Collegian 31 (2024) 342–347

Contents lists available at ScienceDirect

Collegian

journal homepage: www.elsevier.com/locate/colegn

Research paper

Implementation of evidence-based practice in paediatric nursing care: Facilitators and barriers

Cânia Torres [a,b,c,*], Francisco Mendes [b,d], Adriana Maria Duarte [e], Simão Vilaça [g], Maria do Céu Barbieri-Figueiredo [a,b,f]

[a] School of Medicine and Biomedical Sciences, ICBAS, R. Jorge de Viterbo Ferreira 228, 4050-313 Porto, Portugal
[b] Center for Health Technology and Services Research (CINTESIS), Rua Dr. Plácido da Costa, 4200-450 Porto, Portugal
[c] CESPU, Nursing School of Tâmega e Sousa, R. Direita 5, 4560-485 Penafiel, Portugal
[d] Department of Pediatrics, University Hospital Center of São João, Alameda Prof. Hernâni Monteiro, 4200-319 Porto, Portugal
[e] University of Brasilia, Ceilândia College, Centro Metropolitano, Brasília, DF 72220-275, Brazil
[f] University of Huelva, Campus de El Carmen, 21071 Huelva, Spain
[g] University of Minho, Nursing, Campus de Gualtar, 4710-057 Braga, Portugal

ARTICLE INFO

Article history:
Received 1 April 2024
Received in revised form 10 May 2024
Accepted 3 July 2024

Keywords:
Evidence-based practice
Evidence-based nursing
Family
Paediatric nursing

ABSTRACT

Background: Evidence-based practice (EBP) is widely recognised in healthcare as a means of improving patient outcomes by incorporating patient preferences, clinical experience, and rigorous research. Although it has demonstrated potential in promoting healthcare, increasing patient safety, and reducing costs, there are still challenges in implementing and applying EBP in practice. The aim of this study was to explore the barriers and facilitators identified by nurses concerning the implementation of EBP in the care provided to children and their families.

Methods: Two focus groups were held with a total of 32 nurses from a paediatric unit of a university hospital. The qualitative data were organised using NVivo, and thematic analysis was undertaken following Bardin's three-phase process.

Findings: Three categories emerged: Facilitators for the Implementation of EBP, Barriers to the Implementation of EBP, and Family and Child-Centred Care in Clinical Practice. The main facilitators are the presence of mentors, institutional recognition, an environment that promotes EBPs, and the interest and motivation of the team. The main barriers highlighted were unassertive intradisciplinary and interdisciplinary communication, time management, tradition, and inexperience in research. Organisations must implement policies that promote environments conducive to EBP.

Conclusion: It is crucial to prioritise ongoing professional development, integrate this practice into nursing education, promote innovative organisational cultures, and embrace the principles of Family-Centred Care. Nurses recognise the importance of mentors as key to implementing this practice.

* Corresponding author at: School of Medicine and Biomedical Sciences – ICBAS, Porto, Portugal. Tel.: +351 939153120.
E-mail address: caniabasto@gmail.com (C. Torres).

https://doi.org/10.1016/j.colegn.2024.07.001

Summary of relevance

Problem or Issue

Implementing an evidence-based practice is a complex process, so it is necessary to assess the context and identify barriers and facilitators that promote this practice.

What is already known

Evidence-based practice is an important goal in healthcare, but there are still gaps between research evidence, practice changes, and patient outcomes. Previous research has identified barriers to EBP implementation, and the process of change is often overlooked.

What this paper adds

Identifying nurse's perceived barriers and facilitators to EBP in the context of clinical practice contributes to the innovation and continuous improvement in pediatric nursing.

Acknowledgements

The researchers have no financial affiliations to disclose.

A COREQ checklist was consulted when preparing and reporting this study (Tong, Sainsbury, & Craig, 2007).

1. Introduction

Since the early 1990s, there has been a continuous and growing demand for evidence-based practice (EBP) in healthcare. This demand can be attributed to the pioneering concept of evidence-based medicine (EBM), which was introduced at the University of Oxford in England. EBM emerged as a revolutionary approach to medicine, aiming to streamline the acquisition and utilisation of information for clinical decision-making (Mccall et al., 2021). It was developed in collaboration with researchers at McMaster University in Ontario, Canada. This innovative approach to healthcare seeks to integrate the best available evidence from rigorous research, the expertise of healthcare professionals, and the values and preferences of patients. The concept of EBM has since become a cornerstone in the pursuit of high-quality, patient-centred care. The idea was to change the culture of medicine from a culture of clinical experience, characterised by various biases and obvious gaps in the recording of results, to a culture of information without bias and where the benefit for the patient is valued (Correia, 2020).

