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Original

Care-educational game for men who have sex with men and live with HIV and Aids

Jogo cuidativo-educacional para homens que fazem sexo com homens e vivem com HIV e Aids

Juego asistencial-educativo para hombres que tienen sexo con hombres y viven con el VIH y el Sida

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Abstract

Objective: To describe the construction of a board game-type care-educational technology for the health education of men who have sex with men and live with the Human Immunodeficiency Virus and Acquired Immunodeficiency Syndrome, within the scope of Primary Health Care. **Methods:** Methodological study, developed from a participatory perspective in four stages: development of a scoping review; theorization and construction of the technology; appraisal; and final design. **Results:** The game "*HIVIVENDO E APRENDENDO*" was constructed considering the integrative perspective of care for the target population, addressing in its content aspects about the infection and the disease, welcoming, treatment adherence, related stigmas and prejudices, citizenship, and quality of life. **Conclusion:** With the developed care-educational technology, it is intended that, after the validation phase, it can become a facilitating tool for promoting health education for both professionals and users in Primary Health Care.

Descriptors: Comprehensive Health Care; Health Education; HIV; Play Therapy; Educational Technology.

Whats is already known on this?
The literature demonstrates the effectiveness of the use of innovative tools in the care and fight against HIV and Aids, as well as the prominent role of Primary Health Care.

What this study adds?
The study has an innovative character by proposing a playful resource for the health promotion of men who have sex with men and live with HIV and Aids.

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Resumo

Objetivo: *Descrever a construção de uma tecnologia cuidativo-educacional do tipo jogo de tabuleiro para a educação em saúde de homens que fazem sexo com homens e vivem com o Vírus da Imunodeficiência Humana e a Síndrome da Imunodeficiência Adquirida, no âmbito da Atenção Primária à Saúde.* ***Método:*** *Estudo metodológico, desenvolvido sob uma perspectiva participativa em quatro etapas: desenvolvimento de uma scoping review; teorização e construção da tecnologia; apreciação; e desenho final.* ***Resultados:*** *O jogo "HIVIVENDO E APRENDENDO" foi construído considerando a perspectiva integrativa do cuidado à população-alvo, abordando em seu conteúdo aspectos sobre a infecção e a doença, acolhimento, adesão ao tratamento, estigmas e preconceitos relacionados, cidadania e qualidade de vida.* ***Conclusão:*** *Com a tecnologia cuidativo-educacional desenvolvida, pretende-se que, após a fase de validação, ela possa se tornar uma ferramenta facilitadora de promoção de educação em saúde tanto para profissionais quanto para usuários da Atenção Primária à Saúde.*

Descritores: *Assistência Integral à Saúde; Educação em Saúde; HIV; Ludoterapia; Tecnologia Educacional.*

Resumén

Objetivo: *Describir la construcción de una tecnología asistencial-educativa del tipo juego de mesa para la educación en salud de hombres que tienen sexo con hombres y viven con el Virus de Inmunodeficiencia Humana y el Síndrome de Inmunodeficiencia Adquirida, dentro de la Atención Primaria de Salud.* ***Métodos:*** *Estudio metodológico, desarrollado desde una perspectiva participativa en cuatro etapas: desarrollo de una revisión de alcance; teorización y construcción de la tecnología; valoración; y diseño final.* ***Resultados:*** *El juego "HIVIVENDO E APRENDENDO" fue construido considerando la perspectiva integradora del cuidado de la población destinataria, abordando en su contenido aspectos sobre la infección y la enfermedad, acogida, adherencia al tratamiento, estigmas y prejuicios relacionados, ciudadanía y calidad de vida.* ***Conclusión:*** *Con la tecnología asistencial-educativa desarrollada, se pretende que, tras la fase de validación, pueda convertirse en una herramienta facilitadora de promoción de la educación en salud tanto para los profesionales como para los usuarios de la Atención Primaria de Salud.*

Descriptores: *Atención Integral de Salud; Educación en Salud; VIH; Ludoterapia; Tecnología Educacional.*

