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Contribution of Physical Education in the fields of sport, physical activity, health and education for children and young people living with HIV

Contributo da Educação Física na área do esporte, atividade física, saúde e educação para as crianças e jovens que vivem com o HIV

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Abstract – This narrative review examined documents that show the activity of Physical Education professionals for children and young people living with HIV. Forty documents were analyzed, highlighting the main contributions: 1) Sports / Physical Activity for social inclusion of youth in social vulnerability, reducing discrimination and stigma and development of motor skills; 2) Health, for treatment adherence, sexual and reproductive health, functional assessment, prescription, guidance and supervision of physical exercises; 3) Education, for prevention of infection / re-infection with HIV, education for sexual and reproductive health. These interventions include major initiatives to improve the quality of life and to coping the pandemic of HIV in children and young people.

Key words: Children; Education; HIV; Sports.

Resumo – *Esta revisão narrativa examinou documentos sobre a atividade dos profissionais de Educação Física para as crianças e jovens que vivem com HIV. Foram analisados 40 documentos, destacando as principais contribuições: 1) Esporte / Atividade Física para a inclusão social de jovens em vulnerabilidade social, redução da discriminação e do estigma e desenvolvimento de habilidades motoras; 2) Saúde, para a adesão ao tratamento, saúde sexual e reprodutiva, avaliação funcional, prescrição, orientação e supervisão de exercícios físicos; 3) Educação, para a prevenção da infecção / re-infecção pelo HIV, para a saúde sexual e reprodutiva. Estas intervenções incluem as principais iniciativas para melhorar a qualidade de vida e enfrentamento da pandemia de HIV em crianças e jovens.*

Palavras-chave: *Crianças; Educação; Esporte; HIV.*

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INTRODUCTION

There are 3.3 million adolescents younger than 14 years of age living with HIV worldwide and 34,000 cases have been reported in Brazil. Incidence remained stable throughout the years, with variations among Brazilian regions. Mother-to-child transmission was reduced by 41% in the last 12 years, which contributed to reducing the number of children and adolescents living with HIV[1]. However, there was an increase in sexually transmitted infection among youth (15-24 years), especially in the northern and northeastern regions of Brazil, while reducing the use of condoms - even though the school is the second largest place of access to condoms. Highly active antiretroviral therapy (HAART) has reduced morbidity and mortality, resulting in growing and developing[1]. These drugs have adverse effects such as morphological, metabolic, cardiovascular, central nervous system and kidney alterations, although a fraction of this may be attributed to HIV itself. The scenario has changed from a highly lethal disease to a chronic and treatable disease[1].

For the Physical Education professional inserted in the healthcare field, the integration of different goods and services, whether in education, recreation, sport or social assistance, intervention is based not only on the promotion of physical activity and construction of environments and healthy lifestyles, but also efforts to improve the health care of individuals and communities across the "Health Care Levels"[2]. Health care involves aspects related to the health of human beings, including actions and services of promotion, prevention, rehabilitation and treatment of diseases.The negative effects from HIV and HAART can be minimized by the effect of physical activity, which promote improvements in cardiorespiratory fitness, body composition, lipid and glucose profile, as well as in self-esteem and self-image, resulting in better quality of life[3]. In addition, sport activities are important opportunities for social inclusion of children and young people infected or affected by HIV, reducing discrimination and prejudice. Discrimination discourages subjects to search for health services and to adopt healthy behaviors and personal care, among others[4].

The Brazilian National Curriculum Guidelines and Curriculum Standards[5,6], while important regulatory frameworks that define public policies aimed at quality education, recommend that themes such as HIV and AIDS can be addressed in Physical Education classes in cross projects linked to the pedagogical project of the school such as the *"Programa Saúde na Escola"* [Health in School Program]. This is an important opportunity for dialogue about sexual and reproductive health in order to prevent new HIV infections, reduce stigma and promote self-esteem and healthcare attitudes[7], which has been little explored by Physical Education professionals.

Although there are general guidelines for the comprehensive care of children and young people living with HIV published by governmental and non-governmental organizations, the possible actions of Physical Education professionals were not addressed. The lack of professional preparation for

health promotion in this population may have some relationship. However, physical activity and sport, health and education are fields of professional activity with valuable contributions for people with HIV and to coping the pandemic, but these actions need to be better cleared. The aim of this study was to analyze documents that show role of Physical Education professionals in fields of sport / physical activity, health and education for children and youth living with HIV. This investigation sought to support reflections for professional practice involving children and young people living with HIV.

