

Maternal-child nursing care for adolescent mothers: health education

Cuidado de enfermagem materno-infantil para mães adolescentes: educação em saúde

Atención de enfermería materno infantil para madres adolescentes: educación en salud

Raquel Dully Andrade¹

ORCID: 0000-0002-1515-098X

Jeniffer Stephanie Marques Hilário¹

ORCID: 0000-0001-5541-6546

Jaqueline Silva Santos¹

ORCID: 0000-0002-7543-5522

José de Paula Silva¹

ORCID: 0000-0002-5411-6696

Luciana Mara Monti Fonseca¹

ORCID: 0000-0002-5831-8789

Débora Falleiros de Mello¹

ORCID: 0000-0001-5359-9780

¹Universidade do Estado de Minas Gerais. Passos,
Minas Gerais, Brazil.

¹Universidade de São Paulo. Ribeirão Preto, São Paulo, Brazil.

How to cite this article:

Andrade RD, Hilário JSM, Santos JS, Silva JP,
Fonseca LMM, Mello DF. Maternal-child nursing
care for adolescent mothers: health education.

Rev Bras Enferm. 2020;73(4):e20180769.

doi: <http://dx.doi.org/10.1590/0034-7167-2018-0769>

Corresponding author:

Raquel Dully Andrade
E-mail: radully@gmail.com



EDITOR IN CHIEF: Antonio José de Almeida Filho
ASSOCIATE EDITOR: Cristina Parada

Submission: 02-15-2019 **Approval:** 10-05-2019

ABSTRACT

Objectives: to develop an educational intervention through a game that addresses aspects related to adolescent motherhood and child care. **Methods:** this is an action research based on diagnosis, intervention and apprehension stages. **Results:** the situational diagnosis was based on a literature review on adolescent motherhood and child care. In the intervention stage, the educational game's first version was elaborated. In the third stage constituted by apprehension, the game was submitted to assessment of interdisciplinary experts. Suggestions of experts were adopted and the game had its second version. **Final Considerations:** the educational intervention in the present study appears a care technology that adds knowledge and practices to the work of nurses in Primary Health Care, focusing on adolescent women and children health care.

Descriptors: Health Education; Teaching Materials; Adolescent; Maternal-Child Nursing; Child.

RESUMO

Objetivos: desenvolver uma intervenção educativa por meio de um jogo com abordagem de aspectos relacionados à maternidade na adolescência e cuidado da criança. **Métodos:** trata-se de uma pesquisa ação baseada nas etapas de diagnóstico, intervenção e apreensão. **Resultados:** o diagnóstico situacional foi pautado em uma revisão de literatura sobre maternidade na adolescência e cuidado da criança. Na etapa da intervenção, foi elaborada a primeira versão do jogo educativo. Na terceira etapa, constituída pela apreensão, o jogo criado foi submetido à apreciação de especialistas interdisciplinares. As sugestões dos especialistas foram adotadas e o jogo ganhou sua segunda versão. **Considerações Finais:** a intervenção educativa elaborada no presente estudo configura uma tecnologia de cuidado que agrega saberes e práticas ao trabalho do enfermeiro na Atenção Primária à Saúde, com foco nos cuidados de saúde da mulher adolescente e da criança.

Descritores: Educação em Saúde; Materiais de Ensino; Adolescente; Enfermagem Materno-Infantil; Criança.

RESUMEN

Objetivos: desarrollar una intervención educativa a través de juego relacionadas la maternidad en la adolescencia y cuidado de lo niño. **Métodos:** se trata de una acción, basada en etapas de diagnóstico, intervención y aprehensión. **Resultados:** la investigación situacional fue realizada una revisión de literatura sobre la maternidad la adolescencia y el cuidado del niño. La primera etapa de la clase elaboró primera versión del juego educativo. En la tercera etapa, preparada la aprehensión, el juego fue sometido a la apreciación de especialistas interdisciplinarios. Las sugerencias de las solicitudes se aprobaron y el juego se ganó segundo. **Consideraciones Finales:** la intervención educativa elaborada em presente estudio configura una tecnología de cuidado que agrega saberes y prácticas para trabajo del enfermero en la Atención Primaria de Salud, con énfasis en la atención de salud la mujer adolescente y del niño.

Descritores: Educación en Salud; Materiales de Enseñanza; Adolescente; Enfermería Materno-infantil; Niño.

INTRODUCTION

Early childhood, from zero to six years old, is a crucial stage for child development. Vulnerable situations can make it difficult for children to reach their full potential⁽¹⁾. Children have rights but they are vulnerable to exercise them. All adults must commit themselves to act for children's protection and defense in the institutional, family and social context. In this context, adolescent motherhood is highlighted as a moment that may present vulnerabilities.

