Journal of Nursing
Revista de Enfermagem
UFPE On Line
ISSN: 1981-8963

INTEGRATIVE REVIEW ARTICLE

GAMES TO PROMOTE HEALTH EDUCATION FOR CHILDREN: INTEGRATIVE REVIEW

JOGOS PARA PROMOVER EDUCAÇÃO EM SAÚDE PARA CRIANÇAS: REVISÃO INTEGRATIVA

JUEGOS PARA PROMOVER EDUCACIÓN EN SALUD PARA NIÑOS: REVISIÓN INTEGRADORA

Arina Fonseca[1], Fátima Helena do Espírito Santo[2], Rose Mary Costa Rosa Andrade Silva[3], Zenith Rosa Silvino[4]

ABSTRACT

Objective: to identify scientific articles describing Health Promotion activities through Health Education using games and toys for children. ***Method:*** it is an integrative review by online search of scientific literature in LILACS, BDENF, MEDLINE and CINAHAL answering the question << What games/toys have been used by health professionals for health education activities? >>. There were 13 articles selected between 1986 and 2011 in 117 publications, taking careful selection of the inclusion/exclusion criteria, and presenting the data in a descriptive way. ***Results:*** articles showed that many professional practice playful activities to promote the health of children and adolescents, especially with card games and questions and answers. ***Conclusion:*** articles from different geographical distributions corroborate the role of playful activities such as games and toys in motivation and knowledge generation in health promotion for children, especially at school. ***Descriptors:*** Health Education; Games and Toys; Child; Nursing.

RESUMO

***Objetivo*:** identificar artigos científicos que descrevem atividades de Promoção da Saúde através da Educação em Saúde com uso de jogos e brinquedos para crianças. **Método:** revisão integrativa realizada por meio de busca *online* de artigos científicos nas bases LILACS, BDENF, MEDLINE e CINAHAL respondendo a questão << Quais os jogos/brinquedos que têm sido utilizados pelos profissionais de saúde para atividades de educação em saúde?>>. Foram selecionados 13 artigos entre 1986 e 2011 dentre 117 publicações, adotando seleção minuciosa dos critérios de inclusão/exclusão, apresentando e discutindo-se os dados de forma descritiva. ***Resultados*:** artigos apontam que diversos profissionais praticam o lúdico para promoção da saúde de crianças e adolescentes, principalmente com jogos de cartas e perguntas e respostas. ***Conclusão*:** artigos oriundos de diferentes distribuições geográficas corroboram o papel de atividades lúdicas como jogos e brinquedos na motivação e geração de conhecimento em promoção de saúde para crianças, em especial no ambiente escolar. ***Descritores*:** Educação em Saúde; Jogos e Brinquedos; Criança; Enfermagem.

RESUMEN

***Objetivo*:** identificar artículos científicos que describen actividades de Promoción de la Salud a través de la Educación en Salud con uso de juegos y juguetes para niños. **Método:** revisión integradora por búsqueda online de artículo científicos en las bases LILACS, BDENF, MEDLINE y CINAHAL respondiendo la pregunta << ¿Cuáles son los juegos/juguetes que han sido utilizados por los profesionales de salud para actividades de educación en salud?>>. Fueron seleccionados 13 artículos entre 1986 y 2011 dentro de 117 publicaciones, adoptando selección minuciosa de los criterios de inclusión/exclusión, presentando y discutiéndose los datos de forma descriptiva. ***Resultados*:** artículos muestran que diversos profesionales practican lo lúdico para promoción de la salud de niños y adolescentes, principalmente con juegos de cartas y preguntas y respuestas. ***Conclusión*:** artículos oriundos de diferentes distribuciones geográficas corroboran el papel de actividades lúdicas como juegos y juguetes en la motivación y generación de conocimiento en promoción de salud para niños, en especial en el ambiente escolar. ***Descriptores*:** Educación en Salud; Juegos y Juguetes; Niño; Enfermería.

