Social Support Network for Mothers of Premature Newborns in NICUs: a scoping review

Apoio da rede social às mães de recém-nascidos prematuros em UTIN: revisão de escopo

Apoyo de la red social a las madres de recién nacidos prematuros en la UCIN: revisión de alcance

Suely de Fátima Santos Freire Bonfim[I]; Cleide Maria Pontes[I]; Weslla Karla Albuquerque Silva de Paula[I]; Wilson Jorge Correia Pinto de Abreu[II]; Luciana Pedrosa Leal[I]

[I]Universidade Federal de Pernambuco. Recife, PE, Brazil; [II]Escola Superior de Enfermagem do Porto. Porto, Portugal

ABSTRACT
Objective: to map the practices of social support networks for mothers of premature newborns admitted to Neonatal Intensive Care Units (NICUs). **Method:** a scoping review structured according to the methodological guidelines of the Joanna Briggs Institute. Eleven health-related databases were used with relevant descriptors. The search, identification, and evaluation of articles were conducted from February to March 2023, with an update in 2024, to address the research question: what are the social support practices for mothers of premature infants in neonatal intensive care units? **Results:** twenty-six studies were included, highlighting the predominance of emotional, informational, and material support practices provided by family members, friends, and secondary social networks within hospital institutions. **Conclusion:** support practices for mothers, combined with the inclusion of fathers in maternal support groups with multidisciplinary teams and health education practices identified in informational support, contribute to reducing maternal stress during hospitalization.
Descriptors: Nursing; Intensive Care Units, Neonatal; Maternal Behavior; Social Support; Self-Help Groups.

RESUMO
Objetivo: mapear as práticas do apoio da rede social às mães de recém-nascidos prematuros internados na Unidade de Terapia Intensiva Neonatal. **Método:** revisão de escopo, estruturada conforme as diretrizes metodológicas do Instituto Joanna Briggs. Utilizou-se 11 bases de dados com descritores em saúde. A busca, identificação e avaliação dos artigos foram realizadas no período de fevereiro a março de 2023, atualizada em 2024, para responder ao questionamento: quais são as práticas do apoio da rede social às mães de prematuros na unidade de terapia intensiva neonatal? **Resultados:** foram incluídos 26 estudos, que mostram o predomínio das práticas de apoio emocional, informativa e material advindas de familiares, amigos e da rede social secundária, nas instituições hospitalares. **Conclusão:** as práticas de apoio às mães aliadas à inclusão dos pais, nos grupos de mães com a equipe multidisciplinar e as práticas de educação em saúde identificadas no apoio informativo, contribuem para a minimização do estresse materno durante o internamento.
Descritores: Enfermagem; Unidades de Terapia Intensiva Neonatal; Comportamento Materno; Apoio Social; Grupos de Autoajuda.

RESUMEN
Objetivo: mapear prácticas de apoyo de red social a las madres de recién nacidos prematuros ingresados en la Unidad de Cuidados Intensivos Neonatales. **Método:** revisión de alcance, estructurada según los lineamientos metodológicos del Instituto Joanna Briggs. Se utilizaron 11 bases de datos con descriptores de salud. La búsqueda, identificación y evaluación de artículos se realizó de febrero a marzo de 2023, y se actualizó en 2024, con la pregunta: ¿cuáles son las prácticas de apoyo de red social para madres de recién nacidos prematuros en la unidad de cuidados intensivos neonatales? **Resultados:** en 26 estudios se muestra que predominan las prácticas de apoyo emocional, informativa y material brindadas por familiares, amigos y la red social secundaria, en instituciones hospitalarias. **Conclusión:** las prácticas de apoyo a las madres junto con la inclusión de los padres en los grupos de madres, además del equipo multidisciplinario y las prácticas de educación para la salud identificadas en el apoyo informativo, contribuyen a reducir el estrés materno durante la hospitalización.
Descriptores: Enfermería; Unidades de Cuidado Intensivo Neonatal; Conducta Materna; Apoyo Social; Grupos de Autoayuda.

INTRODUCTION

The technological advancements of recent decades, along with improvements in perinatal care for mothers and newborns, have increasingly led to a rise in the population of premature infants in neonatal intensive care units. In this context, premature birth and the subsequent hospitalization of the baby in a NICU represent a significant experience for the mother and her family, often causing distress and suffering due to disruptions in their usual dynamics[1].

The literature describes NICUs as environments where newborns may be subjected to excessive handling by healthcare professionals. Such procedures and stimuli, which are stressful for the newborn in the NICU, generating feelings of anguish for the parents, particularly the mother[2]. However, a mother's participation in her child's care during hospitalization is a personal decision that often depends on the support and encouragement provided by the healthcare team. When choosing to stay with her hospitalized child, the mother experiences a new daily reality characterized by distance from her family and a focus on events involving the newborn[3].

Thus, the work process in a NICU extends beyond specialized care for the newborn requiring prolonged hospitalization; it must also address the mother's needs, aiming to provide care that promotes the well-being of both. This reality underscores the importance of social and professional support for these mothers during their newborn's NICU stay as an essential strategy to meet their needs[4].

Simultaneously, during the perinatal period, women face various stressful situations, such as fatigue, changes in routine, the baby's health needs, and illness, among others. In this context, social support emerges as a crucial protective factor in coping with these challenges. Moreover, a mother's ability to identify available sources of support and know whom to turn to can positively impact her health[4]. In addition to its role as a protective factor, social support is perceived by mothers as primarily coming from the baby's father, followed by grandparents and other family members. Furthermore, spousal support significantly influences maternal well-being, fostering secure mother-infant attachment and enabling responsive caregiving[5].

Thus, the social and professional support network offered to mothers during their newborn's NICU hospitalization should be integral to care strategies[5].

Social networks can be defined as groups of individuals or structures with which a person maintains contact or social ties, potentially providing assistance in times of need. These relationships may originate from primary sources, such as family structures; secondary sources, such as religious organizations or associations; or formal sources, such as healthcare professionals and support groups within hospital institutions[6].

To mitigate the psychological impacts experienced by mothers due to premature birth, interventions aimed at addressing their needs are considered viable strategies to strengthen their coping and resilience during their baby's hospitalization[5]. These interventions can provide support across five dimensions: informational, emotional, self-support, instrumental or material, and physical presence[6-7].

Given this context, this study aimed to map the practices of social support networks for mothers of premature newborns admitted to NICUs.