Adolescence is a period of transformation, especially for adolescents who become mothers⁽²⁾. It may involve difficulties and anguish to those involved, with repercussions for care and bonding with the child⁽³⁾ which is important for human development promotion⁽¹⁾. Continuing disadvantages of material and social resources in a child's family and a compromised quality of parenting may explain the association between adulthood and children's living and health conditions. Developmental mismatches between adolescent mothers' children and others were largely nonexistent at 9 months. However, these mismatches were accumulated with age, pointing out that having an adolescent mother predicted compromised development in various domains up to 4 and a half years of age⁽³⁾.

Family functioning and support structure are recognized to enable better parental competence, particularly for adolescent mothers and fathers⁽⁴⁾. Early support in the transition to parenting is identified as necessary, and provision of knowledge to parents is seen as one of the factors that improve this transition⁽⁵⁾. Characteristics favoring good maternal choices in care for their children include level of education, knowledge and skills acquired in educational interventions⁽⁶⁾. They are especially relevant when it comes to adolescent mothers. Innovative educational interventions are interesting for adolescents, and the importance of translating health knowledge into preventive care practices has been emphasized⁽⁵⁾.

Board games are an effective way to problematize contextual, engaging health messages that seek to promote learning among players⁽⁷⁾. The importance of exploring educational interventions using interactive games with information on health, healthy behaviors and empowerment of adolescent mothers stands out^(5,7). There is potential to reduce developmental mismatches for adolescent mothers' children⁽³⁾. There is little diffusion in literature, government documents or on the internet focusing on adolescent mothers and children.

OBJECTIVES

To develop an educational intervention through a game that addresses aspects related to adolescent motherhood and child care.

METHODS

Ethical aspects

This project was submitted to the Research Ethics Committee of *Universidade do Estado de Minas Gerais* (UEMG) through *Plataforma Brasil* (Brazil Platform). After approval, participants were invited to participate. This invitation specified the objectives and stages of the research and the use of an informed consent. Research involving human beings' guidelines and standards were followed, according to Resolution No. 466/12 of the Brazilian National Health Board (*Conselho Nacional de Saúde*).

Type of study

This study is an action research based on diagnosis, intervention and apprehension stages⁽⁸⁾. This is an empirical study, being conceived and developed in close connection with an action/intervention, or with the approach and/or resolution of a collective problem⁽⁸⁾.

Methodological procedures

The first stage, constituted by situational diagnosis, was carried out based on an integrative literature review from studies published in indexed journals in Portuguese, English and Spanish (2012 to 2016). These articles had themes on adolescence motherhood and child care, using the following guiding question: what is the scientific knowledge produced regarding adolescent motherhood and child care?

COREQ was the tool used to carry out the research⁽⁹⁾. Hereinafter, fulfilling the second stage constituted by intervention, the educational game's first version was elaborated based on the main aspects raised in literature review.

Therefore, the track-shape board game was selected. It is a strategy that can be applied by only one mediator, which is easy to transport and store, and is inexpensive to make, as well as being a simple rule game with great potential for multiplication and easy learning⁽¹⁰⁾. Participants tend to always have the number of points next to each other, demonstrating horizontality and sharing of knowledge and ideas from the strategy⁽¹¹⁾.

Meeting the third stage, constituted by apprehension, the game was submitted to assessment of eight interdisciplinary experts on adolescent health and child care. We sought to identify experts in the *Lattes Curriculum* database at universities, services, governmental and non-governmental bodies. The inclusion criteria of experts were: professionals with specialization, masters or doctorate degrees, with scientific production on the subject and with experience in services or volunteer work in the area. Researchers, professors, professionals and volunteer leaders having relation to the theme were invited.

Invitation was carried out via e-mail, with the study objectives and procedures, and attached files (Consent Form and the game's first version). Individuals selected for review were contacted directly by the corresponding author of this research.

The educational game's first version was sent to 17 experts on mother and child, which was the action research's third stage. Of these, eleven responded to the email agreeing to participate, two refused stating lack of availability and four did not respond. Among the eleven who accepted, eight experts submitted their assessment on the game. One justified that she could not organize herself for the activity in a timely manner and two did not speak after acceptance, totaling eight who enjoyed the game.

In the assessment of experts, the purpose was not to carry out a statistically representative survey, but to bring to the analysis of the object studied a relevant set of knowledge, experiences and views. It is essentially a consultation with a limited and select group of experts, which can contribute to the proposal's aggregating aspects, giving credibility to the assessment⁽¹²⁾. Experts assessed the game in relation to the content, strategy and material proposed. From this, the game was restructured and generated in its second version.

Data analysis

Data analysis is descriptive and allowed the elaboration of grouping of the results that translate the educational game construction phases. First phase: Recognition of Relevant Themes; Second phase: Content, Material and Dynamics of the Game; Third phase: Experts' Assessment, Broadening the Game's Version. These phases correspond respectively to the action research stages, referring to diagnosis, intervention and apprehension.

