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Attitudes and barriers to evidence-based practice: point of view of Portuguese nurses specialized in medical-surgical nursing

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Abstract

Aim: To identify attitudes and barriers to evidence-based practice from the perspective of Portuguese nurses specialized in medical-surgical nursing. *Design:* Descriptive cross-sectional study. *Methods:* Data collection in 2022, via a digital form comprising a questionnaire on socio-professional characterization and the Portuguese version of the "Barriers to Evidence-Based Practice in Primary Care". Non-probability convenience sampling. Data analysis performed using the Statistical Package for the Social Sciences, version 24. The checklist used was "Strengthening the Reporting of Observational Studies in Epidemiology". *Results:* The final sample consisted of 218 specialist medical-surgical nurses working in clinical practice settings in Portugal, who showed a generally positive attitude towards evidence-based practice. The barriers to evidence-based practice highlighted were lack of incentives, support from expert colleagues, training, financing, and time. *Conclusion:* Specialist medical-surgical nurses value evidence-based practice and recognized its benefits, but also identified barriers that make its practical implementation a challenge. The identification of the attitudes and barriers allows for the identification of shortcomings and the making of tailored training plans, thereby increasing the integration of evidence into the practice of these renowned professionals.

Keywords: evidence-based practice, nursing, medical-surgical nursing, nurse specialists.

Introduction

Evidence-based practice (EBP) refers to the integration of the best available scientific evidence with the clinical experience of the professional, focusing on the preferences, choices, and values of the person at the center of care, while taking into account the availability of resources (Silva et al., 2021). The incorporation of these three pillars is vital to decision-making in the delivery of nursing care (Den Hertog & Niessen, 2021).

The use of EBP in clinical practice settings has a positive impact on health care and is considered key to measuring quality in health care (Gómez-Salgado et al., 2023). In this respect, the World Health Organization (WHO) states that it is mandatory to incorporate the best evidence into the health services and care provided (World Health Organization, 2017). Likewise, the Nursing Council – Ordem dos Enfermeiros (OE) in Portugal, in its regulation on the "Common Competences of Specialist Nurses", asserts that, in the area of the development of professional learning, specialist nurses base their actions and decisions on valid and current knowledge (OE, 2019).

The epistemological basis of nursing, supported by Florence Nightingale's contributions, advocates the use of scientific principles in caring for patients, without overlooking the core of this discipline, i.e., caring (Camargo et al., 2018).

The emergence of increasingly complex clinical challenges and the evolution of science require high-quality, safe, efficient, and effective responses from professionals and respective health institutions (Pereira, 2021). In this respect, the OE in Portugal reiterates that it is crucial for the nurse specialist in medical-surgical nursing (MSN) to implement practices and make decisions always based on the best available evidence and outcomes that are sensitive to nursing care (OE, 2018). Despite

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the relevance of the theme and the existing evidence of the positive impact of EBP, there is still a gap between research and its implementation in practice (Melnyk & Fineout-Overholt, 2019).

The dimensions that affect the translation of knowledge into clinical practice are numerous and have been studied worldwide in several contexts, such as primary health care (Schneider et al., 2020), at a hospital level (Camargo et al., 2018), among nursing leadership (Camargo et al., 2016), in perioperative settings (Cambotas, 2015), and in higher education health institutions (Gonzalez et al., 2021).

Nurses feel that implementation of EBP will bring benefits to their professional development and the importance that nurses attribute to change and improvement of healthcare practice is intimated (Silva et al., 2021).

The studies mentioned above also reveal barriers and enablers to the incorporation of EBP. The main barriers are lack of time, lack of incentive from management, resistance from leadership, lack of training, organizational culture, lack of competence to critically analyze scientific results, difficulty in carrying out research steps, lack of resources, and high workload (Gómez-Salgado et al., 2023; Lai et al., 2022).

