

Research skills developed in post-graduation and their translation into clinical nursing practices



Competências de investigação desenvolvidas pela pós-graduação: transferência para a prática clínica em enfermagem

Habilidades de investigación desarrolladas por la formación de posgrado: transferencia a la práctica clínica de enfermería

Rogério Ferreira^{a,f}

Teresa Dionísio Mestre^{a,f}

Júlio Belo Fernandes^{b,g}

Luís Sousa^{c,f}

Helena José^c

César Fonseca^{d,f}

Oscar Ferreira^{e,h}

Cristina Lavareda Baixinho^{e,h}

How to cite this article:

Ferreira R, Mestre TD, Fernandes JB, Sousa L, José H, Fonseca C, et al. Research skills developed in post-graduation and their translation into clinical nursing practices. Rev Gaúcha Enferm. 2024;45(spe1):e20240005. <https://doi.org/10.1590/1983-1447.2024.20240005.en>

ABSTRACT

Objective: To explore how the development of research skills through postgraduate training is transferred to the use of research in clinical nursing practice.

Method: This was a qualitative, exploratory, descriptive study developed based on a focus group in October 2021, using an intentional sample of eight postgraduate nurses from a healthcare institution in the region of Baixo Alentejo, Portugal. Bardin's content analysis was performed to analyze data. The participants and two reviewers legitimized the findings. In addition, the consolidated criteria for reporting qualitative research checklist were applied to this study to ensure the quality of the research report.

Results: From the data analysis, three categories emerged: 1) transfer of research skills to clinical practice, 2) constraints to the development of research, and 3) expectations concerning the development of nursing research.

Conclusion: Appreciation of research skills in contexts of practice, team involvement, improvement of nursing care outcomes, greater understanding of the research process, communication of results, and transferring knowledge to the clinic are contributions of research skills acquired in postgraduation training. The findings from this study can contribute to the development of health and nursing education policies.

Descriptors: Evidence-based Practice. Students. Learning. Nursing Care. Professional Competence.

RESUMO

Objetivo: Explorar o modo como as competências de investigação, desenvolvidas através da pós-graduação em enfermagem, transferem-se para a prática clínica.

Método: estudo qualitativo, exploratório e descritivo, desenvolvido com base em um grupo focal em outubro de 2021, utilizando uma amostra intencional de oito enfermeiros pós-graduados de uma instituição de saúde da região do Baixo Alentejo, Portugal. Para a análise de dados, foi realizada a análise de conteúdo de Bardin. Os participantes e dois revisores legitimaram os resultados. Além disso, os critérios consolidados para verificação de pesquisa qualitativa foram aplicados a este estudo para garantir a qualidade do relatório de pesquisa.

Resultados: da análise de dados emergiram três categorias: 1) Transferência das competências de investigação para a prática clínica, 2) constrangimentos ao desenvolvimento da investigação e 3) expectativas em relação ao desenvolvimento da investigação em enfermagem.

Conclusão: O reconhecimento pelas competências de investigação nos contextos da prática, o envolvimento da equipe, a melhoria dos resultados dos cuidados de enfermagem, a maior compreensão do processo de investigação, comunicação dos resultados e transferência do conhecimento para a clínica são contributos das competências de investigação pela pós-graduação. Os achados deste estudo podem contribuir para o desenvolvimento de políticas de educação em saúde e enfermagem.

Descritores: Prática baseada na evidência. Estudantes. Aprendizagem. Cuidados de enfermagem. Competência profissional.

RESUMEN

Objetivo: explorar cómo las habilidades de investigación, desarrolladas a través de la formación de posgrado en enfermería, se transfieren a la práctica clínica.

Método: estudio cualitativo, exploratorio y descriptivo, desarrollado a partir de un grupo focal en octubre de 2021, utilizando una muestra intencional de ocho enfermeros de posgrado de una institución de salud de la región del Baixo Alentejo, Portugal. Para el análisis de los datos se realizó el análisis de contenido de Bardin. Los participantes y dos revisores legitimaron los resultados. Además, se aplicaron a este estudio los criterios consolidados para la verificación de la investigación cualitativa para garantizar la calidad del informe de la investigación.

Resultados: tres categorías surgieron del análisis de los datos: 1) transferencia de habilidades de investigación para la práctica clínica, 2) limitaciones del desarrollo de la investigación y 3) expectativas sobre el desarrollo de la investigación en enfermería.