METHOD

This scoping review was conducted based on the recommendations of the *Joanna Briggs Institute* Review Manual[8] (JBI) and the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews*[9] (PRISMA-ScR) checklist. The protocol was registered on the *Open Science Framework (OSF)* platform under the identifier: https://doi.org/10.17605/OSF.IO/DEUA5.

To formulate the guiding question, the PCC acronym[9] was used: P (Population): mothers of premature newborns; C (Concept): social support network received by mothers; and C (Context): neonatal intensive care unit. Therefore, the research question formulated was: "what are the social network support practices for mothers of premature newborns in NICUs?"

The selection of eligible studies was based on the following inclusion criteria: primary studies employing various methodological designs, theses, dissertations, with no temporal or linguistic restrictions, from both public and private domains, and studies addressing social network support practices for mothers of premature newborns admitted to neonatal intensive care units. The exclusion criteria included letters to the editor, abstracts, conference proceedings, and 13 articles that could not be accessed in full through open or private databases, even after contacting the corresponding author. Duplicate studies were included only once.

Searches were conducted between February and March 2023 and updated during the same months in 2024, with no changes observed in the results. The following databases were accessed: *U.S. National Library of Medicine (PubMed), Cumulative Index to Nursing and Allied Health Literature (CINAHL), Literatura Latino-Americana e do Caribe em Ciências da Saúde* (LILACS), *Web of Science*, EMBASE, *Base de Dados Bibliográfica sobre Cuidados de Salud en Iberoamérica* (CUIDEN), SCIELO and SCOPUS. As a complementary strategy, searches were conducted in the CAPES Thesis and Dissertation Catalog, the *Portal Brasileiro de Acesso Aberto à Informação Científica* (Brazilian

Open Access Portal to Scientific Information) (OASIS-BR), and Google Scholar. Additionally, reference lists of identified articles were reviewed as part of an additional search. Controlled descriptors from the Health Sciences Descriptors (DeCS), Medical Subject Headings (MeSH), Empree, and CINAHL Headings were used, along with keywords and synonyms, combined with the Boolean operators AND and OR. The search strategy summary is represented in Figure 1.

Database	Search strategy syntax:	Total
MEDLINE / PUBMED	("Social Support"[MeSH Terms] OR "Social Support"[All Fields] OR "Social Supports"[All Fields] OR "Social Care" ("infant, premature"[MeSH Terms] OR "Premature Infant"[All Fields] OR "Preterm"[All Fields] OR "Premature"[All Fields] OR "Prematurity"[All Fields]) AND ("intensive care units, neonatal").	156
EMBASE	('social support'/de OR 'social support' OR 'social supports' OR 'social care'/de OR 'social care' OR 'support network' OR 'support networks' OR 'self-help groups'/de OR 'self-help groups' premature OR 'prematurity'/de OR prematurity) AND ('neonatal intensive care unit').	175
SCOPUS	("Social Support" OR "Social Supports" OR "Social Care" OR "support network" OR "support networks" OR "Self-Help Groups" "Support Groups" OR "Support Group" OR "Social Networking" OR "Social Network" OR "Social Networks").	209
Web of Science	("Social Support" OR "Social Supports" OR "Social Care" OR "support network" OR "support networks" OR "Self-Help Groups" OR "Self-Help Group" OR "Self Help Groups").	118
CINAHAL	("Social Support" OR "Social Supports" OR "Social Care" OR "support network" OR "support networks" OR "Self-Help Groups" OR "Self-Help Group" OR "Self Help Groups" OR "Support Groups").	121
LILACS	("Social Support" OR "Social Supports" OR "Social Care" OR "support network" OR "support networks" OR "Self-Help Groups" OR "Self-Help Pretérmino OR Prematuridad) AND ("Neonatal Intensive Care Unit").	23
SciELO	("Social Support" OR "Social Supports" OR "Social Care" OR "support network" OR "support networks" "Bem-Estar Materno" OR "Bienestar Materno" OR "protección materna" OR "bienestar materno") AND ("Premature Infant" OR preterm OR premature").	12
CUIDEN	("Social Support" OR "Social Supports" OR "Social Care" OR "support network" OR "support networks" OR "Self-Help Groups" OR "Self-Help Group "Networking Social" OR "Red OR "Redes Sociales") AND (mothers OR motherhood).	24
Theses and Dissertations Catalog	("Redes de Apoio" OR "grupos de apoio" OR "Rede Social" OR "Redes Sociais") AND Mães AND (Prematuro OR Prematuros OR "Pré-Termo" OR prematuridade) AND ("Cuidados Intensivos" OR "Terapia Intensiva" OR "CTI").	02
OASIS BR	(All fields: "Redes de Apoio" OR "grupos de apoio" OR "Rede Social" OR "Redes Sociais" AND All fields: Mães AND All fields: Prematuro OR Prematuros OR "Pré-Termo" OR prematuridade).	12
Academic Google	("Social Support" OR "support networks" OR "Self-Help Groups" OR "Support Groups" OR "Social Networks") AND (Mothers OR Maternal) AND (Preterm OR Premature OR Prematurity) AND ("Critical Care" OR "intensive care" OR "intensive care units").	99

Figure 1: Search strategy applied to each database: Recife, PE, Brazil, 2024.

The following Health Sciences Descriptors (DeCS) were selected: Maternal Behavior; Neonatal Intensive Care Units; Social Support; Self-Help Groups; Maternal Welfare. In MeSH: - *Maternal Behavior; Neonatal Intensive Care Units; Social Support; Self-Help Groups; Maternal Welfare, respectively.* Keywords were also added: prematurity, maternity, and social networks. Key-words: prematurity, maternity, and social networks.

The study was conducted in three phases: 1) Initially, two databases were searched: MEDLINE (via PubMed) and CINAHL (via EBSCO), aiming to identify the most frequently used keywords and controlled indexing descriptors (strategy represented in Figure 1); 2) the identified keywords and controlled descriptors were combined into a single search strategy, according to the specificities of each selected database/repository; 3) the reference list of each selected study was analyzed by two independent reviewers to include potential additional studies from the references of the studies selected in the previous step.

From the database and repository searches, studies were exported to EndNote software to identify duplicate articles. Subsequently, they were exported to Rayyan® software, developed by the *Qatar Computing Research Institute* (QCRI). In this platform, a new analysis and exclusion of duplicate articles were performed. Initially, titles and abstracts of articles were reviewed, followed by a thorough full-text reading. Study screening was conducted by two reviewers in a blinded process, with disagreements resolved by a third reviewer (researcher).