EBP is the *"integration of patient preferences and values, clinical expertise, and rigorous research to make decisions that lead to improved outcomes for patients and families"* (Melnyk & Fineout-Overholt, 2015). This concept is not new and has been widely supported and increasingly adopted to sustain health decision-making. However, it has achieved great emphasis in the last decades due to its recognition in promoting healthcare, improving the patient experience, health outcomes focused on patient safety, and cost reduction (Camargo et al., 2018).

EBP is an important goal in healthcare, but there are still gaps between research evidence, practice changes, and patient outcomes.

Previous research has identified barriers to EBP implementation, and the process of change is often overlooked. Implementation science in nursing has primarily focused on acute hospital settings, leaving a limited understanding of EBP implementation in community nursing (Mathieson, Grande, & Luker, 2019). However, the knowledge and implementation of EBP depend on various professional and institutional attitudes, as described in the literature (Patelarou, Schetaki, Giakoumidakis, Lialiou, & Patelarou, 2021). Nurses' adoption of this practice is described as a complex process, and several studies show that it presents difficulties when translated into clinical practice (Halberg, Assafi, & Nørholm, 2020). However, the definition of strategies for implementing evidence-based nursing, focused on knowing the barriers and facilitators to this process, is very favourable to success, if it is allied to the appropriate clinical environment. Changing the practice requires confident nurses qualified to perform the change, with negotiation, consensus-building, and risk-taking skills. It also implies long-term persistence and commitment (Camargo et al., 2018; Halberg et al., 2020). Conducting a situational analysis allows for transparent planning and communication of resources and strategies to address specific barriers and enhance facilitators (Whitehorn et al., 2021). The study of local contexts with nurses and stakeholders ensures that the planning of implementation of EBP is aligned with the needs and priorities of the institution and facilitates the adaptability and sustainability of the practice. (Patelarou et al., 2021; Halberg et al., 2020). Considering that implementing an EBP model is a challenge for any team, it is key to understand, from the nurses' perspectives, what are the facilitators and barriers to this practice. Thus, the present study aimed to explore the barriers and facilitators identified by nurses concerning the implementation of EBP in the care provided to children and their families.

2. Methods

The study employs a qualitative approach. The study was conducted in line with the Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist (Tong, Sainsbury, & Craig, 2007).

2.1. Setting and participants

This study represents the initial phase of a larger research project focused on assessing the impact of implementing EBP on the care provided to children and families. Employing a qualitative approach, this study was conducted at a Paediatrics unit within a university hospital situated in northern Portugal. As nurses working within this department, we acknowledge our position and role as co-researchers in this study. We recognise that our prior experiences, assumptions, and beliefs as healthcare professionals may influence the research process. This statement highlights our awareness that our perspectives and subjectivities as researchers are inherent in shaping the study's design, data collection, analysis, and interpretation. We strive to maintain transparency throughout the research journey to ensure rigour and validity in our findings. A qualitative approach with a focus group was used because it allows for greater flexibility in the pattern of conversation than is normally the case in individual interviews and aims to value and apprehend the opinion and perception of subjects directly involved with the object to be evaluated (Trad, 2009).

Participants were recruited from the team of the paediatric inpatient service of the hospital where the study was conducted, and they represent the available population. Being selected for convenience. This aspect is advantageous as it allows for a focused examination of the specific challenges and opportunities encountered by nurses when integrating EBP. A purposive sampling approach was used to ensure familiarity with the content. The participants were selected intentionally, but the following inclusion criteria were considered: working for more than one year in the department where the study was carried out and being in direct care. The exclusion criterion was being absent from the hospital for more than six months. After accepting participation, participants were contacted via email and/or telephone to arrange focus groups.

2.2. Ethical statement

This research study adhered to ethical principles, including obtaining informed consent from participants and obtaining approval from the Ethics Committee. The study was approved by the Ethics Committee for Health and by the Research Unit of the Institution

where it was held (approval 93/2021). For the study, participants read and acknowledged that they understood a participant information statement, were allowed to ask questions at multiple junctures, and gave written informed consent before being interviewed. Applicants have also advised that their participation in the study was voluntary and they could withdraw from participating at any time. Informed consent was obtained, and a designated password-protected link was used for participants' access to the virtual session/focus group. The study was conducted by applicable ethical and regulatory guidelines, ensuring the protection of participants' rights and well-being.