Conclusión: El reconocimiento de habilidades investigativas en contextos de práctica, la participación del equipo, la mejora de los resultados de la atención de enfermería, una mayor comprensión del proceso de investigación, comunicación de resultados, y la transferencia de conocimientos a la clínica son contribuciones de las habilidades investigativas a través de la formación de posgrado. Los hallazgos de este estudio pueden contribuir al desarrollo de políticas de educación en salud y enfermería.

Descritores: Práctica basada en evidencia. Estudiantes. Aprendiendo. Cuidado de enfermera. Competencia profesional.

^a Instituto Politécnico de Beja. Escola Superior de Saúde, Departamento de Saúde. Beja, Portugal.

^b Escola Superior de Saúde Egas Moniz. Almada, Portugal.

^c Universidade Atlântica. Escola Superior de Saúde Atlântica. Barcarena, Portugal.

^d Universidade de Évora. Escola Superior de Enfermagem São João de Deus. Évora, Portugal.

^e Escola Superior de Enfermagem de Lisboa. Lisboa, Portugal.

^f Comprehensive Health Research Centre. Évora, Portugal.

^g Centro de Investigação Interdisciplinar Egas Moniz (CiEIM). Almada, Portugal.

^h Nursing Research, Innovation and Development Centre of Lisbon (CIDNUR). Lisboa, Portugal.

INTRODUCTION

Research brings undeniable contributions for the development of health care. Currently, it has been facing growing challenges due to the complexity of health-disease processes experienced by individuals, which have been made worse by the pandemic and the growth of new complications that limit the quality of life of people with chronic diseases, disabilities, and dependences, requiring new interventions in the field of health. The nursing scientific community has recognized this complexity in recent years, noting that research on interventions to improve health care and the wellbeing of diseased people require significant methodological innovation⁽¹⁾.

Nurses play a central role in the efficient management of population health. This implies in the planning and implementation of complex, individualized interventions, which must have a high-quality and be based on the best evidence available⁽²⁻⁴⁾. The improvement of care and the sustainability of health systems depend on the competences of health workers in general and of nurses in particular, for actual evidence-based practice to be achieved^(4,5). For the implementation of clinical evidence, nurses and nursing students need to develop skills related to research, summarization, and evidence implementation⁽⁶⁻⁹⁾, from the perspective of interprofessional research^(6,8).

By addressing the academic and clinical meaning of research, the scientific community reiterates the importance of associating health care practices to evidence, pointing at the importance of students acquiring knowledge and developing skills that are essential to conduct research, such as critical thinking, analytical thinking, and clinical reasoning⁽⁷⁾. The preparation of scientifically literate professionals is a concern in undergraduate nursing training, as they must be able to give support to evidence-based practice, but the same is true for post-graduation (MS) in nursing⁽⁶⁻⁹⁾. Additionally, it is essential to prepare nurses to become team leaders⁽²⁻⁴⁾ that can contribute to the development of ecosystems of evidence that can enable the involvement of teams in the production, translation, and use of evidence, as advocated by the World Health Organization⁽¹⁰⁾.

The traditional perspective regarding research and the dissemination of knowledge must be clarified so research can be more widely understood and embraced by the needs, perceptions, preferences, and abilities of the final consumers of knowledge, leading to the development of a (cost) effective intervention that can address a (clinical) problem⁽¹⁾. This change requires specialist nurses to be able to investigate the (care) needs and perceptions of users and providers regarding issues identified, in addition to the preferences and abilities regarding the proposed solution⁽¹⁾.

This aptitude can guide nurses to carry out evidence-based practice⁽⁵⁾. This practice requires competences in the development and application of knowledge, abilities in the identification of relevant and current scientific information in health, introducing the research in practice, practice evaluations, and participation in collaborative research⁽²⁾.

Nurses are the largest professional group in the field of health, responsible for filling gaps in evidence-based practice⁽³⁾. Furthermore, when workers are in an interprofessional cooperation network, nursing care becomes increasingly complex. Therefore, it is essential to ensure that the knowledge from these experiences is translated into an evidence based practice⁽⁸⁾, allowing a connection between academic knowledge and clinical practice⁽⁹⁾.

Considering the above, this study aims to explore how the development of research skills in nursing post-graduation translates into the use of research in clinical practice.

METHOD

This was a qualitative, exploratory, and descriptive study based on the focus group methodology⁽¹¹⁾. To ensure the quality of the study, researchers followed the consolidated criteria for qualitative investigations (COREQ)⁽¹²⁾.

