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Booklet on premature infants as educational technology for the family: quasi-experimental study

Cartilha sobre o prematuro como tecnologia educacional para família: estudo quase experimental

Folleto informativo sobre el prematuro como tecnología educativa para la familia: estudio casi experimental

Ifé Odara Alves Monteiro da Silva¹

Natália Del Angelo Aredes¹

Mariana Bezzon Bicalho¹

Natália Condé Brondi Delácio¹

Lígia De Lazzari Mazzo¹

Luciana Mara Monti Fonseca¹

Keywords

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Descritores

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Corresponding author

Luciana Mara Monti Fonseca

<http://orcid.org/0000-0002-6164-4470>

E-mail: lumonti@eerp.usp.br

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Abstract

Objective: Verify mothers' cognitive learning on care for their premature infants through an educative activity based on a booklet.

Methods: Quantitative study with a quasi-experimental time-series design, involving mothers of premature infants hospitalized at two neonatal wards of a high-complexity hospital. A pre and post-test was applied to the control and experimental groups with a ten-day interval between the verifications of learning, analyzing the performance and comparing the groups by means of the Wilcoxon and Mann-Whitney tests. The intervention consisted of an educational activity using a booklet on care for premature infants. The control group participated in an activity traditionally offered at the neonatal wards where the study was undertaken, without the support of the booklet. The data collection took place in October 2016.

Results: Eighteen mothers participated in the study, eight of whom were allocated by convenience to the experimental group and ten to the control group. Intergroup comparison revealed a statistically significant difference ($p=0.027$) favorable to the use of the educative booklet in combination with health education for the mothers' learning on care for their infants.

Conclusion: The educative booklet on care for the premature infant is a resource that favors the mothers' learning on the theme. Hence, it represents important technology for health education and favors the knowledge construction. At the health services, it can be used as a trigger and support for discussions and experience exchange.

Resumo

Objetivo: Verificar a aprendizagem cognitiva de mães sobre os cuidados com seus filhos prematuros mediante atividade educativa com base em uma cartilha.

Métodos: Estudo de abordagem quantitativa e desenho quase-experimental de série temporal, realizado junto a mães de prematuros hospitalizados em duas unidades neonatais de um hospital de alta complexidade. Foram aplicados pré e pós-teste com os grupos controle e experimental com intervalo de dez dias entre as verificações de aprendizagem, analisando desempenho e comparando grupos com testes Wilcoxon e Mann-Whitney. A intervenção consistiu de atividade educativa com o uso de uma cartilha sobre cuidados ao bebê prematuro, enquanto o grupo controle participou de atividade tradicionalmente oferecida nas unidades neonatais do estudo, sem apoio da cartilha. A coleta de dados foi realizada no mês de outubro de 2016.

Resultados: Participaram do estudo 18 mães, sendo que oito foram alocadas por conveniência no grupo experimental e dez no grupo controle. Por meio da comparação entre grupos, houve diferença estatisticamente significativa ($p=0,027$) favorável à utilização da cartilha educativa em associação à educação em saúde para a aprendizagem das mães sobre os cuidados com o filho.

Conclusão: A cartilha educativa acerca dos cuidados com o bebê prematuro é um recurso que favorece a aprendizagem de mães no tema em questão. Assim, é uma tecnologia importante para a educação em saúde e favorece a construção do conhecimento, podendo ser utilizada nas unidades de saúde como disparador e suporte das discussões e troca de experiências.

Resumen

Objetivo: Verificar el aprendizaje cognitivo de las madres en el cuidado de sus hijos prematuros a través de la actividad educativa basándose en un folleto informativo.

Métodos: Estudio de enfoque cuantitativo y diseño casi experimental de serie temporal, realizado con las madres de bebés prematuros hospitalizados en dos unidades de neonatología de un hospital de alta complejidad. Se aplicaron pre y posttest con los grupos control y experimental, con intervalo de diez días entre las verificaciones de aprendizaje, analizando desempeño y comparando grupos con pruebas Wilcoxon y Mann-Whitney. La intervención constó de actividad educativa con el uso de un folleto sobre cuidados al bebé prematuro, mientras que el grupo control participó de una actividad tradicionalmente ofrecida en las unidades neonatales del estudio, sin apoyo del folleto. La recolección de datos se llevó a cabo en octubre de 2016.