INTRODUCTION

The Human Immunodeficiency Virus (HIV) is a pathogen transmitted through bodily fluids, blood, breast milk, semen, and vaginal secretions, which affects the immune system's defense cells, progressively weakening it and making the individual unable to fight subsequent infections, causing signs and symptoms to appear, and this condition of immune suppression is called Acquired Immunodeficiency Syndrome (Aids). Thus, an infected person can remain for years without clinical manifestations. Although a cure is not achieved, treatment allows a person living with HIV (PLHIV) not to develop Aids.[1]

Worldwide, in 2022, there were around 39 million reported cases of HIV. In Brazil, from 2007 to June 2022, there were 434,803 reported cases. These statistics are still alarming, especially among certain population groups, known as key populations, which include gay men and men who have sex with men (MSM), transvestites and transsexuals, people who inject drugs and sex workers. Globally, MSM comprise the main exposure category, with a 26 times greater risk of contracting the infection when compared with the general population.[2,3]

Data from the survey "Stigma index in relation to people living with HIV/Aids – Brazil" shows that revealing one's serological status causes exclusion and stigmatization, and that the individual is also vulnerable to rights violations when this information is shared without consent. These factors are characterized as obstacles to accessing health services, creating difficulties in terms of actions related to prevention, testing, and treatment adherence.[4]

In order to achieve an efficient response to combating HIV and discrimination, one should consider the development of strategies aimed at vulnerable population segments. In this context, actions involve empowering PLHIV and raising awareness among the population by promoting health education. Accordingly, Primary Health Care (PHC) plays a key role, as it is the preferred gateway to the Health Care Network (HCN) in Brazil, focused on comprehensive user care, prioritizing welcoming and bonding, thus enhancing access to singularized and longitudinal care. In this sense, the implementation of educational actions that actually motivate the individual and the participation of the community can represent a complex achievement, permeated with challenges, and it is up to the multidisciplinary team to search for strategies that favor this process.[5]

Among the innovative care practices for combating HIV and Aids, one can mention the Care-Educational Technologies (CETs). The concept of CET emerges from human praxis, transcending the historical conception that the process of health education and care do not occur simultaneously. Accordingly, CETs comprise tools used to transform the individual, based on the premise that care-education are inherent processes that cannot be dissociated, and that these technologies can be used as a

means of making the individual the main actor in his/her own care, with this being the preponderant factor in decisions and behaviors.[6]

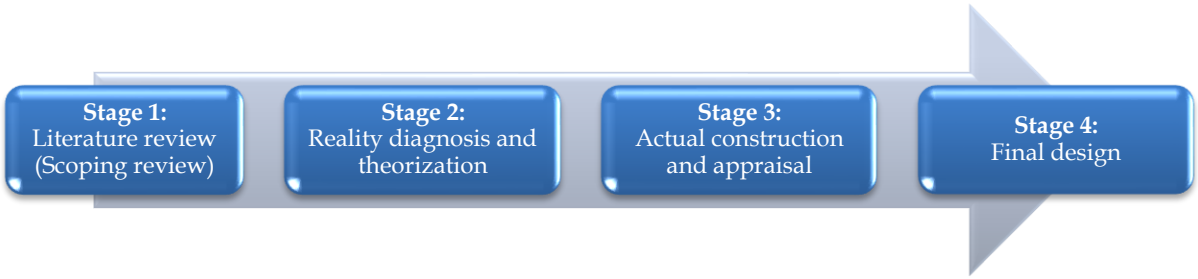
Given the overview here introduced, one should highlight the importance of dialogical tools to be used in PHC, which can help health professionals to promote the health of people living with HIV and Aids, especially the main group of exposure and prevalence of the infection, stimulating autonomy and protagonism in care based on health education, with a view to preventing and reducing diseases and improving the quality of life of these individuals. In this context, this study aimed to describe the construction of a board game-type care-educational technology for the health education of men who have sex with men and live with HIV and Aids, within the scope of Primary Health Care.

METHODS

This is a methodological study of an applied nature, with a descriptive approach, underpinned by the theoretical-conceptual model of CET.[6] The methodological study was chosen because it is the method that best enables the construction and validation of a care-educational technology with the required scientific rigor.[7] In turn, the applied nature of the study aims to provide foundations for a practical solution to the existence of specific gaps, which, in this case, is the construction of a playful-type CET (game), with a view to promoting health education for people living with HIV and Aids.[8]

In order to develop the technology in question, four stages were followed, which are outlined in Figure 1.