Participants were recruited in a hospital center in the region of Baixo Alentejo, south of Portugal, using an intentional sample.

The main researcher intentionally selected nurses based on the following criteria:

1. Being post-graduated (MS) in nursing.
2. Performing a role in the institution.
3. Having participated in research during or after post-graduation.

There were no exclusion criteria.

We selected eight nurses with MS in nursing and rich, diversified experience in different contexts of care, including elders in medical services, people in critical condition, intensive care services, and urgency services.

The focus group had two meetings. The first aimed to bring the discussion to the participants, and the second was the validation process, which allowed us to give the research back to the participants in order to validate the interpretations of the researcher. This data collection technique is the most common procedure in social, educational, and health research⁽¹³⁾.

The main investigator (and moderator) followed an interview guide, developed for this study, involving a set of open questions. The guide was created in accordance with a literature review and the contributions of specialists in qualitative research methods, in addition to being validated

among colleagues^(11,13). As a result, the guide was sufficiently clear, objective, and comprehensive, with no ambiguous or misleading questions.

The first part of the guide included questions that allowed characterizing the participants. Then, to understand how the research competences developed in nursing post-graduation are transferred into clinical practice, the guide included three questions to guide the discussion:

How are the research skills developed in nursing post-graduation transferred for the use of investigation in clinical practice?

What constraints are present in the development of research practices in clinical nursing practice?

What are your expectations about the development of research practices in your care practice?

The main researcher invited the participants via phone call or email, presenting the investigation project, its goals, and explaining the importance of the collaboration of the participant.

The focus group was conducted by the main researcher, a qualified moderator with a PhD in educational sciences, who had no previous relationship with the participants. It was carried out in October 2021, in a meeting room chosen in agreement with study participants. No one besides the participants and the moderator was present at this meeting. The place was free of noise, in an environment that ensured participants would have privacy and be comfortable. The focus group lasted for approximately 90 minutes, was recorded in audio, and later transcribed in full into a Word file, after what it was analyzed.

Participants discussed the topic freely and spontaneously, focusing on their experiences with research. This discussion was essential to find rich data about the topic being studied.

The data analysis process was conducted using a qualitative content analysis, more specifically, the thematic analysis described by Bardin⁽¹⁴⁾.

Two investigators analyzed the recordings of the focus group several times to find their general meaning. Later, the content of the recordings was fully transcribed into textual data. The integral transcription was used as the corpus for analysis, corresponding to the material to be analyzed and produced for investigation⁽¹⁴⁾.

In the first stage, investigators skimmed the text to check whether the information collected was related to the objective of the study. In the second stage, the literal text was separated into units of meaning with words and sentences associated with the same topic. Investigators coded the meaning units using the words of the participants. In the third

stage, researchers used an inductive content analysis to find common categories among the data. In the final stage, two other researchers analyzed the citation of the participants and matched each quote with one of the specified categories.

To ensure the quality of the study, the researchers followed the procedures defined by Nowell, Norris, White, and Moules⁽¹⁵⁾, regarding credibility, transferability, reliability, and confirmability.

To ensure credibility, researchers discussed each decision until reaching a consensus during the analysis, and gave the results back to participants, so they could validate the interpretations of the researchers. The citations of participants were presented to ensure that those who wanted to transfer the results could evaluate their transferability. Reliability was ensured by detailing each stage of the decision-making process, ensuring that readers could follow the research process. Finally, to ensure confirmability, researchers requested external observers to search for discrepancies, comparing their perceptions with those of the researchers⁽¹⁵⁾.

This research was carried out in accordance with the Declaration of Helsinki. Before this investigation was carried out, the Institutional Ethics Committee and the Board of Directors of the Hospital Center reviewed and approved the research protocol (EDOC/20326 – Point 3 //meeting No. 5/2018, minute No.21, paragraph 4.1).

Before the focus group, the main investigator provided information to the participants and verbally explained the study. Then, all participants signed the informed consent form, accepting that the focus group would be recorded in audio, used in an anonymous report, and that research results would be published.

Data was collected in accordance with ethical principles and ensuring the anonymity of participants. In the full transcript, participants were identified by the letter P followed by a number corresponding to the order of the interview (for example, P1, P2, P3, ...).

