



Actions caring and essential needs of premature infants after hospital discharge: scoping review

Ações de cuidado e necessidades essenciais de prematuros após a alta hospitalar: revisão de escopo

Acciones de atención y necesidades esenciales de prematuros después del alta hospitalaria: revisión de alcance

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ABSTRACT

Objective: to identify and analyze the actions taken by family and health professionals to care for children born prematurely after hospital discharge. **Method:** a scoping review, developed in December 2019, according to the Joanna Briggs Institute guidelines and the international PRISMA ScR guide. Original studies, published in English, Spanish or Portuguese from 2013 to 2019 in CINAHAL, Medline, LILACS, Cochrane, Scopus, Web of Science databases were investigated. The 21 included articles were submitted to directed content analysis supported by the framework of essential needs of children. **Results:** actions for physical protection and safety (20 articles), stable and supportive communities (10 articles) followed by ongoing supportive relationships (6 articles), experiences that respect individual differences (4 articles), and developmentally appropriate experiences (2 articles) predominated. Actions for boundary setting, organization, and expectations were not identified in the studies. **Conclusions and implications for practice:** the care actions contemplate the physical dimension. Considering comprehensive care and the findings of this review, advances in actions are needed to address other dimensions of preterm infant's life, such as emotional and social.

Keywords: Infant Premature; Infant Care; Child Health; Hospital Discharge; Nursing Care.

RESUMO

Objetivo: identificar e analisar as ações de cuidado às crianças nascidas prematuras, após a alta hospitalar, realizadas pelos familiares e profissionais de saúde. **Método:** revisão de escopo, desenvolvida em dezembro de 2019, segundo as orientações do *Joanna Briggs Institute* e do guia internacional PRISMA ScR. Foram investigados estudos originais, publicados em inglês, espanhol ou português, de 2013 a 2019, nas bases CINAHAL, Medline, LILACS, Cochrane, Scopus, Web of Science. Os 21 artigos incluídos foram submetidos à análise direcionada de conteúdo apoiada pelo referencial das necessidades essenciais das crianças. **Resultados:** predominaram ações para proteção física e segurança (20 artigos), comunidades estáveis e amparadoras (10 artigos), seguidas de relacionamentos sustentadores contínuos (6 artigos), experiências que respeitem as diferenças individuais (4 artigos) e experiências adequadas ao desenvolvimento (2 artigos). Ações para o estabelecimento de limites, organização e expectativas não foram identificadas nos estudos. **Conclusões e implicações para a prática:** as ações de cuidado contemplam, principalmente, a dimensão física. Ao considerar o cuidado integral e os achados dessa revisão são necessários avanços nas ações para o atendimento de outras dimensões da vida dos prematuros como a emocional e a social.

Palavras-chave: Recém-Nascido Prematuro; Cuidado da Criança; Saúde da Criança; Alta Hospitalar; Cuidado de Enfermagem

RESUMEN

Objetivo: identificar y analizar las acciones de cuidado a niños prematuros realizadas por familiares y profesionales de la salud después del alta hospitalaria. **Método:** revisión de alcance, desarrollada en diciembre de 2019, según las directrices del Instituto Joanna Briggs y la guía internacional PRISMA ScR. Se investigaron los estudios originales publicados en inglés, español o portugués de 2013 a 2019 en CINAHAL, Medline, LILACS, Cochrane, Scopus, Web of Science. Los 21 artículos incluídos se sometieron a un análisis de contenido específico apoyado por las necesidades esenciales de los niños. **Resultados:** prevalecieron las acciones para la protección física y seguridad (20 artículos), comunidades estables y solidarias (10 artículos), seguidas de relaciones de apoyo continuas (6 artículos), experiencias que respetan las diferencias individuales (4 artículos) y experiencias apropiadas al desarrollo (2 artículos). En los estudios no se identificaron acciones para establecer límites, organización y expectativas. **Conclusiones e implicaciones para la práctica:** las acciones de cuidado incluyen, principalmente, la dimensión física. Al considerar la atención integral e los hallazgos de esta revisión es necesario avanzar en las acciones para el atendimento de otras dimensiones de la vida de los prematuros como la emocional y la social.

Palabras clave: Recién Nacido Prematuro; Cuidado del Niño; Salud del Niño; Alta hospitalar; Cuidado de Enfermería.

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INTRODUCTION

Children, regardless of their social class, ethnic origin, physical and mental condition, have needs essential to their full development¹. The search for integral care, which favors child development to its full potential, requires the appropriation of conceptual contributions that consider the complex dimensions of the growth and development process and the recognition of this public as subjects of care and rights.

To this end, we have identified in the model of children's essential needs that childhood requires: ongoing supportive relationships; physical protection, safety, and rules; respect for individual differences; setting limits, organization, and expectations; providing developmentally appropriate experiences; providing stable, supportive communities and cultural continuity¹.