Camargo et al. (2018) present as enablers the existence of an organizational culture that fosters EBP, institutional support / awareness, postgraduate training, the incorporation of course units on EBP in the undergraduate nursing degree, and the partnership between teachers, researchers, and nurses who are active in clinical practice. Other authors consider enablers to include the ongoing training and educational interventions (Pereira, 2016), and the availability of time, resources, and administrative support (Schneider et al., 2020).

In Portugal, the title of specialist in MSN is recognized by the OE and is awarded to nurses who have at least two years of professional experience and have successfully completed a year of postgraduate academic training within their respective area of specialty. These specialists play a key role within healthcare teams in the country. Recognized by their peers as prominent professionals, they assume management, coordination, and leadership roles. The importance of developing this study stems from the idea that understanding the attitudes and barriers that nurses specialized in MSN face in the exercise of EBP enables the development of an intervention model for its implementation through strategies that strengthen its operationalization and effective incorporation, mitigating the challenges for the translation of evidence into practice.

Aim

This study aims to answer the following research question: "What are the attitudes and barriers to EBP identified by nurses specialized in MSN in clinical practice settings in Portugal?". In line with the research question, the objective was defined as follows: the identification of the attitudes and barriers to evidence-based practice from the perspective of Portuguese nurses specialized in MSN.

Methods

Design

A descriptive and cross-sectional study, supported by a quantitative methodology.

Sample

A non-probability convenience sample of nurses specialized in MSN was obtained. The participants in this study were nurses specialized in MSN, recognized by the Portuguese OE, working in clinical practice settings; therefore, it is expected that the results of this study will bring health gains for patients and will be beneficial to the professional practice of nurses specialized in MSN, to their respective institutions, and to nursing as a discipline of knowledge. There were no conflicts of interest or costs for participants.

The inclusion criteria were nurses specialized in MSN registered in the Portuguese OE working in clinical practice settings at a national level. The final sample comprised 218 individuals, representing 4.0% of the population under study.

Data collection

The data collection took place between January 31–April 30, 2022.

Data were collected via a digital form (from Google Forms). The link to access the digital form was sent by email and other digital applications, according to the proximity and accessibility of the nurses specialized in MSN. To ensure a representative sample, we asked the Portuguese Association of Nurse Specialists in MSN, the Portuguese Association of Dialysis and Transplantation Nurses, and the OE to collaborate in the dissemination of the study and in sending the digital form.

The questionnaire consisted of two parts with the following designation and sequence: 1) Socio-professional characterization questionnaire; 2) Questionnaire on Attitudes and Barriers

to Evidence-Based Practice (QABPBE-26) (Pereira et al., 2015).

The first part was composed of ten questions relating to socio-professional variables, namely: age, gender, marital status, academic degree, area of specialization, the unit nurses worked in, functions performed, geographical location of the institution, total time of professional practice, and total time as a specialist.

The second part consisted of the QABPBE-26 instrument, translated and validated for Portugal (Pereira et al., 2015) based on the questionnaire "Barriers to Evidence-Based Practice in Primary Care" (Mckenna et al., 2004). This is a self-assessment questionnaire consisting of 26 questions on attitudes and barriers to the use of EBP. This instrument was chosen since it focuses on attitudes and barriers towards EBP, recognizing their considerable influence on the integration of EBP, whether due to personal, professional, academic, and / or organizational reasons, thus encompassing two of the structural dimensions of this study (Pereira et al., 2015). Furthermore, there is empirical evidence regarding its validity and the reliability of its application (Pereira et al., 2015). Finally, there are only two questionnaires validated for a Portuguese context which address the dimension of barriers, with this being the more recent of the two. By design, the QABPBE – 26 is unidimensional; thus we chose to individually analyze a set of questions that were deemed more relevant and also to analyze potential correlations between them and the socio-professional variables. There are items that were considered to be "attitudes" and others that were interpreted as "barriers". The purpose of the application of this questionnaire was to allow the evaluation of both dimensions. The items on this scale are ordinal variables, in which the respondents position themselves on a five-point Likert scale in which 1 corresponds to "Strongly disagree"; 2 to "Disagree"; 3 to "Neither agree nor disagree"; 4 to "Agree"; and 5 to "Strongly agree". To allow for meaningful conclusions in all correlation analyses, answers were dichotomized into a positive response (Agree / Strongly agree) and a negative / neutral response (Strongly disagree / Disagree / Neither agree nor disagree). As they are not continuous variables, when analyzing single items of the scale, we used the mode (most common value) and the median (central value of the set of answers sorted from lowest to highest), instead of the mean.