All data was stored in a private location at the higher education institution. Additionally, the digital data was stored in the personal computer of the researcher responsible for the study and protected by a password.

■ RESULTS

The focus group included eight nurses with MS degrees. Table 1 shows their characteristics.

Three categories emerged from data analysis. They included several subcategories, presented in Table 2. Examples of each are provided in the following section.

Table 1 – Characteristics of the participants in the focus group. Beja, Portugal, 2023

Characteristics		Frequency	Percentage
Sex	Woman	2	25
	Man	6	75
Age	30-39 years	6	75
	40-49 years	1	12.5
	50-59 years	1	12.5

Source: The authors, 2023.

Table 2 – Categories and subcategories. Beja, Portugal, 2023

Categories	Subcategories
Transferring research skills to clinical practice	Appreciation for one's skills
	Team involvement
	Improved nursing care results
	Understanding the investigation process
	Communicating science
Conditions for the development of research practices	Transferring knowledge into the clinic
	Development opportunities
	Nurse motivation
	Lack of appreciation
Expectations regarding the development of nursing research	Resistance to change
	Continuous training
	Encouraging research practices
	Project development
	Improved nursing care outcomes
	Motivation for research

Source: The authors, 2023.

Transferring research skills to clinical practice

In this category, we find the perceptions of participants regarding how research skills contributed during or after their post-graduation in nursing. It is related to an appreciation for these skills, team involvement, improved nursing care results, understanding the research process, communicating science, and transferring knowledge into the clinic.

Appreciation for one's skills

The work developed by nurses in their post-graduation was notable in practical contexts, consequently leading to an appreciation of their skills.

By building up data to make the report, in the work I had to do to find the answer to the project I had to get help from my colleagues, the physicians [...], people observed, observed the results, [...] they noted the response and today physicians call me for rehabilitation care, they are the ones who call me because they saw the impact that could have. (P2)

I also noted [...] that the medical team and colleagues look at us differently after we develop these skills; colleagues also asked our help more often and even some physicians ask our opinion on certain situations. (P3).

The appreciation from some colleagues, especially the younger ones, regarding the provision of care or even doubts they may have, they always end up asking not only the two older ones, but also me. (P1)

Team involvement

Team involvement is one of the contributions of nursing post-graduation, in particular for the development of projects and for the investigation.

We must embrace new projects and encourage our colleagues to conduct new projects, that's the goal. (P3)

It's really important to involve people from the service and send them to develop their research skills. (P3)

Improved nursing care results

The knowledge and skills developed in post-graduation allowed participants to improve their care practices, bringing benefits to the health of users.

With results from work, we can show the improvements this brought to the nursing practice and the users. (P2)

We have to look at research as a factor that contributes to increasing the quality of care, that is, it will be a tool for our work, just like we work with the ill. It will also be a work instrument and we can't dissociate research from practice, they must walk together. (P3).

Understanding the investigation process

Since research is fundamental for the construction of knowledge, participants consider that nurses must master the scientific method. The competences developed in post-graduation allowed them to understand how to conduct investigations and incorporate their results in their daily practice.

In regard to rehabilitation care, they are all very adequate regarding what we learn and how to question the way we think throughout the process of investigation. (P4)

Communicating science

Post graduation ensures not only a better understanding of the research process, but also the communication of its results.

We have to adapt the language to the population that surrounds us. We also know that between us we use a scientific language that is associated to the skills of an MS, but we have to know how to transmit and expose them.

The project I developed over my MS was done here, at the service, it tried to deal with a demand we had here, and a second article also emerged from it. (P7)

Transferring knowledge into the clinic

Participants believe that the competence they acquired in their post-graduation must be translated into clinical practice. Both statements below reflect how relevant to clinical practice is transferring knowledge through peer training.

We finished our MS two years ago, and since then we have replicated this so-called formation periodically, every three months or so, that is, we tried, for one year, to do four training sessions in which we could involve all elements, all nurses from our urgency service. And for what? So

we can provide better responses in the reanimation of critical patients who arrive at our urgency service. (P5)
I think this had a very positive impact, we managed to train the entire team in reanimation skills due to the work developed during the MS. Also, with the training in service, and the training... I am responsible for the training of the VMER, and also for all training we tried to provide, and we also are more skilled to carry it out, more places where to search for information and, later, this is reflected in practice. (P6)

Conditions for the development of research practices

Participants stated that the nurses deal with many factors that could work as barriers to the development of research. This category presents the perceptions of participants regarding the constraints to develop research in four subcategories: Opportunities for development, lack of recognition, motivation, and resistance to change.