2.3. Data collection

The instrument was applied to Zoom (Version 6.0.11) software from March to April 2021 through a semistructured interview script used as a focus group orientation and conduction. These group sessions were conducted in a semistructured format based on a literature review of the processes of implementing EBP in a clinical environment. The guide consists of three sections: the introduction, the development/exploration, and the closing. The introduction provides guidance on the various presentations, the professionals, the topic, and objectives of the study; the role of the researcher and the observer; confidentiality; authorisation to record the discussion; and filling in the sociodemographic questionnaire and signing the informed consent form. The development consisted of open-ended questions to explore the topic, and the closing was a summary of the information gathered, giving the opportunity for the data to be validated or clarified. The semistructured interview in a focus group allows for an understanding of collective perspectives and the identification of patterns, divergent opinions, and consensus among participants. The focus groups were moderated by the leader researcher, with clinical experience in paediatrics and in conducting focus group discussions, and supervised by a Ph.D.

2.4. Data analysis

This qualitative approach facilitates in-depth exploration of participants' experiences, opinions, and behaviours, contributing to the acquisition of rich and meaningful data for the research. Two focus groups were conducted, with about 16 participants in each and an average duration of 60 min. In the sociodemographic characterisation form, the variables collected were age, gender, academic and professional qualifications, professional experience, and continuing education (in EBP, methodology and application of projects, research, and management). Following the restrictions imposed by the Portuguese General Directorate of Health due to the COVID-19 pandemic, data were collected by videoconference at a time convenient for the participants and were fully recorded. The qualitative data were organised using Nvivo (Version 14), and thematic analysis was undertaken following Bardin's three-phase process. The participating nurses were anonymised using a code consisting of the letter 'E' followed by a number (e.g., E29). The interviews were analysed and interpreted using the Bardin' method (Bardin, 2016). We first followed the 'floating reading' method to elaborate the hypotheses, that is, previous explanations of what was observed. Then, the material was explored for coding the data and constructing the registration units. Categories and subcategories emerged as headings that grouped elements with common characteristics. While choosing categories, we met the semantic, syntactic, lexical, and expressive criteria. Finally, the sociodemographic characteristics of the participants were described (Sousa & Santos, 2020). A verification strategy was used to check the credibility of the data coding. Meetings were held with the participants to clarify whether the interviewer had understood the answers obtained. When it comes to peer questioning, once again, description.

Table 1
Sociodemographic characteristics of the nurses who participated in the study (n = 32).

Characteristics	**n (%)**
Age in years	
23–30	5 (16)
31–35	13 (41)
36–40	6 (18)
41–50	8 (25)
Gender	
Female	30 (94)
Male	2 (6)
Education	
Bachelor's degree	25 (78)
Master's degree	7 (22)
Doctorate	0 (0)
Professional qualifications	
Paediatric Nursing Specialty	
Yes	22 (69)
No	10 (31)
Professional experience in years	
3–10	10 (31)
11–15	7 (22)
16–20	9 (28)
> 20	6 (19)
Continuing education	**n (%)**
In Evidence-based practice	
Yes	8 (25)
No	24 (75)
In methodology and implementation of projects	
Yes	3 (9)
No	29 (91)
In research	
Yes	2 (6)
No	30 (94)
In management	
Yes	1(3)
No	31(97)

3. Results

The study included all the nurses in the paediatrics team (n = 32). The sociodemographic characteristics of the participants are shown in Table 1.

After transcription and analysis of the content of the interviews, three analytical categories emerged: Facilitators to the Implementation of EBP (1), Barriers to the Implementation of EBP (2), and Family and Child-Centred Care (FCCC) in Clinical Practice (3). The categories of analysis and subcategories are presented in Table 2. To identify the most frequently mentioned subcategories, the percentage identified is based on the number of nurses who mention them. The frequency of response is related to the number of times these concepts emerged from analysing the participants' discourse.

Analysing the three categories allowed us to examine the barriers and facilitators identified by nurses concerning the implementation of EBP in the care provided to children and families.

