses are able people apprehend participants of the treatment, by enhancing the understanding and treatment of disease, the antiretroviral regimen is complex but needs to be followed strictly , on behalf of all the evils brought with non-adherence or poor adherence. Thus, children, adolescents and caregivers are not to carry out the necessary procedures for accession mechanically, but now have discernment of what is good or bad for your health and why they follow such guidelines.

Care practice needs to be constantly evaluated to develop appropriate interventions for its improvement. The care strategies were shown to be the way to successful adherence to antiretroviral therapy, as were evaluative and interventional later problems related to adherence to antiretroviral therapy.

REFERENCES

1. Aids.gov [homepage na Internet]. Brasil. [acesso em 6 agosto de 2007]. Disponível em: http://www.aids.gov.br/data/Pages/LUMISCEBD192APTBRIE.html

2. Silveira LMC, Ribeiro VMB. Grupo de adesão ao tratamento: espaço de “ensinagem” para profissionais de saúde e pacientes. Interface – Comunic., Saúde, Educ. 2004/2005; 9(16): 91-104.

3. Teixeira PR, Paiva V, Shimma E, Organizadores. Tá difícil de engolir? Experiências de adesão ao tratamento anti-retroviral em São Paulo. São Paulo: Nepaids; 2000.

4. Crozatti MTL. Adesão ao tratamento anti-retroviral na infância e adolescência [tese]. São Paulo: Universidade de São Paulo; 2007.

5. Seidl EMF, Rossi WS, Viana KF, Meneses AKF, Meireles E. Crianças e adolescentes vivendo com HIV/AIDS e suas famílias: aspectos psicossociais e enfrentamento. Psicologia: Teoria e Pesquisa 2005; 21(3): 279-288.

6. Gil AC. Como Elaborar Projetos de Pesquisa. 4ª ed. São Paulo: Atlas; 2002.

7. Polit DF, Hungler BP. Fundamentos de Pesquisa em Enfermagem. 3ª ed. São Paulo: Artes Médicas; 1995.

8. Leopardi MT, Rodrigues MSP. O método de análise de conteúdo: uma versão para enfermeiros. Fortaleza: Fundação Cearense de Pesquisa e Cultura; 1999.

9. Garvie PA, Lensing S, Rai SN. Efficacy of a pill-swallowing training intervention to improve antiretroviral medication adherence in pediatric patients with HIV/AIDS. Pediatrics 2007; 119(4): e893-e899.

10. Flynn PM, Rudy BJ, Lindsey JC, Douglas SD, Lathey J, Spector SA et al. Long-Term observation of adolescents initiating HAART therapy: three-year follow-up. AIDS Research and Human Retroviruses 2007; 23(10): 1208-1214.

11. Puccio JA, Belzer M, Olson J, Martinez M, Salata C, Tucker D et al.The use of cell phone reminder calls for assisting HIV-Infected adolescents and young adults to adhere to highly active antiretroviral therapy: a pilot study. AIDS Patient Care and STD`s 2006; 20(6): 438-444.

12. Van Dyke RB, Lee S, Johnson GM, Wiznia A, Mohan K, Stanley K et al. Reported adherence as a determinant of response to highly active antiretroviral therapy in children who have human immunodeficiency virus infection. Pediatrics 2002; 109(4): e61.

13. Glikman D, Walsh L, Valkenburg J, Mangat PD, Marcinak JF. Hospital-Based Directly Observed Therapy for HIV-Infected children and adolescents to assess adherence to antiretroviral medications. Pediatrics 2007; 119(5): e1142-e1148.

14. Costa LS, Latorre MRDO, Silva MH, Bertolini DV, Machado DM, Pimentel SR et al. Validação e reprodutibilidade de uma escala de auto-eficácia para adesão ao tratamento anti-retroviral em pais ou cuidadores de crianças e adolescentes vivendo com HIV/AIDS. Jornal de Pediatria do Rio de Janeiro 2008; 84(1): 41-46.

15. Farley J, Hines S, Musk A, Ferrus S, Tepper V. Assessment of adherence to antiviral therapy in HIV-infected children using the Medication Event Monitoring System, pharmacy refill, provider assessment, caregiver self-report, and appointment keeping. Journal of Acquired Immune Deficiency Syndromes 2003; 33(2): 211-218.

16. Wiener L, Riekert K, Ryder C, Wood LV. Assessing medication adherence in adolescents with HIV when Eletronic Monitoring is not feasible. AIDS patient care and STD`s 2004; 18(9): 527-538.

17. Berrien VM, Salazar JC, Reynolds E, McKay K. Adherence to antiretroviral therapy in HIV-Infected pediatric patients improves with Home-Based intensive nursing intervention. AIDS Patient Care and STD`s 2004; 18(6): 355-363.

18. Ellis DA, Naar-King S, Cunningham PB, Secord E. Use of multisystemic therapy to improve antiretroviral adherence and health outcomes in HIV-Infected pediatric patients: evaluation of a pilot program. AIDS Patient Care and STD`s 2006; 20(2): 112-121.

19. Shingadia D, Viani RM, Yogev R, Binns H, Dankner WM, Spector SA et al. Gastrostomy Tube Insertion for improvement of adherence to highly active antiretroviral therapy in pediatric patients with Human Immunodeficiency Virus. Pediatrics 2000; 105(6): e80.

20. Lyon ME, Trexler C, Akpan-Townsend C, Pao M, Selden K, Fletcher J et al. A family group approach to increasing adherence to therapy in HIV-Infected youths: results of a pilot project. AIDS Patient Care and STD`s. 2003; 17(6): 299-308.

21. Rogers AS, Miller S, Murphy DA, Tanney M, Fortune T. The TREAT (Therapeutic Regimens Enhancing Adherence in Teens) Program: theory and preliminary results. Journal of Adolescents Health 2001; 29(3S): 30-38.

22. Marhefka SL, Koenig LJ, Allison S, Bachanas P, Bulterys M, Bettica L et al. Family experiences with pediatrics antiretroviral therapy: responsabilities, barriers, and strategies for remembering medications. AIDS Patient Care and STD`s 2008; 22(8): 1-11.

23. Hammami N, Nostlinger C, Hoerée T, Lefèvre P, Jonckheer T, Kolsteren P. Integrating adherence to highly active antiretroviral therapy into children`s daily lives: a qualitative study. Pediatrics 2004; 114(5): e591-e597.

24. The national institutes of health [homepage na Internet]. Guideline for the Use of Antiretroviral Agents in Pediatric HIV Infection. Disponível em: http://aidsinfo.nih.gov. Acesso em: 12 de agosto de 2008.

25. Colombrini MRC, Lopes MHBM, Figueiredo RM. Adesão à terapia anti-retroviral para HIV/Aids. Rev. Esc. Enferm. USP 2006; 40(4): 576-581.

Received on: 30/08/2011
Required for review: no
Approved on: 21/03/2013
Pubished on: 01/12/2013

Corresponding Address:
Av. Embaixador Abelardo Bueno, 2510 Bloco: 01 Apt: 1508 – Barra da Tijuca – Rio de Janeiro – RJ – CEP: 22775-040. Tel.: (21) 2421-5908 / (21) 9374-5628. E-mail: maricardim@gmail.com