Figure 1. Outlining the stages for the construction of the care-educational technology. Cajazeiras – PB, Brazil, 2023.



Source: The authors (2023).

Stage 1: Scoping review on existing Care-Educational Technologies for people living with HIV and Aids

The literature search stage, through a scoping review, was carried out from January to March 2023 and aimed to identify and map the CETs for people with HIV and Aids in the context of Primary Health Care, published or registered as a technical-technological product. Accordingly, searches were conducted in the databases named Medline/PubMed, Web of Science, Scopus, Embase, CINAHL, VHL, Google Scholar, CAPES Thesis and Dissertation Catalog, Digital Library of Theses and Dissertations, Open Access Theses and Dissertations, and the National Institute of Industrial Property.

The scoping review was guided by the Joana Briggs Institute (JBI) manual.[9] The registered protocol is publicly accessible, available in the Open Science Framework (OSF) and the protocol article published in a journal.[10]

Stage 2: Reality diagnosis and theorization

The reality diagnosis phase was carried out by sending an online form to the game's target population, where it was possible to identify, based on people's perspective, which types of technology would best provide an educational approach. Recruitment took place from participants in another study under development, which aimed to correlate quality of life and the provision of health actions to PLHIV, which adopted the following inclusion criteria: being over 18 and taking antiretroviral drugs for at least six months. Participating MSM were invited to take part, and three responses were received to the form sent out. In order to better target the technology, the participants were asked about their age group, which topics they considered important for increasing their knowledge on HIV and Aids, factors for improving their quality of life, self-care practices, their experiences of prejudices, and the rights of PLHIV.

Theorization, carried out in May 2023, comprised a foundation in scientific literature, plus a documentary study, based on sources from health organizations, such as the Brazilian Ministry of Health,[1,3,12] with a survey of references and guidelines[11] for content on HIV and Aids to guide the definition of the content theorized in the game.

The following documentary information was analyzed: epidemiological data on HIV and Aids; infection stages; prevention; how diagnosis occurs; forms of transmission of the virus; treatment; welcoming PLHIV and Aids; forming a bond between PLHIV and the professional team working in the health service; stigma and prejudice in relation to PLHIV and Aids; rights of PLHIV; and factors that contribute to quality of life.

Stages 3 and 4: Actual construction, appraisal, and final design

Stages 3 and 4 consist of the actual construction of the game. To this end, the model known as the "creative cycle for the production of educational games" was followed, with adaptations.[13] This method encompasses the following correlational phases: bibliographical research, definition of objectives, determination of the environment, choice of the platform, definition of goals, definition of rules, definition of the feedback system, testing, evaluation, revision, and the probable launch.

The definition of the feedback system, in line with the proposal to involve the target audience, was made possible by applying a questionnaire on Google Forms, with representatives of the population for whom the technology is intended, about the need for topics to be covered to increase knowledge on the disease, understanding of self-care practices and educational approaches that arouse their interest. This procedure helped to guide the development of the technology.

The development of the proposed CET also involves validation with experts and evaluation of its applicability with the target audience. However, these phases will be continued at a later date, with this current production section corresponding to the construction of the game. It should be underlined that the main result of this study is the production of a technological product, as part of the products of the research group "Laboratory of Information and Communication Technologies in Health" (LATICS), in the project called "Construction and validation of care-educational technologies in the field of interdisciplinarity in health", which has been approved by a REC, through Opinion nº 6.048.916 (CAAE: 33902720.3.1001.5575), and follows all the ethical precepts of Resolution nº 466/2012.[14]

RESULTS

Stages 1 and 2: Scoping review, documentary search and reality diagnosis

Based on an analysis of data from epidemiological bulletins from Brazil on HIV infection, it was found that the group with the highest exposure today is composed of men. Among the male group, the most exposed are men who have sex with men, with a prevalence of around 11 times more when compared with other adults in the same age group (15 and 49 years).[3]

Through the scoping review, it was identified that most of the existing technologies are aimed at PLHIV in general; and, to a lesser extent, at adults who use licit and illicit drugs, children, and adolescents with exposure to HIV, elderly citizens, serodifferent couples and pregnant women. During the process of screening the studies, it was also observed that many educational technologies are used for HIV prevention.