METHODOLOGICAL PROCEDURES

The narrative literature review included published documents available at the websites of the Ministries of Education (ME), Health (MH) and Sports (MS) of Brazil, Federal Council of Physical Education (CONFEF) and international organizations related to HIV such as the United Nations (UN), Joint United Nations Programme on HIV/AIDS (UNAIDS), United Nations Children's Fund (UNICEF), United Nations Population Fund (UNFPA), United Nations (UN), Scientific and Cultural Organization (UNESCO), *"Amiga da Criança"* Monitoring Network (RMAC), World Health Organization (WHO), Pan American Health Organization (PAHO). Given the nature of the documents searched, held approach cannot follow the systematic procedures currently adopted. The concern was to review documents on HIV / AIDS of major international and national organizations, as well as Brazilian ministerial and intersectoral actions that raise the intervention of Physical Education professionals on this subject in the contexts of education, health and sport / physical activity.

The search and analysis of documents were performed by two investigators from August to November 2013 by accessing electronic pages for documents available for download. Documents published since 1997 in Portuguese, English and Spanish were included, considering that from this year, HAART changed the natural course of HIV. The age group of interest in this research was 5-20 years, including children and young people, since this population has frequent contact with Physical Education professionals both in school and out of school.

Overall, 87 documents published by WHO, UN, UNESCO, UNAIDS, UNICEF, PAHO, UNFPA, CONFEF, RMAC and ME, MH and MS were found. However, 47 documents were excluded for the following reasons: health of pregnant women (2), newborns (2), disabled people (2) and Indians (1), showing epidemiological information without professional applications (5); addressing the management of policies for coping with HIV (11); supplemental (12) or executive summaries of documents included (2); drug (5) or nutritional intervention (2) and other sexually transmitted diseases - STDs (3). Forty documents selected for detailed analysis were organized aim and subject (sport / physical activity, health and education).

DEVELOPMENT

Although the analysis of documents has presented some difficulties in discriminating certain guidelines in relation to intersectoral actions involving more than one ministry and multidisciplinary initiatives, the results found suggest possible actions of Physical Education professionals in the contexts of health, education and sport / physical activity. The main possible actions of Physical Education professionals extracted from documents are presented in Box 1.

Box 1. Main contributions of Physical Education professional in different fields for children and young people living with HIV.

Sports / Physical Activity Field
Promote social inclusion of youth in social vulnerability.
Reduce, at maximum, discrimination and stigma.
Develop motor skills and increase physical activity levels
Health Field
Participate, as auxiliary form, in strategies for treatment adherence.
Support for dialogue on sexual and reproductive health.
Perform functional assessments.
Prescribe, guide and supervise of physical exercises.
Education Field
Prevent HIV-infection or re-infection among young people.
Promote education for sexual and reproductive health.
Qualify children, youth and Physical Education professionals.

Data were extracted from documents and synthesized seeking to describe the content presented by analytical categories previously adopted, in which we discuss the possible actions and contributions of Physical Education professional. In addition, it sought to propose initiatives of theoretical and methodological developments with the outcomes of their practices.

Sport / Physical Activity Field

Sport is a right as expressed in the Convention on the Rights of the Child adopted by the UN Assembly on November 20, 1989, specifically Item 31 "1. States Parties recognize the right of the child to rest and leisure, to engage in play and recreational activities appropriate to age of the child and to participate freely in cultural life and the arts" and "2. States Parties shall respect and promote the right of the child to participate fully in cultural and artistic life and shall encourage the provision of appropriate and equal opportunities for cultural, artistic, recreational and leisure activity". The right is also guaranteed in the Brazilian Constitution of 1988, in particular in Item 217: "It is duty of the State to encourage both formal and informal sport activities, as the right of everyone". In the Statute of Children and Adolescents of 1990, Item 4 clarifies that "It is the duty of the family, community, society and the Government to ensure, with absolute priority, the rights to life, health, food, education, sports, leisure (...)

". Item 16 points that the right to freedom includes among others aspects of playing, practicing sports and having fun. In addition, Items 59, 71, 92 and 124 determine the stimulation and facilitation of resources and spaces for the practice of sports and leisure activities by municipalities for all children and adolescents as a right, including for those institutionalized and deprived of liberty.