RESULTS

Phase One: Recognition of Relevant Themes

The situational diagnosis phase, based on an integrative literature review, used the following guiding question: what is the scientific knowledge produced regarding children care in the context of adolescent motherhood?

The searches were performed in the scientific databases SciELO, LILACS and PubMed from November 2016 to January 2017, using the keywords: *mães* (mother), *adolescentes* (adolescent), *criança* (child) and care. The following inclusion criteria were established: scientific articles published from 2012 to 2016, available in full, written in Portuguese, English and Spanish, focusing on the study's guiding question. Reviews and publications of theses and dissertations were excluded.









904 bibliographic references were found. On SciELO, 62 publications emerged, with 5 articles selected; on LILACS, there were 141 articles, 131 were excluded and 4 were repeated, resulting in

6 selected articles; on PubMed, there were 701 articles, of which 8 were selected and 693 excluded that did not meet the inclusion criteria. Based on the inclusion and exclusion criteria, 19 articles were selected⁽¹³⁻³¹⁾. After reading and analyzing the full articles, they were grouped into themes according to the main aspects inherent to the object of study, for educational game content elaboration for adolescent mothers, namely: Theme 1: Transition of Roles in Society^(16-17,19,22,24-25,28-29,31); Theme 2: Bond of the Adolescent Mother with her Child^(17,22-24,26,28,31); Theme 3: Child Care^(15,18-19,23-25,29); Theme 4: Breastfeeding and Child Feeding^(13-14,17,19-21,23); Theme 5: Support Network: Child's Grandmother and Father Role in Supporting the Adolescent Mother and Child Care^(15-17,19,27-28); Theme 6: Support Network: Professionals' Role and Care Network in Relation to the Adolescent Mother and her Child^(15-17,23-25,27-28).

To fulfill the second stage, which consists of intervention, based on the themes defined from literature review, the first version's content of the educational game was elaborated. The game content and its dynamics were developed, and according to them, the material for its direction, as follows.

Second Phase: Content, Material and Dynamics of the Game

We chose to work on the content through question and choice letters. Multiple choice questions were elaborated, with four answer alternatives each, with only one option being the expected answer. Each alternative brings content issues to be worked on, from the opening to discussion of them during the game dynamics. 12 question and 12 choice letters were built, as shown below.

Theme	Question	Choice
Theme 1	Question 1 How to reconcile the various roles as mother, daughter, student, friend, woman, among others?	Choice 1 The adolescent bravely faces changes that pregnancy has brought to her life. She seeks to develop knowledge and skills to do the best for her and her children. When she feels tired/worn out she looks for alternatives such as encouraging the child's father's participation in caring for the child, sleeping while the child sleeps, praying, crying, walking, doing something she likes. Like  or Dislike  ?
Theme 1	Question 2 How can an adolescent mother become stronger as a woman and mother?	Choice 2 The adolescent mother leaves school, turns away from friends, gives up her life projects to live for her child, who is considered by her the only priority. Like  or Dislike  ?
Theme 2	Question 3 About the bond between mother and child, we can say:	Choice 3 The more the mother gets closer to her child, getting to know him or her, caring and weaving pleasant moments with him or her the more she develops skills and affection. Feelings are of security and satisfaction as mother and person. Like  or Dislike  ?
Theme 2	Question 4 What contributes to the establishment and strengthening of the bond between mother and child?	Choice 4 When the adolescent mother leaves almost all her child care under someone else's responsibility, she ceases to live important moments of discovery, affection and play with her child. This can undermine important stages of child and maternity growth and development. Like  or Dislike  ?

To be continued

Figure 1 (concluded)

