In the *Facilitators to the Implementation of EBP (1)*, six subcategories emerged; in the category *Barriers to the Implementation of EBP (2),* seven subcategories emerged; and in the *FCCC category in Clinical Practice (3),* three subcategories emerged. The topics that were most often repeated concerning category (1) were as follows: the *Promotion of an EBP environment and the Harmonisation of Practice*; in category (2): *Unassertive Communication and Tradition*, and in category (3): *Prior Literacy.*

3.1. Facilitators to the implementation of evidence-based practice

Regarding the category *Facilitators to the Implementation of EBP* (1), it was evident that nurses considered that mentors assume a major role, such as having a team member experienced in EBP is vital for critically analysing the quality and contextual relevance of

Table 2
Analysis categories and thematic axes.

Categories of analysis	Thematic axes/subcategories	n	%
Facilitators to the Implementation of EBP (1)	1. Harmonisation of practice	13	41
	2. Motivation and attitude	12	38
	3. Recognition and institutional incentive	8	25
	4. Reference mentors in EBP	7	22
	5. Promoting an EBP environment	6	19
	6. Time availability	4	13
Barriers to the Implementation of EBP (2)	1. Service structure and equipment	16	50
	2. Unassertive communication	16	50
	3. Guidelines and procedures	9	28
	4. Work overload	8	25
	5. Absence of systematic meetings	6	19
	6. Inexperience in research	6	19
	7. Tradition	3	9
Family and Child-Centred Care (FCCC) in Clinical Practice (3)	1. Prior literacy	8	25
	2. Care partnership	6	19
	3. Children and young persons with longer and/or recurrent hospitalisations	5	16

studies, as it goes beyond simply implementing evidence and involves organising information thematically and selecting pertinent findings, making a mentor with EBP knowledge indispensable (E4 and E9). Clinical practice scenarios are particularly important because "*the preparation of an environment favourable to research, the development of studies is essential, as well as the promotion of the implementation of EBP models in clinical contexts*" (E8). "*Academic training, particularly at the specialty and master's level, helps to prepare clinical contexts, greatly favoring EBP* Specialty and master's level academic training supports EBP by preparing clinical contexts effectively (E18); on the other hand, EBP is crucial, but its implementation is complex. (E29).

It should also be noted that "*institutional support reduces the worker's demotivation and increases the commitment to quality of care he/she provides*" (E15). This recognition and institutional incentive are referred to *as* "*a way of governing facing change and encouraging professionals*" (E12), where most of the ideas presented by nurses begin with small changes in the organisation and work processes, emphasising the hospital management board should acknowledge the daily challenges faced by the staff (E19).

The availability of time was also highlighted by the nurses as a facilitator and impact factor for the success of EBP. Including dedicated research hours in work contracts would enhance the feasibility of conducting research in practical scenarios (E30 and E32).

3.2. Barriers to the implementation of evidence-based practice

Within the second category, we analysed the *Barriers to the Implementation of EBP* (2) from the nurses' perspective. The nurses mentioned that in the context of clinical practice, numerous barriers hinder the implementation of EBP. For example, the physical structure of the practice scenario and existing equipment *lead to the* "*perception that the service is not adequate, there is a lot of noise, and there is not a space for meeting with the desired tranquility*" (E10), "*the availability of information resources is also maladjusted*" (E14), "*computers in our workplace are scarce for so many people*" (E19), and "*limiting access to digital databases and platforms are also very difficult*" (E22).

The absence or outdated nature of protocols and procedures hinders EBP, creating barriers. A cohesive practice-based scientific guideline fosters effective communication and interaction within the team, enabling adaptation to the context. Valid and updated protocols serve as valuable decision-making support documents, but the lack thereof presents challenges for the entire team when implementing EBP (E20 and E31).

The 'tradition' is another axis that emerged as a barrier to EBP. It was mentioned *that* "*there is some new knowledge, but there is always resistance to change on the part of the team, and this also turns out to be a barrier*" (E5); "*I think there is an individual resistance of each team member to change. Often, new data emerge of several things that are even practiced differently. Still, we continue doing a given procedure as we have always done it because it is easier*" (E17). Another participant stated *that* "*there is a component of observation and experience of day-to-day life that can lead us to deepen a certain subject and carry out theoretical reviews of what is behind and try to innovate and change something and break the barrier of conformism's and tradition*" (E26).

Another difficulty mentioned by the team is communication: "*Communication… I think it is a problem across all groups, all teams*, all *people*" (E5), "*if it is not assertive and without failures, it is also a huge barrier to the implementation of EBP*" (E9). Through the previous statements, it is perceived that intradisciplinary and interdisciplinary communication are obvious barriers in the team, which, if not properly addressed, may jeopardise the implementation of this practice.