Review Article
Artigo de Revisão
Artículo de Revisión

Data extraction from selected studies was guided by a form developed by the reviewers, based on the model available in the JBI Manual. Extracted information included authorship, title, year, study type, country, journal, database, and results. Data were processed in a *Microsoft Office Excel®* 2019 spreadsheet and presented using descriptive statistics and narrative synthesis.

Specifically, information regarding social network support practices for mothers was analyzed using a deductive method. Results were grouped into categories anchored in the support dimensions outlined in Sanicola's Social Network Theory and specific literature[6,7]. This theoretical framework addresses the family and considers the familial context in which the individual is embedded[6]. The complexity and depth of studies on the social network of the family and the hospitalized child, as presented in the theory, make it highly applicable in the hospital setting[6,7].

Social network support practices follow the categorization of dimensions[6,7]: emotional support, represented by welcoming the mother and baby, active listening, offering positive comments, congratulating the mother on achieved outcomes, and reaffirming that challenges are part of the process; informational support, represented by verbal information, counseling, guidance on the newborn's health, unit routines, care instructions for the newborn, and breastfeeding practices; physical presence support, understood as the need for someone to be present to provide companionship, often from a spouse or other family members; material or instrumental support, which involves material assistance such as financial help, receiving benefits, or transportation aid to facilitate parental mobility; self-support, identified as encouraging the mother's motivation to engage in the baby's care under the supervision of a healthcare professional acting as a supporter. This also includes self-care support[7].

Additional categories were included to encompass the range of support practices identified in the findings of this review[7]. These were categorized as: religious support, represented by reliance on religiosity and spirituality to internally manage parental emotions and better endure the crisis situation, accounting for 3.8% of the selected studies; and parental support, referring to assistance provided to parents for exercising parenthood through support group meetings with guidance on baby care[10].

Since this is a scoping review study, it was not necessary to submit the research protocol for approval by the Research Ethics Committee (CEP), while ensuring proper attribution to the authors of the selected documents.

RESULTS

According to the search strategy applied to the databases, a total of 951 studies were identified. After processing through the EndNote and Rayyan software platforms, 611 duplicates were found, leaving 340 studies for title and abstract screening. Following the application of eligibility criteria, 301 studies were excluded as they did not address the research question. The description of searches and study selection from each database is represented in Figure 2.
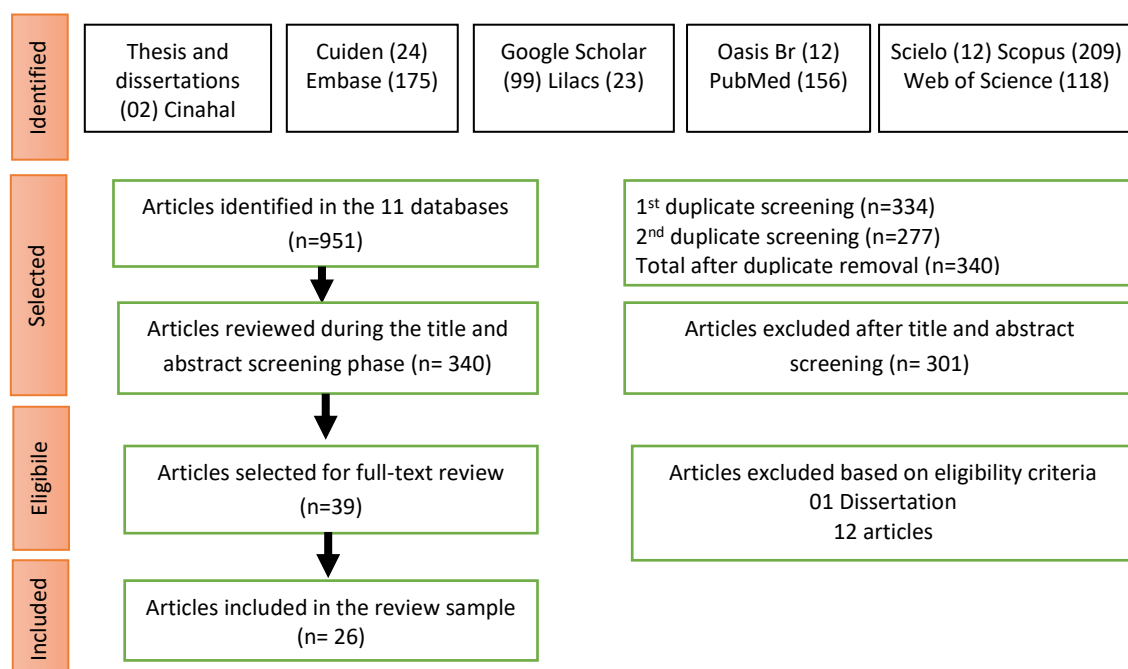

Figure 2: Flowchart adapted from PRISMA-ScR for study selection and inclusion. Recife, PE, Brazil, 2024.

Review Article
Artigo de Revisão
Artículo de Revisión

A total of 39 studies were selected for full-text review. However, 13 publications did not meet the eligibility criteria, resulting in a final sample of 26 articles. Figures 3 and 4 presents the publications identified according to author name, year and country of publication, study type, and results.