While considering sport as an acquired right, these documents assist in the achievement of the Millennium Development Goals, and the response to HIV pandemic is a priority. Among the goals, sport for young people living with HIV can substantially contribute to inclusive processes in social interaction contexts and consequently reduce stigma and discrimination associated with HIV. Moreover, prevention and education initiatives about HIV can be performed simultaneously to sporting events held with children and adolescents, expanding efforts against new infections[8]. UN emphasizes that the promotion of physical activities and sport can be a tool to protect children and families from the negative effects of HIV[9].

Currently, joint efforts of MH and UNAIDS in the *"Proteja o Gol"* campaign have contributed to the awareness and prevention of HIV when establishing an analogy regarding soccer goalkeepers. The campaign is timely for considering the large number of people involved in the 2014 FIFA World Cup held in Brazil. In fact, sport as a vehicle for information can be a powerful dissemination means for the development of activities and messages related to gender equality and HIV prevention. In this aspect, the coach is a powerful ally in the involvement of children and adolescents in HIV prevention through formal or informal actions. There are successful examples of how issues relating to health, gender equity, women's rights and violence against them were introduced in sports played by adolescents, highlighting the possibility of intervention by the Physical Education professional in reducing the vulnerability of young people to HIV and preventing new infections[10].

UNICEF has promoted the improvement of the quality of life of children and adolescents in cities from the semiarid and Brazilian Amazon regions through proposals including sport and the mobilization of managers, counselors, social leaderships and families[11]. The main objective is to overcome race, gender and place of origin inequities, ensuring them basic rights - including the right to protect and be protected from HIV. Leisure and sport are important for the development of children and adolescents, and in this context, the success of initiatives implemented in low income countries is highlighted. This environment built by leisure and sport can partly fulfill the desire of adolescents in obtaining more information about their rights, drug use, HIV transmission and sexuality[12].

The *"Segundo tempo"* [Second Half] program of the MS[13] highlights the importance of sport for social inclusion of children and adolescents in situations of social vulnerability. The development of social values and the contribution to the improvement of physical abilities and motor skills are featured in this program. This is of particular importance to children

and young people living with HIV, given the limited physical fitness due to the low physical activity and the pathophysiology of the disease. In addition to contributing to the improvement of quality of life (self-esteem, interaction, social integration and health), the program seeks to minimize exposure to social risks (drugs, prostitution, teenage pregnancy, crime, child labor), being important in reducing vulnerability to HIV infection. Sport is re-defined as an important social tool by which the Physical Education professional can promote concrete changes in the lives of children and adolescents living with HIV. In another document analyzed, UNICEF intensifies the concern with adolescents with low educational level and income, reinforcing the need for the provision of learning spaces and cultural activities, including dancing, sport and leisure, providing personal and psychomotor development, socialization and violence prevention[12].

In view of the metabolic and cardiovascular rehabilitation, physical activities contribute to the health and quality of life of people living with HIV. Accordingly, MH has developed a handbook with recommendations on physical activities for adolescent and adults living with HIV[3]. In addition to subsidizing interventions to improve metabolic, morphological and psychological aspects, the handbook contains positive changes in physical fitness that confer an optimized functional capacity[3]. These changes provided by systematic physical activity are widely documented in literature, whose interventions are safe, promote health and can prevent the complications of HIV in children and adults. In general, increasing the level of habitual physical activity and physical exercise in order to assist in the treatment of complications inherent to HIV infection and adverse effects of HAART is recommended[3].

The initial recommendations to combat the effects of metabolic syndrome and lipodystrophy - characterized by changes in body fat distribution and metabolic changes related to HAART[14] - consist of changes in lifestyle including physical exercises. However, there are some aspects restrictive to physical activity such as advanced immunodeficiency in the presence of opportunistic infections, uncontrolled comorbidities like hypertension and type II diabetes mellitus, in addition to severe liver disease with thrombocytopenia and cardiovascular risk above 20% (Framingham score). Prior to exercise, there is need for a detailed medical history[3] and evaluation of the functional and morphological state, in addition to stratification and diagnosis of health risk factors[2]. Thus, aerobic exercise and strength are of particular importance given the abnormal metabolic and morphological conditions resulting from HIV, the combination of these exercises is recommended by adding the particular benefits of both[3].