[1]Nurse, Master degree, Fire Department of Rio de Janeiro State. Maricá (RJ), Brazil. E-mail: arinafonseca@hotmail.com; [2]Nurse, Ph.D. Professor, Graduate Course/Nursing Care Master degree Program/MPEA/EEAAC, Fluminense Federal University/UFF. Niterói (RJ), Brazil. E-mail: professorafh@vm.uff.br; [3]Nurse, Ph.D. Professor, Nursing Care Master degree Program/MPEA/EEAAC, Fluminense Federal University /UFF. Niterói (RJ), Brazil. E-mail: roserosauff@gmail.com; [4]Nurse, Ph.D., Professor, Nursing Care Master degree Program/MPEA/EEAAC, Fluminense Federal University /UFF. Niterói (RJ), Brazil. E-mail: zenithrosa52@gmail.com

INTRODUCTION

Health Education is transforming throughout the years. In the early twentieth century, the Health Education lived an important historical moment building their conceptions and practices. With its bases in *hygiene*, focusing on the individual responsibilities, Health Education has taken a prescriptive of rules, medicalization with an approach focused on health education (Biomedical Model).[1,2]

With the capitalist system crisis that began in the late 60s,[1] this Health Education model became the target of criticism. The health-disease view as a social product, from the action and transformation of collective interventions beyond the individual, showed the ineffectiveness of Biomedical Model. The capitalist State takes on a new Health Education approach to rationalize costs.[2,3]

The First International Conference about Health Promotion held in Ottawa, Canada, in 1986, arises as a response to expectations for a new model of health stating the Promotion of Health as a community training process to work on improving its quality life and health with participation in control of this process.[3]

In this sense, Health Education is understood as an axis of Health Promotion and has to equip the individual function to manage their own health with critical and appropriate thinking to their social reality. To educate is not only the transmit knowledge, but a process where individuals involved acquire cultural values and reproduce or transform the social codes of each society.[4]

Educational practices are determined by the way that the teaching-learning process is understood. Effective learning is the result of mediated learning that enables individuals to develop efficient thinking skills that will enable them to become independent and self-directed learners.[5]

Several authors argue that the use of playful activities as playing, games and theater are an important form of transmission of knowledge, assisting in interest, motivation and engagement from who is participating.[6] Playing is the action that the child practices to achieve the rules of a game, that is, to engage in playful action.[7]

The game concept is broad, having many interpretations. The children´s game includes features such as the symbolism, significance (allows to relate experiences or express), the activity, voluntary or intrinsically motivated (incorporating motives and interests) and rules (implicit or explicit). The games allow the player the freedom of action, the voluntary nature, the pleasure, the rules, the "not serious", the imagination.[7]

According to the ideas of Health Education and playing/games in the learning process, it is understood that the game is a powerful tool for learning, as they cause stimulation to the individual and allows the construction of ideas, actions and concepts in an imaginary world.

Considering the Health Education as a powerful tool for building of individuals/healthier societies and games/playing as highly effective tool in the actions of Health Education with children, the aim of this study is to identify scientific articles describing Health Promotion activities through the Health Education with the use of games and toys for children.

METHOD

Article elaborated from the research project developed in the Professional Master's Program in Nursing Care of the School of Nursing Aurora de Afonso Costa from UFF (EEAAC/UFF). Niterói, RJ.

The research is the an Integrative Review (IR) type, which aims to gather and synthesize knowledge on a specific topic, as well as incorporating the applicability of results of significant studies to practice.[8,9] Being the most comprehensive methodological approach among the reviews, the Integrative Review allows the inclusion of experimental and non-experimental studies, as well as the data of theoretical and empirical literature.[8]

To start this study, the topic, the objectives, the keywords and the research question were defined, related to the use of games/toys for health education activities. So the question of the research was: What are the games/toys that have been used by health professionals for health education activities?

The research was implemented in November 2013, through online search of scientific literature, to answer the research objective, in the Virtual Health Library (VHL) in the following databases: Latin American and Caribbean Sciences Health (LILACS), Databases in Nursing (BDENF) and Medical Literature Analysis and Retrievel Sistem online (MEDLINE). There were also researched the databases National Library of Medicine (PubMed) and Cumulative Index to Nursing and Allied Health (CINAHAL).

