

# Best management practices in HIV care: scoping review

## *Melhores práticas de gestão no cuidado ao HIV: scoping review*

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**ABSTRACT** This study aimed to map and examine the best HIV management practices available in scientific publications in the health field. A systematic literature review was carried out through scoping review, on the basis of PubMed, Scopus, Web of Science, CINAHL, LILACS, and CAPES Thesis and Dissertations Catalog, from 2009 to July 2020. From the 427 identified studies, 19 were included, and although it does not explain a concept of best practice, they present HIV management practices expressed as a best practice through the evaluation of strategies, tools, health services, health programs, interventions, and actions that contributed to an improvement of a given health condition in HIV prevention and care. The practices identified in the studies with a 'best practice' are justified by the analysis of the evaluation aspects, which expressed positive changes, contributing to improvements in HIV management practices. It is believed that these findings can support the construction of public policies in different scenarios and the establishment of health practices that seek to improve the quality of actions aimed at managing HIV.

**KEYWORDS** HIV. Quality management. Health management. Practice guideline. Health programs and plans.

**RESUMO** Este estudo objetivou mapear e examinar as melhores práticas de gestão do HIV disponíveis nas publicações científicas da área da saúde. Realizou-se revisão sistemática da literatura por meio de scoping review, nas bases PubMed, Scopus, Web of Science, Cinahl, Lilacs e Catálogo de Teses e Dissertações da Capes, no período de 2009 a julho de 2020. Dos 427 estudos identificados, 19 foram incluídos, e apesar de não explicitar um conceito de melhor prática, apresentam práticas de gestão do HIV expressas como uma melhor prática por meio da avaliação de estratégias, ferramentas, serviços de saúde, programas de saúde, intervenções e ações que contribuíram para uma melhoria de uma determinada condição de saúde na prevenção e cuidado em HIV. As práticas identificadas nos estudos com uma 'melhor prática' justificam-se pela análise dos aspectos de avaliação, os quais expressaram modificações positivas, contribuindo para melhorias das práticas de gestão do HIV. Acredita-se que esses achados podem subsidiar a construção de políticas públicas em diferentes cenários e a instituição de práticas de saúde que visem à melhoria da qualidade das ações direcionadas à gestão do HIV.

**PALAVRAS-CHAVE** HIV. Gestão da qualidade. Gestão em saúde. Guia de prática clínica. Planos e programas de saúde.

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## Introduction

The HIV infection presents a status of chronic disease and such condition requires permanent care expressed by what is known as the 'Cascade of continuous HIV care', a concept globally used in the context of management of such health condition. Such process requires establishing goals and adopting strategies encompassing practices related to health promotion, prevention, treatment, shared management of care provided to People Living with HIV (PLHIV) by specialized and Primary Healthcare (PHC) services, matrix support, network care, besides the need to adopt practices considering the singularity and integrality aspects of such population<sup>1-3</sup>.

The establishment of aspects for evaluating PLHIV is fundamental to differentiate a 'best practice' from other practices in health as in the case of confirming effectiveness by making use of indicators, health information, analysis of a potential innovator, of a possibility of replication in other scenarios and of the commitment to the wellbeing and quality of life of the community<sup>4,5</sup>. In that sense, the knowledge involving practices contributing to reaching best results concerning chronic diseases such as HIV infection can favor morbidity and mortality reduction and improve the quality of life of PLHIV, which is yet a major challenge to health systems in general.

Sharing of best practices in HIV management allows care providers, policy and decision makers, as well as researchers, to learn from each other and share experiences, success stories and lessons learnt when treating HIV patients. Best practices are, therefore, useful tools for communicating innovations from professionals and researchers working in the area of HIV treatment and care<sup>6</sup>.

The best practices in HIV management relate to results from interventions based on evidence confirming their efficacy<sup>7</sup>, and to clinical guidelines aiming at guiding and

standardizing PLHIV<sup>8</sup> care. Furthermore, the best practices actively evaluate the results from successful works, and have a significant effect that can be replicated in several contexts<sup>9</sup>.