Physical activity is suggested as an initial approach in the management of dyslipidemia and bone mass alterations in children and adolescents living with HIV[1]. In both prevention and adjuvant treatment, particularly to dyslipidemia, one hour of moderate to vigorous physical activity is recommended for hyperlipidemic children[1]. Simultaneously, reduction in sedentary behaviors such as watching television, video games and computer

use for a maximum of two hours per day is also recommended[1]. Regarding bone mass, children and adolescents living with HIV undergo a process of bone mass remodeling, with a negative impact of HIV and HAART[1]. In this regard, evidence is limited; however, it is expected that physical activity can contribute to bone health, similarly to benefits achieved by healthy subjects.

The Physical Education professional can encourage a healthy lifestyle, especially physical activity, which in the medium and long term, may help to reduce the adverse effects of HAART, being part of the treatment plan[15]. In addition, actions that encourage spiritual, psychosocial and physical aspects, mainly with the support / supervision of multidisciplinary health teams can improve the quality of life of children and adolescents living with HIV[16]. Multidisciplinary actions and encouragement for the implementation of the *"Academias da Saúde"* [Health Academies] in the public health network are recommended, especially given the importance addressing emotional aspects, in addition to nutrition issues and guidance for the regular practice of physical exercises in order to minimize the effects of disease and treatment[3,17].

Health Field

Physical Education professionals act in the Health Care[2], involving the care with the health of the human being in actions such as promotion, prevention, rehabilitation and treatment of diseases. Will be highlighted other intervention actions in health than those described in the previous section, related to physical activity, stand out[1,3,14]. The Child and Adolescent Statute reinforces the integral health care, ensuring universal and equalitarian access according to Item 11, 54 and 208, as well as health education for parents, educators and students. For this, technical training of health professionals in relation to human rights, health and HIV, sensitive to cultural issues related to sexual orientation and gender identity and diversity is required[4].

The MH has published recommendations regarding the comprehensive care of adolescents and young people living with HIV[18], highlighting the possible actions of Physical Education professionals for adherence to drug treatment, sexual and reproductive health and body composition assessment. It is recommended to pay attention to the knowledge of young people about their disease and the complexity of its treatment, given that these factors may interfere with treatment adherence. Although the poor medication adherence is not restricted to HIV and occurs in all clinical conditions, in the case of HIV, it has been associated with worse prognosis, making patients vulnerable to opportunistic infections. Thus, multidisciplinary discussions are strategies already used to assess the adherence of young people living with HIV to drug treatment, which can be developed in group care, in joint consultation with various health professionals in an integrated manner, or even in clinical meetings among health professionals involved in the care of the population with HIV[18,19].

Among the guidelines for the strengthening actions for people living with HIV to adhere to drug treatment, promoting adherence to HAART is not just a medication approach because. It must consider other dimensions such as social mobilization (coping with prejudices and discrimination), the establishment of ties with the healthcare team, access to information and prevention materials, as well as the sharing of decisions. In fact, adherence is influenced by several aspects, including lipodystrophy and its stigmatizing nature that can negatively impact self-esteem and quality of life. Considering that physical activity has a positive effect on these conditions, it is possible that there is an alternative path-way to strengthen adherence through the intervention of a Physical Education professional, considering that specific strategies such as actions in education, activities in the waiting room, complementary and integrative health practices and joint consultation can contribute to the improvement of treatment adherence[19].

Adherence to HAART is influenced by educational level[19], presence of depression, anxiety, abuse of alcohol and drugs[17]. By providing pedagogical and educational moments that are part of the performance of all health professionals, the Physical Education professional can positively act on these aspects. Specifically on the adherence of children to HAART, strategies to assist in interaction and communication - common to several activities of Physical Education professionals such as the use of recreational resources that attract the child's attention, are required[15,17].

It is noteworthy that the promotion of health in HIV is not only to ensure access to quality health services, but it also involves individual and collective welfare. To promote health and reduce the incidence of HIV, Physical Education professionals should know the different risk contexts and vulnerability and evaluate the ability of young people to protect themselves[18]. Issues of sexual and reproductive health emerge in the care of the youth, thus the Physical Education professional must be prepared to dialogue naturally about safe sex and HIV and STDs prevention. In this sense, it is essential to understand that sexual and reproductive rights of HIV-seropositive young people are the same as those of any other person[18].