The keywords/Mesh used for the search of the articles were: "Health Education" and "games and toys" and the corresponding English language "Health Education" and "play and playthings". The Boolean operator used was "and". Regarding the search in the

MEDLINE database it was necessary to include the mesh "child" to determine the research.

For refinement of the sample, the inclusion criteria were: articles published in Portuguese, English, Spanish and French; Articles in the free form of the fully searchable databases, studies with human beings and research where the public educational policies were children and adolescents.

Para elaboração dos resultados esta Revisão Integrativa foi constituída pelas seguintes etapas: 1) Elaboração da questão norteadora; 2) Busca na literatura; 3) Coleta de dados; 4) Análise crítica dos estudos incluídos; 5) Interpretação dos resultados e 6) Síntese do conhecimento.[8,10]

Articles that are not clearly described the games and/or toys, presenting Health Education activities for people with conditions established and which were unavailable, as well as theses and dissertations, were excluded.

During the selection, some articles were excluded after reading the abstract not answering the question of study or not meeting the inclusion criteria. Other studies went through this process after the close reading of its form in full. To collect data of articles, a specific instrument was used with the following items: 1) Authors, year and country; 2) Objective; 3) Sample size, scenario, characteristics; 4) Design of research and instruments; 5) Main findings and 6) Conclusions.

For processing of the results this integrative review consisted of the following steps: 1) Development of guiding question; 2) Search in the literature; 3) Data collection; 4) Critical analysis of the included studies; 5) Interpretation of results and 6) conhecimento.8,10 Synthesis

RESULTS

The search resulted in 117 publications, as follows: 13 in LILACS, 82 in MEDLINE, two in BDENF, 20 in CINAHAL. After a thorough reading of the abstracts and applying the criteria for inclusion and exclusion, there were selected four articles in LILACS, six in MEDLINE, three in CINAHAL. The two articles found in BDENF were excluded for not answering the research question. It is noteworthy that two publications were repeated in LILACS and MEDLINE, then, they were computed in LILACS, since it was the first base to be consulted.

There were 13 scientific publications selected for this IR that respond to the research question as shown in Figure 1.

Título	Authors	Database/source	Year	Tyoe of game/toy
Puppet theater as a teaching strategy: report of experience [11]	Rampaso DAL, Doria MAG, Oliveira MCM, Silva GTR.	BVS- LILACS Brazilian Nurisng Magazine, Brasilia	2011	Pupet theater
Evaluation of the ZIG-ZAIDS game: an entertaining educational tool for HIV/Aids prevention[12]	Schall VT , Monteiro S, Rebello SM, Torres M.	BVS- LILACS Cad. Saúde Pública	1999	Game of questions and answers with cards and other accessories.
A game as an educational strategy for the control of Aedes aegypti in Venezuelan schoolchildren[13]	Vivas E, Sequeda MG de.	BVS- LILACS Rev Panam Salud Publica	2003	Game of questions and answers with cards
Games as an alternative for teaching basic health concepts [14]	Lizardo JMC, Morán MR, Romero FG.	BVS- LILACS Rev Panam Salud Publica	2001	Board game
A novel school-based intervention to improve nutrition knowledge in children: cluster randomised controlled trial[15]	Lakshman RR, Sharp SJ, Ong KK, Forouhi1 NG.	MEDLINE BMC Public Health	2010	Cards game
The School Yard Kids: A Puppet Show to Promote a Healthy Lifestyle[16]	Wright ND, Soroudi N, Wylie-Rosett J, Lukoscheck P, Moadel AB.	MEDLINE J Nutr Educ Behav	2007	Puppet theater
Kid WAVE - Get	Wylie-Rosett J,	MEDLINE	2010	Playing cards with