Resultados: Participaron en el estudio 18 madres, siendo que ocho fueron asignadas por conveniencia en el grupo experimental y 10 en el grupo control. Por medio de la comparación entre grupos, hubo diferencia estadísticamente significativa ($p = 0,027$) favorable a la utilización del folleto educativo, en asociación a la educación en salud para el aprendizaje de las madres sobre los cuidados con el hijo.

Conclusión: El folleto educativo sobre el cuidado del bebé prematuro es un recurso que favorece el aprendizaje de las madres en el tema en cuestión. Siendo así, es una tecnología importante para la educación en salud y favorece la construcción del conocimiento, pudiendo ser utilizado en las unidades de salud como disparador y soporte de las discusiones e intercambio de experiencias.

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¹Escola de Enfermagem, Universidade de São Paulo, Ribeirão Preto, SP, Brazil.

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Introduction

Pregnancy is a time that involves many expectations and anxiety for the parents, given its modifying characteristic of the family structure with the arrival of a new member, the fear of the risks for the health of the woman and the child, and the care to the newborn. Increasing concern has been expressed regarding prematurity, whose relevance in rates in Brazil remains a challenge in the health area. It is verified in the literature that the birth of a premature baby can entail significant emotional repercussions, mainly for the mother, who may feel incapable and fragile, due to the health risks for the infant with recognized physiological immaturity and how to provide care for him.^(1,2)

The World Health Organization defines preterm infants as those born with a gestational age of less than 37 full weeks. Prematurity is a public health problem and triggers high social and economic costs, as well as suffering for parents and the family, especially regarding the confrontation between the “imagined baby” and the “real baby” (physically more fragile) and the unexpected hospitalization that impedes the family from taking the baby home soon after birth.^(3,4) Often, preterm infants remain hospitalized in Neonatal Intensive Care Units or Neonatal Intermediate Care Units (NICUs) due to conditions inherent in their physiological immaturity, especially of respiratory order, or various disorders whose appearance and intensity depend on the level of prematurity. In this context, there may be a distancing from parental care as a result of the interventions the health team performs in the hospital routine or, more than distancing, deprivation may occur, considering institutions that do not include family-centered care during the hospitalization as part of the health promotion process.⁽¹⁾

In order to bond babies and their families, it is important that health professionals encourage their contact in the spaces of the units, especially the nursing team, due to its direct and routine contact with those involved in this process. Thus, the importance of family preparation to take care of premature infants during hospitalization and after discharge is emphasized in a context of inclusive

health education, with guidelines based on scientific evidence and focusing on the families' needs, paying attention to parental skills, especially of the mother, who is culturally recognized as the baby's main caregiver.⁽⁴⁾

Health education can be performed with groups of mothers (or other caregivers) using active learning methods. This approach is recognized for leveraging the development of activities in a participatory manner, valuing individual contribution and participation and further enriching the knowledge of the professional involved in this action. This type of method favors dialogue and formal and informal knowledge exchange, based on the need of the members involved and being significant as new knowledge connects to previous experiences and answers important questions.⁽⁵⁾

Despite this recommendation, a current challenge is the compliance of the clients and community in general to the guidelines offered in the daily reality of health services, as communication with professionals is often superficial, complex or makes no sense at that time. Thus, the implementation of health education focused on the context and needs of those involved becomes potentially more effective in allowing the group, or peers, to interact further and exchange experiences, approaching the realities of those involved and promoting their autonomy even more.⁽⁶⁾

In order to promote better utilization of recommended care in family learning and knowledge exchange among health professionals and the community, the importance of health education groups engaged in promoting autonomy and emancipation in care is emphasized, both in the hospital and in the home environment.⁽⁵⁾ In addition, a broader view on the learning needs of these families is needed by offering educational materials that can be analyzed whenever necessary to equip them about care, following the logic of knowledge dissemination, using the Health Department itself as an example, which offers the Child Health Handbook to the families.

In this sense, the aim in this study is to verify the cognitive learning of parents about the care for their preterm children through an educational booklet, based on the comparison with health edu-

cation activities traditionally developed in neonatal units, without the support of this technology.

Methods

Quantitative study with quasi-experimental time-series, involving parents of preterm infants hospitalized in two neonatal wards of a high-complexity hospital.

This research is classified as a quasi-experimental study, as it involves an intervention applied to the experimental group and the results are compared with the control group, without random allocation of participants to the groups, justified by the possible operationalization in the field of data collection.⁽⁷⁾ To minimize the risk of communication between the two groups and inadvertent contact with the booklet, data in the control group were collected during two weeks, followed by two weeks in the experimental group.