Documents on reproductive and sexual health[20-22] indicate that social, cultural and economic factors can affect decisions regarding sexuality in young people, in addition to the lack of information about their body changes. Complications occur when parents and health professionals also have limited information on the subject, or even when they face communication difficulties. As a result, young people tend to engage in sexual relations without necessarily having knowledge and skills to negotiate their sexual health[21]. The vulnerability of young people has been addressed in the context of HIV[12,21,23,24], and in order to eliminate it, it is necessary to reach the most vulnerable young people (low educational level and income, those living on streets, gender inequality, sex professionals, unemployed, injecting drug users, school dropout) and to qualify health professionals to work on the theme and investigate the determinants and structural factors of adolescent health. Actions must be based on human rights and elimination of discrimination[21].

The issues of women empowerment are discussed in the perspective of balancing the power relations, ensuring health services to meet the specificities of sexuality in terms of providing correct information in accessible and appropriate language, as well as access to services, inputs and technologies[12,20]. In addition to developing counseling strategies and psychosocial support for people at risk of becoming infected with HIV, there is need for supporting families infected and affected by HIV[20-22]. One important aspect of health services[10] lies in providing friendly services to young people, especially to men, and the approach should take into consideration vulnerability factors such as violence and drug abuse. The availability of inputs for HIV prevention is the opportunity to talk about the preventive methods and to perform diagnostic HIV tests. To achieve these goals, it is necessary to overcome the clinical space and move forward to meet these young people in alternative locations such as schools, sports facilities and community centers[10].

CONFEF has guided behaviors and procedures of Physical Education professionals in the use of physical exercise as a primary or supplementary component in health care, particularly in relation to noncommunicable chronic diseases[2], acting specifically on health teams at the *"Núcleo de Apoio a Saúde da Família"* [Centers for Family Health Support]. The triplet - health, education and sport - presented in this, and other Brazilian social policies, covers the subject comprehensively, including biological, social, environmental, cultural and relational aspects in the health-disease development process.

The intervention of the Physical Education professional is full in services to society in the scope of physical activities, sports and various bodily practices in their various manifestations and goals[2], acting as self-employee in public and private institutions that provide primary care services. In this respect, intervention may occur in primary and secondary care, but with greater emphasis on the tertiary care - reducing the prevalence of disabilities by actions aimed at reducing consecutive alterations related to the presence of the disease, with social reintegration and recovery of remaining capacities[2].

Among the responsibilities of the Physical Education professional in relation to children and young people living with HIV, the assessment of the functional and morphological state stands out[2], which includes anthropometric measurements of body weight, height, skinfolds, arm circumference and body mass index. These measures reflect the growth pattern and body composition condition[1], and may be related to the clinical course of HIV, to the use of antiretrovirals or even with changes in body image[15,16,18]. Other responsibilities of the Physical Education professional in this context involve the diagnosis and stratification of health risk factors, prescription, guidance and monitoring physical exercise aimed at health promotion and disease prevention, acting as non-pharmacological treatment and interfering in risk / vulnerability factors. Considering the multidisciplinary characteristic of the primary health care, the Physical

Education professional must be aware of the skills of other health professionals and be able to work as a team[2].

Education Field

According to the Law of Guidelines and National Education of 1996, Physical Education in school comprises a compulsory curriculum subject in basic education that includes about 22 million children and adolescents enrolled in the final year of elementary school and high school[25]. In this sense, the school context is strategic, considering that the majority of children and young people will receive at least a few years of schooling[26]. In addition, school is a place where young people share and establish codes of behavior, receive information and discuss issues without prejudice.

Health education in the school environment, while preventing deleterious health behavior, has been used as a strategy for coping with STDs and HIV[7,8,27]. Schools represent a privileged channel for efforts in the prevention of HIV, suggesting a fertile approach of intervention by Physical Education, with valuable contributions in the context of social life and issues related to the human body[7,28].

In the National Curricular Parameters of 3rd and 4th cycles[6], Physical Education in school needs to address cross themes - themes highlighted as urgent for the country. Thus, the HIV / AIDS has been addressed, covering some issues related to the care of the body and health-related attitudes, discussing physical activity and sports as components for achieving a healthy lifestyle and as a resource for social integration of children and adolescents. This can be especially beneficial for those living with HIV, considering their social vulnerability, disease stigma, orphanhood and discrimination[29]. The importance of cross themes was highlighted in a broad survey, in which school principals reported the contribution to the curriculum by the communication channel on the topic sexuality and HIV[28].

