Educational intervention involving young mothers: gaining knowledge on childcare
Intervenção educativa com mães jovens: aquisição de saberes sobre cuidados da criança
Intervención educativa con madres jóvenes: adquisición de saberes sobre cuidados del niño

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Abstract
Objective: Identify the knowledge of young mothers about daily childcare through an educational intervention, in search of support for comprehensive health care.

Methods: Descriptive intervention study, involving 20 mothers between 16 and 25 years of age with children under three years of age, within the coverage area of a family health service. The educational intervention was based on five playful group dynamics, assessed by means of a pre and post-test, addressing themes about nutrition, hygiene, household accident prevention, managing a sick child at home and development in the first three months of the child’s life, before, immediately after the intervention and five months after the interventions.

Results: Using an intragroup educational intervention, in the pretest, the mothers’ knowledge ranged between good and excellent, a part being classified as regular and insufficient on some themes. In the post-test taken immediately after the intervention, the knowledge was classified between good and excellent while, in the post-intervention test, applied five months after the health education, the classifications regular and insufficient return.

Conclusion: The mothers’ knowledge gaining appoints that the educational intervention through games is a satisfactory strategy in health education about child healthcare. Nevertheless, the results suggest that it is important to keep up the educational actions at different times and in different contexts to guarantee the sustainability of knowledge and practices, contributing to comprehensive health care.

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Introduction

Childcare receives strong influence from the context the child lives in, in which vulnerable environments can entail more or less difficulties for each child to reach its full potential.\(^1\)

In the growth and development process, the child needs positive interactions, because the construction of brain circuits is greatly influenced by early life experiences and directly mediated by the quality of socio-affective relationships, mainly by the interactions established with their caregivers.\(^1-3\) With a view to the longitudinality of care, it is indispensable to identify the environmental conditions favorable to the full development of children and to get to know the caregivers’ understanding of the children’s characteristics and needs,\(^4\) aiming for comprehensive care with a guarantee of health promotion, disease prevention and full development.

Thus, health promotion allied with health education represents a resource through which the scientifically produced knowledge in health, mediated by professionals, is presented and discussed with people, with a view to the construction of autonomy, understanding of the health-disease process and its conditioning factors and the adoption of healthy health habits and conducts.\(^5\) Thus, health education turns into a promising possibility to cope with problems, understanding difficulties and seeking to meet the health needs of mothers and their families to provide high-quality childcare.

Interaction between mothers and health professionals can offer health benefits by sharing experiences and knowledge and encouraging healthy life habits, essential for the protection and promotion of child health,\(^6\) with contributions from professionals for mothers and fathers to serve as active participants in childcare.\(^7\)

The nurse in primary health care plays a fundamental role in the development of maternal and family skills, based on the accomplishment of health education activities, providing means for the subjects to rethink, learn and choose to provide safe care to their children. Motherhood for young mothers may present itself as a unique situation and, in certain circumstances, may assume different meanings and contours.\(^6,7\) In the field of health, there are countless educational practices that use games to facilitate the assimilation of content, with freer routes, in which the production of the participants’ senses and meanings is privileged, with a view to promoting the subjects’ protagonist role, critical-reflexive thinking and the construction of knowledge, supported by playfulness and interaction.\(^8\) This study aimed to identify the knowledge of young mothers about daily childcare based on an educational intervention, in search of support for comprehensive health care.

Methods

A descriptive intervention research was undertaken on the evaluation of a pre and post-test, applied before and after educational intervention activities, guided by the themes of the booklet entitled “Any Time is Time to Care”.\(^9\)

The study was carried out in a medium-sized Brazilian city, involving 20 mothers aged 16 to 25 years, within the coverage area of a family health service (USF), which serves a population of about 3,800 people, predominantly young, with families living in precarious conditions and a considerable number of children under the age of three years. The inclusion criteria were: age of mothers between 12 and 25 years; have children up to three years of age; registered and monitored at USF; participate in the moments of the educational intervention. Exclusion criteria were: interruption of child health monitoring and address change beyond the scope of the USF.

In total, the data collection took six months, in two stages. In the first stage, during one month, the group educational activities were carried out, in which the 20 mothers were divided into four groups with five members each. For each group, two meetings were held taking four hours each, with an interval for snacks and monitors to care for and play with the participants’ children. At the
first meeting of each group, before the educational activity, the researcher applied the pre-test (before the intervention) and, at the end of the second meeting of each group, post-test I (immediately after the intervention). The first educational activities, during the first meeting, involved the themes breastfeeding, infant feeding, hygiene and disease prevention. In the second meeting, with the same group, the topics covered were prevention of household accidents and child development. The same occurred in the other groups. In total, eight meetings were held. In the second stage, five months after the first meeting, home visits were made to each participant, which represented a differential of this study, re-encountering the researcher after the educational intervention itself. During the home visits, dialogues were established with the mothers about the care for the child and post-test II was applied.