With regard to the types of CET, booklets were the most common, while digital interventions in the digital environment, such as websites, e-books, telephone reminders, calls and apps, were also mentioned. Only one type of recreational resource was found, a card game for the elderly audience.

As a result, the review revealed that educational interventions using care-educational technologies have not been directed at the main group affected by HIV and Aids, men who have sex with men, as well as the perception that playful resources are still not as widely explored.

Through the reality diagnosis phase when approaching men who have sex with men and living with HIV, it was identified that the age group was 34 to 42 years. The responses pointed to a predominant interest on the part of the target population in educational interventions using games, with themes focused on demystifying the idea that the infection is a death sentence, conveying information about the risks of infection, raising awareness on social networks, and encouraging health professionals to carry out educational actions on sexually transmitted infections.

When asked what rights PLHIV have, the responses included the right to confidentiality, right to financial assistance, as well as health rights, such as home treatment and laboratory tests. Regarding

experiences of prejudices, those who had already suffered prejudice in close social circles stood out, such as friends and relatives, and other situations where discrimination was linked to sexuality.

Given the gaps identified here, the intervention was to develop a board game for men who have sex with men and live with HIV and Aids, as a care-educational technology, in such a way as to boost the process of empowerment through health education.

Steps 3 and 4: Actual game construction, appraisal, and final design

The actual construction phase of the game product was guided by the reference creative cycle for producing educational games,[13] adapting the stages according to the identified needs.

As this is an educational resource, the game's educational goal was initially defined as: to understand and apply practical situations that increase knowledge on health conditions, self-care, empowerment, and quality of life.

The goal is the result that the player aims to achieve. It is what gives the game its character by setting up a competition between the members. The goal was to achieve the five elements of the card and thus form an informational leaflet.

The controlled environment adopted for the game was the PHC, designed as a way of bringing the playful scenario closer to the individual's reality. Accordingly, in this game, the player is a user of the service and is given the mission of putting together an informational leaflet, with the final experience being the realization that PLHIV are the main and determining element in the process of dialogically constructing information about the infection and the interfaces of living with HIV, mediated by his/her own experiences.

The game entitled "*HIVIVENDO E APRENDENDO*" is made up of the following elements: a board; six sheets (informational leaflets) with different colors; twenty "lucky or unlucky" cards; a pawn/game pin; a dice; a manual of rules and instructions. The resources were created on the online graphic designer platform named Canva®.

The board is circular in shape, subdivided into five colors that indicate the covered themes, with 35 icons and the game logo in the center. Of the 35 icons, ten are different informational elements that make up the themes that constitute the sheets, with each informational element appearing twice on the board, totaling 20 icons; 12 are "lucky or unlucky" icons; two icons that represent the person living with HIV; one "loses everything" icon. The absence of a start and end marker in a circle ensures that the game continues until there is a winner.

The synthesis of the content selected to make up the game was the result of an analysis of the target population's contribution, as well as a review of the literature and documents published by the Brazilian Ministry of Health that contain recommendations and management regarding the care of PLHIV.

Accordingly, the board addresses information from five thematic axes and their respective compositions, described below:

1. Etiology and disease – HIV definition; Aids definition.
2. Prevention – Condoms; HIV Post-Exposure Prophylaxis (PEP); HIV Pre-Exposure Prophylaxis (PrEP).
3. Transmission – Vertical transmission; Sharps.
4. Diagnosis and treatment – Rapid tests; Antiretroviral treatment (ART).
5. Living with HIV – Self-care.

Other relevant information was included in the content of the cards, so that the following topics were covered in the lucky cards: (1) suppression of the viral load; (2) the appropriate term to refer to the person with HIV; (3) forms of contact that do not transmit the virus; (4) the possibility of starting a family and having biological children without HIV; (5) welcoming and bonding in the health service; (6) the importance of disseminating reliable information about HIV and Aids; (7) self-care and mental health; (8) the right to confidentiality of condition and treatment; (9) treatment adherence and the chronic character of the infection; (10) the benefits of regular physical exercises; (11) self-confidence and healthy emotional relationships.