Author/Year/ Country	Data Source/ Study Type	Results Supportive Dimensions and Practices
Affleck et al. [11] 1989 United States	*Child Development* Cohort study	Emotional Support – Welcoming the mother and baby, active listening, positive comments. Informational Support – Information about the baby's health and service regulations.
Ahmadi et al. [12] 2016 Iran	*Journal Of Client-Centered Nursing Care* Comparative-Descriptive Study	Informational Support – Information about the baby's health, service regulations, counseling, and guidance on baby care.
Akkoyun; Arslan[12] 2019 Turkey	*Scandinavian Journal of Caring Sciences* Cross-Sectional Descriptive Study	Emotional Support – Welcoming the mother and baby, active listening, positive comments. Informational Support – Information about the baby's health, service regulations, and counseling.
AL-Maghaireh et al.[14] 2020 Jordan	*Journal of Neonatal Nursing* A randomized clinical trial	Emotional Support – Welcoming the mother and baby, active listening, positive comments; Informational Support – Information about the baby's health. Physical Presence Support – Presence of the spouse, companionship of relatives, guidance on baby care.
E-5 Viera et al.[15] 2010 Brazil	*Revista Eletrônica de Enfermagem* Qualitative Descriptive Study	Emotional Support – Welcoming the mother and baby, active listening, positive comments. Religious Support – Spiritual assistance to cope with stressful situations.
Boukydis[16] 2000 United States	*Children's Health Care* Qualitative Action-Research Study	Emotional Support – Welcoming the mother and baby, active listening, positive comments Informational Support – In mother support groups with the inclusion of veteran parents.
Bracht et al.[17] 2013	*Advances in Neonatal Care* Qualitative Study	Emotional Support – Welcoming with active listening, positive comments. Informational Support – Information about the baby's health, service regulations, counseling, and guidance on baby care.
Cabral[18] 2005 Brazil	Federal University of Pernambuco Health Journal Qualitative Action-Research Study	Emotional Support – Welcoming with active listening, positive comments. Informational Support – Guidance for parents on baby care, extended to family members.
Fróes et al.[19] 2020 Brazil	*Revista Gaúcha de Enfermagem* Cross-Sectional Study	Emotional Support – Welcoming with active listening, positive comments. Informational Support – Information about the baby's health, service regulations, counseling, extended to family members.
Coppola et al.[20] 2013 Italy	*The Journal of Maternal-Fetal & Neonatal Medicine* Cohort study	Emotional Support – Welcoming with active listening, positive comments Informational Support – Offering advice; guidance for parents and family members on newborn care.
Dantas et al.[21] 2015 Brazil	*Acta Colombiana de Psicología*Cross-Sectional Study	Emotional Support – Welcoming the mother and baby, active listening, positive comments. Informational Support – Information about the baby's health, service regulations, and counseling.
Goral; Geçkil[22] 2022 Turkey	*Nursing Practice Today* Quasi-Experimental Study	Emotional Support – Welcoming the mother and baby, active listening, positive comments. Informational Support – Information about the baby's health, service regulations, and counseling
Rafael-Gutiérrez et al.[23] 2020 Spain	*The Turkish Journal of Pediatrics* Quasi-Experimental Study	Emotional Support – Welcoming the mother and baby, active listening, positive comments. Informational Support – Information about the baby's health, service regulations, and counseling. and mother group meetings with the inclusion of veteran parents.
Hall et al.[24] 2015 United States	*Journal of Perinatology* Narrative Review	Emotional Support – Welcoming with active listening, positive comments. Informational Support – Information about the baby's health, service regulations, and counseling.
Hemle Jerntorp; Sivberg; Lundqvist[25] 2022 Sweden	*Scandinavian Journal of Caring Sciences* Qualitative Study	Emotional Support – Welcoming with active listening, positive comments. Informational Support – Information about the baby's health, service regulations, and counseling.

Figure 3: Presentation of studies with data about emotional, religious and informative support. Recife, PE, Brazil, 2024.

Review Article
Artigo de Revisão
Artículo de Revisión

Bonfim SFS, Pontes CM, Paula WKAS, Abreu WJCP, Leal LP
Social support for mothers of premature infants

DOI: https://doi.org/10.12957/reuerj.2024.84445

Leahy-Warren *et al.*[26] 2020 Ireland	*BMC Pregnancy and Childbirth* Correlational Cross-Sectional Study	Emotional Support – Welcoming with active listening, positive comments. Physical Presence Support – Being present, providing companionship, extended visits to siblings and grandparents. Informational Support – Information about the baby's health, service regulations, and counseling.
Liu *et al.*[27] 2010 China	*Journal of Clinical Nursing* Quasi-experimental study	Emotional Support – Welcoming with active listening, positive comments. Physical Presence Support – Being present, providing companionship, extended visits to siblings and grandparents. Informational Support – Information about the baby's health and service regulations. Self-Support – Motivation of the mother in baby care, supervised by the healthcare professional as a supporter.
Maleki M *et al.*[28] 2022 England	*Women's Health* Systematic review and meta-analyses	Emotional Support – Welcoming the mother and baby, active listening, and positive comments. Informational Support – In mother group meetings with the inclusion of veteran parents.
Månsson *et al.*[29] 2019 Sweden	*Scandinavian Journal of Caring Sciences* Quasi-Experimental Study	Emotional Support – Welcoming the mother and baby, active listening, positive comments. Informational Support – Information about the baby's health, service regulations, and counseling. Parental Support – Support for parents in exercising parenthood through support groups with guidance on baby care. Physical Presence Support – Group meetings with relaxation techniques.
Minde et al.[30] 1980 Canada	*Journal of Pediatrics* Intervention study	Emotional Support – Welcoming the mother and baby, active listening, and positive comments. Informational Support – Information about the baby's health, service regulations, counseling, and educational practices in mother groups with the inclusion of veteran parents.
Mok; Leung[31] 2006 China	*Journal of Clinical Nursing* Descriptive Study	Emotional Support – Welcoming the mother and baby, active listening, and positive comments. Informational Support – Information about the baby's health, service regulations, counseling, and educational practices in mother groups with the inclusion of parents in daily baby care.
Rajabzadeh[32] 2020 Iran	*Medical - Surgical Nursing Journal* Quasi-Experimental Study	Emotional Support – Welcoming the mother and baby, active listening, and positive comments. Informational Support – Information about the baby's health, service regulations, counseling, and educational practices in mother groups with the inclusion of parents in daily baby care.
Ramos[33] 2012 Brazil	Doctoral Thesis in Psychology, Federal University of Espírito Santo Intervention study	Emotional Support – Welcoming the mother and baby, active listening, and positive comments. Informational Support – Information about the baby's health, service regulations, counseling, and educational practices in mother groups with the inclusion of parents in daily baby care. Physical Presence Support – Being present, providing companionship, extended visits to siblings and grandparents.
Sabino[34] 2020 Brazil	Master's Dissertation in Public Health, Fiocruz Qualitative and Exploratory Study	Emotional Support – Welcoming the mother and baby, active listening, and positive comments. Material Support – Financial assistance from the family. Informational Support – Mother group meetings with the inclusion of veteran parents, experience sharing, and use of digital groups.
Taheri *et al.* [35] 2019 Iran	*Advances in Nursing & Midwifery* Quasi-Experimental Before-and-After Study	Emotional Support – Welcoming the mother and baby by the family with active listening and positive comments. Informational Support – Educational practices in mother group meetings with the inclusion of parents in daily baby care. Physical Presence Support – Leisure activities with singing and music.
Guimarães; Melo[36] 2011 Brazil	*Revista Escola Anna Nery* Prospective Quantitative Study	Emotional Support – Welcoming with active listening, positive comments. Informational Support – Information about the baby's health, service regulations, and counseling. Material Support – Financial assistance from the family.

Figure 4: Presentation of studies with data about emotional, physical presence, informative, parental, material support and self-support. Recife, PE, Brazil, 2024.

Regarding the country of origin of the publications, twelve were conducted in Brazil, three in the United States and Iran, two in Canada, two in Turkey and China, while Sweden, Spain, Italy, Ireland, and Jordan each had one study.