Development opportunities

Opportunities for development are one of the constraints associated with the encouragement from management or other institutional constraints available. Participants believe that managers can facilitate the development of nurses by encouraging them to continue studying, providing advanced training courses or post-graduations so they can acquire superior knowledge and skills to improve the quality of care.

The manager was one of the people who ended up [...] instilling this in me. He encouraged me to do my master's. (P1).

The institution and the managers, I think, really promote the development of these practices when they give us time to watch classes and participate in research projects. (P1)

Nurse motivation

Participants found that the lack of motivation among nurses influences the development of investigation practices. It is associated with collaborative dynamics, the need to develop knowledge, and knowledge dissemination.

There must be motivation. [...] after all this training, there was an intrinsic motivation that led me to develop these skills and go beyond and think beyond them. (P3)

The research work developed by one of the members of the team opened horizons, it widened the horizon of the other members, widened the horizons of management and the service management and the team. We hope that, in the future, when this type of care is operationalized, there will be even greater motivation and demand from colleagues. (P4)

[...] factors that promoted it are also related to our availability, I think we all have shown we are available and willing to change some things and some of these changes have been accepted, while others, not so much (P6)

[...] people must be predisposed to want to change, to want to improve, and to understand the reason for the change (P7)

Lack of appreciation

Participants found that the lack of appreciation was one of the elements that constrained research. An investigation is time-consuming, requiring a lot of work, and researchers must have the appropriate skills and knowledge, and often go unrecognized by their peers or the institution.

Now, sometimes there must be an acknowledgment, a sign of appreciation, and this I think is the greatest failure, the worst failure here at an institutional level, because this simple doesn't happen, there is no thanks, no words of appreciation. (P4)

Resistance to change

Resistance to change is another factor that constraints the development of research practices, as the following statement indicates.

We note there is some resistance to change, because these changes sometimes increase the amount of work, and this, whether we want it or not, is something that will hinder this change. (P6)

We don't do it like we do because it's always been like this and we won't change [...] this type of attitude still exists, and things have improved, but you can still feel it a lot. (P7)

Expectations about the development of research practices in nursing

Participants reported many expectations regarding the development of research in nursing. Their main expectation is in continuous education, by encouraging research practices, project development, improving nursing care results and the motivation for research.

Continuous training

Participants reported to have great expectations regarding continued education, the skills they need to master, and their ability to transfer these skills to others through their in-service training sessions.

Masters must gather skills as their peers are being trained (P3)

I'll always try, even if informally, to be based on evidence (P8)

About my development expectations, I think it ends up being another obligation to respond to some form of training, post-graduation or not, some challenge, in terms of training in service [...] (P8)

Encouraging research practices

The expectations of participants influenced other colleagues so they would conduct research after receiving personal encouragement.

Encouragement is necessary too, and it can be individual, can be between groups, as happens in our service, let's say, or in a unit, in the service [...] at which there are ongoing projects that involve the entire team. (P4)

Project development

The development of projects is an expectation of these nurses, connected to the development of clinical investigation.

[...] we will be able to have projects that are unique to us (P1)

My expectations are to collaborate with these two projects, promote them in the nursing scientific community and in rehabilitation nursing.(P4)

Improved nursing care outcomes

Participants reported having expectations regarding the outcomes of their nursing care by incorporating evidence-based practices in their care.

I think that, right now, there is enough scientific evidence to change the way we provide care and continuously improve what we do and how we care for the ill. (P7)

Motivation for research

Peer motivation is one of the expectations of these nurses regarding the importance of investigation practices in the clinic.

Regarding the investigation, we need to check if there are any ideas and pass them on, keep motivating our colleagues(P2)

■ DISCUSSION

The participants of this study believed that the frequency of MS courses and the development of a project focused on clinical improvement allowed them to observe how research skills contribute to nursing clinical practice not only because the investigation process was better understood, but also because the results of clinical practice were implemented, with the potential of improving care and providing scientific evidence, while causing their peers to appreciate their skills.

These findings about the translation of research skills into clinical practice suggest how important it is to articulate academic work with clinical contexts, overcoming the gap between theory and practice. Future studies should explore this, as the authors believe there is little empirical evidence to give support to the best strategies to be used when developing evidence-based practical skills and/or skills to produce, summarize, and translate knowledge for nursing MS students⁽³⁾.