In the unlucky cards, the following issues were addressed: (1) discriminatory dismissal from work; (2) use of terms that carry a load of stigma and prejudice; (3) unprotected sexual intercourse; (4) discrimination against PLHIV; (5) lack of continuous follow-up in primary care services; (6) unhealthy lifestyle habits and the onset of other chronic diseases; (7) infection stages and their clinical manifestations; (8) use of licit and illicit drugs and their relationship with drug efficacy; (9) lack of adherence to ART and susceptibility to opportunistic infections and consequent hospitalizations.

The six sheets, which represent the informational leaflet that the participant will conquer throughout the game he intends to win, have different identifying colors and are made up of five icons/informational elements from the board, accompanied by an explanation of what the figure represents. The ten informational elements were randomly distributed on the six sheets, so that each icon appears on three different sheets.

The game also comes with a manual of rules and instructions to guide the professional who will be conducting it. In this phase, manuals of entertainment games were analyzed, as well as those that have an educational purpose. The manual has the following explanatory topics: (I) About the game; (II) Getting to know the game; (III) Number of participants; (IV) Who the participants are; (V) How to play; (VI) References.

The game should be led by health professionals, especially nurses, as they play a key role in actions related to health education in PHC. The professional in charge should initially read the section "How to play" of the manual of instructions to all participants. The match requires a minimum of two and a maximum of six participants. Accordingly, one of the possibilities is to conduct a support group with all the participants living with HIV or just the PLHIV and people they know and choose, such as family members, friends, and others. Another applicability is individual health education, especially after a recent diagnosis. In this case, the professional should participate as a player and also as a group leader.

In order to decide the first player, each participant must roll the die once, the order of the players being determined by the descending score. In the same order, each player must choose the color of the card he wants for the round. The first player rolls the die again and walks the number of squares indicated by the die in a clockwise direction. If he lands on the information icon squares, he wins the icon if the chosen card contains that element; if it does not or he has already won, he must pass the turn.

The board represents the challenges of living with HIV and contains an icon where the player loses all the elements he has gained when he lands, as well as "lucky or unlucky" cards that represent these adversities. When he lands on this icon, the player takes one of the cards from the pile, which are grouped together and face down, reads the content to everyone and follows the command, which can be "win one or two elements" if the card is "lucky", or "lose one or two elements", if it is "unlucky". On the icon representing PLHIV, the participant gains an element he needs on the card.

Following the goal, the game continues until one player achieves all five pieces of information that make up the chosen card and wins the game. If there are more than three participants, the game can continue until there are first, second and third place winners.

In the textualization phase, the aim was to adopt a language that was easy to understand, with text that contained little information, as well as simple highlighted phrases that indicated an affirmative action, avoiding technical terms and, when essential, accompanied by a clear explanation. For a better understanding of the content, illustrations were used to represent the information. Accordingly, symbols and figures with which the target audience can identify were used, illustrating men with diverse characteristics, at various times and activities, with inclusion and representativeness of sexual orientation and color/race.

After adapting the textual content and choosing the illustrations, the layout was defined, with different colors, according to what was intended to be highlighted, and the diagramming stage followed, corresponding to the organization of the text, figures and colors on the board, sheets, cards, and manual of instructions, with a view to making it visually attractive and meaningful.

DISCUSSION

As a strategy for confronting and combating HIV, the World Health Organization (WHO) defines combined prevention, which involves biomedical, behavioral, and structural intervention measures, and thus the Brazilian Ministry of Health has adopted the mandala representation of combined prevention. Among the actions, one can mention: testing for early diagnosis; use of pre-exposure and post-exposure prophylaxis; prevention of vertical transmission; use of internal and external condoms and lubricating gel; treatment of all people with HIV and Aids; reduction of damage after diagnosis.[15]

Adherence to antiretroviral treatment (ART) involves taking the medication correctly and regularly, with the aim of suppressing the viral load, which provides a better quality of life for the individual, as well as breaking the chain of HIV transmission in a social context. Accordingly, adherence to ART is one of the pillars of the fight against HIV. Among the factors that favor it, one can mention: welcoming, active listening, bonding, knowledge on the disease, and social support, and it should be the

responsibility and priority of the health team to form a bond to encourage user retention and continuous follow-up.[16]