Recognizing the essential needs of children¹ in health care is a strategy to promote healthy growth and development and to value singularities. In this context, children born prematurely, egresses from neonatal intensive care, who depend on the care of family and health care professionals, either in outpatient follow-up or primary care is inserted.

The actions and advances in preterm care have had repercussions on survival rates and clinical management in Neonatal Units, however, an expanded analysis of their needs throughout life needs to be elucidated². Studies on the growth and development of this child group in recent years have pointed to strategies that need to be adopted for the continuity of care after hospital discharge³ such as: the need for health education for the family of preterm infants⁴ and the nutritional needs of children born prematurely during the first years of life^{5,6}.

It is noteworthy that few studies have been concerned with analyzing health care based on the essential needs model. However, this can be a reference for comprehensive care⁷, in addition to favoring the safe care of children at home, after hospital discharge, in the first year of life⁸.

Considering the above, we recognize that identifying, in the national and international literature, the care actions directed to children born prematurely after hospital discharge and analyzing them based on the essential needs framework will show how the care provided to them has been configured and, to what extent, it has come closer to meeting these needs. These findings may contribute to generate new research questions and guide professional practice.

Thus, the objective of this study was to identify and analyze the actions of care for children born prematurely after hospital discharge, performed by family members and health professionals.

METHOD

This is a scoping review guided by the Joanna Briggs Institute, Manual for Evidence Synthesis⁹ and the international PRISMA^{ScR} guide¹⁰. The review protocol has been registered with the Open Science Framework (OSF) and can be accessed at (<https://osf.io/e5u64>). The scoping review aims to map concepts from various fields of knowledge as well as conceptual boundaries

and examines the extent, scoping, and nature of investigations. It summarizes and disseminates research data and identifies gaps in previously published studies¹¹.

As directed by the JBI, this review was conducted in five steps consisting of the development of the research question, identification of relevant studies, selection of the identified studies, data analysis, and data synthesis⁹.

The guiding question was: what care actions of family members and health professionals have been directed to preterm infants after hospital discharge? The **Population, Concept and Context (PCC)** strategy was used and studies were included that presented as population: preterm newborns, their families and health professionals who assist them; as concept: care actions by family members and professionals for the integral development of these children; and, as context: the care of prematurely born children after hospital discharge, more specifically, at home and in health services such as Primary Health Care (PHC), and specialized services: hospitals and follow-up clinics specialized in growth and development monitoring of Neonatal Intensive Care Unit discharges.

The search strategy aimed to find original studies, published in English, Spanish or Portuguese in the databases CINAHAL, Medline (via PUBMED), LILACS, Cochrane, Scopus, Web of Science, published between the years 2013 to 2019. This step was conducted in December 2019, using the following English descriptors "Infant, Premature", "InfantCare", "Child Health", "Patient Discharge" in the included databases. The titles and abstracts were read for inclusion of the studies and Rayyan software was used to select the studies in the review¹².

The inclusion criteria for the pre-selection of studies were: studies in English, Portuguese or Spanish, published in periodicals and that addressed the theme of health care for children born prematurely after hospital discharge. Non-primary articles, such as opinion articles and reviews, and those that, after being read in full, did not meet the population, concept and context (PCC) requirements according to the protocol developed for this review were excluded.

A total of 435 articles published in the last five years were identified in the databases searched. Figure 1 shows the flow performed for the selection of articles included in this study. 54 were excluded for duplicity, 350 for not meeting the study objective, 143 for being outside the established period, 98 for inappropriate context, i.e., having been carried out during hospitalization, 58 for not being related to the chosen concept, 11 for having a population that did not meet the objectives, 40 for inappropriate study design. Thus, 31 articles were read in their entirety. In the end, 21 articles were included in the review since ten articles were excluded for not having met the inclusion criteria.

The initial selection of studies, from the reading of 381 titles and abstracts by two researchers, resulted in the identification of 31 productions, a process that was validated by a third researcher. This was then followed by a full reading by two researchers independently, which allowed the identification of a final sample of 21 articles. When dissensions occurred, they were analyzed by the authors of this article.