Theme	Question	Choice
Theme 3	Question 5 What precautions are important to prevent domestic accidents for the child?	Choice 5 Since arriving home with her child, when returning from motherhood, the adolescent mother experiences many doubts, fears, insecurities and difficulties in caring for her child. Even so, she looks for sources of information and support such as health professionals, <i>Pastoral da Criança</i> (<i>Pastoral da Crianças</i> a social action agency that aims to promote comprehensive development of children between 0 and 6 years old in their family environment and in their community), people with more experience in family and community. That way she feels safer. Like  or Dislike  ?
Theme 3	Question 6 What actions to take when her child shows a different sign indicating that something may be wrong with his or her health?	Choice 6 The adolescent mother feels overwhelmed with the tasks she needs to take on such as child care, school activities, housework, among others. Faced with overload, she performs her child's hygiene and feeding care, but does not prioritize interaction, playing, talking, singing and affection, failing to have fun and build good times for her and her baby's well-being. Like  or Dislike  ?
Theme 4	Question 7 Regarding breastfeeding, it is possible to state that:	Choice 7 In the first six months of the child's life, the adolescent mother feeds her only with breast milk, enjoying this moment as a time for her and the baby, where she can relax, breathe, look in the eyes, interact with the baby. When she needs to be absent to attend school or other activities, she pumps her milk for someone to feed her child, persisting in breastfeeding. Like  or Dislike  ?
Theme 4	Question 8 What should the diet be like after 6 months of age when introducing food?	Choice 8 After the period of exclusive breastfeeding, the child begins to eat other foods. Faced with the overload of maternal activities, the adolescent mother looks for ready-made, industrialized and easily offered foods such as sachet and box juices, snacks, cookies and soda. She provides less natural foods essential for her child's healthy growth and development, which are in fruits, vegetables, cereals and meats. Like  or Dislike  ?
Theme 5	Question 9 What are the adolescent mother's attitudes towards grandparents' roles in child care?	Choice 9 The adolescent mother feels insecure and dependent on the family in such a way that she lets the child's grandmother take responsibility and make decisions regarding her child's care and education, making the child's mother and father supportive in this context. Like  or Dislike  ?
Theme 5	Question 10 What is the family's role in child care to grow up healthy and autonomous?	Choice 10 The teenage mother receives information, advice and guesses from different people such as grandparents and father of the child, family members, neighbors, friends, health professionals and also through the internet. Given this, she seeks to analyze the guidelines, seeking to make the best decisions for her and her child's care. Like  or Dislike  ?
Theme 6	Question 11 What is the health services' role for the teenage mother and her child?	Choice 11 The mother does not seek to know her rights and the child. Therefore, she does not know, for example, that health services and professionals should prioritize access and care for children and adolescents, as a right guaranteed by law, in the Federal Constitution and in the Child and Adolescent Statute. If necessary, she also does not look for ways to guarantee child support. Like  or Dislike  ?
Theme 6	Question 12 What is the various community services' role in relation to the adolescent mother and her child?	Choice 12 When necessary, the adolescent mother seeks information, support, and assistance from all possible sources available in the community such as health and social care services, as well as law enforcement agencies (Prosecutor, Public Prosecution Service, Women's Police Station, Children's Police Station). She also seeks out specific child rights bodies (Guardianship Council). These services can support her even when it is necessary to act in defense of the right to alimony. Like  or Dislike  ?

Figure 1 – Question and choice letters' content of educational intervention distributed according to themes defined from literature review

The game material includes a board with 06 tracks, one for each player or pair, each of which has 24 squares (12 squares for questions and 12 squares for choices); six different colored turrets to represent each participant or pair of participants. The game has cards with questions, being 12 cards of multiple choice. Each has 4 alternatives, three incorrect and one correct, with alternatives distributed from the letter A to D; individual plaques with the letters a, b, c, d for each of the players or pairs. There are six plaques of each letter for participants to answer the alternative that they consider appropriate/expected to each question.

The cards with choices are 12 and have the purpose that each adolescent or pair can indicate whether they considered the choice positive or negative, being six positive and six negative choices. There are six plaques with a "like" sign, with a positive thumbs-up sign, and six plaques with a "dislike" sign, with a negative thumbs-down sign.

There are also six SHARE plaques for participant or pair to signal that they want to share experiences related to some question or choice, or other issues during the dynamic. It is noteworthy that a current language (like/dislike/share) common among adolescents in social communication was used.

The dynamics of the game is characterized by a playful, group and interactive activity to work knowledge, behaviors and choices related to adolescent motherhood and child care challenges. The number of female players was defined by up to twelve adolescent mothers, justifying an activity that allows them to work in pairs, so that there is room for all to communicate. Firstly, adolescent mothers are invited to position themselves around the board, then the facilitator introduces himself and explains the purpose of the game. He asks them to introduce themselves, suggesting that they state their name, age, how old they became pregnant, number of children, their age, and other information they would like to share.

He presents the materials of the game (board, turrets, question cards, choice cards and little cards: little cards with letters from A to D, like, dislike and share plaques). He handles over the material of each player or pair (one turret representing the player or pair on the board; four plaques with the letters a, b, c, d separately for use in answering the questions, which are multiple choice; two little cards to use in relation to the choice cards; one with the LIKE symbol and one with DISLIKE; and one SHARE plaque to use at any time in the game). Such materials favor the adolescent's freedom to report opinions, experiences, doubts, difficulties, outbursts, tips, advice, and knowledge.

To start the game, the facilitator starts reading the letter corresponding to question number one, with its respective answer alternatives (from A to D), remembering that only one is expected. He proposes that adolescents separate their response plaque and wait without showing it, and if necessary, as requested, repeat the question and the alternatives.

After everyone have separated their response, he asks them to show the selected plaques at the same time. He presents the expected answer and promotes discussion on the subject, discussing the alternatives and helping the group to deepen their reflections. Only the successful participants will advance to the next square of the game. After a letter with a question comes a letter of choice, and so on alternately. At the end of question number one, he reads the letter corresponding to choice number one, then question number two, followed by choice number two, and so on until question 12 and choice 12, which comes to an end.