The internal consistency of the QABPBE-26 in this study, measured by Cronbach's alpha, was 0.52, which was lower than the α identified in the validation study by Pereira et al. (2015) of 0.60 and the α of the original version by McKenna et al. (2004) of 0.74. Despite the comparatively low α, we believe that, in line with the author, this questionnaire is useful due to the importance it assigns to attitudes and barriers and the influence of both on the effectiveness of EBP in nursing. The α value obtained does not lessen the value of the analysis of each item. In fact, the factor analysis conducted by Pereira et al. (2015) found that the creation of dimensions added no value to the instrument, and hence the analysis by item was more appropriate.

Data analysis

Data analysis consisted of both descriptive and inferential statistics methods, using the Statistical Package for the Social Sciences (SPSS), version 24. The descriptive statistics that were used for numerical variables were the median (M), the mode (Md), and the mean as measures of central tendency, and the standard deviation (SD) as a measure of dispersion. Frequencies were used for categorical variables. For inferential statistics, the statistical tests used in this study were the Chi-Square test (χ^2) and Fisher's exact test. In all tests, values of $p < 0.05$ were considered significant.

The checklist followed was the "Strengthening the Reporting of Observational Studies in Epidemiology" (STROBE).

Results

The final sample was composed of 218 nurses specialized in MSN working in Portugal, from a population of 5,438 nurses specialized in MSN registered in the OE, corresponding to 4% of the target population (OE, 2021). The sociodemographic characterization is shown in Table 1.

A correlation analysis was performed for the numerical variables age, total time of professional practice, and time of professional practice as a specialist. The strong correlation ($r = 0.962$), between age and length of professional experience, was predictable. There was also a moderate ($r = 0.58$) and significant ($p < 0.05$) correlation between total length of time of professional practice and length of time of professional practice as a specialist, which can be explained by the fact that nurses pursue a specialization at different moments in their professional career, and can only do so after having had at least two years of professional experience as a nurse, which is one of the requirements set by the OE for the candidates (OE, 2018).

The results obtained through the application of the QABPBE-26 show the prevalence of positive attitudes towards EBP, as shown in Table 2.

Nurses also identified barriers to EBP in the same questionnaire, as shown in Table 3.

Questions Q8 ("I feel that there are benefits to changing my practice based on research") and Q26 ("The implementation of evidence-based practices will benefit my professional development"), as indicated before, had the responses with the highest values (M = 5) and a high level of consensus; thus, this uniformity logically results in no association with any socio-professional variable. In Q5 ("I think that supervisors support the use of EBP") a statistically significant relationship was found with gender (χ^2 = 5.7; p = 0.017): 45.6% of female nurses

consider that their superiors support the use of EBP compared to 27.6% of male nurses, as shown in Table 4. Table 5 shows the relationships between a set of selected questions regarding attitudes and barriers to EBP and academic degree.