We emphasise that, according to the inductive method of data analysis, the category *FCCC in Clinical Practice* (3) emerged.

3.3. Family and child-centred care in clinical practice

FCC in Clinical Practice (3) is neither a barrier nor a facilitator but rather an inherent feature of paediatric nursing care. Therefore, from the participants' perspective, it should not be overlooked when approaching EBP in paediatrics. About the care delivery model adopted by nurses, the FCCC and EBP have very particular aspects and are very dependent on each family and child, as reported below: "*For some of the families, the type of care we have in the service FCCC will be positive for this process*" (E3). However, for "families that are *more resistant to change and intervention of nurses, the method of work that we use, based on partnership and family-centred, can be very difficult to adjust to*" (E13).

The preparation for discharge of children with longer hospitalisations or complex chronic diseases can be a challenge to this process of implementing an EBP since greater contact of families with healthcare leads to the existence of barriers that are difficult to overcome, such as the traditions they bring, the literacy they have, which requires very well defined strategies focused on each family and child, which is one of the aspects of EBP preference of the family and child (E1, E11, and E26). On the other hand, FCCC in Clinical Practice can facilitate EBP by leveraging parents' insights from recurrent hospitalisations, providing up-to-date information about the child's preferences, and allowing personalised care adjustments, while the care partnership enables observation and potential practice changes based on the best evidence (E9). Also "the partnership of care that we carry out allows us to visualise the care that family members provide and, if necessary, propose change of practices according to the best evidence" (E31).

Previous literacy learning opportunities occur in each family, formally or informally, in a family or social context. So, each family's previous literacy "is a complicating factor, namely, when previous literacy is low" (E9).

4. Discussion

The results obtained in the sociodemographic characterisation of the nurses concerning continuing education may be related to the predominantly biomedical approach attributed to the teaching and

practice of Health Sciences, which contributes to the devaluation of conceptual aspects of nursing practice (Cardoso et al., 2021).

In the literature, there are many studies in which it is identified that the implementation of EBP is crucial to improving the quality of healthcare, the professional development of nurses, and the socio-economic component of health services (e.g., Benedetto & Gallian, 2018). However, many factors influence the implementation of EBP. Hence, there is a need to explore the barriers and facilitators to the implementation of this practice.

The present study results corroborate the literature concerning *facilitators* (1) and *Barriers* (2) to implementing EBP. However, it should be noted that the study was developed in a Paediatric Service, where the focus of care is on children and their families. Given the particularities of the paediatric clinical practice contexts, *the FCCC in Clinical Practice* (3) and the partnership and negotiation of care are the nurses' focus (Fonseca et al., 2020). The category (3) that emerged, directed to the FCCC, is justified by the clinical environment where the study data were collected. According to the interviewees, there is the perception that longer and/or recurrent hospitalisations of families and children, previous literacy, and care partnership are subcategories that should be considered when implementing an EBP Model.

The scenarios of Clinical Practice in Portugal have been increasing their degree of complexity and demand, allowing them to respond to the continuous improvement of the quality of care provided, requiring health professionals to support their EBP, flexibility, and adaptability to new situations, combined with innovation, ability to change and change behaviours (Teixeira, Nogueira, & Barbieri-Figueiredo, 2022). The interviewees of this study identified that an environment of clinical practice that is structurally adapted, with the involvement of the leaders and with the presence of mentors in EBP, capable of disseminating this knowledge, are important facilitators of the implementation of EBP.

Thus, it is evident that the inclusion of nursing interventions that are appropriate to clinical practice and based on scientific evidence guarantees qualified and effective care for clients and motivation and professional satisfaction for nurses. It is thus clear that nurses' practice is validated through scientifically valuable studies carried out in a clinical environment (Ferreira & Cruz, 2020).

The attitude and motivation for change mentioned by the team was another facilitating element, which is to some extent related to organisational practices, which can facilitate EBP if they are hierarchised in a dynamic and non-rigid way. Thus, what is desirable is an organisational culture that abandons the traditional model of individualistic and competitive management, avoiding the fragmentation of care and promoting and encouraging nurses' attitudes towards EBP (Rocha, Marziale, Oak, Cardeal, & Campos, 2014).

Institutional incentives are essential for the success of any change, especially when it comes to implementing EBP. In the literature, several barriers have been described as hindering the implementation of EBP, most notably the difficulty and inexperience in developing research projects. Therefore, the path may be the integration of EBP into nursing curricula to educate nurses during their training process to incorporate the EBP into their future clinical practice (Cardoso, et al., 2019).