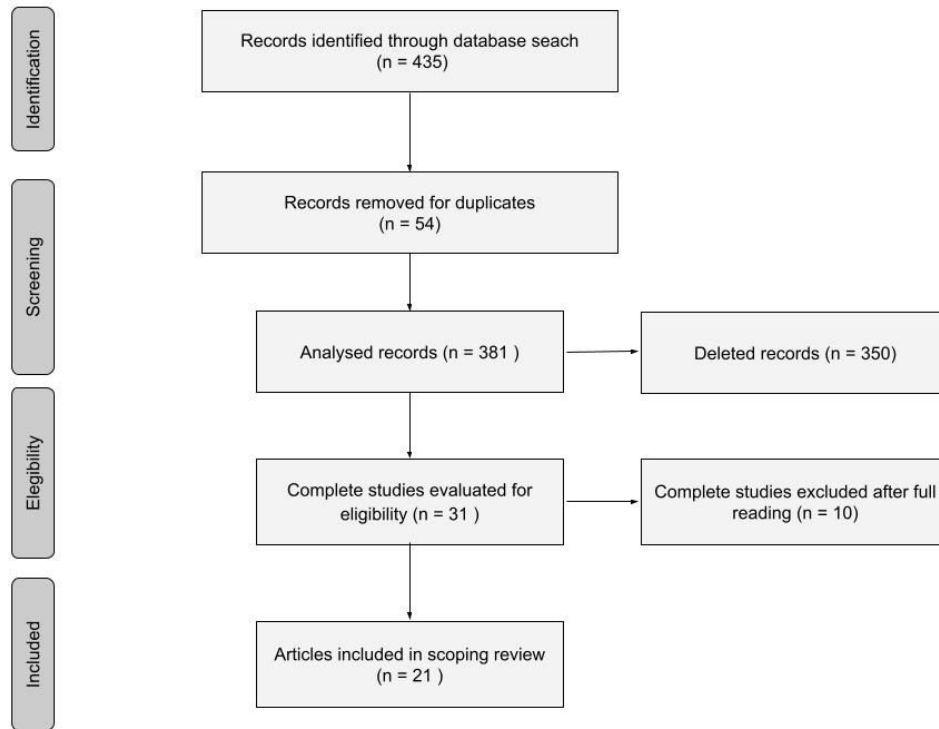


Figure 1. PRISMA¹⁰ (SCR adapted) flow diagram of the study selection process. Belo Horizonte, MG, Brazil, 2020.
Source: Research Data, 2020.

The final sample of articles was subjected to direct content analysis¹³. First, the care actions offered to preterm infants after hospital discharge described in the articles were identified. A code system was developed, supported by Brazelton and Greenspan's six essential needs¹. Next, the coding of the care actions was performed based on the essential needs referential as exemplified in Chart 1. Independent coding was performed by Walty, CMRF, and Henriques, NL with subsequent intercoder validation. This entire process was supported by the MaxQDA software version 18.0¹⁵. The coded segments were validated by Veríssimo, CDM as to the application of the theoretical framework. Veríssimo, MDL is the Brazilian reference researcher for the Children's Essential Needs Model.

RESULTS

The 21 articles included in this review are presented in Chart 2, identifying the objective, type of study, care setting and sample, and the essential needs identified.

The quantitative approach accounted for 62% of the studies (n 13), while the qualitative approach was adopted in 38% (n 8). As for the countries of publication, six^{14,20,21,24,29,33} were carried out in Brazil, three^{19,31,32} in the United States, two^{30,34} in Spain, two^{18,27} in Italy, one³⁵ in Canada, one²³ in Switzerland, one²⁸ in Kenya, one¹⁷ in Denmark, one²⁶ in Romania, one¹⁶ in Colombia, one²² in Australia and Ghana, and one²⁵ in Turkey. All studies from Brazil were of qualitative approach. As for the year of publication, two

studies^{16,17} were published in 2018, nine studies¹⁸⁻²⁶ in 2017, six studies²⁷⁻³² in 2016, one³³ in 2015, two^{14,34} in 2014, and one³⁵ in 2013.

The analyzed articles presented as study **population**: premature newborn (11 articles^{16,18,19,25-28,31-33,34}), their families (nine articles^{14,17,20-23,29,30,35}) and health professionals (one article²⁴). Most studies were conducted in only one care **context**: ten studies^{16,18,19,25-28,31-33} performed at the Follow-up Outpatient Clinic, seven studies^{14,17,20-23,29} home-based study and a study²⁴ carried out in the Basic Health Unit. Of the three articles^{30,34,35} who had more than one care setting, the hospital and the home were common settings in two articles^{30,34} and the outpatient and the hospital in one article³⁵. The studies that had only the hospital as the study site were not included, however, the longitudinal studies that started data collection at the NICU and continued after hospital discharge were included in the sample of this review.

Regarding the **concept** of care actions for preterm infants after hospital discharge, fourteen studies^{14,17,18,20-22,25-31,34} presented care actions that were identified as meeting more than one essential need. Seven studies^{16,17,19,23,24,32,33,35} revealed care actions to meet only one essential need.

Figure 2 shows a map of the number of articles in which actions corresponding to each of the essential needs were identified.

In the analysis process, it was possible to code the care actions identified based on the essential needs, both the actions carried out by family members and those carried out in the health services in the monitoring of children. Chart 3 shows the care actions identified, related to each essential need.