Nurses with a doctoral degree least perceived support from their superiors (22.2%); however, given the small number of doctoral graduates in this study, this difference did not achieve statistical significance (p > 0.05). Academic degree shows a significant association with Q9 ("There are no incentives to develop my research skills for use in clinical practice") (χ^2 = 5.6; p = 0.018), whereby PhD graduates were far less likely to agree that there was a lack of incentive to develop their own research skills. Likewise, the percentage of nurses holding

Table 1 Sociodemographic characteristics of the participants

Variables		Sample (n = 218)
Gender (%)	female	160 (73.4)
	male	58 (26.6)
Age (years)	N (Nmiss)	210 (0)
	mean (SD)	42.1 (8.1)
	median	40
	minimum	27
	maximum	68
Country region (%)	Center	113 (51.8)
	North	61 (28.0)
	Lisbon and Tagus Valley	30 (13.8)
	South	7 (3.2)
	Islands	7 (3.2)
Academic degree (%)	Bachelor's	90 (41.3)
	Master's	119 (54.6)
	PhD	9 (4.1)
Area of specialization (%)	prior to differentiation by areas	94 (43.1)
	critical care nursing	95 (43.1)
	perioperative nursing	12 (5.5)
	chronic care nursing	9 (4.1)
	palliative care nursing	8 (3.7)
Unit worked in (%)	surgical services	55 (25.2)
	intensive / intermediate care	50 (22.9)
	emergency service	38 (17.4)
	others – several minor units	75 (34.4)
Professional practice (years)	N (Nmiss)	218 (0)
	mean (SD)	19.1 (8.3)
	median	18
	minimum	2
	maximum	48

Nmiss – number of missing values; SD – standard deviation

Table 2 Attitudes towards evidence-based practice

Question item	Positive answers (%)	Median (1–5)
Q26. EBP implementation benefits professional development	97.7	5
Q8. Benefits to changing practice based on research	94.0	5
Q12. Able to access research articles	88.1	4
Q22. Trust the content of research articles	87.2	4
Q15. Able to search for research articles	77.5	4
Q1. Able to evaluate research articles	72.9	4

Table 3 Barriers to evidence-based practice

Question item	Positive answers (%)	Median (1–5)
Q9. Lack of incentives to develop research skills	83.9	4
Q23. Lack of support from colleagues who are experts in research	76.6	4
Q19. Lack of training in using research effectively	74.3	4
Q21. Lack of time	70.2	4
Q20. Lack of research funding	63.3	4
Q16. Inadequacy of computer resources in the workplace to research evidence-based literature	61.5	3.5
Q5. Limited support from managers	59.2	3
Q25. Lack of transferability to clinical practice	47.7	3
Q10. Difficulty in contacting expert colleagues to discuss research results	47.2	3
Q13. Overwhelming amount of research information	44.0	3

Table 4 Relations between a set of selected questions related to attitudes and barriers to EBP and gender

Question item	Gender	Negative or Neutral answer n (%)	Positive answer n (%)	Significance (χ^2 or Fisher exact test)
Q5. Management support	female	87 (54.4)	73 (45.6)	p = 0.017
	male	42 (72.4)	16 (27.6)	
	total	129 (59.2)	89 (40.8)	
Q8. Benefits regarding changes to practice	female	11 (6.9)	149 (93.1)	p = 0.345
	male	2 (3.4)	56 (96.6)	
	total	13 (6.0)	205 (94.0)	
Q9. Lack of incentives	female	27 (16.9)	133 (83.1)	p = 0.584
	male	8 (13.8)	50 (86.2)	
	total	35 (16.1)	183 (83.9)	
Q16. Adequacy of computer resources	female	102 (63.8)	58 (36.3)	p = 0.250
	male	32 (55.2)	26 (44.8)	
	total	134 (65.1)	84 (38.5)	
Q19. Lack of training	female	37 (23.1)	123 (76.9)	p = 0.150
	male	19 (32.8)	39 (67.2)	
	total	56 (25.7)	162 (74.3)	
Q21. Lack of time	female	51 (31.9)	109 (68.1)	p = 0.270
	male	14 (24.1)	44 (75.9)	
	total	65 (29.8)	153 (70.2)	
Q25. Lack of transferability	female	88 (55.0)	72 (45.0)	p = 0.184
	male	26 (44.8)	32 (55.2)	
	total	114 (52.3)	104 (47.7)	
Q26. Benefits to professional development	female	4 (2.5)	156 (97.5)	p = 1.000[*]
	male	1 (1.7)	57 (98.3)	
	total	5 (2.3)	213 (97.7)	