In terms of publication year, three studies were found between 1980 and 2000; four between 2001 and 2011; and the majority, totaling 19 studies, were published between 2012 and 2022. As for study design, most were qualitative in nature, represented by seven publications. Five were quasi-experimental, four were cohort studies, four were cross-sectional studies, and two were descriptive studies. The remaining studies included one randomized controlled trial, one systematic review, one narrative review, and one case-control study.

Regarding social support practices for mothers of newborns admitted to NICUs, the primary network appeared in 35% of the studies. This includes support received from family, friends, and neighbors. Among the support practices identified in this context, **emotional** support[15,16,18,24-29] stood out. Physical presence support[14,26,27,29,33], understood as the need for someone to be present to provide companionship, often from a spouse or other family members, and **material** support[34,36] were present in 19% and 7.7% of the studies, respectively. **Religious support**[15] accounted for 3.8% of the selected studies.

In the context of secondary support networks, studies highlighted institutional (formalized) network support such as parent support groups, which appeared in 65% of the studies. Thus, in examining the types of support received by this population, all 26 studies (100%) identified support in the following dimensions: emotional[11-26], followed by informational[11-14,16-25,27-33,35,36]. Parental support[29] was also found in 3.8% of the studies. Similarly, self-support[27] appeared in only one study (3.8%).

DISCUSSION

The analysis of the selected studies revealed that the existing practices within the social support network for mothers of premature newborns in neonatal intensive care units (NICUs) originated from both primary and secondary social networks. The global scope of the studies, based on their diverse country origins, is reflected in the results of some studies, which highlight support practices across various dimensions, customs, and cultural contexts. Regarding the publication period, there was a higher concentration of studies starting from 2012, indicating a growing interest in the topic of social networks over the past decades[5,7].

It is worth noting the lower prevalence of studies focusing on primary (or informal) support networks, which were evident in 35% of the studies. Although the literature emphasizes the significant role of primary support networks, represented by family, the findings indicate a greater involvement of secondary networks, represented by hospital institutions. This may have been influenced by the focus on identifying support practices for mothers of newborns admitted to NICUs. Nevertheless, emotional support remained the predominant dimension across both social networks.

According to social network theory, primary network support is represented by family, friends, and neighbors[6]. The importance of support at this moment in the parents' lives is fundamental, as it acknowledges that the birth of a premature baby and their hospitalization in the Neonatal Intensive Care Unit (NICU) directly impacts the family's functional dynamics, characterized by feelings of anguish and suffering for the parents[1,3,7]. From this perspective, among the studies that highlight the family support network's significant role in coping with the hospitalization of premature newborns, emotional support was the most frequently identified type, followed by material and religious support. In terms of the composition of support networks, kinship ties play an important role and are particularly valued for their competence in providing care to their members. This competence develops through proximity and manifests when needs arise, such as illness or other emergency situations[6].

Corroborating these findings, a study aimed at investigating the association between social support, coping strategies, and hospitalization duration for mothers of NICU infants showed that family members, particularly fathers, are among the key supporters. Fathers provide emotional support, while family members ensure material support for mothers of babies with shorter hospital stays and offer greater emotional support to mothers whose babies experience longer hospitalization periods[5].

Regarding support provided to parents for exercising parenthood, this was identified through support group meetings that offered guidance on baby care[29]. It is understood that the alteration of parental roles was identified as the main source of stress for parents of newborns admitted to NICUs in various countries. This is attributed to parents feeling incapable of assuming their roles with their hospitalized child, leading to feelings of frustration and stress[38]. The concern regarding the exercise of parenthood amidst a range of emotions makes parents feel more insecure[38].

Regarding the identified material support, it refers to assistance with household tasks, taking children to health centers, meal preparation, and financial aid[37]. Within social networks, this type of support is considered a highly significant function[9], often provided by family members[37]. Concerning religiosity, also highlighted in the studies, it is observed that families seek strength through faith in God and prayer to alleviate the suffering experienced during the hospitalization of their premature child in the NICU[40]. Moreover, in coping with the hospitalization of premature infants, religious practices have been discussed as a protective factor in adverse and uncontrollable situations, fostering adaptive responses in the challenging context of hospitalization[34].

The challenges faced by parents and family members are considered highly complex. A study conducted in southern Brazil revealed that parents found it very stressful to leave their other children to accompany the hospitalization of the newborn[41]. In this context, many mothers reported experiencing high levels of stress during their babies' stay in the NICU, frequently describing it as severe stress[41,42].

Stressful situations can lead to the development of post-traumatic stress disorder (PTSD) symptoms in these mothers. National and international studies have shown PTSD prevalence rates ranging from 9% to 30% among women whose children were hospitalized in the NICU[42,43]. In this context, primary support networks, especially family networks, have significant potential to mitigate these problems. The effect of the support received by an individual can have psychological consequences, fostering motivation, encouragement, and hope, resulting in a state of well-being and security[9].

In secondary support network practices, represented by institutional support networks, support groups for mothers and fathers play a predominant role in providing assistance to mothers of premature newborns admitted to neonatal units, as demonstrated in all studies. From the perspective of social network action, offering support involves sharing responsibility, creating an expectation for problem resolution that is spontaneously redistributed among network members, resulting in mutual co-responsibility[9].

The most commonly identified institutional support practices correspond to the dimension of emotional support[11-26]. The presence of a strong emotional support network. whether for listening, venting, offering advice, showing affection, or even assisting with daily tasks, was widely reported and appeared in all studies. It was observed that the support provided by healthcare teams, family, and close friends to the parents of the baby represents a potential resource for minimizing stressors in this context[5,45].

The practice of health education aimed at mothers of premature newborns hospitalized in neonatal units was primarily evidenced through guidance and parental involvement in the care of the premature infant during hospitalization. These practices occur both within the NICU and during meetings held in mother support groups within the institution. Such practices are categorized under the dimension of informational support, described in 50% of the selected studies[11,12,16-18,20,22,23,25,28,30-32,35]. This type of support emphasizes providing advice and assistance to parents, facilitating problem-solving during hospitalization, and offering daily updates on the baby's health status[45]. It also includes verbal information about unit routines, guidance on baby care, and breastfeeding practices.

In research involving NICU specialist nurses, they were identified as key agents in implementing best practices for newborn care. Their qualification was directly linked to ongoing in-service education and the existence of specific protocols that emphasize the importance of extended care to the family unit, enabling their participation in supporting mothers in the NICU[46]. Thus, the healthcare team within the hospital institution represents one of the most important support networks for parents[5].