Chart 1. Coding of care actions according to children’s essential needs. Belo Horizonte, MG, Brazil, 2020.

Authors	Design	Excerpt that reveals the caring action	Identified Essential Need
Anelize Helena Sassá et al. ¹⁴ Brazil (2014)	Qualitative study (convergent-assistance)	“Families were concerned about keeping their children protected from disease through vaccination”	Need for physical protection, safety, and regulation
		“Orientation was given about the specificities of the baby born with very low birth weight and the care that could be conducted in a conventional manner, respecting, as much as possible, the family and cultural practices of the context in which the baby was inserted”	Need for supportive communities and cultural continuity

Chart 2. Description of the selected studies with regard to the objective, type of study, care setting, study sample, and essential needs related to the care described. Belo Horizonte, MG, Brazil, 2020.

Article Code	Objective	Type of study	Sample	Context	Essential needs* related to the care described
A01 ¹⁶	To describe the care of premature newborns (PTNBs) in the Kangaroo Program until 12 months of age	Quantitative study (cohort, prospective)	1138 PTNB and/or low weight	Outpatient	NPP
A02 ¹⁷	Exploring parents’ experiences with remote neonatal home care (telehealth) using online communication	Qualitative study	49 parents of PTNB	Home care	NPP
					NSC
					NEI
					NSR
A03 ¹⁸	To evaluate the effects of the “CareToy” intervention on early motor and visual development in premature infants between 3 and 6 months of corrected age	Quantitative study (Randomized Clinical Trial)	41 PTNB	Outpatient	NEI
A04 ¹⁹	Characterize the early therapy services for PTNB and define the factors related to their access	Quantitative study (cross-sectional)	57 PTNB less than 30 weeks old and exiting the NICU	Hospital - Outpatient evaluation	NPP
A05 ²⁰	To analyze aspects of daily life related to exclusive breastfeeding of PTNB after hospital discharge	Qualitative study	14 mothers of PTNB	Home care	NPP
					NSC
					NSR
A06 ²¹	To apprehend the father’s representations concerning the care of his premature child in the first days after hospital discharge	Qualitative study	07 parents of PTNB hospitalized in a NICU	Home care	NPP
					NSC
					NSR

Source: Research data, 2020. *Key. Essential Requirements Indicators: NPP = Need for Physical Protection Security and Regulation; NSC= Need for stable, supportive communities and cultural continuity; NSR = Need for ongoing sustaining relationships; NEI = Needs for experiences that respect individual differences; NAE = Need for developmentally appropriate experiences.

Chart 2. Continued...

Article Code	Objective	Type of study	Sample	Context	Essential needs* related to the care described
A07 ²²	To explore the experiences of parents of preterm infants in caring for their infants with the grandmother as the primary support network	Qualitative study	21 mothers and 09 fathers from PTNB	Home care	NPP
					NSC
A08 ²³	To identify the functionality in preschoolers born full-term and pre-term and relate it to prenatal data, neonatal risk factors, behavioral and socioeconomic factors	Quantitative study (cross-sectional)	Families of 331 pre-school children born prematurely and at term	Home care	NPP
A09 ²⁴	To describe the perception of Primary Care health professionals about the reference and counter-reference in the care of the PTNB, low and/or very low birth weight discharged from the NICU	Qualitative study (exploratory-descriptive)	31 professionals in the Basic Health Units of Joinville/ SC	Basic Health Units	NSC
A10 ²⁵	Observe the effects of family-centered physiotherapy according to the principles of neurodevelopment on the premature infant's mental and motor development	Quantitative study (control case and longitudinal case)	78 PTNB discharged from the NICU	Outpatient	NPP
					NSR
					NAE
A11 ²⁶	Investigate the effects of early intervention on motor and cognitive development of PTNB after hospital discharge	Quantitative study (longitudinal cohort and observational)	1157 PTNB	Outpatient	NPP NAE
A12 ²⁷	To evaluate the effects of the "CareToy" intervention on early motor and visual development in premature infants between 3 and 6 months of corrected age	Quantitative study (Pilot Intervention Study)	20 PTNB	Outpatient	NPP NEI
A13 ²⁸	Establishing the determinants of early preterm growth after hospital discharge in Kitui District Hospital, Kenya	Quantitative study (longitudinal)	112 PTNB	Outpatient	NPP NSR

Source: Research data, 2020. *Key. Essential Requirements Indicators: NPP = Need for Physical Protection Security and Regulation; NSC= Need for stable, supportive communities and cultural continuity; NSR = Need for ongoing sustaining relationships; NEI = Needs for experiences that respect individual differences; NAE = Need for developmentally appropriate experiences.

Chart 2. Continued...