In choices, the letter contains a statement that corresponds to a choice or attitude. There are cards with statements that correspond to positive choices and others to negative choices. After reading the letter, he asks participants to express their opinion about the choice in the statement by using the LIKE and DISLIKE signs. When the adolescent likes a positive choice or not a negative choice, she moves to the next square, otherwise she stays at the same place.

The sequence of cards is: Question 1, Choice 1, Question 2, Choice 2, and so on up to Question 12 and Choice 12, ending the reading and discussion of the cards. The goal of the game is not to have a winner, but to provide group activity in a horizontal relationship with the healthcare professional by sharing, reflecting, discussing and deepening knowledge, experiences, skills, attitudes, choices, knowledge, and interactions.

At the end, he offers participants opportunity and encouragement to clarify doubts and suggestions regarding the game and other sharing of experiences, advice and tips about the daily life of being an adolescent mother and taking care of herself and her child. He leaves a final message of encouragement to mothers, seeking their progressive empowerment towards building quality of life for themselves and their child. He gives a certificate to each adolescent mother who participated in the educational game and includes in the child's health book a note about the mother's participation in the activity. He should be clear that the game is a resource and it is essential that the group's ideas be debated.

Third Phase: Experts' Assessment, Broadening the Game's Version

The game was assessed by eight experts, five research professors in the field of child and adolescent health, a regional reference nurse in child and adolescent health, a nurse in the maternal-child area and a coordinating leadership of the *Pastoral da Criança*. The latter also acts as a Family Health Support Center (NASF - *Núcleo de Apoio à Saúde da Família*) expert. Experts were suggested to include in their overall assessment the evaluation of semantic, content and operationalization issues. Assessments brought strengths identified in the educational intervention and suggestions for its improvement.

Regarding strengths, experts pointed out the relevance and unprecedentedness of educational intervention; the importance of the theme facing the demand of adolescent mothers and their inexperience for self-care and their baby's; the fact that it is a tool in search of improving adolescent care through interactive educational orientations, with a well-defined objective; literature-based material allowing the reconstruction of knowledge regarding adolescent motherhood and child care; coherence of the dynamics and letters to the objective of the study, with well elaborated contents; use of entertainment; clear and thematic issues of great relevance to adolescent motherhood and childcare; selection of chosen symbols (like, dislike, share) suitable for adolescents; group activity and interactive, with a fun and easy way to reach teenage mothers, covering all social classes, and can be applied in various services, regardless of its structure; adolescent mothers develop knowledge through strategy applied with entertainment, strengthening their autonomy and health promotion, simplicity of the game, which allows its reproduction and availability.

Regarding the suggestions of experts, we proposed aspects to reduce some sentences in the alternatives; alterations in statements of some alternatives of the questions, making them more objective; reduction of the text of some choices; change in order of questions for better logical sequence; clarification on the different colored turrets so that each player can tell who is who in the game; add common accidents among babies; inclusion of milk pumping as a means of maintaining breastfeeding; inclusion of alternative that addresses the use of sugar; inclusion of support of partners; discussion on daily care co-responsibility.

Regarding the support network issues, experts' suggestions included: approaching contents related to rights; task sharing and gender roles division; role played by professionals working in the area of education, as well as the importance of organizations such as *Pastoral da Criança*. It is important to clarify the dynamics of the game in a cooperative and non-competitive manner. A participation certificate was also suggested for adolescent mothers, as well as including in the child's book a note about the mother's participation in the game.

The reflections pointed out by experts reinforce that it is important, rather than addressing all topics at once, to ensure in-depth reflection, with the possibility of exhausting the activity time without going through all the content, which may be continued in other meetings. Experts state the game is a resource and not an end in itself, reinforcing that the answers are discussed. Considering that the availability of such a resource is intended for use by professionals with embracing skills and abilities, avoiding imposing forms or judgments between right and wrong, without guaranteeing that the group's ideas are debated. The game should clearly focus on participant reflection and not on professional prescription. There was also a suggestion to use the game as a complement to the pregnant women courses. Thus, suggestions were incorporated into the game and resulted in its second version.

DISCUSSION

This study presents the stages of elaboration of an educational intervention, with a dynamic and cooperative approach, avoiding competition among participants and imposition of ideas. The experience of the game seeks to carry out a playful practice. The group facilitator should encourage participation and cooperation among all adolescent mothers in building knowledge and reflections on motherhood and self-care and child care.

In health education, games represent a motivating resource, promoting interaction and learning and favoring debate, the exchange of experiences and the construction of reflections on everyday situations. The educational game is a privileged tool to involve the individual in the educational action by working knowledge and experiences in a dynamic, creative and playful way⁽³²⁾.

The study addresses aspects of adolescent motherhood and child care at this early transition stage into adulthood, in which it assumes unique responsibility, which requires adaptations, personal development and skills to consolidate new roles^(2,16,26).

Adolescents experience ripening processes. Those with less individual and socioeconomic resources tend to be less prepared for care, so that the lack of support from a care network^(26,29-30) enhances vulnerability for themselves and their child.