A systematic review study highlights that the information on best practices in HIV management is diverse; however, there is scarce literature on the scientific rigor or on the standards to be followed before a practice or program can be declared a 'best practice'. The arbitrary use of the term 'best practice' is made in the literature, where authors not always reveal their intention to communicate a new practice or a desirable model, and emphasize the need for a scientifically solid tool to evaluate best practices<sup>6</sup>. This way, given the several challenges related to the understanding and development of best practices in HIV management, what stands out is the need to explore such gaps and make evident what the international literature has been highlighting on that theme.

In face of that, the objective of this study is to map and examine the best practices in HIV management already available in scientific publications in the area of health.

## Material and methods

It concerns a systematic review of the literature, known as scoping review, aiming at identifying and summarizing scientific evidence on matters yet emerging and not yet saturated in the literature<sup>10</sup>.

Initially, a search was performed in the databases of the JBI Clinical Online Network of Evidence for Care and Therapeutics (CONNECT+) and of the International Prospective Register of Ongoing Systematic Reviews (Prospero) in the month of July 2020. It did not identify revisions of protocols similar to the ones proposed by this study, either previous or in progress<sup>10</sup>. Then a protocol made of five steps was

elaborated, along with the registration of the current revision at the Open Science Framework under number DOI 10.17605/OSF.IO/X758N.

In step 1, 'Identifying the Research Question', acronym PCC<sup>10</sup> is used. In it, P stands for Population (as in PLHIV), C for Concept (as in best management practices) and the second C stands for Context (as in the particular area in healthcare being studied). Such delimitation served as a bases for defining the general question aimed at orienting the study: what are the best practices in HIV management available in the scientific publications in the area of Health? Once the general question was defined, sub-questions were elaborated so as to widen the mapping work.

In step 2, 'Identifying Relevant Studies', there was a search for studies in the following databases: PubMed, Scopus, Web of Science, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Latin American and Caribbean Literature in Health Sciences (LILACS) and Theses and Dissertations Catalog of CAPES. The key words and word combinations – in English, Spanish and Portuguese – used to build the search key were: ((Health Services Administration) OR (Health Management) OR (Quality Management) OR (Cost-Benefit Analysis) OR (Program Evaluation) OR

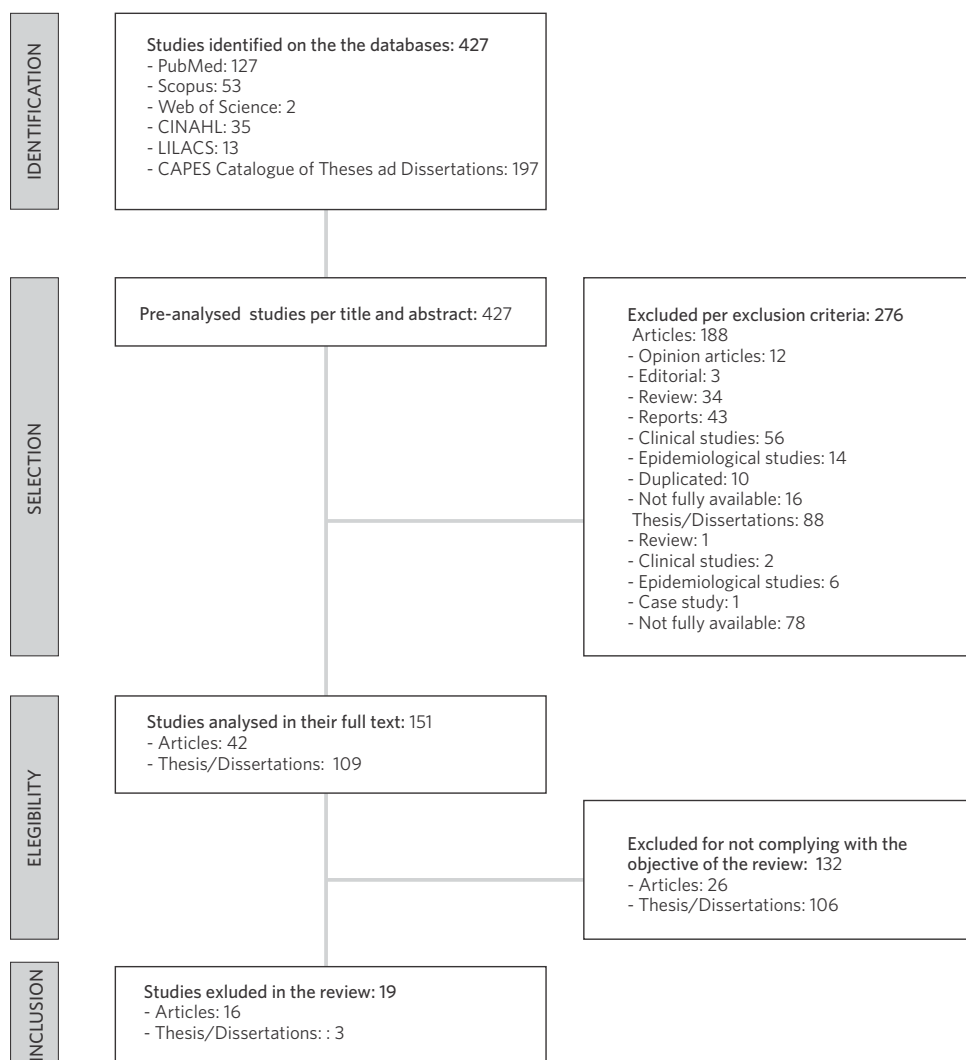
(Management Capacity) OR (Organizational Capacity) OR (Cost Effectiveness) OR (Cost-Benefit Data) OR (Economic Evaluation) OR (Best Practices)) AND ((HIV) OR (AIDS)).