Article Code	Objective	Type of study	Sample	Context	Essential needs* related to the care described
A14 ²⁹	Understanding the mother's interactions with health care professionals from the birth of the preterm infant to the first month after discharge from the hospital	Qualitative study	08 mothers of PTNB	Home care	NPP
					NSC
					NEI
					NSR
A15 ³⁰	To identify the experiences and obstacles during hospitalization and after discharge of fathers and mothers of infants who did or did not participate in an early discharge program	Qualitative study	23 parents of PTNB	Hospital and Home care	NPP
					NSC
A16 ³¹	Determine whether infants of non-English speaking parents received recommended outpatient care for follow-up care for neurodevelopment	Quantitative study	1541 PTNB	Outpatient	NPP NSC
A17 ³²	Describe the epidemiology and treatment of gastroesophageal reflux medication in the first year of life	Quantitative study (retrospective cohort study)	2217 PTNB	Outpatient	NPP
A18 ³³	Describe anthropometric variables of very low-birth-weight rPTNB at follow-up	Quantitative study (observational longitudinal and retrospective)	71 infants discharged from the NICU, weighing less than 1,500 g	Outpatient	NPP
A19 ¹⁴	To describe the Nursing actions implemented in the home context, based on the needs presented by the families of very low birth weight babies	Qualitative study (convergent-assistance)	09 families of PTNB	Home care	NPP
					NSC
A20 ³⁴	To demonstrate that PTNB assisted by home care gain more weight compared to those admitted to the hospital	Quantitative study (cross-sectional)	130 PTNB with a discharge weight of less than 2100g	Hospital and Home care	NPP NSC
A21 ³⁵	To determine maternal and infant predictors for participation in the follow-up program	Quantitative study (longitudinal)	1357 mothers of PTNB	Hospital and Outpatient	NPP

Source: Research data, 2020. *Key. Essential Requirements Indicators: NPP = Need for Physical Protection Security and Regulation; NSC= Need for stable, supportive communities and cultural continuity; NSR = Need for ongoing sustaining relationships; NEI = Needs for experiences that respect individual differences; NAE = Need for developmentally appropriate experiences.

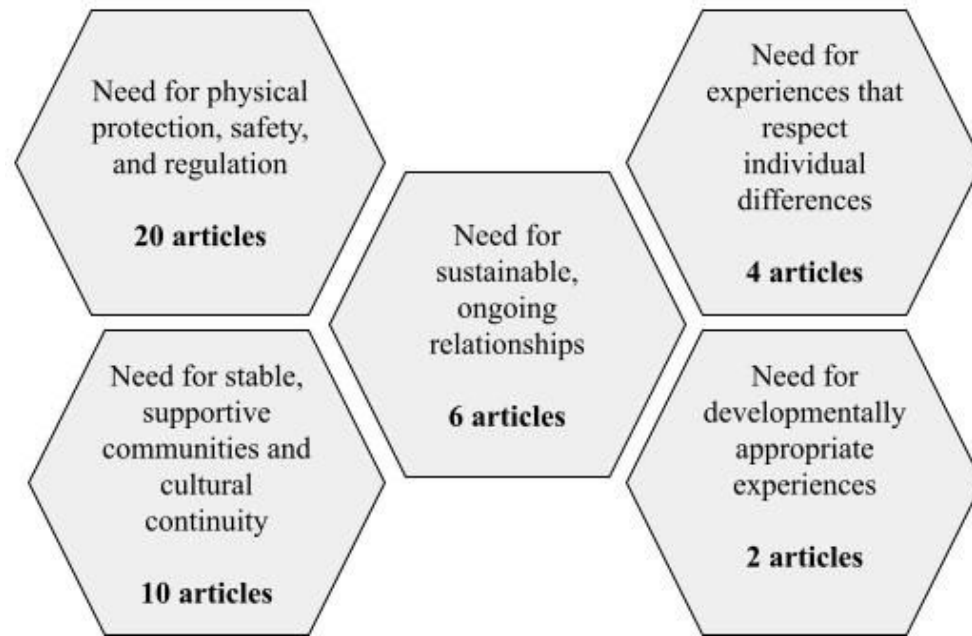


Figure 2. Map of the distribution of the review studies describing actions related to each of the essential needs. Belo Horizonte, MG, Brazil, 2020.

Source: Research Data, 2020.

Chart 3. Identification of care actions and essential needs. Belo Horizonte, MG, Brazil, 2020.