Health promotion actions appropriate to the context of adolescence are indispensable, as a process to strengthen individuals

and communities in the conduct of health determinants, valuing personal knowledge and skills, community action and reorientation of services⁽³¹⁾. At this stage of life, it is essential that the adolescent has access to educational actions that favor her learning and development, in the sense of taking care of herself and her child, opening to talk about insecurities, doubts, emotions and fears^(22,24,27,31).

It is believed in the potential of games as an educational strategy for adolescents, especially those designed especially for this age group, through which the professional guides in a playful way. They generated debates with potential behavior modification, which reflects in the empowerment of this population⁽³¹⁾.

The proposed educational intervention sought to articulate the content, dynamics and materials of the game to intersubjective elements. It also offered opportunities for issues related to identity and interactions in the context of relations and human rights, as well as the relevance of these themes, as pointed out in other investigations^(18,22,25,33). This also occurs in support networks within family and care network, based on the literature review that supported elaboration of a stage of the game and suggestions and reflections of experts' assessments.

The educational tool favors interaction between adolescent mothers and facilitator. It aims to contribute to the empowerment of these mothers to care for themselves and their children, as proposed by the Galway Consensus for health promotion and empowerment, awakening to attitudes that improve the quality of life⁽³³⁾.

The educational technology produced mediates the proposed content through the use of widely shared symbols among adolescents today. This technology brings the professional's language closer to the group, being a viable resource in any structure available in the service or community space. The educational tool through a game contributes to an attractive and encouraging learning for the participants, seeking to favor acquisition of skills, especially linked to higher taxonomic levels such as knowing, doing and being⁽³⁴⁾, consistent with the phenomenon of adolescent motherhood.

Sharing ideas plays a fundamental role in the educational intervention of the present study. The facilitator helps the group to deepen their reflections for daily decision-making. It should be pointed out that this process implies the need for preparation and mastery of the content by him, which is expected for the professional nurse, with competence in the field of health promotion, disease prevention and health education.

Nurses as educators in health promotion stand out, with the responsibility of planning educational actions capable of encouraging changes in individuals and community. The educational game can be used by nurses to include adolescents in the health promotion process, especially in complex topics to be discussed, as a resource adopted with the approval of participants in health practices, boosting discussions, exchange of experiences, reflection and action⁽³³⁾.

Study limitations

The study has as limitations not contain the perceptions of adolescent mothers about the intervention built in the third stage. Further research is suggested considering that the version of the game produced is validated with adolescent mothers in different settings.

Contributions to health

The present educational intervention proposes to be a space for debate, reflections and learning about the daily life of being an adolescent mother and care for herself and her child, valuing with them the opportunity for personal development in this phase and the construction of ways to follow in their life projects. The game produced constitutes an educational tool that aggregates child maternal care aimed at adolescent mothers in Primary Health Care.

FINAL CONSIDERATIONS

The intervention proposed through an educational game elaborated in the present study is a technology of maternal-child care, which adds knowledge and practices to nurses' work with adolescent mothers in Primary Health Care.

Issues related to the daily life experienced by adolescent mothers and their children can be made possible through the

approach of meaningful content and debates, in an interactive and playful way, to bring professional action closer to clientele's reality. It is worth mentioning that the educational game was built in a format easily adaptable to digital and electronic media, offering possibilities of investigation, applicability and knowledge diffusion.

FUNDING

This article is the result of the postdoctoral project entitled "A saúde de crianças pequenas e a corresponsabilidade do cuidado junto a mães adolescentes: desenvolvimento de jogo educativo". It was developed in the Graduate Nursing in Public Health Program of EERP/USP (Universidade de São Paulo's Nursing School) and supported by Programa Nacional de Pós-Doutoramento (PNPD - Brazilian National Postdoctoral Program)/CAPES (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Higher Education Personnel Improvement Coordination).