Furthermore, it has been demonstrated that the negative feelings experienced from the baby's hospitalization to discharge tend to diminish as parents are gradually involved in the baby's care routine. Providing clear and objective information helps parents feel more informed and confident. In this way, the healthcare team serves as a continuous source of social support and plays a crucial role in health education practices[47].

Among the practices identified is the strategy of involving veteran parents as members of these hospital support groups - parents who have previously experienced the hospitalization of a premature child in the NICU. These parents participate voluntarily, sharing knowledge and experiences with new parents. This practice has shown a positive effect on the adaptation and coping of mothers and fathers of premature infants in the NICU context, as they share similar emotions and experiences[33-34]. In the findings of this study, self-support emerged as a dimension, cited in one study[27]. It is characterized by the motivation and commitment of parents to engage in the care and attention of their child, representing support for themselves[10].

Review Article
Artigo de Revisão
Artículo de Revisión

In the hospital setting, the formation of new support networks becomes evident as family members interact with other companions, creating bonds of friendship and mutual cooperation. A relationship of solidarity is established, where individuals comfort one another based on shared experiences. In this sense, they become part of each other's support network, facilitating the coping process during their children's hospitalization[48]. Another practice observed in this review is the use of digital groups as an auxiliary form of support, mentioned in one study[34]. These groups provide a platform for parents to voice their concerns, share their experiences, and discuss how their babies overcame prematurity[23,34].

Study limitations

The limitations of this study may be related to the possibility that, despite conducting a comprehensive literature review, relevant studies available in other information sources may have been excluded from the proposed synthesis.

CONCLUSION

The synthesis of the studies selected in this review highlighted the fundamental role played by primary and secondary social networks in supporting mothers during the hospitalization of premature newborns. Emotional support practices stood out, particularly welcoming the mother and baby, active listening, offering positive comments, and reaffirming that challenges are part of the process. In terms of informational support, counseling, information about the newborn's health and unit routines, guidance on newborn care, and breastfeeding practices were emphasized. These practices are regarded as critical for providing balance and security to mothers during this vulnerable period.

It is inferred that material support from family, friends, and neighbors, combined with the support of secondary social networks formed within hospital institutions—such as support groups for parents of premature infants—is highly valuable for minimizing the stressful situations faced by mothers and fathers in the NICU. Health education practices identified within informational support, particularly in parent support groups within institutions, emerge as an important tool for providing guidance on baby care. These practices integrate parents into the continuous care process and include the participation of veteran parents to share experiences with new parents. Such strategies can make parents feel more confident and involved in the caregiving process.

The potential implications of this study are linked to the healthcare team's recognition of the importance of social network support for mothers, combined with the strengthening of existing institutional support groups. This recognition could mitigate the harmful effects of stress experienced by mothers of premature infants, promoting their physical and emotional well-being.

REFERENCES

1. Sociedade Brasileira dos Enfermeiros Pediatras. Cuidado integral ao recém-nascido pré-termo e à família [Internet]. São Paulo: Sociedade Brasileira dos Enfermeiros Pediatras; 2021 [cited 2023 Feb 06]. Available from: https://journal.sobep.org.br/wp-content/uploads/2021/10/Livro-cuidado-SOBEP-2.x19092.pdf#page=53.

2. Rotando J, Tedesco RP. Prevalência de TEPT em mães de Prematuros internados em UTIN: atualização. Femina. 2018 [cited 2023 Feb 06]; 46(1):59-65. Available from: https://www.febrasgo.org.br/pt/femina/item/476-femina-revista-femina-2018-vol-46-n-1#dflip-flipbookContainer/17/.

3. Cossul, MU. Experiência materna durante a internação do filho na Unidade de Terapia Intensiva Neonatal: repercussões no estabelecimento do vínculo afetivo e na parentalidade [Dissertação de Mestrado]. Brasília: Universidade de Brasília; 2021 [cited 2023 Feb 06]. Available from: http://repositorio.unb.br/handle/10482/43281.

4. Marciano RP, Evangelista PG, Amaral WN. Grupo de mães em UTI neonatal: um espaço de escuta e intervenção precoce em psicanálise. Rev. SBPH. 2019 [cited 2023 Feb 06]; 22(2):48-67. Available from: https://pepsic.bvsalud.org/pdf/rsbph/v22n2/v22n2a04.pdf.

5. Montagner CD, Arenales NG, Rodrigues OMPR. Mães de bebês em UTIN: rede de apoio e estratégias de enfrentamento. Fractal, Rev Psicol. 2022 [cited 2024 Feb 07]; 34:e28423. DOI: https://doi.org/10.22409/1984-0292/2022/v34/28423.

6. Sanicola, L. As dinâmicas de rede e o trabalho social. Napoli: Liguori Editore; 2015.

7. Sousa AM, Fracolli LA, Zoboli ELCP. Práticas familiares relacionadas à manutenção da amamentação: revisão da literatura e metassíntese. Rev Panam Salud Publica. 2013 [cited 2023 Feb 24]; 34(2):127–34. Available from: https://www.scielosp.org/pdf/rpsp/v34n2/08.pdf.

8. Aromataris E, Munn Z (Editors). JBI Manual for Evidence Synthesis. JBI; 2020 [cited 2023 Feb 24]. DOI: https://doi.org/10.46658/JBIMES-20-01.

9. Tricco AC, Lillie E, Zarin W, O´Brien KK, Colquhoun H, Levac D, et al. PRISMA Extension for scoping reviews (PRISMA-ScR): checklist and explanation. Ann Intern Med. 2018 [cited 2024 Feb 07]; 169(7):467-73. DOI: https://doi.org/10.7326/M18-0850.

10. Morais R, Souza T, Oliveira I, Moraes J. Structure of the social network of mothers/caregivers of hospitalized children. Cogitare Enferm. 2018 [cited 2023 Feb 23]; 23(1):e50456. DOI: https://doi.org/10.5380/ce.v23i1.50456.

11. Affleck G, Tennen H, Rowe J, Roscher B, Walker L. Effects of formal support on mothers' adaptation to the hospital-to-home transition of high-risk infants: the benefits and costs of helping. Child Dev. 1989 [cited 2023 Feb 03]; 60(2):488-501. DOI: https://doi.org/10.1111/j.1467-8624.1989.tb02730.x.

12. Ahmadi Z, Joz Mohtashami M, Seyyed Fatemi N, Haghani H. Comparing the social support which fathers and mothers of preterm infants receive in the neonatal intensive care units. J Client-Center Nurs Care. 2016 [cited 2023 Mar 25]; 2(2):83-8. DOI: https://doi.org/10.32598/jccnc.2.2.83.