Article Code	Care Actions	Identified Needs*
A01 ¹⁶	Follow-up and evaluation of the vaccination rate, growth profile, and motor and visual development of premature children	NPP
	Stimulation of the Kangaroo Method, favoring breastfeeding and infant thermoregulation	NPP
A02 ¹⁷	Growth and development monitoring by health professionals through the filling out of child's data in applications by parents	NPP
	Telehealth service enabling parents to orient themselves and communicate (via app) with specialists	NSC
	Nursing care action plan based on the individual needs of each child	NEI
	Daily care offered by the parents of premature babies that favors the dyad's physical and emotional contact	NSR
A03 ¹⁸	Monitoring the development of the visual and motor acuity of premature infants	NPP
	Elaboration of a program of activities according to the individual characteristics of each child	NEI
A04 ¹⁹	Monitoring cognitive and motor deficits in the first years of life	NPP
A05 ²⁰	Encouraging the practice of exclusive breastfeeding to meet the nutritional needs of the child	NPP
	Support offered to puerperal women by their mothers, mothers-in-law and sisters are relevant for the care/nursing of the PTNB	NSC
	Body contact between mother and child during breastfeeding	NSR

Source: Research Data, 2020. *Key. Essential Requirements Indicators: NPP = Need for Physical Protection Security and Regulation; NSC= Need for stable, supportive communities and cultural continuity; NSR = Need for ongoing sustaining relationships; NEI = Needs for experiences that respect individual differences; NAE = Need for developmentally appropriate experiences.

Chart 3. Continued...

Article Code	Care Actions	Identified Needs*
A06 ²¹	Teaching and guidance of families, by the nurses, about daily care of their children (changing diapers, bathing, positioning care, colic)	NPP
	Parents' learning from the nurse about their child's care during the hospital stay, increasing their safety to care	NSC
	Participation of the father in domestic chores favoring the bond between mother and child	NSR
	Learning from the nurses about the comfort and coziness of the child, increasing the closeness of the dyad	NSR
A07 ²²	Guidance and intervention of grandmothers of premature babies on exclusive breastfeeding with the use of teas, herbs and complementary feeding right after going home	NPP
	Caring for sick premature infants by grandmothers, in the community, after hospital discharge	NSC
A08 ²³	Systematic follow-up of the children by health services contemplating physical, behavioral and environmental issues	NPP
A09 ²⁴	Hospital visits by primary care health professionals, aiming at the creation of a bond with the family and the greater possibility of a post-discharge follow-up	NSC
A10 ²⁵	Evaluation of motor, cognitive development in the first year of life	NPP
	Teaching families about positioning and motor activities that could favor the neuromotor development of premature infants	NAE
	Physiotherapeutic intervention focused on the family with orientations about holding and care	NSR
A11 ²⁶	Guidelines for family members on the importance of taking their premature children for growth and development monitoring in a follow-up clinic	NPP
	Follow-up of infants born prematurely by physical therapists, in a follow-up clinic, orienting early interventions to favor neuromotor development to be performed at home by the family members	NAE
A12 ²⁷	Monitoring the development of the visual and motor acuity of premature infants	NPP
	Elaboration of a program of activities according to the individual characteristics of each child	NEI
A13 ²⁸	Approach to the family by health professionals and discussion about the child's type of feeding	NPP
	Permanence of full-time mothers with their children after hospital discharge and father's participation in childcare	NSR
A14 ²⁹	Recognition, by the mothers, of the risk and danger signs from the health team's orientations	NPP
	Conduct of health professionals based on protocols and checklists. Need to improve individualized care and actions that can encourage confidence rather than fear of mothers.	NPP
	Exchange of experiences with other mothers about baby care	NSC
	The fact that mothers live with their children at home favors the recognition of their child's individual needs	NEI
	Mothers' search for closeness and strengthening of the bond with their children during hospitalization at the NICU generating maternal authenticity and plenitude	NSR

Source: Research Data, 2020. *Key. Essential Requirements Indicators: NPP = Need for Physical Protection Security and Regulation; NSC= Need for stable, supportive communities and cultural continuity; NSR = Need for ongoing sustaining relationships; NEI = Needs for experiences that respect individual differences; NAE = Need for developmentally appropriate experiences.

Chart 3. Continued...

Article Code	Care Actions	Identified Needs*
A15 ³⁰	Guidance by the nurse on PTNB care at home such as bathing and sleep rhythm	NPP
	Orientation by a nurse about the care of the PTNB at home resulting in safety and tranquility for the parents	NSC
A16 ³¹	Care in the first seven days after discharge	NPP
	Performing and monitoring vaccination status.	NPP
	Post-discharge follow-up, at the outpatient level, favoring adaptation to the language and culture	NSC
A17 ³²	Post-discharge follow-up, at the outpatient level, favoring adaptation to the language and culture	NPP
A18 ³³	Comparison of the child's growth and type of feeding at hospital discharge and at 12 months of age	NPP
	Approach and discuss the child's feeding habits and growth scores with the families during outpatient follow-up	NPP
A19 ¹⁴	Orientation to parents and handing out of explanatory leaflets, carried out by the nurses, about the prevention of diseases and health promotion	NPP
	Home visits by nurses to provide guidance on the care of the premature baby, minimizing the parents' fear and anxiety	NSC
A20 ³⁴	Approach and discussion about the child's type of feeding	NPP
	Distribution of informative booklets to parents by professionals, about weight gain, vaccination, sudden death, sleep	NPP
	Telephone contact, with health professionals, accessible to parents 24 hours/day, to ask questions and receive support for care	NSC
A21 ³⁵	Growth and development follow-up consultations in the outpatient follow-up clinic for high-risk patients leaving the NICU	NPP