The search for studies was carried out considering the period ranging from 2009 to July 2020. This timeframe was chosen in order to encompass the publications and guidelines resulting from the launch of the World Health Organization (WHO) best practices guide<sup>4</sup>. This way, the search added up to a total of 427 publications, including 230 articles and 197 theses and dissertations. The review procedures were performed by four researchers.

Step 3, 'Study Selection', was developed in July 2020 and included primary studies with their full context available, besides theses and dissertations. The exclusion criteria for the studies encompassed publications that did not present an abstract or that would rather fit in one of the following modalities: opinion, editorial, review, reports, field note or tutorial, letters, comments, abstracts of proceedings, clinical studies, epidemiological studies, experience reports and course conclusion work.

The guidelines from the Prisma Extension for Scoping Reviews (Prisma-ScR): Checklist and Explanation were followed to systematize the process of selection and inclusion of studies<sup>11</sup> as shown in *figure 1*.

Figure 1. Flowchart summarizing steps for selecting studies included in the review



Source: Own ellaboration.

In Step 4, 'Tracing the Data', researchers made use of an Excel® sheet for inputting and organizing the information taken from the included studies and variables used were as follows: database, year of publication, title, authors, country where study was performed, objective of research, methodology, participants, institutions involved, best practice target population, best practice concept, criteria defining best practices,

main results, overcoming of problem situation, study contribution.

In Step 5, which consisted of 'gathering, summarizing and reporting results', studies were fully analysed and, in the attempt to answer the research subquestions, researchers made use of the Mendeley® bibliographical manager. The systematized information resulting from this was then shared among researchers via Google® sheets.

## Results

In this search for publications in the databases that were listed for this study, PubMed stood out with 127 articles found, along with Scopus with 53. The search in the CAPES Theses and Dissertations Catalogue led to 197 publications. In total, 19 publications were included in the study, this including 16 articles and 13 theses/dissertations. Among the analysed articles, the year that stood out was 2017 with its six publications. Among the publications, 'Tropical Medicine and International Health' contributed with three articles.

Other information was also considered during the current revision. It was observed that, regarding the list of authors, two co-authors were found in two of the studies<sup>12,13</sup>, something that does not happen with other authors, each one of them appearing in only one study. In relation to countries where studies were performed, six studies were performed in the United States of America (USA)<sup>14-19</sup>, followed by three that were performed in Brazil<sup>20-22</sup>, three that were performed in South Africa<sup>23-25</sup>, two that were performed in India<sup>12,13</sup>. Ruanda<sup>26</sup>, Kenya<sup>27</sup>, Mozambique<sup>28</sup>, Mexico<sup>29</sup> and United Kingdom had each of them one study performed<sup>30</sup>.

The most used research method/nature was the qualitative one with 14 studies<sup>12,13,15,18-19,22-30</sup>, followed by three mixed method studies<sup>14,16,17</sup>, one qualitative method study<sup>21</sup> and one methodological study<sup>20</sup>.