Within the universe of quasi-experimental studies, some prototypes can be used and, in this research, the time-series model was employed. In that type of research, biases related to time and space need to be considered.⁽⁸⁾ In view of this assertion, it is justified to perform the data collection within the same month, minimizing the chance of major changes that may impact the results, such as changes in the care team (considering the mediator of health education as an influencer of the process), in the institutional (such as possible implementation of educational materials or changes in guideline practices) and macro-socioeconomic standards (such as changes in the status quo that impact health education, such as education level and access to health). Finally, the period delimited avoids that other sources of information on the research theme influence the participants' cognitive learning beyond the study procedures, considering the risk of common bias in the educational research context.

The intervention in this study deals with health education with the support of a booklet that has been developed in a participatory manner way with mothers of preterm infants and nurses from neonatal units, named: "Caring for prema-

ture infants: family orientations". It was developed in question-answer format with clarifying illustrations, which through clear and objective language proposes instructions to parents and family about care for the premature baby.⁽⁹⁾

The material was elaborated based on needs pointed out by mothers, nurses and other health professionals, dealing with subjects such as care related to bathing, perineum, sunbathing, colic, crying, pacifier use, umbilical stump dressing, clothing, heel lance, rights of working mothers, breast care, nipple trauma and breastfeeding, among others.^(5,6,8,9)

Access to the booklet is open to the community free of charge and is available on the website of the University of São Paulo at Ribeirão Preto College of Nursing, through the link of the Nursing Research Group on Child and Adolescent Care (GPECCA) and the Virtual Library of the Ministry of Health:

<http://www2.eerp.usp.br/site/grupos/gpecca/objetos/LivroPrematuro2012.pdf> and http://bvsms.saude.gov.br/bvs/publicacoes/cuidados_bebe_prematuro_3ed.pdf.

In addition to online access, the printed educational booklet is distributed free of charge by e-mail to parents of premature infants, health professionals, public and private teaching and care institutions, non-governmental organizations, teachers and undergraduate students from different courses in the health area. In its almost 15 years of existence, about 20 thousand copies have been distributed and, in this period, the booklet has been improved and expanded to align with updated scientific evidence and with the parents' request for preterm infants about information they would like to have access to. The fourth version is currently circulating.⁽¹⁰⁾

For this research, all the parents of infants hospitalized in the NICU were invited, who were literate and considered they were available to read the booklet. These inclusion criteria were considered in view of the need for the participants to answer the pre- and post-test and, in case of participation in the experimental group, read the booklet.

Data collection was performed in October 2016, after approval by the Ethics Committee

at the University of São Paulo at Ribeirão Preto College of Nursing, No. 1.761.771, dated October 6, 2016, in compliance with the ethical precepts established in Resolution 466/2012 and other regulations in force.

The number of participants was defined by convenience and sample availability in the study period, totaling 18 mothers (although the criteria are open to both father and mother), with ten being allocated in the control group and eight to the experimental group. In the recruitment process, two mothers refused to participate in the study, indicating that they did not feel well due to the clinical status of the babies and two gave up after completing the pre-test due to death and discharge.

Regarding the study procedures, a pre-test was applied with 46 questions after obtaining the free and informed consent of the entire sample and a post-test with the same questions after ten days, counting the correct answers to verify the learning. In the interval period, the participants in the control group did not have access to the educational material, experiencing the health education process as traditionally offered in the health services (conversation between mothers of hospitalized infants and health professionals). For the experimental group, in turn, the educational booklet was offered as a basis for discussions between mothers and health staff, aiming to reinforce the health education traditionally offered, as well as the material provided to participants as support for study at other times.

It should be emphasized that the questions of the pre- and post-test, structured with answers in the format of alternatives with only one correct answer to every question and including the possibility of selecting the option “do not know”, were specially adapted for this research from a questionnaire previously developed by other authors, which was validated by nine post-graduate students, nurses and nursing teachers working in the field of neonatology knowledge.⁽⁴⁾ The adaptations occurred so that the subjects were covered by both the health education actions without the support of the booklet and by the intervention of

the group that had access to it, thus guaranteeing the same opportunities of learning and of answering the test questions.

Based on the framework of cognitive learning theories, represented by scholars such as Ausubel and Piaget, in this study, cognitive learning is considered as learning that represents the knowledge of hierarchically organized and mutually related concepts.⁽¹¹⁾ For research purposes, hits were counted as frequencies, comparing the participants' performance before and after the educational activity in a same group and analyzing the intergroup differences in the scores.