Source: Research Data, 2020. *Key. Essential Requirements Indicators: NPP = Need for Physical Protection Security and Regulation; NSC= Need for stable, supportive communities and cultural continuity; NSR = Need for ongoing sustaining relationships; NEI = Needs for experiences that respect individual differences; NAE = Need for developmentally appropriate experiences.

DISCUSSION

Although the studies included in this review have evidenced care actions that can contribute to meeting essential needs, none of them used any reference of needs. The absence of a framework to guide the selection of care can lead to limited plans, instead of being guided by critical thinking and comprehensive care³⁶.

The **need for physical protection, safety, and regulation** can be met by: periodic assessments of newborns allowing early identification of disorders and difficulties, guidance to their families on child growth and development. Environmental care for the protection of children's physical health is fundamental to meeting this need¹. The set of actions presented by the literature that make up this need included: actions promoting motor development^{16,18,19,25,27}, language, cognitive and visual^{16,18,19,25,27}; guidance on daily care at home that promotes growth and development^{17,21,30,32}; guidance to

families regarding danger signs²⁹; the prevention of injuries and infections^{14,31,34}; guidance on the need to follow up on growth and development^{17,19,23,26,27,33,35}.

Care actions favoring physical protection, safety and regulation prevailed as the most present need in this review and this may be related to the health care model predominant in the care of preterm infants after hospital discharge. In PHC services, biologicist care still prevails, focused on the disease and unable to provide care that fully meets the health needs of children³⁷.

It is necessary to recognize, by adopting an integral perspective of care, that the care provided to the prematurely born child and his/her family after hospital discharge must incorporate practices capable of enhancing the production of life and in this construction we must not only meet the biological demands of the premature child, but also consider the existential projects of the families⁴.

One of the strategies to support families is to prepare them for the care of the premature child discharged from the NICU. Such preparation is important because it helps not only to learn about daily care that seeks the physical protection of these children, but also promotes the psychological well-being of parents and generates feelings of security and confidence for home care³⁸. In this context, health professionals act as protagonists by preparing families by offering educational booklets and telephone guidance³⁹, actions also evidenced by the findings of this review.

The ***need for stable, supportive communities and cultural continuity*** is described as one in which communities and cultures provide the context or framework for the other essential needs. It is emphasized that health care professionals and services make up the supportive community¹. Actions that seem to contribute to meeting this need are those related to the continuity of care for premature babies after hospital discharge in health services such as Primary Care Units and Follow-up Outpatient Clinics^{23,31}, care by the family at home ensuring co-responsibility^{20,22}, from the perspective of child health sustainability and also the use of technology as a tool to favor communication between the family and health professionals¹⁷.

The follow-up of preterm infants after hospital discharge may present itself as a care strategy favoring supportive communities, provided that interventions are implemented that meet the unique needs of each family. For this, it is necessary to build welcoming and resolute dialogues that result in the construction of a bond between professionals and the caregivers of the premature infants⁴.

The emphasis on caring actions that result in ***cultural stability and continuity*** in a community was identified in one study²² in which paternal grandmothers are the main caregivers of preterm infants after they are discharged from the hospital. The family universe and its cultural practices, which often manifest themselves as family members' contributions to the care of the premature child, influencing the generations, must be understood and respected, because each family organization elaborates its own conceptions, with unique and special meanings within its community⁴⁰.

A ***supportive, stable and culturally continuous community*** as an essential necessity for the child's development to its potential is still a challenge to be overcome in the life context of premature infants and their families. Professional care actions focused on the biological dimension may be indicative of the need to advance to contemplate the ***sustaining community***.

The ***need for ongoing sustaining relationships*** is important for the development of physical, emotional, social, and intellectual health. Children need sensitive and supportive care to develop skills of safety, empathy, and compassion¹.

In this review, actions were identified in this dimension, namely: actions that favor the family's full-time participation in the care of their premature children during hospitalization and after discharge, at home; family-centered interventions that enable the practice of exclusive breastfeeding.

Breastfeeding involves bringing the mother and the newborn close together, leading to the creation of a bond between them. The physical contact between them during the act of breastfeeding is repeated continuously for a regular period. This intimate, frequent, and prolonged contact results in the formation and strengthening of affection between mother and child. This can generate greater understanding by the woman about the needs of her newborn and favor the experience of motherhood⁴¹.