From this perspective, health education is a field of action and competence of the professional nurse for comprehensive and efficient care, which, through awareness-raising measures, encourages adherence to self-care as a way of coping with the disease, with the goal of achieving well-being.[17]

Games are used in the context of health education because of their ability to involve users and encourage them to participate actually in terms of caring for their own health conditions. Accordingly, playful instruments, through their relaxing character, improve the health learning process and provide moments of interaction between other individuals.[18]

International studies highlight the relevance of games in health education for the population, as well as in the training and improvement of professionals, thus increasing quality of life and good practices in the work process, respectively.[19] Tabletop board games are characterized by their use in groups, which awakens competitiveness and social interaction, constituting a fun moment where critical-reflective thinking about health is also stimulated.[20]

In this context, nurses play an essential and leading role as mediators of the educational process, which is shown to be innovative through the use of technological resources, such as playful games, which, when implemented in care actions, make the acquisition of knowledge more dynamic, enable active listening and create spaces for discussion and the removal of doubts that might not arise in a traditional consultation, contributing to the formation of bonds between users and health services.[18]

The covered topics were guided by a diagnosis of the reality of the population segment to which the technology is directed, so that the developed CET can be adapted to the reality experienced and overcome the problem. This phase of getting closer to the social subjects and the involved contexts, identifying knowledge and shortcomings, is essential for supporting hypotheses and proposing solutions.[21]

In line with the identified gaps, the theorization of the content follows the axes of comprehensive care for PLHIV in PHC proposed by the Brazilian Ministry of Health[1] for professionals and updated guidelines from the Joint United Nations Programme on HIV/Aids,[11] in order to ensure scientific rigor for this CET.

A research project to create a booklet for PLHIV with the formation of a focus group identified that, after diagnosis, one of the most common doubts is about the transmission of the virus, especially whether it can continue with contact with children and relatives, demonstrating the gap and fragility of existing knowledge, with this booklet covering the topics concerning vulnerable population, transmission, self-care, follow-up examinations, prevention of opportunistic illnesses, diet and physical exercise.[22]

Accordingly, the content of the developed game is in line with that of other types of technology for educational purposes, with other topics added to reach the biological, psychological, and social dimensions for an interventionist tool capable of understanding the biopsychosocial model and positively influencing the behavior of the target population.

Regarding limitations, one should consider the small number of participants in the technology development stage. Nonetheless, it should be noted that this limitation does not impact on the quality of the study or the product, as there will be subsequent validation with the target audience.

CONCLUSION

After a careful search for evidence in peer-reviewed literature and national and international gray literature, as well as a study of ministerial documents and consultation with the technology's target population, the educational game called "*HIVIVENDO E APRENDENDO*" was developed, which runs through cross-cutting themes, namely: physical, mental, and social health, citizenship, and deconstruction of prejudices.

Therefore, health education through games can be considered an innovative and playful strategy for empowering individuals, making them critical of the reality they experience and disseminating safe information, thus multiplying knowledge, in order to reduce socially linked stigma and prejudice.

Accordingly, it is hoped that this game, once validated, will be a powerful tool capable of producing a positive impact on the way health education is carried out in PHC, in order to strengthen points, such as, for example, social interaction, adherence to antiretroviral treatment, bonding and user retention in the health service, as well as the role of people living with HIV in their own care, based on awareness and appropriation of safe information, enabling the chain of transmission to be broken, so that

they can fight against the prejudice that still exists and for their rights to be guaranteed. It is also hoped that this study will inspire other technological development research for other groups of PLHIV.

CONTRIBUITIONS

Contributed to the conception or design of the study/research: Mariano MTL, Leite MR, Mandelli BF, Nascimento MMP, Temoteo RCA, Silva CRDV. Contributed to data collection: Mariano MTL, Leite MR, Mandelli BF, Nascimento MMP, Temoteo RCA, Silva CRDV. Contributed to the analysis and/or interpretation of data: Mariano MTL, Leite MR, Mandelli BF, Nascimento MMP, Temoteo RCA, Silva CRDV. Contributed to article writing or critical review: Mariano MTL, Leite MR, Mandelli BF, Nascimento MMP, Temoteo RCA, Silva CRDV. Final approval of the version to be published: Mariano MTL, Leite MR, Mandelli BF, Nascimento MMP, Temoteo RCA, Silva CRDV.