13. Akkoyun S, Tas Arslan F. Investigation of stress and nursing support in mothers of preterm infants in neonatal intensive care units. Scand J Caring Sci. 2019 [cited 2023 Feb 23]; 33(2):351-8. DOI: https://doi.org/10.1111/scs.12630.

14. Al-Maghaireh DF, Khalaf IA, Abdullah KL, Chan CM, Basyoun NR, Kawafha MM. The effect of an emotional support training program on acute stress disorder among mothers of preterm infants hospitalized in neonatal intensive care units. J Neonatal Nurs. 2020 [cited 2023 Feb 20]; 26(5):273–7. DOI: https://doi.org/10.1016/j.jnn.2020.06.003.

15. Viera CS, Mello DF, Oliveira BRG, Furtado MCC. Rede e apoio social familiar no seguimento do recém-nascido pré-termo e baixo peso ao nascer. Rev. Eletr. Enferm. 2010 [cited 2024 Feb 07]; 12(1):11-9. DOI: https://doi.org/10.5216/ree.v12i1.9487.

16. Boukydis C. Support services and peer support for parents of at-risk infants: an international perspective. Child Health Care. 2010 [cited 2023 Feb 23]; 29(2000):129–45. DOI: https://doi.org/10.1207/S15326888CHC2902_5.

17. Bracht M, O'Leary L, Lee SK, O'Brien K. Implementing family-integrated care in the NICU: a parent education and support program. Adv Neonatal Care. 2013 [cited 2024 Mar 20]; 13(2):115–26. DOI: https://doi.org/10.1097/ANC.0b013e318285fb5b.

18. Cabral VBC. Grupo de apoio para os pais de neonatos de risco: abordagem transdiciplinar com a famílias na Unidade de Terapia Intensiva Neonatal [Dissertação de Mestrado]. Recife: Universidade Federal de Pernambuco; 2005 [cited 2023 Feb 01]. Available from: https://repositorio.ufpe.br/handle/123456789/9814.

19. Fróes GF, Mendes ENW, Pedroza GA, Cunha MLC. Stress experienced by mothers of preterm newborns in a neonatal intensive care unit. Rev Gaúcha Enferm. 2020 [cited 2023 Mar 14]; 41(spe):e20190145. DOI: https://doi.org/10.1590/1983-1447.2020.20190145.

20. Coppola G, Cassibba R, Bosco A, Papagna S. In search of social support in the NICU: features, benefits and antecedents of parents' tendency to share with others the premature birth of their baby. J Matern Fetal Neonatal Med. 2013 [cited 2023 Feb 23]; 26(17):1737-41. DOI: https://doi.org/10.3109/14767058.2013.798281.

21. Dantas MMC, Araújo PCB, Revorêdo LS, Pereira HG, Maia EMC. Madres de recién nacidos prematuros y a término hospitalizados: evaluación del apoyo social y de la sintomatología ansiógena. Acta Colomb de Psic. 2015 [cited 2023 Feb 23]; 18:(2):129–38. DOI: https://doi.org/10.14718/acp.2015.18.2.11.

22. Goral E, Geçkil E. The effect of a comprehensive support program on the stress level of mothers in a neonatal intensive care unit. Nurs Pract Today. 2021 [cited 2023 Feb 24]; 9(1):54-61. DOI: https://doi.org/10.18502/npt.v9i1.7331.

23. Rafael-Gutiérrez SS, García PE, Prellezo AS, Paulí LR, Del-Castillo BL, Sánchez RB. Emotional support for parents with premature children admitted to a neonatal intensive care unit: a qualitative phenomenological study. Turk J Pediatr. 2020 [cited 2023 Feb 25]; 62(3):436-49. DOI: https://doi.org/10.24953/turkjped.2020.03.011.

24. Hall SL, Ryan DJ, Beatty J, Grubbs L. Recommendations for peer-to-peer support for NICU parents. J Perinatol. 2015 [cited 2023 Feb 24]; 35(Suppl 1):S9-13. DOI: https://doi.org/10.1038/jp.2015.143.

25. Hemle Jerntorp S, Sivberg B, Lundqvist P. Fathers' lived experiences of caring for their preterm infant at the neonatal unit and in neonatal home care after the introduction of a parental support programme: a phenomenological study. Scand J Caring Sci. 2021 [cited 2023 Feb 24]; 35(4):1143-51. DOI: https://doi.org/10.1111/scs.12930.

26. Leahy-Warren P, Coleman C, Bradley R, Mulcahy H. The experiences of mothers with preterm infants within the first-year post discharge from NICU: social support, attachment and level of depressive symptoms. BMC Pregnancy Childbirth. 2020 [cited 2023 Feb 26]; 20(1):260. DOI: https://doi.org/10.1186/s12884-020-02956-2.

27. Liu CH, Chao YH, Huang CM, Wei FC, Chien LY. Effectiveness of applying empowerment strategies when establishing a support group for parents of preterm infants. J Clin Nurs. 2010 [cited 2023 Feb 27]; 19(11-12):1729-37. DOI: https://doi.org/10.1111/j.1365-2702.2009.03082.x.

28. Maleki M, Mardani A, Harding C, Basirinezhad MH, Vaismoradi M. Nurses' strategies to provide emotional and practical support to the mothers of preterm infants in the neonatal intensive care unit: A systematic review and meta-analysis. Womens Health (Lond). 2022 [cited 2023 Feb 27]; 18:17455057221104674. DOI: https://doi.org/10.1177/17455057221104674.

29. Månsson C, Sivberg B, Selander B, Lundqvist P. The impact of an individualised neonatal parent support programme on parental stress: a quasi-experimental study. Scand J Caring Sci. 2019 [cited 2023 Feb 27]; 33(3):677-87. DOI: https://doi.org/10.1111/scs.12663.

30. Minde K, Shosenberg N, Marton P, Thompson J, Ripley J, Burns S. Self-help groups in a premature nursery-a controlled evaluation. J Pediatr. 1980 [cited 2023 Feb 28]; 96(5):933-40. DOI: https://doi.org/10.1016/s0022-3476(80)80586-5.

31. Mok E, Leung SF. Nurses as providers of support for mothers of premature infants. J Clin Nurs. 2006 [cited 2023 Feb 22]; 15(6):726-34. DOI: https://doi.org/10.1111/j.1365-2702.2006.01359.x.