The three applications of the tests were guided by the same script, containing 20 questions the researchers had elaborated, who departed from the subjects addressed in the educational intervention, guided by the booklet “Any Time is Time to Care”. (9)

The educational interventions were carried out through games and each proposed game involved the reflection on a theme. As for breastfeeding and feeding the child, the proposal involved conversations with the mothers and each received two signs, one with the drawing of a figure of a smiling face and the other with a figure of a sad face. The dynamics included the use of figures to express and tell their experiences about breastfeeding and feeding their children, seeking to discuss the difficulties and facilities.

With regard to hygiene care, a memory game dynamics was used. Ten cards were provided, five of which contained a drawing related to poor hygiene (eating food without hand hygiene, without brushing the teeth, playing in the sand barefoot and close to animals that live on the street, not cleaning the yard, and lack of hygiene and cleaning of the scalp and hair), and the other five cards related to a childhood illness (diarrhea, geographic larvae, cavities, scalp parasites, and vector-borne diseases). In the game, through dialogue and exchange of ideas, the mothers linked the cards that showed a relation between lack of hygiene and a corresponding illness.

Regarding daily care when children become ill, a dynamic was used showing three children’s drawings, similar to situations of cold/flu, diarrhea and fever. Departing from each figure, the mothers participated in conversations related to the following inquiries: In the first years of life, do we need more care and attention to the health and safety of the child? How do you identify when your children get sick? What care do you usually take at home?; Have your children ever had diarrhea, respiratory problems or fever, and how did home-based care happen? Thus, reflections and exchanges of experiences were encouraged.

With regard to accident prevention, a traffic light game was used, consisting of figures containing a child’s drawing, at different ages, showing a risk of an accident, and cards with a colored circle in red (high risk), yellow (medium risk) and green (low risk). Each mother received a picture (drawing of a baby lying in an unprotected crib and susceptible to falling) and the purpose was to put one of the three figures of colored circles on top. The group talks were intended to reflect on the vulnerable situations the child may be subject to in relation to the stage of his/her development. The other figures showed situations of possible accidents involving suffocation, burns, intoxication and drowning.

As for the theme about the child’s daily learning, a dynamic similar to the game Pictionary was used. Each mother received a part containing a drawing, focusing on professions. The mothers participated in the activity, some mimicry what the drawing represented and others trying to guess, in an acting game. They talked about how the children learn.

At the end of each playful activity, the doubts were solved and other subjects were addressed: the need to play and dialogue with the baby and the child, sphincter control, cuddle and sleep routine, reading stimuli for the baby and child, up-to-date vaccination, punishment, and setting limits.
After completing the tests (pre, post I and post II), the hits per theme were added up and classified according to the concepts: insufficient (up to 24% correct), regular (25% to 49% correct), good (50% to 74% correct answers) and excellent (75% to 100% correct answers), similar to another study (10).

This research received approval from the Research Ethics Committee, with CAAE opinion 44624815.4.0000.5393, respecting the ethical precepts set forth in Resolution 466/12, including the use of a free and informed consent term and an assent term.

**Results**

The results describe the correct answers and concepts obtained in the pretest (before the intervention), post-test I (immediately after the intervention) and post-test II (five months after the intervention), translating the young mothers’ knowledge synthesis resulting from the application of an educational intervention.

Figure 1, the young mothers’ knowledge synthesis on the themes addressed during the meetings before the educational dynamics is displayed.

Overall, the participants’ knowledge ranged between good and excellent. Nevertheless, the knowledge of a small part of the mothers on the themes about breastfeeding and feeding, disease prevention and child learning was classified as regular. One insufficient classification was found, concerning the prevention of accidents in childhood.

After the educational intervention, the mothers answered the same script and their knowledge gaining changed, as shown in figure 2.

The results of post-test I show that the classifications ranged between good and excellent on all themes addressed, particularly disease prevention, which only showed excellent classifications.

Five months after the educational intervention, the researcher again contacted the study participants and applied the same script for post-test II, during home visits, as shown in figure 3.

The results of post-test II show a predominance of correct answers, with classifications ranging between good and excellent for the five themes addressed. Nevertheless, there was one insufficient classification for themes related to breastfeeding and feeding and regular and insufficient classifications for the theme child learning.

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**Figure 1. Mothers’ knowledge in pretest about childcare**
Discussion

In this study, young mothers’ knowledge is shown, based on educational practices with themes inherent in daily childcare at home, which facilitated the assimilation of content in a playful and interactive way.