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REFERENCES

1. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Departamento de DST, Aids e Hepatites Virais. Cuidado integral às pessoas que vivem com HIV pela Atenção Básica: manual para a equipe multiprofissional. [Internet] Brasília: Ministério da Saúde; 2017 [cited 2023 Aug. 04]. Available from: https://bvsms.saude.gov.br/bvs/publicacoes/cuidado_integral_hiv_manual_multiprofissional.pdf.

2. Programa Conjunto das Nações Unidas sobre HIV/AIDS (UNAIDS). O caminho que põe fim à AIDS: Relatório Global do UNAIDS 2023. [Internet]. Genebra: UNAIDS; 2023 [cited 2023 June 12]. Available from: https://unAids.org.br/wp-content/uploads/2023/07/JC3082_GAU2023-ExecSumm_v2_embargoed_PT_VF_Revisada-EA.pdf.

3. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Departamento de Doenças de Condições Crônicas e Infecções Sexualmente Transmissíveis. Boletim Epidemiológico de HIV/Aids. [Internet]. Brasília: Ministério da Saúde; 2017 [cited 2023 Aug. 04]. Available from: https://www.gov.br/Aids/pt-br/centrais-de-conteudo/boletins-epidemiologicos/2022/hiv-Aids/boletim_hiv_Aids_-2022_internet_31-01-23.pdf/view.

4. Programa Conjunto das Nações Unidas sobre HIV/AIDS (UNAIDS). Sumário Executivo: Índice de Estigma em relação às pessoas vivendo com HIV/AIDS BRASIL. [Internet]. 2019 [cited 2023 June 17]. Available from: https://unAids.org.br/wp-content/uploads/2020/01/Exec_Sum_ARTE_2_web.pdf.

5. Santos MA. Educação em saúde, atenção primária e relevância da intervenção do serviço social. In: II Congresso de Assistentes Sociais do Estado do Rio de Janeiro; 2016 May p. 1-10; Rio de Janeiro, Brasil. Rio de Janeiro: 2016.

6. Salbego C, Nietsche EA, Teixeira E, Girardon-Perlini NMO, Selvagem CF, Ilha S. Tecnologias cuidado-educativas: Um conceito emergente da práxis do enfermeiro em contexto hospitalar. Rev Bras Enferm [Internet]. 2018 [cited 2023 Aug. 13]; 71(6):2666-74. doi: https://doi.org/10.1590/0034-7167-2017-0753.

7. Polit DF, BECK CT. Fundamentos de pesquisa em enfermagem: avaliação de evidências para a prática da enfermagem. Porto Alegre:Artmed; 2011.

8. Gerhardt TE, Silveira DT. Métodos de pesquisa. Porto Alegre: Editora da UFRGS; 2009.

9. Peters MDJ, Godfrey C, McInerney P, Munn Z, Tricco AC, Khalil H. Chapter 11: Scoping Reviews. JBI Evid Synth. [Internet]. 2020 [cited 2023 July 10]; 169(7): 467-473. doi: https://doi.org/10.46658/JBIMES-20-12.

10. Mariano MTL, Oliveira LR, Barros MA, Mandelli BF, Leite MR, de Andrade RMZ, *et al*. Tecnologias cuidativo-educacionais para pessoas com HIV e Aids no âmbito da atenção primária à saúde: Protocolo de scoping review. Braz. J. Hea. Rev. [Internet]. 2023 [cited 2023 July 14];6(2):8040-8050. Available from: https://ojs.brazilianjournals.com.br/ojs/index.php/BJHR/article/view/59151

11. Programa Conjunto das Nações Unidas sobre HIV/AIDS (UNAIDS). VIVA A VIDA POSITIVAMENTE: Conheça seu estado sorológico para o HIV. Brasília: UNAIDS; 2018.