By emphasizing the consolidation of knowledge constructed and discussed in previous cycles, the National Curricular Parameters regarding High School[5] include contents of habitual physical activity, fatness and motor performance, as well as factors related to lifestyle and quality of life modulators. Students of this level of education are expected to develop skills and expertise to understand the functioning of the human body, allowing the recognition and changing behaviors that promote health improvement or maintenance.

It is noteworthy that at this stage, young people may be vulnerable to HIV infection for different reasons, but especially due to the poor communication on the subject, by material and cultural barriers that limit access to the means of prevention and lack of alternatives to meet their emotional and psychological needs[27,28,30]. In this last aspect, the lack of condom use, the greate'r number of sexual partners and casual or paid sex directly affect this aspect[30]. School dropout, lack of opportunities educational and child labor may also reflect greater vulnerability to HIV[12]. Thus, policies and actions with emphasis on remaining in school, completion of educational

cycles, prevention of HIV and STIs and active participation of adolescents in these problems are required[23,26,31]. In this context, the UN recommends the development of strategies and the funding of programs to reduce stigma, discrimination and marginalization, with the aim of reducing the impact of HIV on education systems, students and learning[9].

Education has played a key role in the response to HIV because children and young people who attend school are less likely to be infected by HIV than those who are not in the school system, i.e., vulnerability reduces each school year[26]. In subjects in late adolescence called by Brazilian army, schooling proved to be decisive in knowledge about the risk of HIV transmission, showing that school played a key role as a vehicle of communication[30]. Often, there are misconceptions about reproduction and HIV transmission in this population[10]. Thus, there are some challenges on how to promote effective education and increase access to schools. In this respect, teachers are the key agents of change, both in the development of educational activities as providing cultural environments favorable to preventive behaviors[32]. For students, teachers are the key agents of information about STDs and HIV, followed by their own mothers[28].

The inclusion of sexual health and HIV prevention in the curriculum of adolescents is very important for UNICEF, UN and UNAIDS because it provides information of good quality and easy to understand[12] in Elementary and High Schools, especially in contexts of social vulnerability[4,32]. Moreover, the inclusion of issues of human, sexual and reproductive rights is indicated, as well as the overcoming of stigma and discrimination associated with HIV that are consistent with changes in attitudes[20,26,27]. Sexual education programs promote positive effects on young people such as delay of sexual debut, reduction of sex frequency and number of sexual partners, and increase condom use and contraception[26,33]. This occurs through the development of knowledge on sexual practices, perceptions of risk of HIV and STD, preventive attitudes and ability to communicate on the subject[26,33].

In research conducted with 340 schools of 14 state capitals of Brazil, most of the activities on sexuality were developed in science classes (Biology), followed by lectures by physicians, police officers, University students and other health professionals, as well as school activities and science fairs, contests and discussions. The main criticisms are the effectiveness and discontinuity of procedures used to provide information in addition to the low coverage of active learning methodologies, being restricted to only a few students. However, actions taken in the educational context showed a direct positive impact on students, observed by healthy behaviors and attitudes[28].

A tool for actions to reduce vulnerabilities and discrimination in relation to HIV based on "Comics" was prepared[32]. The objective was to promote sexual and reproductive rights, health promotion and STDs and HIV prevention, as well as education about alcohol and drugs, with school as the application field[32]. Other didactic and pedagogical examples include

workshops and case studies that allow for reflection and discussion about gender norms, sexuality and vulnerability to HIV[10]. Additionally, peer education has been an active and constructive methodology, discussing the determinants of health, sexuality and discrimination[7,10,27,29,31,34]. Education through entertainment, using sport and dance as examples, have been useful in low-income communities that lack recreational and sports activities, attracting a greater number of young people[10].

In the health-education integration in the school context, the *"Programa Saúde na Escola"* [Health in School Program] aims to contribute to the broad formation of students through health promotion, prevention of diseases and health care, with a view to addressing the vulnerabilities that compromise the full development of children and adolescents in public schools. The Health in School Program is composed of several lines of action, from the evaluation and health promotion of children and adolescents to the continuing education and training of professionals in education and health; which represents a favorable scenario, in various ways, for coping with HIV[7]. In this context, the *"Programa Saúde e Prevenção nas Escolas"* [Health and Prevention in Schools Program][35] aims to promote sexual and reproductive health in order to reduce vulnerability to STDs and HIV through the development of actions in schools and basic health units, having the Physical Education professional an important articulator of these actions.