REFERENCES

1. Bick J, Nelson CA. Early adverse experiences and the developing brain. *Neuropsychopharmacology*. 2016;41(1):177-96. doi: 10.1038/npp.2015.252
2. Lima FBN, Lira GG, Melo RA, Mola R, Fernandes FECV. Maternidade: significados atribuídos por adolescentes primíparas. *Rev Enferm UFPE*. 2017;11(3):1163-70. doi: 10.5205/reuol.10544-93905-1-RV.1103201706
3. Brasil EGM, Queiroz MVO, Cunha JMH, Magalhães SS, Maia EG. Bond creating with the teenage mother: glimpsing child care. *Rev Pesqui: Cuida Fundam*. 2016;8(3):4601-8. doi: 10.9789/2175-5361.2016.v8i3.4601-4608
4. Angley M, Divney A, Magriple U, Kershaw T. Social support, family functioning and parenting competence in adolescent parents. *Matern Child Health J*. 2015;19(1):67-73. doi: 10.1007/s10995-014-1496-x
5. Tiitinen S, Homanen R, Lindfors P, Ruusuvauro J. Approaches used in investigating family support in transition to parenthood. *Health Promot Int*. 2014;29(3):518-27. doi: 10.1093/heapro/das077
6. Alves DA, Santos FC, Almeida LA, Mattos MP. Health education in process of positioning the mother with the baby during breast-feeding. *Em Extensão [Internet]*. 2017[cited 2018 Jan 15];16(2):242-52. Available from: <http://www.seer.ufu.br/index.php/revextensao/article/view/39400/pdf>
7. Sherry JL. The challenge of audience reception: a developmental model for educational game engagement. *New Dir Child Adolesc Dev*. 2013;(139):11-20. doi: 10.1002/cad.20027
8. Thiollent M. Metodologia da pesquisa-ação. São Paulo: Cortez; 2011.
9. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care*. 2007;19(6):349-57. doi: 10.1093/intqhc/mzm042
10. Teles PRS, Sousa MEM, Ferreira UR, Henriques ACPT. Desenvolvimento de jogo educativo para ensino da assistência ao parto na enfermagem. *Rev Diál Acadêm [Internet]*. 2017[cited 2018 Jan 15];6(2):99-103. Available from: <http://revista.fametro.com.br/index.php/RDA/article/view/146/154>
11. Matias EO, Sousa CNS, Neves CS, Carneiro JL, Brito LMS, Melo KM. Estratégia educativa como tecnologia facilitadora para promoção da saúde do adolescente no âmbito escolar. *Adolesc Saúde [Internet]*. 2013[cited 2018 Jan 15];10(2):7-14. Available from: http://www.adolescenciaesauade.com/detalhe_artigo.asp?id=363.
12. Antunes MM. Técnica Delphi: metodologia para pesquisas em educação no Brasil. *Rev educ PUC-Camp [Internet]*. 2014[cited 2018 Jan 15];19(1):63-71. Available from: <http://periodicos.puc-campinas.edu.br/seer/index.php/reveducao/article/view/2616/1894>
13. Olaya O, Dee DL, Sharma AJ, Smith RA. Maternity Care Practices and Breastfeeding Among Adolescent Mothers Aged 12–19 Years — United States, 2009–2011. *Weekly [Internet]*. 2016[cited 2018 Jan 15];65(2):17-22. Available from: <https://www.cdc.gov/mmwr/volumes/65/wr/mm6502a1.htm>.
14. Hackett KM, Mukta US, Jalal CSB, Sellen DW. A qualitative study exploring perceived barriers to infant feeding and caregiving among adolescent girls and young women in rural Bangladesh. *BMC Public Health [Internet]*. 2015[cited 2018 Jan 15];15:771:1-11. Available from: <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-015-2115-5>
15. Hoffman L, Bann C, Higgins R, Vohr B, Kennedy E. Developmental Outcomes of Extremely Preterm Infants Born to Adolescent Mothers. *Pediatrics [Internet]*. 2015[cited 2018 Jan 15];135(6):1082-92. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4444804/>.