The application of the pre-intervention test prior to the educational games presupposes the valuation of the mothers’ background knowledge on the subject to be discussed. While the analysis of the post-intervention test result suggests the effectiveness of the educational intervention, it can also reveal the increase or not of the involved participants’ level of knowledge. In this study, the acquisition of the mothers’ knowledge in the post-intervention test reveals that the educational practice developed through games was more proximally satisfactory, with good and excellent concepts for all the topics addressed. This result is in line with other health studies that use the same resource to evaluate the participants’ knowledge acquisition.\(^{(10-12)}\)

Games have been studied in several areas of knowledge, as they have didactic and educational objectives, can be adopted or adapted to improve, support or promote the learning processes, favoring the construction of knowledge and permitting individual decision making. In addition, games permit...
entertainment with motivating, stimulating, innovative, illustrative and playful strategies.\(^{(12,13)}\)

In this study, the participants’ performance may be related to the development process of each game dynamics, with the researcher’s leadership in establishing the conversation and stimulating the exchange of information about the child’s care at home with the mothers, generating possibilities to reinvent humanized and shared modes of care. Thus, the participants’ dialogues and reflections were a useful way for them to develop and acquire knowledge about the health care of their children.

It is important to point out the relevance of nurses’ actions in educational practices for the sake of comprehensive health. The professional should be sensitive to the subject’s learning needs and able to look at the singularities in the educational process, and provide a favorable and motivating environment.\(^{(14)}\)

Positive aspects in the conduct of the games and in the mothers’ performance in this research, who obtained good and excellent classifications, express that the application of the educational activity suggests a problem-solving ability regarding the expansion of knowledge, but does not permit assertions as to behavioral changes.

The result of the application of the post-intervention test applied five months after the educational activity is a differential component proposed in this study and revealed that, over time, the mothers’ knowledge about some subjects was again classified as regular and insufficient. These results suggest the need for continued health education actions, offered at various times, strengthening nursing care through home visits, nursing consultations, educational groups, among others.

The education of individuals and families in general includes educational techniques through printed and audiovisual materials, demonstrations and verbal instructions.\(^{(15)}\) In this study, the dialogue with verbal instruction was focused on as a component of health education and recommendations for the mothers.

Verbal education of patients and family members is important and an approach that takes into account learning styles, literacy and culture is also relevant to apply clear communication and to obtain learning assessment, relevant to the professionals’ skills, available time and training, emphasizing that health education does not necessarily lead to behavioral changes.\(^{(15)}\) In general, patients and their families receive a variety of information about their health and usually need to make important decisions, having to deal with barriers and difficulties, and the nurse is of great value to assess the patients’ learning needs, their readiness to learn and the different ways in which they learn.\(^{(16)}\) Thus, there is a need for further research on how to document and quantify the patients’ understanding and retention of verbal instructions.\(^{(15)}\)

In this study, the reports on the experiences of the groups of young mothers and the reflections on their own actions were an effective way for the mothers to rethink themes and develop knowledge about the health care of their children.

Nursing care with a focus on health education needs to increase the dialogue, the guidelines with different repertoires, different explanatory strategies and stimuli to the subjects, so that the knowledge is expanded and gains sustainability. In this sense, it is relevant for the professional to try not to exhaust the conversation on a particular subject on a single occasion. Thus, the resumption of aspects, issues, interests and motivations is fundamental to enhance attention to the identification on the organization of the environment, regularity of care, ways in which the family handles constant supervision of the child’s activities and good parental practices, dialoguing and reinforcing important themes for health and human development. These results suggest the importance of continued educational actions at different moments and in different contexts.

Nurses are considered the professionals with more opportunities to assess the educational needs of patients and to prepare them for learning,\(^{(17)}\) contributing to advances in the access to and quality of health care.

**Conclusion**

The pre-intervention test was applied to identify and value the prior knowledge of young mothers in relation to the contents about childcare at home. The
result of the application of the post-intervention test revealed the increase in the knowledge of young mothers, reaffirming that the use of educational games is an effective and satisfactory resource for health education demands. Through games with intragroup intervention, the educational activity favored group sharing among the mothers, with reflections, exchange of information and experiences that contributed to knowledge gaining about child health care. The study provides support to rethink and structure educational interventions developed by nursing professionals, with practices guided by knowledge applied in a creative and playful way, seeking to promote top-level comprehensive health care and knowledge sharing.

Collaborations

Blanco e Silva F, Gondim EC, Henrique NCP, Fonseca LMM and Mello DF contributed to the conception of the project, data analysis and interpretation, relevant critical review of the intellectual content and approval of the final version for publication.

References