For the analysis, the data obtained in the pre-test and post-test of both groups were double-typed in worksheets formatted in Microsoft Excel 2010[®], checking and confirming the consistency of the data, and were later transported to SPSS version 24[®] for statistical tests. The Wilcoxon test was used for before-and-after comparison of learning in a same group and Mann-Whitney's U test for comparison between the control and experimental groups, adopting a 95% level of significance ($\alpha = 0.05$) in all comparisons.

Results

Mothers were between 21 and 36 years of age (median 29 years) and the participants' level of education was higher in the experimental group than in the control group. In the former, they had minimally finished high school and, in the latter, the corresponding proportion was 62.5%. When considering the entire sample, 72.2% ($n = 13$) of the mothers had finished high school education and 22.2% ($n = 4$) of them held a higher education or were taking a higher education program, being three in the experimental group and one in the control group.

Only two mothers in the total sample did not formally work, being one student (5.5%) and one housewife (5.5%). Half of the participants reported coming from Ribeirão Preto ($n = 9/50\%$), most of them living with their partners ($n = 12/66.6\%$). In all the aforementioned characterization variables,

we did not notice any significant differences between the groups, indicating homogeneity.

In table 1, the number and frequency of correct answers in the pre-test and post-test of the control (Group 1) and experimental (Group 2) groups are presented, considering the total of 46 questions per test.

It should be noted that the groups were considered statistically homogeneous, given that $p = 0.423$, also defined by the Mann Whitney test, demonstrating equality between the groups in the pre-test, which made them comparable in this study.

The data in table 1 indicate a significant difference between the groups in the post-test phase, with superior cognitive learning result for the experimental group. That is, when comparing the post-test scores among the participants, those who used the educational booklet in the health education process obtained a superior cognitive learning result ($p = 0.027$) in relation to the control group, which followed the conventional routine at the institution of verbal and practical instructions by the nursing team in the bedside model, without the educational material.

Despite this advance of the experimental group over the control group, it is worth noting that, in the comparison of intragroup learning, that is, considering the participants of the same group, counting their hits before and after health education, neither presented a statistically significant increase, whether in the control group that used the health services' conventional procedures ($p = 0.259$), or in the experimental group that used the booklet ($p = 0.208$).

Discussion

In the post-test, the control group did not show an increase in the frequency of correct answers in relation to the pre-test, representing what may occur with families in the daily reality concerning the health education the professionals offer at the health services. In this finding, the educational challenge of disease prevention and health promotion of the cli-

Table 1. Frequency of hits on the pretest and post-test, with analysis of intra- and intergroup statistical significance