Some measures have already been taThe pedagogical methodology "Health in school, family and community" developed by UNICEF[36] occurs in four stages including the pursuit and presentation of available information in order to integrate the curriculum of school disciplines, taking as a starting point the reality itself. The next stage includes the unfolding of information collected in curricular activities on sexual and reproductive health and HIV and STDs prevention. The evaluation of the educational process and presentation of products to community are held on the last stage, where there is community mobilization of knowledge produced to expand HIV prevention and care of those living with HIV[36]. UNESCO, leader on HIV prevention among young people in educational institutions, aims to strengthen the support to the development and improvement of skills at individual, community and systemic levels for the formulation of policies[37]. These actions may be possible through education, science, culture and communication in different lines of action such as changing behavior through education, professional training in various sectors and elimination of stigma and discrimination[38].

Some measures have been taken to ensure the reduction of HIV prevalence in children and adolescents; however, it is necessary to support AIDS orphans and children living with HIV through consistent policies, and involve them in decisions affecting their lives, particularly sexuality and the guarantee of their rights[31]. Particularly AIDS orphans, strategies that provide psychosocial support, school enrollment, adequate nutrition and health services are needed, as well as protection against all forms of

abuse, discrimination and violence[31]. In this sense, it becomes very important that Physical Education professionals identify health services to participate in continuing education strategies, like the "Poles of Continuing Education and Training in STD / HIV", from the basic and specialized health network.

Given the high importance of qualified human resources training[26], the Health and Prevention in Schools Program have contributed to the formation of the Physical Education professionals to act in this field[35]. Although workshops address issues related to health and prevention by a team that includes education and health professional as moderator, HIV theme stands out in three units. This interdisciplinary strategy provides discussion and practical application on STDs / AIDS prevention, respect for rights, social inclusion and supportive attitudes to people living with HIV in the school context. It is noteworthy that for the success in the training actions, those involved should receive training on HIV pathology, social contexts in which it occurs and how to prevent it, especially mother-to-child and sexual transmission[39]. In the school context, the critical role of the teacher emerges, given the importance of his leading position in community and the adoption of behavior models for the dissemination of knowledge[28,32].

Finally, the statement of UN commitments on HIV has prioritized education for HIV prevention among young people and to train human resources for the provision of prevention / treatment services and the elimination of all forms of discrimination against people living with HIV. Among commitments, guiding women and girls to protect themselves from HIV, ensuring adolescents access to education that addresses HIV and promoting the full development of children orphaned or affected by HIV / AIDS[40]. Under the perspective of action of Physical Education professional, the contribution in the context of education can occur through the promotion of health, protection of fundamental rights of children and young people living with HIV and prevention of STD / HIV transmission. In this aspect, the professional should have in mind the notion of health and disease processes as a result of social, cultural, economic, behavioral, epidemiological, demographic and biological factors[28].

FINAL COMMENTS

The actions of Physical Education professionals need to be in line with the fulfillment of human rights of children and adolescents living with HIV based on the understanding that HIV infection strongly impacts their lives and affects their civil, political, economic, social and cultural rights. Given the disciplinary limits and complexity of actions, there is need to foster interdisciplinary cooperation in the prevention, treatment and care of health.

In the context of Sport and Physical Activity, Physical Education professionals should promote social inclusion, especially among those who are socially vulnerable in order to contribute to reducing discrimination and

stigma associated with HIV. Physical activity is recommended because it is highly beneficial and safe for children and youth living with HIV and has positive effects on metabolic, morphological, psychological and functional parameters. While in the educational context Physical Education must intervene through prevention of HIV infection, based on education of sexual and reproductive health, and continuing qualifying children, adolescents and professionals. In the health context, need to intervene in risk factors, health promotion and prevention of complications from strategies of adherence to treatment, dialogue on sexual and reproductive health, functional assessment, body composition and growth and in prescription, guidance and supervision of physical exercises.

The health promoting educational activities are effective tools for children and adolescents, also involving education health professionals and civil society. Strategies that occur at the school environment or at primary health care units have the potential to reduce the stigma and discrimination associated with HIV. Regardless of the performance setting, the actions taken by the Physical Education professional include important contributions to improving the quality of life of children and young people living with HIV as well as to coping the HIV pandemic.

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