Healthy Game: Promoting a Healthier Lifestyle in Overweight[17]	Isasi C, Soroudi N, Soroker E, Perelstein AG, Sizemore C, et al.	Children. J Nutr Educ Behav		questions and answers
Education of Young Children Concerning Poison Prevention[18]	Butts J, Beck C.	MEDLINE Pubic Health Reports	1986	Pupet theater
Educational game as a health education strategy for adolescents in STD / AIDS [19]	Barbosa SM, Dias FLA, Pinheiro AKB, Pinheiro PNC, Vieira NFC.	CINAHAL Rev. Eletr. Enf.	2010	Domino game
Rides and Slides[20]	Lancey A, Salgado C.	CINAHAL Nurs BC	2005	Board game
Adolescent Preventive Health and Teams-Games-Tournaments: A Research and Development Paradigm Entering Its Fourth Decade of Research[21]	Wodarski JS, Wodarski LA, Parris HN.	CINAHAL Journal of Evidence-Based Social Work	2004	Game of questions and answers
Fitwits MDTM: An Office-Based Tool and Games for Conversations about Obesity with 9- to 12-Year-Old Children[22]	McGaffey AL, Abatemarco DJ, Jewell IK, Fidler SK, Hughes K.	PUBMED JABFM	2011	Cards game
Computer games to teach hygiene: an evaluation of the e-Bug junior game[23]	Farrell D, Kostkova P, Weinberg J, Lazareck L, Weerasinghe D, Lecky DM, McNulty CAM.	MEDLINE JAntimicrob Chemother	2011	Computer game

Figure 1. Sample of Integrative Review articles

Among the articles selected, nine were not able to identify the professional category of the researchers, three were developed by nurses and one by pharmacists. The United States had most of the studies (n=5), while in Brazil there were three and two in the UK. Mexico, Venezuela and Canada had an article each.

The year of publication of the first production was in 1986 following with an interval of 13 years until the next one in 1999. In the first decade of this century productions about the topic increased and in this study there were found almost one per year (2001, 2003, 2004, 2005 and 2007) by 2010 and 2011 in which two and three articles were published, respectively. In 2012, only one article has been selected for this sample.

Regarding the design of the research, there were seven intervention studies, three non-controlled and three controlled and/or randomized and almost-experimental. The other consisted of two reports of experiences, two descriptive studies, a comparison and an exploratory study.

The topics for health education activities are related to the objectives of the studies and were varied. However, it was noted the preponderance of subjects classified as prevention of risk behaviors or unhealthy lifestyle. The topics are in Figure 2:

Topics	Specificities of each article
Related to nutrition/healthy eating (4 articles)	Knowledge about nutrition Healthy lifestyle: food Knowledge about nutrition Obesity Prevention
Related to STD / AIDS (2 articles)	Prevention of AIDS Prevention of STD and AIDS
Basic health concepts (2 articles)	Hygiene Food
Accidental poisoning prevention	Same as the topic
Atividade física	Same as the topic
Dengue Prevention	Same as the topic
Oral health	Same as the topic
Prevent or reduce the use of alcohol	Same as the topic
Hand washing, respiratory hygiene and antibiotic resistance.	Same as the topic

Figure 2. Relation of topics of the IR sample studies.

The types of games used for health education activities showed a predominance of card games and questions and answers games, followed by theaters with puppets or marionettes.

The dominant age groups among the subjects in the health education activities were school and adolescence children. Figure 3 shows the situation compared to the number of subjects covered and the stage of the studies that showed a predominance of schools.

Age of the participants (in years)	Number of subjects approached	Scenario execution of the activity
1-3	55	School (n=1)
3-4	Not informed	Day care Center
6-16	621	Schools (n=9)
9-11	2519	Schools (n=38)
9-11	300	School (n=1)
9-12	93 families	Medical Office
9-12 and 13-15	62 in the place and 1700 on-line	School ando n-line
11-17	Not informed	schools (n=3)
Adolescent	85	School (n=1)
Varied	2300	Schools (n=17) 42 presentations
Varied	750	schools (n= not informed)
Varied	1271	Schools (n=5)
Not informed	53	Waiting room of a public hospital

Figura 3. Relação entre faixa etária, número de sujeitos e ambientes dos estudos.

The main finding in this IR study sample was that games motivate, make learning fun, attractive and generate some degree of knowledge about the subject.