[*]*Fisher exact test*

a PhD degree who considered that the computer resources available to them in the workplace were adequate to the task of searching for evidence-based literature (Q16) is significantly higher ($\chi^2 = 7.7$; p = 0.022). When analyzing the answers to Q19 ("I believe I should take training to help me use research effectively") there is a clear difference between the three academic degrees. The percentage of bachelor degree holders who felt the need for training was 83.3% (n = 75), while the percentage for those with master's degrees was 68.9% (n = 82), and 55.6% (n = 5) for PhD holders. The relationship between Q19 and this socio-professional variable is statistically significant ($\chi^2 = 7.3$; p = 0.026), and we can state that the higher the nurses' academic degree,

the lower the training needs perceived by them in the area in question. The same is true of Q25 ("Research results are often not easily transferable to my clinical practice"), wherein more senior nurses had a lower perception of this difficulty, with a statistically significant relationship between this item and the academic level variable ($\chi^2 = 7.8$; p = 0.02). The perception of time limitation as a barrier to EBP is significantly higher among nurses with bachelor's / master's degrees than among those with doctoral degrees. In fact, in Q21 ("I find that time limitations prevent evidence-based practice from being used effectively in my clinical practice") shows a statistically significant association with the variable of academic degree (Fisher's Exact Test p < 0.001).

Table 5 Relations between a set of selected questions, related to attitudes and barriers to EBP, and academic degree

Question	Degree	Negative or neutral answer n (%)	Positive answer n (%)	Significance of χ^2 test
Q5. Management support	Bachelor's	50 (55.6)	40 (44.4)	
	Master's	72 (60.5)	47 (39.5)	p = 0.394
	PhD	7 (77.8)	2 (22.2)	
	Total	129 (59.2)	89 (40.8)	
Q8. Benefits regarding changes to practice	Bachelor's	6 (6.7)	84 (93.3)	
	Master's	7 (5.9)	112 (94.1)	p = 0.722
	PhD	0 (0.0)	9 (100.0)	
	Total	13 (6.0)	205 (94.0)	
Q9. Lack of incentives	Bachelor's	14 (15.6)	76 (84.4)	p = 0.059 (but with
	Master's	17 (14.3)	102 (85.7)	p = 0.018 between PhD
	PhD	4 (44.4)	5 (55.6)	and non-PhD
	Total	35 (16.1)	183 (83.9)	
Q16. Adequacy of computer resources	Bachelor's	49 (54.4)	41 (45.6)	
	Master's	82 (68.9)	37 (31.1)	p = 0.022
	PhD	3 (33.3)	6 (66.7)	
	Total	134 (65.1)	84 (38.5)	
Q19. Lack of training	Bachelor's	15 (16.7)	75 (83.3)	
	Master's	37 (31.1)	82 (68.9)	p = 0.026
	PhD	4 (44.4)	5 (55.6)	
	Total	56 (25.7)	162 (74.3)	
Q21. Lack of time	Bachelor's	23 (25.6)	67 (74.4)	
	Master's	34 (28.6)	85 (71.4)	p < 0.001
	PhD	8 (88.9)	1 (11.1)	
	Total	65 (29.8)	153 (70.2)	
Q25. Lack of transferability	Bachelor's	37 (41.1)	53 (58.9)	
	Master's	71 (59.7)	48 (40.3)	p = 0.020
	PhD	6 (66.7)	3 (33.3)	
	Total	114 (52.3)	104 (47.7)	
Q26. Benefits to professional development	Bachelor's	3 (3.3)	87 (96.7)	
	Master's	2 (1.7)	117 (98.3)	p = 0.655
	PhD	0 (0.0)	9 (100.0)	
	Total	5 (2.3)	213 (97.7)	

Discussion

Having recognized the value of EBP and the relevance of the role of nurses specialized in MSN in health systems, it is important to understand and characterize their current situation in order to design strategies to promote specialized nursing interventions based on the best evidence. This study allowed us to identify the attitudes and barriers to EBP from the point of view of nurses specialized in MSN.