Questions	Group 1 ($p=0.259$)*		Group 2 ($p=0.208$)*	
	Pretest n(%)	Post-test n(%)	Pretest n(%)	Post-test n(%)
1	6(66.7)	4(44.4)	6(75)	6(75)
2	4 (44.4)	5(55.6)	8(100)	7(87.5)
3	6(66.7)	4(44.4)	2(25)	7(87.5)
4	6(66.7)	6(66.7)	5(62.5)	7(87.5)
5	4(44.4)	6 (66.7)	3(37.5)	7(87.5)
6	0(0)	2(22.2)	2(25)	2(25)
7	5(55.6)	7(77.8)	5(62.5)	6(75)
8	9(100)	8(88.9)	7(87.5)	7(87.5)
9	9(100)	8(88.9)	8(100)	7(87.5)
10	6(66.7)	6(66.7)	5(62.5)	7(87.5)
11	8(88.9)	7(77.8)	7(87.5)	7(87.5)
12	7(77.8)	7(77.8)	8(100)	6(75)
13	4(44.4)	8(88.9)	8(100)	7(87.5)
14	6(66.7)	7(77.8)	7(87.5)	6(75)
15	7(77.8)	7(77.8)	5(62.5)	6(75)
16	4(44.4)	4(44.4)	6(75)	5(62.5)
17	5(55.6)	2(22.2)	5(62.5)	7(87.5)
18	2(22.2)	5(55.6)	3(37.5)	5(62.5)
19	7(77.8)	7(77.8)	8(100)	7(87.5)
20	4(44.4)	2(22.2)	4(50)	5(62.5)
21	5(55.6)	5(55.6)	5(62.5)	6(75)
22	4(44.4)	4(44.4)	3(37.5)	6(75)
23	2(22.2)	5(55.6)	2(25)	5(62.5)
24	3(33.3)	2(22.2)	4(50)	6(75)
25	5(55.6)	4(44.4)	4(50)	5(62.5)
26	7(77.8)	6(66.7)	7(87.5)	7(87.5)
27	5(55.6)	5(55.6)	6(75)	6(75)
28	5(55.6)	4(44.4)	7(87.5)	7(87.5)
29	8(88.9)	6(66.7)	5(62.5)	5(62.5)
30	1(11.1)	2(22.2)	2(25)	5(62.5)
31	8(88.9)	8(88.9)	5(62.5)	7(87.5)
32	2(22.2)	4(44.4)	2(25)	5(62.5)
33	3(33.3)	4(44.4)	5(62.5)	5(62.5)
34	7(77.8)	5(55.6)	6(75)	7(87.5)
35	8(88.9)	8(88.9)	7(87.5)	6(75)
36	3(33.3)	2(22.2)	4(50)	7(87.5)
37	4(44.4)	5(55.6)	1(12.5)	6(75)
38	6(66.7)	3(33.3)	2(25)	6(75)
39	3(33.3)	2(22.2)	6(75)	6(75)
40	5(55.6)	5(55.6)	6(75)	7(87.5)
41	6(66.7)	7(77.9)	5(75)	7(87.5)
42	5(55.6)	6(66.7)	5(62.5)	6(75)
43	6(66.7)	7(77.8)	8(100)	7(87.5)
44	7(77.8)	6(66.7)	6(75)	7(87.5)
45	2(22.2)	1(11.1)	3(37.5)	7(87.5)
46	5(55.6)	3(33.3)	2(25)	5(62.5)
Pretest between the groups: $p=0.423^{**}$			Post-test between the groups: $p=0.027^{**}$	

*The p-value indicates statistical analysis results deriving from the Wilcoxon test, comparing the result within one group. ** The p-value indicates statistical analysis results deriving from the Mann-Whitney test, comparing the results of the pre and post-tests between the control and experimental groups.

ents and community is reinforced, considering the complexity of the information in the area and the need for innovation in the approaches and materials used to foster the development of know-how in care.

In this context, the importance of using different educational strategies is emphasized, aiming for better outcomes in the context of the involved participants' knowledge construction, in view of the learning objectives and the content they are intended to address.^(4,5,9-11) In addition, the learning needs of the target community or client need to be recognized, mainly to make learning meaningful and interesting, based on active participation and curiosity, autonomy and respect for the rhythm and style each person has to process the information.^(6,12-14)

Despite this premise, health professionals are confronted with difficulties in the daily reality of health services regarding the educational component, and this action is often carried out superficially due to communication difficulties between professionals and clients or relatives, particularly to the detriment of the intensive workload.⁽⁵⁾

A proposed solution for this gap is the development of technologies and resources to support health education, with a view to the alignment with scientific evidence and recommendations from competent entities, such as the Federal Health Department and the World Health Organization, and with the active learning methods. The post-test results of the experimental group in this study reinforce this proposal, considering that health education supported by the booklet impacted and significantly improved the mothers' cognitive learning about the care for their preterm infants in the post-test ($p = 0.027$) in comparison to the group that did not have access to the material.

When we observed the "I do not know" answers obtained in this study, the frequency remained close in the pre- and post-test of the control group (decrease by 5.4%); in the experimental group, the "I do not know" answers dropped by 83.6% in the post-test in relation to the pre-test, representing the participants' greater confidence in answering the questions on the topic of care for their children after the intervention using the booklet.

It is important to emphasize that health education support resources can support health professionals in the conduct of routine educational activities, and also serve as material for consultation by the population at any time necessary, reinforcing its autonomy and empowerment.

Data from the city of origin show that 50% ($n = 9$) live in the city where the research was conducted, while the others come from cities in the region within the Regional Health Department XIII. This analysis is fundamental for the planning of health education activities, as these take place in a continuum that is not limited to the hospital, but involves a network of support and articulation with other health services responsible for the follow-up of these families.⁽¹⁵⁾ In order to guarantee comprehensive care for these premature infants and their families, communication among all stakeholders is necessary, recognizing the network that can continue the process of health education where they live, even at the regional level, and verify the application of this knowledge in prevention, health promotion and recovery. Knowing the characteristics of the infants' families is fundamental to guide and strengthen the educative activities, identifying the caregivers and potential caregivers and involving them in the care process. In this sample, exclusively consisting of mothers, 66.6% ($n=12$) of the women live with their partner, a lower frequency than in another Brazilian study involving 137 mothers of premature infants in 2014,⁽¹⁶⁾ in which 81.8% lived with their partner.