Previous knowledge is emphasized as learning collaborator in three studies.[12,13,23] However, a study expect greater knowledge acquisition after the intervention but previous knowledge was greater than expected by the researchers.[23]

Regarding to environmental interference, a study said the school calendar fumbled its implementation[13] and another that by having the scenario in a school managed to keep the same socioeconomic level of children and then the sample was free from the influence of some biases.[16] One of the research had its first approach as bad by distributing condoms as gifts, being necessary to remodel this option and make a new approach, this time with a positive result.[12]

The conclusions of the study sample were varied. The need for professional training to develop non-traditional educational technologies was considered important in both studies.[11,12] Two other studies reported that professionals involved had increased comfort, competence, encouragement and changes in the way of acting.[20,22]

Two other studies claim that the child´s context analysis is essential to creation and application of educational, fun and effective technology.[12,23]

A significant number of productions claims that learning was due to play, and that it was responsible for facilitating learning by being treated for serious and important issues in a fun way.[13,14,18-21,23] The need for subsequent

interventions and assessments in the long term was highlighted in three studies.[12,14,15]

Parents participation was emphasized in the conclusion of two studies as a determinant of positive results.[16,21] Considering other issues, the games were considered as an inexpensive solution and easy to perform.[16]

DISCUSSION

According to the results obtained in selected databases, it was found that there are a large number of publications that address health education with the use of games, but the subjects covered are varied, from lessons for recent mothers and guidelines for children with mothers of special conditions children such as tracheotomy. Therefore, the number of sampling publications addressing the health education as a health promoter instrument for the child/adolescent was reduced to 13 in an initial sample of 117 productions.

The choice for the use of games is defined as ideal for construction of critical and reflective thinking, beyond motivation, active participation and proximity to the reality experienced through the imagination.[11,12,13]

In a game the students actively participate, approach and recognize their difficulties in the assimilation content and can create alternatives and leaving the passive position in the learning process.[11]

In most studies the game was followed by an activity that contributes to the activity (discussion, questionnaire, leaflets). The discussion after the activity can be used to answer questions or reinforce issues made during the game.[20]

The diversity of professional categories involved in this study sample shows that health education can be exercised by all health care professionals and may go beyond when it comes to quality of life, as this is expressed as a multidisciplinary field of knowledge, involving various areas of science popular knowledge.

The nurse as educator is essential to health services, since he has a longer time of participation in the care of individual than other professionals and has adequate training to the development of educational activities. Nevertheless, even with qualifications for such activities, only three studies were prepared by nurses. However, since the identification of nine performers of the 13 studies was not possible only by reading them, we can consider a significant number of studies posted by nurses.

The need for professional training described in the sample studies of this article refers to non-traditional methods, such as games, theaters, playing, since they have a good acceptance of the children and refers to positive results for making the uncompromising learning and presenting the win of the game or play as objective.

The recreational activities stimulate the mediator and the social subject to abandon the passive condition of “banking learning”[12] to occur commitment to the construction of knowledge that transform reality.

It is observed that the control group intervention studies reported a significant number among the identified types of study. This result is important due to the fact that the evaluation of the effectiveness of educational activity should be performed in order to review methods, techniques and scope of activity. An intervention is only effective when it reaches the expected results, in this case, learning. However, the measurement of learning is questionable, since it requires more items than the mere investigation of increasing knowledge on a particular subject. Broader aspects as behavior change and improved quality of life should be studied to determine the effectiveness of educational intervention.[12,14,24]

The use of studies with control groups is important to measure the acquisition of knowledge provided by the educational activity at the time that occurs. However, to check their impact on children's lives, studies in different fields and for long periods are needed. Learning is an activity with multiple results, not merely data retention. Knowledge of change is learning and may occur and not be verified by measures.[23]

The topics covered by the researchers suggest that lifestyle is the focus of educational playful activities. Except for a topic (accidental poisoning prevention[18]), all others are part of campaigns or programs of the Ministry of Health of Brazil. Normally, in Portugal these issues are addressed in primary care health services. By analyzing the data from this IR, it is observed that the prevailing scenario in studies of several countries, are schools (11 studies).[11-6,18-21,23]