Nurses specialized in MSN show a predominance of positive attitudes towards EBP, report that they recognize the benefit of changing their practice based on research (Q8), and have a strong belief that incorporating evidence into practice will be useful for their professional development (Q26). In an integrative review, Camargo et al. (2018) validate these findings, showing that nurses have favorable attitudes towards EBP. Likewise, Silva et al. (2021), in a Brazilian study, demonstrate that nurses see EBP as essential to care delivery.

In a cross-sectional study that sought to compare care settings (hospital and primary health care), Peixoto et al. (2017) state that nurses in both settings mirror positive attitudes towards EBP but acknowledge that its translation into practice occurs to a lesser degree. Melnyk & Fineout-Overholt (2019) and Pereira (2021) agree with the author of this study, reiterating that, despite the impact of EBP evidenced by the literature and its appreciation by nurses, there is still a substantial disconnect with its practical applicability.

The existence of barriers to EBP is a reality that limits its incorporation. The most significant barriers identified by the nurses specialized in MSN were lack of incentives, lack of support from expert colleagues, lack of training in applying research effectively, lack of funding for research, and time constraints. These findings are in line with those of a study conducted in a pediatric setting (Torres, 2019), although in this study the perception of lack of time was higher (the percentage of positive responses = 85.3%). They also corroborate the results

of Peixoto et al. (2017); however, with respect to Q9 (*"There are no incentives to develop my research skills to be used in clinical practice"*) this barrier is perceived to a greater extent by the nurses specialized in MSN in this study (percentage of positive answers = 83.9%).

Although most nurses specialized in MSN considered themselves able to access, search for, and evaluate research articles, and trust the scientific results of the articles they read, the majority also responded positively to Q23 (*"I would feel more confident if someone experienced in research provided me with relevant information"*). Melnyk et al. (2018), in a study conducted in 19 hospitals in the United States, address the importance of mentors in the incorporation of EBP, using the EBP Mentorship Scale to assess the existence, availability, and access to mentors to assist in the implementation of EBP. Gorsuch et al. (2020) state that formal education and skills development programs on EBP promote positive attitudes in professionals and increase knowledge / skills, extending them over time, and Silva et al. (2021) share this opinion, emphasizing theoretical-methodological workshops as an efficient method for developing EBP skills. Both authors corroborate the idea that the safety, support, and encouragement conveyed by mentors increase the effectiveness of research in practice (Gorsuch et al., 2020).

In the scientific literature, there are several studies that address the issue of barriers to EBP. In line with the findings of this study, the barriers that emerge from the literature are related to lack of time (Gómez-Salgado et al., 2023; Gorsuch et al., 2020), lack of EBP mentors (Friesen et al., 2017; Melnyk et al., 2018), high workload (Schneider et al., 2020), lack of training (Gorsuch et al., 2020), insecurity in assessing the quality of outcomes (Friesen et al., 2017), a lack of research skills (Schneider et al., 2020), and the lack of incentive from managers (Silva et al., 2021). In fact, barriers to the implementation of EBP are a reality in healthcare organizations and its effective use is often a challenge (Friesen et al., 2017). Although the influence of EBP in increasing the safety and quality of care is recognized by nurse managers and health experts, the incorporation of this important element into strategic planning and the availability of resources necessary for its integration into nursing are insufficient (Friesen et al., 2017).