The permanence and participation of parents of preterm infants in the care of their children during hospitalization in the NICU and preparation for post-discharge can be considered actions that favor attachment between them. Caring for the preterm infant at home demands the undertaking of a daily rhythm and can be better served when performed by an attached caregiver who presents internal availability to care, favoring the fulfillment of the need for sustainable and continuous relationships.

The findings of this review reveal actions present in the health care of premature infants that are conducive to attachment and, therefore, may signal a potential meeting of the need for sustained and ongoing relationships.

The ***need for experiences that respect individual differences*** is related to the ability to recognize the uniqueness of each child from their genetic and hereditary characteristics and the way they act, think and behave socially so that they can be offered individualized care to enjoy their unique potential and develop from their strengths¹.

Professional actions guided by the integrality of care, such as: respect for maternal autonomy and sensibility; recognition of the unique aspects of each family and child according to their individual characteristics, attitudes of recognition of the strengths and potential of their children by the families are findings of this review that can contribute to meeting this need.

To meet this essential need, the integrality of nursing care should contemplate meeting the care demands of children at home in a unique way. To this end, the nurse must offer assistance aimed at promoting the well-being of families in order to meet their individual needs⁴².

Although the need for experiences that respect individual differences is anchored in aspects such as temperament, physical and sensory abilities of children, the care actions identified in the literature to meet this need were found more in studies whose participants were the families and not the preterm infants. This finding may be related to the age range of the preterm infants included in this review. At this stage of infancy, perceptions about their children's physical and behavioral abilities are still from their parents' point of view.

The ***need for developmentally appropriate experiences*** refers to experiences conducive to the development of intelligence, morality, emotional health, and academic skills¹.

In this review, we identified actions that prepare the family for care at home with a view to meeting the care demands promoting neuromotor development of the prematurely born child. In addition to the family, health professionals also appear

as care protagonists to promote developmentally appropriate experiences during interventions in follow-up outpatient clinics.

A meta-analysis with the objective of evaluating the effects of an early intervention program focused on the family, in the promotion of cognitive, motor and language development in the first year of life of children exposed to prematurity and/or social risk, showed that interventions in groups, in an outpatient setting, brought relevant benefits for the development of receptive language of children born prematurely and from low-income families⁴³.

No caregiving actions were identified that were potentially favorable to meeting the need for limits, organization and expectations. Described as one in which, in order to live in society, all children need to learn to respect rules of social coexistence through education. It contemplates the balance of internal and external limits, also enabling the exercise of empathy¹. This result may be related to the fact that socially accepted behavior is expected at the end of early childhood⁴⁴ and not in the period of the preterm infant's life immediately after hospital discharge.

However, it is necessary to consider that, in a perspective of integral care to children's health, it is opportune to approach families about how they intend to educate their children, whether from a perspective based on affection or punishment, so that we can contemplate other dimensions of care to the premature child, not only the biological one. The discussion about parental practices is relevant as a path to be followed for the child's social education. In agreement with the essential needs reference, there is evidence that the authority style favors the development of self-control and autonomy, necessary skills for social coexistence⁴⁵. On the other hand, coercive practices are deleterious to child development and social behavior⁴⁶.

The strengths of this review were: the variety of countries where the original studies were conducted, the different **populations** of preterm infants, family members, and health care professionals; the diversity of qualitative and quantitative approaches; although no mixed-methods studies were identified. The **context** was also diverse, contemplating the different locus of care.

However, some limitations are recognized in this process, as there are studies published in other languages that were not included, and a diversity of studies that probably exist in other indexing bases was not considered. In addition, the model of essential needs of children was developed for children, but it is not specific for those born prematurely.

FINAL CONSIDERATIONS AND CONTRIBUTIONS TO PRACTICE

The results found in this review showed that the care actions contemplate mainly the physical dimension, but when considering integral care, advances in actions are still needed to attend to other dimensions such as the emotional and social. Analyzing the care actions for prematurely born children after they go home, based on the essential needs framework, allowed us to identify

gaps in knowledge that may trigger nursing research, such as studies that discuss care actions to meet the need for establishing limits, organization and expectations due to its particularity in the field of prematurely born children's health.

There is also a need for investment in studies about how family caregivers and health professionals can identify and act in ways that recognize the personality and temperament of each child to provide unique care, meeting the need for experiences that respect their individual differences. It is also necessary to produce evidence on care actions for preterm infants after hospital discharge from the perspective of humanization and comprehensive care so that the essential needs of children are addressed to promote the development of each one of them to their full potential.

We believe that the evidence in this article about the care actions that meet or do not meet the needs of prematurely born children may guide health professionals and managers in the maintenance, implementation and qualification of care directed to the prematurely born child and their family.

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