12. Ministério da Saúde (BR). Secretaria de Atenção Primária à Saúde. Secretaria de Vigilância em Saúde. Departamento de Doenças de Condições Crônicas e Infecções Sexualmente Transmissíveis. Atualização do Caderno de Atenção Básica 18: HIV/Aids, Hepatites Virais, Sífilis e outras Infecções Sexualmente Transmissíveis. [Internet] Brasília: Ministério da Saúde; 2017 [cited 2023 Aug. 04]. Available from: https://www.gov.br/saude/pt-br/centrais-de-conteudo/publicacoes/svsa/atencao-basica/cadernos-de-atencao-basica_-hiv-Aids_hepatites_ist.pdf/view.

13. Antunes J, Queiroz ZF, Santos IBR, Lima JN. Ciclo criativo de jogos colaborativos: um método para criação de jogos educativos. Holos [Internet]. 2023 [cited 2023 July 14]; 2:8040-8050. doi: https://doi.org/10.15628/holos.2018.3298.

14. Ministério da Saúde (BR). Conselho Nacional de Saúde. Diretrizes e normas regulamentadoras de pesquisa envolvendo seres humanos. Resolução n. 466, de 12 de dezembro de 2012. Brasília; 2012.

15. UNITED NATIONS PROGRAMME ON HIV/AIDS (UNAIDS). Combination HIV prevention: tailoring and coordinating biomedical, behavioural and structural strategies to reduce new HIV infections. [Internet] Genava: UNAIDS; 2010 [cited 2023 Aug.10]. Available from: http://files.unAids.org/en/media/unAids/contentassets/documents/unAidspublication/2010/JC2007_Combination_Prevention_paper_en.pdf.

16. Lucas MCV, Böschemeier AGE, Souza ECF. Sobre o presente e o futuro da epidemia HIV/Aids: a prevenção combinada em questão. Physis [Internet]. 2023 [cited 2023 Aug.14]; 33. doi: https://doi.org/10.1590/S0103-7331202333053.

17. Ribeiro WA, Andrade M. Enfermeiro protagonista na educação em saúde para o autocuidado de pacientes com doenças renal crônica. Rev Pró-UniverSUS [Internet]. 2018 [cited 2023 Aug. 20]; 9(2):60-65. Available from: http://editora.universidadedevassouras.edu.br/index.php/RPU/article/view/1378.

18. Carvalho ICN, Nascimento MOF, Pinto ACS, Melo ERF, Carvalho GRN, Santos MCT. Tecnologia educacional: A enfermagem e os jogos educativos na educação em saúde. RSD [Internet]. 2021 [cited 2023 Aug.14]; 10(7). Available from: https://rsdjournal.org/index.php/rsd/article/view/16471.
19. Sharifzadeh N, Kharrazi H, Nazari E, Tabesh H, Edalati Khodabandeh M, Heidari S, *et al*. Health Education Serious Games Targeting Health Care Providers, Patients, and Public Health Users: Scoping Review JMIR Serious Games 2020 [cited 2023 Oct.28]; 8(1). doi: https://doi.org/10.2196/13459.

20. Seixas GEC, Lopes JL, Barros ALBL, Aprile DCB, Santiago LM, Lopes CT, *et al*. BOARD GAME ON HEALTHY LIFESTYLE FOR PEOPLE WITH CORONARY ARTERY DISEASE. Texto contexto - enferm. [Internet]. 2023 [cited 2023 Aug.14]; 32. doi: https://doi.org/10.1590/1980-265X-TCE-2022-0294en.

21. Salbego C, Nietsche EA. Praxis Model for Technology Development: a participatory approach. Rev Esc Enferm USP [Internet]. 2023 [cited 2023 Nov.28];57:e20230041. doi: https://doi.org/10.1590/1980-220X-REEUSP-2023-0041en.

22. Teixeira E, Palmeira IP, Rodrigues ILA, Brasil G, Seabra D, Machado TD. Tecnologia educacional em contexto hiv/Aids: uma alternativa qualitativa para a construção participativa. CIAIQ [Internet]. 2019

[cited 2023 Aug.14]; 2:17-22, 2019. Available from: https://www.proceedings.ciaiq.org/index.php/CIAIQ2019/article/view/1999.

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