In Brazil in 2007, the School Health Program (PSE) was established as an intersectoral policy between the Ministries of Health and Education, due to the comprehensive health care of children, adolescents and young people of basic public education, under schools and basic health units, carried out by health and education teams in an integrated way.[25] The school is an important space for health education because it offers the possibility of educating the

construction of knowledge resulting from the confrontation of different knowledge: scientific knowledge, knowledge brought by the students and their families, knowledge of communication media and the teachers. This "school culture" formed by the meeting of this knowledge assumes its own expression in each location, despite having common characteristics of the school environment.[26]

In addition to generating changes in knowledge, the games are also suitable for the school environment for allowing the use of several participants and at the same time exchanging personal data. The motivation and the fun caused by the games have been reported in most studies. However, situations like the school calendar and cultural aspects of the town were seen as harmful to the educational interventions.

In a study to HIV prevention held in Brazil, the reaction of the population with the presence of condoms as gifts to the one who won the game was not well seen forcing to game producers to remodel it and make a new application test. In this scenario the People´s Health Education should be used because it undertakes a search of knowledge exchange between the popular and scientific, enriching each other. Several authors state that this proposal becomes more and more necessary, before the emergence of a cultural gap between health care institutions and the population, taking both not to understand the reciprocal actions.[27]

The focus on cultural issues is strongly noted in two studies, one in Canada[20] and one in Mexico[14], which used the same game to advise about basic health concepts in schools. In both cases the game "Rides and Slides" in Canada and "Snakes and Stairs" in Mexico, it was adapted to the reality of the target community. The choice of school children is enhanced by the concept that children in this age group have a huge facility for exchange of knowledge. In this context, the games work with the educational process that is intended to cultivate healthy attitudes and practices as they allow interaction, dialogue, observation and experimentation.[13]

The acquisition of knowledge transmitted by the game should be evaluated carefully, without paying attention of the cultural aspects also influencing how individuals should act to achieve desired goals through relevant methods in context. The values of each subject can influence the choice of different means to develop their daily practices.

Considering the culture and the environment in which the child lives as influencers of their actions, the playful interventions in the long term were contemplated by four studies as well as the participation of parents in two studies. Research indicate that adolescents living in situations of conflict with parents, with high family instability index, low economic status and lack of religious assistance have high risk for behaviors as substance abuse and unsafe sex practice.[21]

One of the studies that value the participation of parents use a program that involves parents as a critical component of the intervention[21] and the other suggests the creation of leaflets for parents on topics covered in playful intervention.[16] Parents involvement should be understood as an intersectoral practice, since economic difficulties, unemployment, substance use and risk behaviors practiced by parents directly affect the behavior of children/adolescents who cannot be led to positive changes only with actions health education in school contexts. Government actions, such as fighting poverty programs in Brazil, and non-governmental actions promoted by companies and/or groups to reduce the marginalization of these families are essential helpers of health education practices.

In a health education program the proximity between the technical and scientific knowledge and the popular permits "overcoming the existing large cultural gap between health services and scientific knowledge said on one hand, the dynamics of diseases and on the other hand, healing of the popular world".[28:14]

The low cost to practice playful activities is another positive factor that makes the activity an alternative to the practice of health education.

Reusing the idea of a popular game, creating games with questions on cards or make a puppet theater existing in the school environment are good alternatives for health professionals, teachers and others who act in education or health.

CONCLUSION

This IR concluded that the playful methods, considered here as games and toys are important tools for practicing health promotion through health education. It was noticed that in studies from around the world, topics related to health promotion for children and adolescents are similar.

The school is considered favorable environment for implementing the recreational activities by gathering several factors: children ready for knowledge exchange, skilled professionals to practice the games, participation of various sectors of the

community in the school environment and presence of parents as collaborators. However, this would be the ideal school. In practice, there are not all these factors, but if they use most of what exists they can create reflective children, criticism of their social figure.

The playful practice as a tool for the implementation of health education can be used by several professionals, considering their need of knowledge appropriation.

With this IR, it was possible to conclude that games motivate, make fun, attractive learning and generate some degree of knowledge about the subject approached and therefore its use should be considered after careful assessment of the context of the population who want to work, way of assessing their efficiency and structure additional actions to help with their goals.