It was ascertained that five studies presented adults as participants in the research<sup>13,16,18,27,29</sup>. The second group that most stood out was that of women, being present in four studies, two of them presenting a focus in the puerperal period<sup>19,28</sup>, one in the gestational period<sup>24</sup>, and another on focusing on sex worker women<sup>14,21</sup>. Two studies had health workers as participants, two focused on health services providing PLHIV care<sup>23,30</sup>, and the remainder studies counted on the participation of elderly people<sup>20</sup>, nursing students<sup>15</sup>, children<sup>25</sup> and breastfeeding women<sup>26</sup>.

The profile of the organizations ahead of the best practices varied between the studies; however, health services and programs were

highlighted in seven manuscripts of the organizations executing the best practices, amongst which the Avahan-India AIDS initiative was mentioned in two articles<sup>12,13</sup>, followed by the Mountain West AIDS Education and Training Center<sup>14</sup>, the Ubuntu Clinic<sup>23</sup>, the Howard Brown Health Center<sup>17</sup>, the Make A Difference about Art Program<sup>25</sup> and the district Hospitals<sup>28</sup>. Furthermore, seven institutions belonged to the government sphere, with PHC services being mentioned in two articles<sup>21,26</sup>, followed by the mentioning of the Public Health Department<sup>18,19</sup>, the Federal Institutions offering care to Fonsida Program patients<sup>29</sup>, the Iowa City Veterans Affairs<sup>16</sup> health system, the Substance Abuse Prevention Center, the Woman's Health Office, the HIV/AIDS and Infectious Disease Office Policy Office and the Administration of Substance Abuse and Mental Health Services<sup>15</sup>.

Three education institutions were ascertained as promoters of best practices, being them the Washington University Center for Research on AIDS<sup>27</sup>, the Federal University of Ceará<sup>22</sup> and the State University of Ceará<sup>20</sup>. Finally, there was the acknowledgment of the work of two institutions, the British HIV Association<sup>30</sup> and the South African Medical Research Council in collaboration with Saving Newborn Lives<sup>24</sup>.

Studies presented two different populations to which the best practices were destined. Regarding PLHIV, studies that stand out are on maternal-infant health addressing pregnant and puerperal HIV<sup>14</sup> positive women, newborn babies from HIV positive women<sup>14,28</sup>, pregnant women followed up into the puerperal period and their newborn babies<sup>24</sup>, and newborn babies having initiated the Antiretroviral Therapy (ART)<sup>26</sup>. Other studies focused on children<sup>25</sup>, PLHIV in general<sup>16,18,21</sup>, people not covered by health insurance<sup>29</sup>, adult people making use of ART<sup>23</sup>, people not receiving ART treatment<sup>27</sup>, and women in child labor and newborn babies without documented HIV status<sup>19</sup>.

In relation to populations without HIV positive diagnosis, and considering health prevention and promotion, best practices were destined to long distance truck drivers<sup>13</sup>,

female sex workers<sup>12</sup>, transexual young women<sup>17</sup>, nursing undergraduate students<sup>15</sup>, adolescents in in street situation<sup>22</sup> and elderly people<sup>20</sup>. Another study involved health services specialized in HIV<sup>30</sup>.

*Table 1* presents information related with the best practices in the HIV management which were the focus of the studies included in the revision scope. Studies were organized according to proximity of themes.

Table 1. Presenting Best practices addressed in the studies involving HIV management, specific situation or context and outcomes