The influence of organizational culture is considerable with regard to EBP. This is described in the literature in two ways: on the one hand as a barrier to EBP, and on the other as an enabler of EBP (Melnyk et al., 2018). According to Crawford

et al. (2020), to provide a supportive environment and appreciation of EBP within an organization, it becomes critical to evaluate specific concepts related to it and plan targeted interventions. This author proposes the application of the new 2019 version of the Nursing EBP Survey, together with the Implementation Climate Scale (additional assessment of the organizational climate for the implementation of EBP) and the Implementation Leadership Scale (assessment of EBP attitudes adopted by leaders) in its two versions (staff perception and self-assessment by leaders) (Gallagher-Ford et al., 2020). There are also two other instruments that allow the study of the EBP culture of an institution, but, like those previously mentioned, they are not adapted to the Portuguese context: i.e., the Organizational Culture and Readiness for System-Wide Integration of EBP Scale, applied in the United States by Melnyk et al. (2018), Gallagher-Ford et al. (2020) and Gorsuch et al. (2020), and the EBP readiness survey instruments used by Rahmayanti et al. (2020).

It should be noted that nurses with a doctoral degree least perceived the barriers lack of time, inadequacy of computing resources, and lack of incentives for the development of their research skills. However, they also tended to consider that support from managers was lacking. The study also showed that the higher the nurses' academic degree, the lower the perception of the need for training in this area and the lower the perception of the difficulty in translating scientific results into practice. Melnyk et al. (2018) and Crawford et al. (2020) corroborate these results by stating that nurses with higher academic degrees tend to perceive fewer barriers.

With respect to the implications of this study for practice, the evaluation of the dimensions related to EBP in the context of clinical practice by the nurses specialized in MSN allows the identification of deficiencies, from which strategies and training plans can be developed to strengthen specialized nursing care, based on the best evidence. It is essential to design learning paths to be integrated into nurses' workflow, and to identify EBP mentors in clinical practice settings who are able to empower nurses and promote EBP implementation.

Limitation of study

Regarding limitations in the study, most participants were from the same region of the country, which may result in a lack of representativeness of the population of Portuguese nurses. Secondly, a self-assessment instrument was used, which may lead to under / overestimated results. Other, more extensive areas should be studied in the Portuguese context, such as attitude, knowledge, skills, and

utilization of EBP among nurses, using, for example, the EBP-COQ Prof©, a questionnaire developed in the Spanish context to evaluate the competency in EBP of registered nurses (Ruzafa-Martínez et al., 2020). Despite these limitations, we believe the study will contribute to future research related to nurses specialized in medical-surgical nursing and their differentiated practice based on the best available evidence. Given that there are few cross-culturally adapted EBP instruments for the Portuguese context, further studies are encouraged to promote and enhance the operationalization of EBP in Portugal.

Conclusion

The study allowed us to identify the attitudes and barriers to EBP perceived by nurses specialized in medical-surgical nursing. They recognized the positive impact of EBP and the benefit of incorporating it into their professional development but reported difficulties in its practical implementation. The most significant barriers to EBP were the lack of incentives to develop research skills, support from expert peers, training, funding, and time.

Ethical aspects and conflict of interest

To ensure that ethical principles were followed, each study participant gave informed consent by completing a section at the beginning of the questionnaire containing information about the study, its objectives and background, the researcher in charge, its conditions, and funding. Participation was anonymous and voluntary, and participants could withdraw from the study at any time without any explanation or personal prejudice. At no time during the study were participants identified and / or identifiable. Prior authorization was requested and obtained from the authors (Pereira et al., 2015) to use the QABPBE-26 data collection instrument, validated for the Portuguese context. The study was approved by the Ethics Committee of the Higher School of Health North of the Portuguese Red Cross (Opinion no. 003/2022).

The authors declare no conflict of interest.

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Author contributions

Conceptualization (ACPP, LANM), data curation (ACPP, LANM), data analysis (ACPP, LANM), funding acquisition, investigation, methodology (ACPP, PFAM, LANM), manuscript preparation (ACPP, PFAM, LANM), manuscript revision (ACPP, PFAM, LANM). All authors approved the final version of the manuscript and this submission.

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