FINANCING

A study conducted with financial support from the Regional Council of Nursing of Rio de Janeiro State - RJ-COREN.

REFERÊNCIAS

1. Pereira IB, Lima JCF (Orgs.). Ministério da Saúde, Escola Politécnica de Saúde Joaquim Venâncio/ FIOCRUZ. Dicionário da Educação Profissional em Saúde. 2 ed. Rio de Janeiro: EPSJU; 2008. 478p.

2. Ministério da Saúde (BR). Secretaria de Políticas de Saúde. Projeto Promoção da Saúde. As Cartas da Promoção da Saúde. Brasília: Ministério da Saúde; 2002.

3. Valla VV, Stotz EM. Participação popular, educação e saúde: teoria e prática. Rio de Janeiro: Relume-Dumará; 1993.

4. Pereira ALF. As Tendências Pedagógicas e a Prática Educativa nas Ciências da Saúde. Cad saúde pública. 2003 sept-oct; 19(5):1527-34.

5. Dohme V. O Lúdico Na Educação. Rev Profissão Mestre. 2001; 3(27):28-9.

6. Mentis M. Aprendizagem mediada dentro e fora da sala de aula. 3 ed. São Paulo: Editora SENAC; 2002. 202p.

7. Kishimoto TM. O jogo e a educação infantil. 6th ed. São Paulo: Cengage Learning; 2011. v. 1. 63p.

8. Souza MT, Silva MD, Carvalho R. Revisão Integrativa: O Que É e Como Fazer. Einstein. 2010; 8(1):102-6.

9. Santos ECB, Galindo Neto NM, Santos ITS, Teixeira CRS, Landim CAP. Bomba de infusão contínua em pacientes com diabetes mellitus: revisão integrativa. J Nur UFPE on line [Internet]. 2013 May [cited 2013 Nov 02];7(spe):4192-8. Available from: http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/download/2765/6211

10. Mendes KDS, Silveira RCCP, Galvão CM. Revisão Integrativa: Método de Pesquisa para a Incorporação de Evidências na Saúde e na Enfermagem. Texto & contexto enferm. 2008 oct-dec; 17(4):758-64.

11. Rampaso DAL, Doria MAG, Oliveira MCM, Silva GTR. Teatro de fantoche como estratégia de ensino: relato da vivência. Rev bras enferm [Internet]. 2011 July-Aug [cited 2013 Nov 02];64(4):783-5. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0034-16720110004000024&lng=en&nrm=iso

12. Schall VT, Monteiro S, Rebello SM, Torres M. Evaluation of the ZIG-ZAIDS game: an entertaining educational tool for HIV/Aids prevention. Cad saúde pública [Internet]. 1999 [cited 2013 Nov 02]; 15(Suppl 2):107-119. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102-11X1999000600011&lng=en&nrm=iso

13. Vivas E, Sequeda MG. Un juego como estrategia educativa para el control de Aedes aegypti en escolares venezolanos. Rev panam salud pública [Internet]. 2003 [cited 2013 Nov 02];14(6):394- 401. Available from: http://www.scielosp.org/scielo.php?script=sci_arttext&pid=S1020-49892003001100004&lng=en.

14. Lizardo CJM, Rodríguez-Morán M, Guerrero-Romero F. El juego como alternativa para la enseñanza de conceptos básicos de salud. Rev panam salud pública [Internet]. 2001 [cited 2013 Nov 02];9(5):311-4. Available from: http://www.scielosp.org/scielo.php?script=sci_arttext&pid=S1020-49892001000500005&lng=en.http://dx.doi.org/10.1590/S1020-9892001000500005.