N	Best practices in HIV management	Specific situation or context	Outcome	Aspects
A1 <sup>26</sup>	Expansion of the national web-based HIV/AIDS informatics system, TRAC-net, to include timely HIV PCR results, in conjunction with trained and qualified personnel.	Health facilities with limited resources in Rwanda.	Early diagnosis of HIV-exposed infants and improvements in early ART initiation, due to reduced delays in time elapsed between testing and receiving the result.	Clyncial
A2 <sup>30</sup>	Tool consisting of a dashboard with performance graphs that provide summaries of audit data that are compared to the overall average of HIV services.	Specialist HIV health services in the UK.	Improved feedback and subsidies for improving the quality of care, which were considered acceptable and useful.	Clyncial
A3 <sup>18</sup>	Funded facilities that develop medical case management.	Department of Health of the District of Columbia in the USA.	Increased retention in care, bonding, and improvement in the patient's clinical condition and decreased rates of viral suppression.	Clyncial
A4 <sup>14</sup>	ECHO Program (Extension for Community Health Outcomes), which offers telementoring to community physicians with evidence-based practices on perinatal HIV care management.	Rural and resource-poor environments in the US.	Improved access to clinical monitoring of HIV/AIDS, improved prevention of mother-to-child transmission of HIV and reduced need for referral to specialties.	Clyncial
A5 <sup>16</sup>	Collaborative Telehealth Program for PLHIV	Rural settings with low HIV prevalence, few healthcare providers with expertise in HIV medicine, and long distances to specialist HIV clinics in the US.	Expanding access to health services, improving the quality of HIV care and reducing the time spent traveling for care.	Practices in health
A6 <sup>19</sup>	State rapid HIV testing program for pregnant women presenting for delivery with unknown HIV status.	Hospitals in Illinois in the USA.	Increase in the diagnosis of maternal HIV infection and decrease in newborns who were discharged with unknown serological status.	Clyncial
A7 <sup>29</sup>	Free Antiretroviral Drug Distribution Program.	First level attention in Mexico.	Expansion of coverage, greater effectiveness of ART, increase in patient survival and expansion of access to specialized care for PLHIV who did not have social insurance.	Clyncial and sociodemographic
A8 <sup>23</sup>	Group membership clubs led by lay health professionals.	PHC environment with chronic shortage of human resources in South Africa.	Fewer missed visits, shorter wait times and higher service take-up compared to standard care, improved access to ART and greater cost-effectiveness.	Clyncial
A9 <sup>28</sup>	Program for early childhood diagnosis of HIV with provision of ART for mothers with HIV.	Hospitals in predominantly rural areas of Mozambique.	Improvements in diagnosis and retention of care.	Clyncial

Table 1. (cont.)

N	Best practices in HIV management	Specific situation or context	Outcome	Aspects
A10 <sup>24</sup>	Community Health Agent's pre- and post-natal home visit program.	Municipality difficult to access due to high levels of violence and very high HIV prevalence in South Africa.	Improvement in the Access, prevention, cost-benefit and change in behaviors such as exclusive maternal breastfeeding.	Behavioral
A11 <sup>25</sup>	'Make a Difference about Art', a community art program for children aged 8 to 18 affected by HIV and AIDS.	Underserved community in South Africa.	Improved self-esteem, self-efficacy and perception of HIV.	Behavioral
A12 <sup>15</sup>	Student Awareness Program on the Link between Substance Abuse and AIDS (Salsa).	University environments in the USA.	Increasing knowledge about HIV transmission and prevention and decreasing the likelihood of having risky sex.	Behavioral
A13 <sup>12</sup>	Avahan HIV prevention program for female sex workers.	Clinical services for sexually transmissible diseases in India	Increased monthly coverage of outreach to female sex workers, improved quality of clinical services, increased condom distribution, reported consistent condom use with commercial clients, decreased syphilis cases, and stabilized HIV prevalence.	Behavioral and Sociodemographic
A14 <sup>13</sup>	Avahan prevention program among long-haul truck drivers.	Roads in India.	Overall improvement in safe sex practices, increased participation of truck drivers in the program and contribution to safer sexual practices among truck drivers.	Behavioral
A15 <sup>17</sup>	Local 'Life Skills' intervention with small groups to examine participants' involvement in HIV-related risk behaviors.	A temporary facility that provides a wide range of medical and psychosocial support services to marginalized youth populations, including young transgender women, in the US.	Changes in HIV-related risk behaviors.	Behavioral
A16 <sup>22</sup>	Educational video focusing on STI/HIV/AIDS prevention.	Adolescents on the streets in Brazil.	Acquisition of knowledge on STI/HIV/AIDS prevention and stimulation of critical thinking in adolescents regarding the importance of adopting healthy behaviors.	Behavioral
A17 <sup>20</sup>	Intervention through the educational booklet entitled 'Caring for yourself is loving yourself: a dialogue on HIV/AIDS among the elderly'.	Elderly members of social projects in Brazil.	Efficacy of educational material to improve knowledge, adoption of positive measures in relation to attitudes towards HIV prevention.	Behavioral
A18 <sup>27</sup>	Supply of long-lasting insecticide treated mosquito nets and water filters.	HIV-infected individuals not on ARV treatment and their families in Kenya.	Decreased costs associated with reducing the burden of disease, delaying HIV disease progression, and preventing mortality and morbidity from diarrheal diseases and malaria.	Clinical and sociodemographic
A19 <sup>21</sup>	Actions developed by medical and nursing professionals.	Basic care in Brazil	Development of predominantly assistance actions performed directly to the person who lives and coexists with HIV/AIDS.	Practices in health

Source: Own elaboration.