16. Andrade PR, Ohara CVS, Borba RIH, Ribeiro CA. Facing the difficult experience even with support: the underage adolescent experiencing motherhood. *Rev Gaúcha de Enferm* [Internet]. 2015[cited 2018 Jan 15];36(esp):111-8. Available from: <http://www.scielo.br/pdf/rgenf/v36nspe/0102-6933-rgenf-36-spe-0111.pdf>
17. Maranhão TA, Gomes KRO, Nunes LB, Moura LNB. Fatores associados ao aleitamento materno exclusivo entre mães adolescentes. *Cad Saúde Colet* [Internet]. 2015[cited 2018 Jan 15];23(2):132-9. Available from: <http://www.scielo.br/pdf/cadsc/v23n2/1414-462X-cadsc-23-2-132.pdf>
18. Santos JS, Andrade RD, Pina JC, Veríssimo MLÓR, Chiesa AM, Mello DF. Child care and health rights: perspectives of adolescent mothers. *Rev Esc Enferm USP* [Internet]. 2015[cited 2018 Jan 15];49(5):733-40. Available from: <http://www.scielo.br/pdf/reeusp/v49n5/0080-6234-reeusp-49-05-0733.pdf>
19. Santos AL, Teston EF, Cecilio HPM, Serafim D, Marcon SS. Grandmothers' Involvement In The Care Of Children Of Adolescent Mothers. *REME Rev Min Enferm*[Internet]. 2015[cited 2018 Jan 15];19(1):55-9. Available from: http://www.reme.org.br/exportar-pdf/985/en_v19n1a05.pdf
20. Horodyski MA, Silk K, Hsieh G, Hoffman A, Robson M. Tools for teen moms to reduce infant obesity: a randomized clinical trial. *BMC Public Health* [Internet]. 2015[cited 2018 Jan 15];15:22:1-9. Available from: <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-015-1345-x>
21. Lima APE, Javorski M, Amorim RJM, Oliveira SC, Vasconcelos MGL. Práticas alimentares no primeiro ano de vida: representações sociais de mães adolescentes. *Rev Bras Enferm* [Internet]. 2014[cited 2018 Jan 15];67(6):965-71. Available from: <http://www.scielo.br/pdf/reben/v67n6/0034-7167-reben-67-06-0965.pdf>
22. Santos KD, Motta IF. O significado da maternidade na trajetória de três jovens mães: um estudo psicanalítico. *Estud Psicol* [Internet]. 2014[cited 2018 Jan 15];31(4):517-22. Available from: <http://www.scielo.br/pdf/estpsi/v31n4/a06v31n4.pdf>
23. Oliveira AS, Chiquetti EMS, Santos H. Characterization of motor development in infants of adolescent mothers. *Fisioter Pesq*[cited 2018 Jan 15]. 2013[cited 2018 Jan 15];20(4):349-54. Available from: http://www.scielo.br/pdf/fp/v20n4/en_v20n4a08.pdf
24. SmithBattle L, Lorenz R, Leander S. Listening with care: using narrative methods to cultivate nurses responsive relationships in a home visiting intervention with teen mothers. *Nurs Inq* [Internet]. 2013[cited 2018 Jan 15];20(3):188-98. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3448796/>
25. Nogueira SC, Rodrigues OMPR, Altafim RP. Práticas educativas de mães e bebês: efeitos de um programa de intervenção. *Estud Psicol* [Internet]. 2013[cited 2018 Jan 15];18(4):599-609. Available from: <http://www.scielo.br/pdf/pe/v18n4/03.pdf>
26. Ferreira FM, Haas VJ, Pedrosa LAH. Quality of life of adolescents after maternity. *Acta Paul Enferm* [Internet]. 2013[cited 2018 Jan 15];26(3):245-9. Available from: http://www.scielo.br/pdf/ape/v26n3/en_07.pdf
27. Pinto KRTF, Marcon SS. A família e o apoio social recebido pelas mães adolescentes e seus filhos. *Cienc Cuid Saúde* [Internet]. 2012[cited 2018 Jan 15];11(Supl):153-9. Available from: <http://periodicos.uem.br/ojs/index.php/CiencCuidSaude/article/view/17070/pdf>
28. Cox JE, Buman MP, Woods ER, Famakinwa O, Harris SK. Evaluation of raising adolescent families together program: a medical home for adolescent mothers and their children. *Am J Public Health* [Internet]. 2012[cited 2018 Jan 15];102(10):1879-85. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3490654/>
29. Melo SCH, Schermann LB. Prevalência e fatores associados à dificuldade no cuidado do bebê em mães adolescentes de 14 a 15 anos de Porto Alegre/RS. *Aletheia* [Internet]. 2012[cited 2018 Jan 15];38-39:67-80. Available from: <http://pepsic.bvsalud.org/pdf/aletheia/n38-39/n38-39a06.pdf>
30. Cabral S, Levandowski D. Representações de mães adolescentes: aspectos intergeracionais na relação mãe-criança. *Fractal Rev Psicol* [Internet]. 2012[cited 2018 Jan 15];24(3):543-62. Available from: <http://www.scielo.br/pdf/fractal/v24n3/08.pdf>
31. Gómez-Sotelo A, Gutiérrez-Malaver ME, Izzedin-Bouquet R, Sánchez-Martínez LM, Herrera-Medina NE, Ballesteros-Cabrera M. Representaciones sociales del embarazo y la maternidade en adolescentes primigestantes y multigestantes en Bogotá. *Rev Esp Salud Pública*[Internet]. 2012[cited 2018 Jan 15];14(2):189-99. Available from: <https://scielosp.org/pdf/rsap/2012.v14n2/189-199/es>
32. Mariano MR, Reboças CBA, Pagliuca LMF. Jogo educativo sobre drogas para cegos: construção e avaliação. *Rev Esc Enferm USP* [Internet]. 2013[cited 2018 Jan 15];47(4):930-6. Available from: <http://www.scielo.br/pdf/reeusp/v47n4/0080-6234-reeusp-47-4-0930.pdf>
33. Mariano MR, Pinheiro AKB, Aquino PS, Ximenes LB, Pagliuca LMF. Jogo educativo na promoção da saúde de adolescentes: revisão integrativa. *Rev Eletr Enferm* [Internet]. 2013[cited 2018 Jan 15];15(1):265-73. Available from: <https://www.fen.ufg.br/revista/v15/n1/pdf/v15n1a30.pdf>
34. Magaña Valladares L, Suárez Conejero JE. El uso del GELearning en una estrategia de capacitación en ecosalud. *Gac Med Mex* [Internet]. 2014[cited 2018 Jan 15];(150):317-23. Available from: <https://dialnet.unirioja.es/servlet/articulo?codigo=4800725>