32. Rajabzadeh Z, Moudi Z, Abbasi A, Aliabad GM. The effect of family-centered educational supportive intervention on parental stress of premature infants hospitalized in the NICU. Med-Surg Nursi Jour. 2020 [cited 2023 Feb 24]; 9(3):1–7. DOI: Available from: https://brieflands.com/articles/msnj-111847.

33. Ramos FP. Uma proposta de análise do coping no contexto de grupo de mães de bebês prematuros e com baixo peso na unidade de terapia intensiva neonatal [Doctoral dissertation]. Vitória: Universidade Federal do Espírito Santo; 2012 [cited 2023 Feb 24]. Available from: http://repositorio.ufes.br/handle/10/3134.

Review Article
Artigo de Revisão
Artículo de Revisión

34. Sabino V. #DaUTINeoParaAVida: interação entre profissionais de saúde e mães de bebês da UTI neonatal mediada pelas redes sociais digitais [Dissertação de Mestrado]. Rio de Janeiro: Fundação Oswaldo Cruz; 2020 [cited 2023 Feb 24]. Available from: https://www.arca.fiocruz.br/handle/icict/47322.

35. Taheri M, Nikfarid L, Shirinabadi Farahani A, Shakeri N. O efeito de um programa de intervenção de apoio de grupos de pares sobre as tensões de mães com neonatos prematuros internados em unidades de terapia intensiva em Babol, Irã. Adv Nurs Obstetrícia 2018 [cited 2023 Mar 22];28(1):15-9. Disponível em: https://journals.sbmu.ac.ir/en-jnm/article/view/18121

36. Guimarães EC, Melo ECP. Características do apoio social associados à prematuridade em uma população de puérperas de baixa renda. Esc Anna Nery. 2011 [cited 2023 Feb 24]; 15(1):54–61. DOI: http://dx.doi.org/10.1590/S1414-81452011000100008.

37. Almeida CR, Carvalho ES, Passos SS, Miranda FP, Santos LM. Experiências maternas na primeira semana de hospitalização do prematuro em cuidado intensivo. Rev Enferm UFSM. 2020 [cited 2024 Mar 05]; 10:e75. DOI: https://doi.org/10.5902/2179769242072.

38. Tilahun B D. Parental stress and associated factors among parents of preterm neonates admitted at neonatal intensive care unit among selected governmental hospitals Addis Ababa, Ethiopia, 2022. An institution-based cross-sectional study. Front. Psychiatry. 2024 [cited 2024 Mar 05]; 15:1377180. DOI: https://doi.org/10.3389/fpsyt.2024.1377180.

39. Souza AD. O discurso na prática clínica e as terminologias de padronização: investigando a conexão [Doctoral dissertation]. Belo Horizonte: Universidade Federal de Minas Gerais; 2021 [cited 2023 Feb 02]. Available from: https://repositorio.ufmg.br/handle/1843/38044.

40. Lima MF, Siqueira RM. Ventura CMU. UTI neonatal: percepção dos pais sobre o internamento e os cuidados da equipe de enfermagem. RGC. 2022 [cited 2023 Feb 02]; 16(2):692-705. Available from: https://ojs.revistagc.com.br/ojs/index.php/rgc/article/view/214.

41. Liu Y, Zhang L, Guo N. Postpartum depression and postpartum post-traumatic stress disorder: prevalence and associated factors. BMC Psychiatry. 2021 [cited 2023 Feb 02]; 21:487. DOI: https://doi.org/10.1186/s12888-021-03432-7.

42. Durí B, Scodov Z, Skova M B. Risk factors associated with postpartum depression and PTSD after birth in a sample of Slovak women. Heliyon. 2024 [cited 2023 Feb 02]; 10:e23560. DOI: https://doi.org/10.1016/j.heliyon.2023.e23560.

43. Kegler JJ, Neves ET, Silva AM, Jantsch LB, Bertoldo CS, Silva JH. Stress in parents of newborns in a neonatal intensive care unit. Esc Anna Nery 2019 [cited 2023 Feb 02]; 23(1):e20180178. DOI: https://doi.org/10.1590/2177-9465-EAN-2018-0178.

44. Souza LG, Queiroz VC, Andrade SSC, César ESR, Melo VFC, Oliveira SHS. Anxiety and depression in mothers of newborns in intensive care units. Rev Gaúcha Enferm. 2021 [cited 2023 Feb 02]; 42:e20200388. DOI: https://doi.org/10.1590/1983-1447.2021.20200388.

45. Hunter RF, Haye K, Murray JM, Badham J, Valente TW, Clarke M, et al. Social network interventions for health behaviours and outcomes: a systematic review and meta-analysis. PLoS Med. 2019 [cited 2023 Feb 02]; 16(9):e1002890. DOI: https://doi.org/10.1371/journal.pmed.1002890.

46. Boyamian TMDL, Mandetta MA, Balieiro MMFG. Nurses' attitudes towards families in neonatal units. Rev Esc Enferm USP. 2021 [cited 2024 Feb 05]; 55:e03684. DOI: https://doi.org/10.1590/S1980-220X2019037903684.

47. Veronez M, Borghesan NAB, Corrêa DAM, Higarashi IH. Experience of mothers of premature babies from birth to discharge: notes of field journals. Rev Gaúcha Enferm. 2017 [cited 2023 Feb 24]; 38(2):e60911. DOI: https://doi.org/10.1590/1983-1447.2017.02.60911.

48. Nascimento ACST, Moraes AC, Amorim RC, Souza SL. Redes Sociais de Apoio às famílias de prematuros que vivenciam a hospitalização: um estudo transcultural. REAS. 2019 [cited 2023 Feb 24]; 37:e1986. DOI: https://doi.org/10.25248/reas.e1986.2019.

Author's contributions

Conceptualization, S.F.S.F.B, C.M.P, W.K.A.S.P, W.J.C.P.A. and L.P.L; methodology, S.F.S.F.B, C.M.P, W.K.A.S.P, W.J.C.P.A. and L.P.L; data curation, S.F.S.F.B, L.P.L. and W.K.A.S.P; manuscript writing, S.F.S.F.B, L.P.L. and W.K.A.S.P; writing – review and editing, S.F.S.F.B, L.P.L. and W.K.A.S.P; visualization, S.F.S.F.B, C.M.P, W.K.A.S.P, W.J.C.P.A. and L.P.L; supervision, S.F.S.F.B, C.M.P, W.K.A.S.P e L.P.L; project administration, S.F.S.F.B, C.M.P, W.K.A.S.P, W.J.C.P.A. and L.P.L. All authors read and agreed with the published version of the manuscript.