## Discussion

Article A1<sup>26</sup> analyses the impacts of a health strategy: a technology (TRACnet) that had a positive repercussion in the HIV test result delivery timeframe and in the subsequent ART initiation among HIV infected babies in Rwanda. Such technology consists of the implementation of the sending of SMS-e messages, a technology system based on the internet, to supply the Polimerase Chain Reaction (PCR) test results applied to HIV directly to the health units. This study showed significant reduction in the time for response/sending of PCR testing results and in the total time for starting ART in HIV infected babies after implementing the intervention.

Article A2<sup>30</sup> presented the development of a tool to supply feedback data to clinics specialized in PLHIV care in the United Kingdom, proving to be an important care support action. This study was based on the audit carried out by the British HIV Association evaluating compliance with guidelines for investigating and monitoring the routine of HIV infected adults. Graphs were proposed to compare one service to another, providing input for the improvement of PLHIV care quality.

Article A3<sup>18</sup> identified differences in the clinical results among PLHIV who received care in facilities funded by a medical care management program in comparison with those being given care in non funded facilities. The study pointed out that PLHIV receiving care in facilities funded by the program were significantly more prone to be remain under care and reached wider viral suppression than people being given care in non-funded institutions.

Article A4<sup>14</sup> relates to the program destined to health professionals. The study described an experience of training by making use of telementoring aimed at physicians from the Community for management of perinatal HIV. This telementoring made use of reading and case study strategies pointing out positive points preventing vertical transmission of HIV,

accessing clinical follow-up and, especially, reducing the need for referring patients to specialized care.

Article A5<sup>16</sup> displayed a program meant to support PLHIV care, being the use of digital technologies what stands out in this study describing the experience in collaborative telehealth as an approach to supply accessible and encompassing care to PLHIV in a rural setting. It shows how matrix support was provided to specialized and generalist professionals of APS services, facilitating the access to clinical follow-up of PLHIV living in venues of difficult access.

Article A6<sup>19</sup> highlighted the evaluation of performing the rapid test in women with undocumented HIV status as a means to prevent vertical HIV transmission in Illinois/USA. The study evaluated the continuity of rapid tests among women in child labor until the ending of the funding program and its replacement by a public-private partnership. This study evidenced that, in spite of changes in the public health infrastructure, the proportion of women with undocumented HIV status that took the rapid test themselves or along with their newborn baby remained high. Such discoveries highlight the relevance of public and private funding for important public health actions so as to allow positive impacts on the actions to identify maternal HIV infection and reduction in the number of newborn babies being discharged with unknown serological status.

Article A7<sup>29</sup> evaluates a free Antiretroviral (ARV) drug distribution program at the primary healthcare programs in Mexico City. This study shows how the benefits from this management practice widened the coverage of such drugs, improved treatment efficacy and increased the survival of PLHIV.

Article A8<sup>23</sup> addresses an ART distribution program, evaluating its cost-efficacy and concluding that it improved the access to ART. This study demonstrates an important public health study as it presents a program with



potential to expand the capacity of the health system, while facilitating the permanence in an efficacious long term treatment.

Article A9<sup>28</sup> evaluated an early pediatric diagnosis during care provided to HIV infected mothers that gave birth in two hospitals where care was based on a protocol, proving the benefits of care maintenance. Study results demonstrate that quality management is a tool for improving the work processes and the relation between health services.

Article A10<sup>24</sup> portrays a program consisting of prenatal and postnatal home visits carried out by Community Health Agents (CHA). When evaluating the effects of such visits on the survival rate of those without HIV infection and on the exclusive and appropriate nutrition of infants at 12 weeks, the study identified that the intervention almost doubled the Exclusive Maternal Breastfeeding (MBF) practice in 12 weeks and presented a 6% relative increase in EMB at each additional visit of the CHA. An evaluation of the costs of this intervention was also performed, proving it to be efficacious and of low cost.