This data should be taken into account to understand the women's support network. According to Brazilian scientific literature, this centralizes the care for the baby amidst the Brazilian culture, a fact reinforced by the composition of this sample in which all participants are mothers. In general, this finding is justified by the mother's stay in the hospital as the infant's companion, while the father or partner maintains job actions. This is due to the predominance of the man's role as financial provider in the family, despite the increasing insertion of women in the job market. Nevertheless, the joint participation of the couple or other family members in care for the baby should be weighted,

which is why educational activities and materials should be inclusive.⁽¹⁷⁾

When identifying that other family members support the definition and achievement of the care offered to the baby, they may be involved in the health education process and considered by health professionals when offering instructions and solving doubts.

Another pertinent question in the conduct of health education, related to the correct interpretation of the information and its implementation in practice, is the educational level of the target population. These data in this study were higher than the average national level of education published by the Brazilian Institute of Geography and Statistics (IBGE), updated for these variables in 2016, which indicates that about 29% of the population in the Southeast has completed high school, with better statistics for the age group from 25 to 34 years, reaching 38.9%.⁽¹⁸⁾

The sample had a good level of education compared to the Brazilian scenario and the experimental group had an advantage in this variable, despite the homogeneity of scores in the pre-test, which may have favored cognitive learning in this group at the end of the educational intervention. This observation is important in the context of this research, education being an important social determinant of health, and its impact is evidenced by higher maternal and infant mortality rates when the woman (mother) has few or no years of education. This is due to the greater or lesser chance that women will obtain and understand basic health information, ranging from the benefits of prenatal care to the postpartum and infant care.⁽¹⁹⁾

Also in this sense of caring for the baby since pregnancy, following the recommendation of the National Integral Child Health Care Policy, and the relevance of health education, the prevalence of preterm deliveries due to women's health problems is an alert for prevention activities of and instruction to the community, an area in which nursing should gain prominence. Prematurity being recognized as prevalent in the context of public health, also recognizing its consequences for health, the structuring axes of the same policy include guidelines for

the monitoring of child growth and development, breastfeeding and comprehensive care for children in acute situations and vulnerabilities, representing challenges in the qualified monitoring of premature infants.^(16,20,21)

The findings of this research reveal the relevance of using booklets with instructions of care for premature infants at neonatal care services, so that the family feels safer with regard to hospital and home care. This empowerment is largely due to qualified nursing care in health education and promotes health in childhood, preventing injuries and contributing to the reduction of neonatal mortality, which accounts for 40% of infant mortality and is still a major challenge in the health area.^(22,23)

It is essential to discuss accessible education strategies and technologies that involve the community and grant it an active and essential role in knowledge construction, valuing background knowledge and questions.^(4,5,8)

As a limitation of this study, we point out the sample size and suggest that future studies verify learning retention or, if possible, observe its application in the families' daily practice. Also, similarly to this study, future studies should investigate the impact of different methods and strategies adopted in health education: with and without support of educational materials, using playful approaches such as games and technological support. Thus, health professionals, especially nurses in their natural role as educators involving clients and communities, can rely on evidence and best practices.

Conclusion

As verified, the educational booklet "Caring for premature infants: family orientations", developed by nurse researchers and available on the website of the Federal Health Department, has significantly supported mothers' cognitive learning on this theme when incorporated into the health education process. There was no significant difference in learning when comparing the pre- and post-test in the same group, both for the control and experimental groups, reinforcing the challenges of health

education. In view of the above, we emphasize the importance of the existence and incorporation of educational technologies aligned with the interest and needs of the population and based on scientific evidence. We suggest incorporating health education practices with the aid of the booklets in the neonatal services of the hospital where the research was conducted, and the institution was informed about the positive results achieved. The distribution of the booklet to other health institutions is stimulated, as it deals with several issues that permeate the daily lives of families of preterm infants, such as family relationships, food, hygiene, daily care, special care, support for parents, among others.

Collaborations

Silva IOAM, Aredes NDA, Bicalho MB, Delácio NCB, Mazzo LDL and Fonseca LMM contributed to the project design, data analysis and interpretation, writing of the article, relevant critical review of the intellectual content and final approval of the version for publication.

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