Unassertive communication emerged in the present study as a barrier to implementing EBP. Disruptions and/or failures in communication between and within healthcare teams can cause decreased quality of care, errors in treatment, and potential harm to patients. The importance of communication is also highlighted in the 10 areas of intervention identified by 'The Global Patient Safety Challenge' (Dagne, Beshah, Kassa, & Dagnaw, 2021).

The choice to favour tradition in existing practices in clinical settings is often difficult to overcome, even with investment in training, especially in specialisation in child health and paediatrics, and the dissemination of high-quality research results; the translation of this evidence into new practices remains underdeveloped (Cerqueira & Barbieri-Figueiredo, 2020).

If the focus is on EBP in FCCC, this process becomes more challenging. In our study, three subcategories emerged under category (3). Children and young persons with longer and/or recurrent hospitalisation, prior family literacy, and care partnership are aspects that deserve to be highlighted after data analysis.

The philosophy of FCCC requires nurses to care not only for clinical demands but also for the emotional, affective, and social needs of their clients to develop with families and children a relationship that goes far beyond therapy, based on respect and dignity. Therefore, this perspective of care incorporates the knowledge to listen to the patient and family members, unrestricted access to the child, information, choice, flexibility of care, the autonomy of the subjects involved, collaboration, and support at all levels of service delivery (Fonseca et al., 2020). A key element in family-centred care is partnership (De Leo, Bayes, Butt, Bloxsome, & Geraghty, 2021). Such partnerships are characterised by complex interpersonal relationships and interactions between nurses and parents/families. Accordingly, partnerships seem to present a significant challenge. However, this challenge can become advantageous for nurses, families, and children (Brødsgaard, Pedersen, Larsen, & Weis, 2019).

A successful relationship between parents and nurses can be achieved by co-creating mutual knowledge, developing skills, and negotiating roles. For this, the nurses in our study deemed literacy, family preferences, and previous experiences as essential aspects to consider.

5. Conclusion

This study is the first stage of a broader research project aiming to evaluate what contribution the implementation of EBP has on the care of the child and family. The results obtained in this initial stage refer to facilitators and barriers identified by nurses in their clinical scenario toward EBP and contributed to a situational diagnosis, allowing to guide and plan the next phase of the study, that is, implementing a Model of EBP.

The existence of mentors in the nursing team, the institutional recognition and support, and the creation of environments that promote EBP were identified as important facilitators of the process as main barriers, the difficulties in the structure of the service, the lack of assertive communication between the team, and inexperience in research, combined with some lack of training in the area, emerged. The various facilitators and barriers to EBP, together with the complexity of FCCC in clinical practice, were central themes of this study.

It is important to note that to successfully implement new knowledge, it is crucial to be aware that change can be a confusing, time-consuming process with unpredictable consequences. However, change can be both stimulating and motivating. It is, therefore, crucial to understand and rigorously plan the strategy that best allows us to turn evidence into practice, that is, to activate knowledge.

Implications and future research

The results of this study make important contributions to the practice of nurses, health organisations, and future studies. The identification of barriers and facilitators perceived by nurses for EBP in the context of clinical practice contributes to the innovation and continuous improvement of paediatric nursing.

Limitations

There are some limitations in our study. First, most of the nurses who participated in the focus group are female, a trend that occurs on a national scale, with 82.2% of Portuguese nurses being female. Regarding specialised training, in this case, in Child and Paediatric Health Nursing, compared to the general Portuguese panorama, the study participants are well above the average, with 69% of them being specialists. According to the Portuguese Order of Nurses (OE)

data, the percentage of registered specialist nurses is 28%, lower than the context in which this study took place. However, the fact that the sample corresponded to all nurses working in the paediatric inpatient service limited the selection criteria.

Another limitation of this study is that the focus groups were organised online due to COVID-19 pandemic restrictions, which may limit the dynamic of the group session. However, previous research has supported online focus groups as a good alternative.