The purpose of Article A11<sup>25</sup> was to evaluate the community art program aiming at reducing psychosocial problems among children affected by HIV in South Africa. The study revealed an improvement in their self-esteem, their self-efficacy (abilities of their own regarding dealing with various situations), besides raised awareness on living with HIV and improvement of part of the impact related to children having to deal with the death of their parents.

Article A12<sup>15</sup> addressed a program designed and developed by university nursing students presenting evidence suggesting that the peer education practice was effective in teaching essential information about HIV. A peer-to-peer model like the one used in the study, with nursing students, can be easily implemented on university campuses in order to reduce risk behaviors and encourage the prevention of HIV infection.

Article A13<sup>12</sup> evaluated a prevention program linked to female sex workers based on

educational activities, condom promotion and distribution, and establishment of program-linked clinics to manage Sexually Transmitted Infections (STIs) in Tamil Nadu, India. The program had a positive impact, resulting in better use of condoms during sexual intercourse, a decrease in the occurrence of syphilis cases and a stabilization in the prevalence of HIV infection among this population.

Article A14<sup>13</sup> examined the extent and trend of risky sexual behavior, STI/HIV prevalence, and the link between exposure to HIV prevention programs and safe sexual behavior. Data collected in 2007 and 2010 were compared. The prevention programs considered in the study were those classified as more intensive: contacts by educators, distribution of condoms by educators, visits to Khushi clinics, HIV counseling services, participation in any community meeting or event.

The results presented in Article A14<sup>13</sup> showed that consistent condom use in sexual relations with non-regular partners increased over time. The share of people testing HIV positive dropped from 3.2% to 2.5%, and the proportion of people testing positive for syphilis also declined from 3.2% to 1.7%. Truck drivers having sex with paid partners were significantly more likely to seek an intensive prevention program compared to those who did not have sex with paid partners. Truck drivers who had sex with paid partners and were exposed to prevention programs were more likely to consistently use condoms during sex.

Article A15<sup>17</sup> evaluated a small-group-based intervention with young transgender women and examined their involvement in HIV-related risk behaviors before the intervention and three months after it took place. This consisted of six group sessions and at least one individual session in which a personalized plan for reducing HIV-related risk behaviors was offered. The meetings addressed the following topics: sexual health, safe sex, healthy communication, partner negotiation and how to identify and access community services. The

results showed that participation in the intervention can reduce HIV-related risk behaviors.

Thesis A16<sup>22</sup> brought information regarding the production of an educational video for adolescents emphasizing the importance of adopting healthy behaviors in relation to HIV prevention. The action presents the street environment with real experiences that contribute to adolescents learning, reflecting, having criticality and developing autonomy on the subject. The video encouragingly helps adolescents to develop the necessary skills and abilities for them to effectively improve their sexual practices, reducing their risk of having a STI/HIV infection.

Dissertation A17<sup>20</sup> portrayed an intervention based on an educational technology. The study involved two groups: comparison group and intervention group. The intervention took place by means of an educational booklet entitled 'Taking care of yourself means loving yourself: a dialogue on HIV/AIDS among the elderly' shared with the intervention group. The control group received guidance in the form of health education. The intervention proved to be effective by improving the knowledge, attitude and practice of the elderly regarding HIV prevention, leading to the recognition of the effectiveness of using educational material to improve knowledge and adopt positive measures in relation to attitudes towards HIV prevention.

Article A18<sup>27</sup> estimated the effectiveness, costs, and cost-effectiveness of providing long-lasting insecticide-treated mosquito nets and water filters to HIV-infected adults not receiving ARV treatment and their families in comparison with HIV-infected adults not receiving the mosquito nets and water filters. Results demonstrated that the distribution of mosquito nets and water filters to PLHIV delayed the progression of HIV disease, pre-mortality and respiratory morbidity resulting from diarrheal diseases and malaria among these individuals and their families. The measures also resulted in substantial savings to the healthcare system.

Dissertation A19<sup>21</sup> described the work of

PHC professionals with regard to actions to promote, prevent and treat PLHIV. According to this study, actions in that sense include reception, monitoring, guidance, multidisciplinary work and prevention, a work done with other segments in the territory and encompassing health promotion as a whole, emphasizing that the care provided to PLHIV predominantly comes in the form of assistance.