15. Lakshman RR, Sharp SJ, Ong KK, Forouhi NG. A novel school-based intervention to improve nutrition knowledge in children: cluster randomised controlled trial. BMC Public Health [Internet]. 2010 [cited 2013 Nov 02];10:123. Available from: http://www.biomedcentral.com/content/pdf/1471-2458-10-123.pdf

16. Wright ND, Soroudi N, Wylie-Rosett J, Lukoscheck P, Moadel AB. The School Yard Kids: A Puppet Show to Promote a Healthy Lifestyle. J Nutr Educ Behav [Internet]. 2007 [cited 2013 Nov 02]; 39(5):290-1. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2075102/

17. Wylie-Rosett J, Isasi C, Soroudi N, Soroker E, Sizemore C, Groisman-Perelstein A, et al. WAVE-Get Healthy Game: Promoting a

Healthier Lifestyle in Overweight Children. J Nutr Educ Behav [Internet]. 2010 [cited 2013 Nov 02];42(3):210–2. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2913507/

18. Butts JD, Beck CL. Education of Young Children Concerning Poison Prevention. Public Health Reports [Internet]. 1986 [cited 2013 Nov 02]; 101(1):90-3. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1477663/

19. Barbosa SM, Dias FLA, Pinheiro AKB, Pinheiro PNC, Vieira NFC. Jogo educativo como estratégia de educação em saúde para adolescentes na prevenção às DST/AIDS. Rev eletrônica enferm [Internet]. 2010 [cited 2013 Nov 02];12(2):337-41. Available from: http://www.fen.ufg.br/revista/v12/n2/v12n2a17.htm.

20. Lancey A, Salgado C. Rides and Slides. Nurs BC. [Internet]. 2005 [cited 2013 Nov 02]; 37(2):12-5. Available from: http://www.ncbi.nlm.nih.gov/pubmed/15918416

21. Wodarski JS, Wodarski LA, Parris HN. Adolescent Preventive Health and Teams-Games-Tournaments: A Research and Development Paradigm Entering Its Fourth Decade of Research. J Evid Based Soc Work [Internet]. 2004 [cited 2013 Nov 02];1(1):101-25. Available from: http://www.tandfonline.com/doi/abs/10.1300/J394v01n01_06?ournalCode=webs20#.Uvg6bWJdUeg

22. McGaffey AL, Abatemarco DJ, Jewell IK, Fidler SK, Hughes K. Fitwits MD™: An Office-Based Tool and Games for Conversations about Obesity with 9- to 12-Year-Old Children. J Am Board Fam Med [Internet]. 2011 [cited 2013 Nov 02];24(6):768-71. Available from: http://www.ncbi.nlm.nih.gov/pubmed/22086823

23. Farrell D, Kostkova1 P, Weinber J, Lazareck L, Weerasingh D, Lecky DM, et al. Computer games to teach hygiene: an evaluation of the e-Bug junior game. J Antimicrob Chemother [Internet]. 2011 [cited 2013 Nov 02];66 Suppl5:39-44. Available from: http://www.ncbi.nlm.nih.gov/pubmed/21680586

24. Candeias NMF. Conceitos de educação e promoção em saúde: mudanças individuais e mudanças organizacionais. Rev saúde pública. 1997;31(2):209-13.

25. Ministério da Saúde (BR), Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Passo a passo PSE: Programa Saúde na Escola: tecendo caminhos da intersetorialidade. Brasília (DF): Ministério da saúde; 2011.

26. Ministério da Saúde (BR). Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Saúde na escola. Série B. Textos Básicos de Saúde Cadernos de Atenção Básica, n. 24. Brasília (DF): Ministério da saúde; 2009.

27. Gomes LB, Merhy EE. Compreendendo a Educação Popular em Saúde: um estudo na literatura brasileira. Cad saúde pública [Internet]. 2011 [cited 2013 June 05];27(1):7-18. Available from: http://www.scielo.br/pdf/csp/v27n1/02.pdf.

28. Ministério da Saúde (BR). Secretaria de Gestão Estratégica e Participativa. Caderno de educação popular e saúde. Brasília (DF): Ministério da Saúde; 2007.

Submission: 2014/02/17
Accepted: 2015/03/31
Publishing: 2015/06/15

Corresponding Address

Arina Fonseca
Universidade Federal Fluminense
Programa de Mestrado Profissional Enfermagem Assistencial
Av. Felicidade Diniz da Conceição, Qd 7, lt 3, casa 2
Bairro Praia de Itaipuaçu
CEP 24936705 – Maricá (RJ), Brazil