CRediT authorship contribution statement

Conceptualization: Cânia Patrícia Martins Basto Torres, Francisco José Madeira Mendes, Adriana Maria Duarte, Maria do Céu Barbieri-Figueiredo. **Methodology:** Cânia Patrícia Martins Basto Torres, Francisco José Madeira Mendes, Maria do Céu Barbieri-Figueiredo. **Software:** Cânia Patrícia Martins Basto Torres. **Validation:** Cânia Patrícia Martins Basto Torres, Francisco José Madeira Mendes, Adriana Maria Duarte, Maria do Céu Barbieri-Figueiredo. **Formal analysis:** Cânia Patrícia Martins Basto Torres, Francisco José Madeira Mendes, Adriana Maria Duarte, Maria do Céu Barbieri-Figueiredo. **Investigation:** Cânia Patrícia Martins Basto Torres, Francisco José Madeira Mendes, Maria do Céu Barbieri-Figueiredo. **Resources:** Cânia Patrícia Martins Basto Torres, Francisco José Madeira Mendes, Maria do Céu Barbieri-Figueiredo. **Data curation:** Cânia Patrícia Martins Basto Torres, Francisco José Madeira Mendes, Adriana Maria Duarte, Simão Vilaça, Maria do Céu Barbieri-Figueiredo. **Writing - Original Draft:** Cânia Patrícia Martins Basto Torres, Francisco José Madeira Mendes, Adriana Maria Duarte, Simão Vilaça, Maria do Céu Barbieri-Figueiredo. **Writing - Review & Editing:** Cânia Patrícia Martins Basto Torres, Francisco José Madeira Mendes, Adriana Maria Duarte, Simão Vilaça, Maria do Céu Barbieri-Figueiredo. **Visualization:** Cânia Patrícia Martins Basto Torres, Francisco José Madeira Mendes, Maria do Céu Barbieri-Figueiredo. **Supervision:** Francisco José Madeira Mendes, Maria do Céu Barbieri-Figueiredo. **Project administration:** Cânia Patrícia Martins Basto Torres, Francisco José Madeira Mendes, Maria do Céu Barbieri-Figueiredo. **Funding acquisition:** authors' affiliations. **All authors approved the final version of the text.**

Funding

The authors received no financial support for the research or authorship of this article.

Ethical statement

This research study adhered to ethical principles, including obtaining informed consent from participants and obtaining approval from the Ethics Committee. The study was approved by the Ethics Committee for Health and by the Research Unit of the Institution where it was held in March 2021 (approval 93/2021).

Conflict of interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

Bandin, L. (2016). *Análise de Conteúdo (Content analysis)*. Lisboa: LDA.

Benedetto, M. A. C. D., & Gallian, D. M. C. (2018). Narratives of medical and nursing students: hidden curriculum and health dehumanization. *Interface Communication Health Education, 22*, 1197–1207. https://doi.org/10.1590/1807-57622017.0218

Brødsgaard, A., Pedersen, J. T., Larsen, P., & Weis, J. (2019). Parents' and nurses' experiences of partnership in neonatal intensive care units: a qualitative review and meta-synthesis. *Journal of Clinical Nursing, 28*, 3117–3139. https://doi.org/10.1111/jocn.14920

Camargo, F. C., Iwamoto, H. H., Galvão, C. M., Pereira, G. A., Andrade, R. B., & Masso, G. C. (2018). Competences and barriers for the evidence-based practice in nursing: an integrative review. *Revista Brasileira de Enfermagem, 71*, 2030–2038. https://doi.org/10.1590/0034-7167-2016-0617

Cardoso, D., Coelho, A., Louçano, C., Parola, V., Rodrigues, M., Fineout-Overholt, E., et al. (2019). Translation and cross-cultural adaptation of evidence-based practice instruments for Portuguese nursing students. *Revista de Enfermagem, IV Série*, 141–152. https://doi.org/10.12707/RIV19058

Cardoso, D., Rodrigues, M., Pereira, R., Parola, V., Coelho, A., Ferraz, L., et al. (2021). The beliefs and perceptions of nursing and undergraduate educators about evidence-based practice, evidence implementation, organizational readiness, and culture: an exploratory cross-sectional study. *Nursing Education in Practice, 54*, Article 103122. . https://doi.org/10.1016/j.nepr.2021.103122

Cerqueira, C., & Barbieri-Figueiredo, M. C. (2020). Enfermagem em Saúde da Criança e do Jovem [Nursing in Child and Youth Health]. In A. L. Ramos, & M. C. Barbieri-Figueiredo (Eds.). *Child and Youth Health Nursing* (pp. 26–27). (1st edn). Lisbon, Portugal: Lidel-Technical Editions.

Correia, L. C. (2020). Symposium: evidence-based medicine. *The National Academy of Medicine, 191*, 166–168. ⟨https://www.anm.org.br/wp-content/uploads/2021/12/2020-09-14-anm-anais-volume-191-3.pdf⟩.