The analysed studies show that there is no explicit best practice concept in the publications; however, HIV management practices were expressed as a best practice based on the results achieved through the evaluation of strategies, tools, health services, health programs, interventions and actions aiming at improving a given health condition, especially in HIV prevention and care.

Furthermore, the studies portrayed the use of assessment aspects identified in the adoption of best HIV management practices, which were classified in the present review as: Clinical Aspects<sup>12,14,18,19,23,26-30</sup>; Sociodemographic Aspects<sup>12,24,29</sup>; Behavioral Aspects<sup>12,13,15,17,20,22,25</sup> and Aspects Related to Health Practices<sup>16,21</sup>.

Among the Clinical Aspects used to evaluate best practices, the care provided by the services to PLHIV, such as carrying out the viral load test, adherence to the use of registered drugs and to health exams offered<sup>30</sup>, retention in care<sup>23,28</sup> as well as the involvement of the person in the care offered<sup>18</sup> and the following up of patients' evolution by performing CD4 and viral load tests<sup>16,18,23,27,29</sup>. Besides, the performance of rapid testing among women in child labor with unknown HIV infection status<sup>14,19</sup> and the time of initiation of ART in HIV-infected babies<sup>26</sup> are both highlighted.

Sociodemographic aspects mentioned were: the rate of population assisted by the program and the mortality rate after joining the program<sup>29</sup>; the relationship between population coverage<sup>12</sup>, costs and time used by professionals<sup>24</sup>; the reduction in the number cases and stabilization of HIV prevalence<sup>12</sup>; and the costs associated to opportunistic diseases<sup>27</sup>.

Behavioral aspects are related to: change in the knowledge, behavior and/or perception of HIV prevention<sup>15</sup>; in the knowledge about HIV and practices related to its prevention<sup>13,15,17,20,22</sup>; in the perception of self-esteem, self-efficacy and depression in children living with HIV<sup>25</sup>; in greater use of condoms<sup>12,13</sup>; and changes in behavior regarding exclusive breastfeeding<sup>24</sup>. Finally, we demonstrate to the PLHIV the aspects related to health practices that were considered in the assessment of the decentralization of care provided to PLHIV, previously related to the specialist and now having the PHC as a basis for organizing care actions for PLHIV, this being useful even as a way to respond to other demands linked to the care provided to these people which go beyond the disease itself<sup>21</sup> and related to the expansion of access to care and its improvement<sup>16</sup>.

In the study, the indication of practices as 'best practices' is justified by analysing the evaluation aspects listed, which related to positive changes/improvements in the management of HIV. Such aspects demonstrate the eligibility of conditions for defining practices linked to specific situations and contexts in order to achieve the desired results and therefore develop and implement strategies and actions of excellence in the management of HIV health practices.

## Conclusions

The best practices in HIV management identified in the studies are related to the establishment of management and care technologies, telehealth services, implementation of quick testing, education, ARV distribution, early pediatric diagnosis, prenatal and postnatal home visiting, HIV infection prevention, minimization of risk behavior, reduction of HIV related grievances, community initiatives as in adherence to treatment groups, artistic

activities for children living with HIV, and care practices developed by health professionals.

It was made clear that there is not an explicit best practice concept found in the publications, neither terms of measurable criteria to classify the practices in health as being the best. In spite of that, when admitting WHO's concept of best practices, considering actions in specific contexts, results achieved and aspects involved in each practice, along with their potential of being replicated in different scenarios, it was possible to select studies presenting best practices in HIV management.

As limitations, one can consider that only three languages were used for searching these studies and that the key words used might have influenced in the findings of the current scope revision.

The suggestion made is in the sense of developing new studies on best practices in HIV management with the objective of establishing parameters to define such practices in order to consider them best. Furthermore, it is understood that such findings may serve as an input for the construction of health practices aiming at improving the quality of actions directed to HIV management.

## Collaborators

Celuppi IC (0000-0002-2518-6644)\* contributed to the creation of the proposal, methodological development, data analysis, manuscript writing and approval of version to be published. Metelski FK (0000-0001-7833-0438)\*, Suplici SER (0000-0002-0334-7195)\* and Costa VT (0000-0001-5168-4383)\* contributed to the methodological development data analysis and approval of versions to be published. Meirelles BHS (0000-0003-1940-1608)\* contributed to the creation of the proposal, work supervision, manuscript revision and approval of version to be published. ■

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