Dagne, A. H., Beshah, M. H., Kassa, B. G., & Dagnaw, E. H. (2021). Implementation of evidence-based practice and associated factors among nurses and midwives working in Amhara Region government hospitals: a cross-sectional study. *Reproductive Health, 18*. https://doi.org/10.1186/s12978-021-01096-w

De Leo, A., Bayes, S., Butt, J., Bloxsome, D., & Geraghty, S. (2021). Midwifery leaders' views on the factors considered crucial to implementing evidence-based practice in clinical areas. *Women and Birth, 34*, 22–29. https://doi.org/10.1016/j.wombi.2020.08.013

Ferreira, A. R., & Cruz, I. C. (2020). Nursing evidence-based practice guidelines for the patient at risk of ineffective cerebral tissue perfusion in the intracranial aneurysm in ICU — systematized literature review. *Journal of Specialized Nursing Care, 12*.⟨http://www.jsncare.uff.br/index.php/jsncare/article/view/3332/838⟩.

da Fonseca, S. A., Silveira, A. O., Franzoi, M. A. H., Motta, E., da Fonseca, S. A., Silveira, A. O., et al. (2020). Cuidado centrado en la familia en la unidad de terapia intensiva neonatal (UTIN): experiencias de enfermeras [Family-centered care in the neonatal intensive care unit (NICU): experiences of nurses. *Nursing Humanized Care, 9*, 170–190. https://doi.org/10.22235/ech.v9i2.1908

Halberg, N., Assafi, L., & Nørholm, V. (2020). Understandings of and experiences with evidence-based practice in practice among nurses in a surgical department: a constructivist approach. *Journal of Clinical Nursing, 30*, 488–498. https://doi.org/10.1111/jocn.15563

Mathieson, A., Grande, G., & Luker, K. (2019). Strategies, facilitators, and barriers to implementation of evidence-based practice in community nursing: a systematic mixed-studies review and qualitative synthesis. *Primary Health Care Research & Development, 20*, Article 6. . https://doi.org/10.1017/S1463423618000488

Mccall, M. C., Fanshawe, T. R., Mccartney, D., Young, D., Nunan, D., & Heneghan, C. (2021). Online supplementation for teaching evidence-based medicine: feasibility of a randomized controlled trial. *BMJ Evidence Based Medicine, 26*, Article 254. . https://doi.org/10.1136/bmjebm-2020-111372

Melnyk, B. M., & Fineout-Overholt, E. (2015). *Evidence-based practice in nursing & healthcare: a guide to best practice* (3rd edn). Wolters Kluwer171.

Patelarou, A., Schetaki, S., Giakoumidakis, K., Lialiou, P., & Patelarou, E. (2021). Validation of the evidence-based practice competence questionnaire for nursing students: a cross-sectional study in Greece. *Nursing Reports, 11*, 765–774. https://doi.org/10.3390/nursrep11040073

Rocha, F. L. R., Marziale, M. H. P., Oak, M. C., Cardeal, I. D. S., & Campos, M. C. T. (2014). The organizational culture of a Brazilian public hospital. *Journal of the School of Nursing of USP, 48*, 308–314. https://doi.org/10.1590/S0080-6234201400002000016

Sousa, J. R., & Santos, S. C. M. (2020). Content analysis in qualitative research. *Research and Debate Magazine in Education, 10*, 1396–1416. https://doi.org/10.34019/2237-9444.2020.v10.31559

Teixeira, A. C., Nogueira, A., & Barbieri-Figueiredo, M. C. (2022). Professional empowerment and evidence-based nursing: a mixed-method systematic review. *Journal of Clinical Nursing, 32*, 13–14. https://doi.org/10.1111/jocn.16507

Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care, 19*, 349–357. https://doi.org/10.1093/intqhc/mzm042

Trad, L. A. B. (2009). Grupos focais: conceitos, procedimentos e reflexões baseadas em experiências com o uso da técnica em pesquisas de saúde. *Physis Revista de Saúde Coletiva, 19*, 777–796. https://doi.org/10.1590/s0103-73312009000300013

Whitehorn, A., Fu, L., Porritt, K., Lizarondo, L., Stephenson, M., Marin, T., et al. (2021). Mapping clinical barriers and evidence-based implementation strategies in low-to-middle income countries (LMICs). *Worldviews on Evidence Based Nursing, 18*, 190–200. https://doi.org/10.1111/wvn.12503