In a literature review conducted by Patelarou, et al.⁽¹⁶⁾, regarding educational interventions to teach evidence-based practices for nursing undergraduate students, it was found that being trained in evidence-based practices can improve their ability to provide care. The authors also concluded that the teaching of practical evidence-based skills should be prioritized in nursing programs, as it reflects on critical thinking and on the use of evidence in clinical practice⁽¹⁶⁾.

Nursing, as a profession, requires methodologically robust studies, specific to the discipline, to identify which are the best approaches to develop a truly evidence-based practice^(3,6,7). This discussion also encompasses the relevance of evidence for education and for the profession as a whole^(17,18), since the approach to research-related disciplines is essentially theoretical⁽⁷⁾. Due to this limitation, it is not possible to see how the research is applied in practice⁽¹⁹⁾. Some researchers state that evidence-based practice is developed when professionals participate in research projects, improving their ability to read, produce, and summarize knowledge⁽⁷⁾.

It is a consensus that evidence-based practice learning is more effective when based on the principles of adult education, using active pedagogical strategies, clear goals, and activities that allow one to put them in practice^(16,20). They should also foster the involvement of the team in the clinic, using the evidence and development of investigation processes, helping transform knowledge in skills^(2,7,8,21-23).

In this study, participants found, as factors constrain the development of research practice, the opportunities for development, the motivation of nurses, the lack of appreciation, and resistance to change.

Development opportunities and nurse motivation stand out as they condition the development of research practices, as stated by Baixinho et al.⁽²⁴⁾, who considers that the translation of knowledge should be an active process, and those who use the results should be involved in the research process and in the search for knowledge. On the other hand, collaborative processes of which nurses can participate, developing their clinical practice, are challenges to the production and dissemination of knowledge, as well as to the appreciation of the actors^(25,26).

In a qualitative study carried out by Dagne and Tebeje⁽²⁷⁾ about the use of clinical practice, the authors found that nurses did not have support to use the results of their research in clinical decision making. On the other hand, nurses were aware of the gap in knowledge, so they could use the findings generated by the outcomes of their investigation in their practice, indicating that bad time management was an obstacle to their use⁽²⁷⁾. The lack of resources, especially concerning the access to articles useful to transfer this knowledge, as well as the lack of encouragement and personal motivation, were considered to be obstacles to the use of evidence in clinical practice⁽²⁷⁾.

Lack of appreciation and resistance to change are also seen as constraints to research practices. Nurses need to have knowledge and be educated in research, in order to they feel well-prepared to incorporate the results of research in the care of patients, families, and the community⁽²⁷⁾. There must be an organizational culture whose focus is supporting initiatives

to promote investigative practices in the clinic and carry out sustainable changes to support evidence-based practices⁽²⁸⁾.

To overcome these and other constraints, it is necessary to create strategies that increase interinstitutional articulation between academia and clinical contexts, allowing the translation of evidence into active clinical results that have a positive impact on the health of people⁽²⁵⁾. This is in line with the existence of a communication and collaboration network, involving researchers and clinical nurses that can promote reflection about clinical practices, identifying what can be improved and using the knowledge produced by research⁽²⁵⁾. There must be a pragmatic approach to the “real world”⁽²²⁾, which allows evidence-based practice to be significant for all nurses, encouraging the active involvement of health workers and policymakers^(7,10,21,24).

These approaches must aim to overcome the main obstacles against the development of evidence-based practices⁽²⁸⁾, allowing nurses and nursing students to incorporate, into their clinical practice, the best research available, in addition to their clinical experience and the preferences of the person. Educators, health workers, health system managers, and policymakers must compromise to develop a culture of evidence-based practices^(10,28), making available resources that can turn this into an effective practice⁽²⁸⁾.

When it comes to expectations about the development of nursing research, participants advocate the need for continuous training and formal and informal incentives to produce research. These results corroborate those of previous studies^(8,22). Therefore, it is essential to implement strategies focused on issues such as syllabus structure, content, and the delivery of programs, supporting educators and health workers to overcome the challenges of the implementation of evidence-based practices⁽²²⁾.

The expectations of these participants, focused on encouraging research practices, developing projects, and improving nursing care outcomes, are in line with the findings of Furtado et al.⁽²⁹⁾, who consider the existence of certain factors related to organizational dynamics — namely, organizations that aim to provide evidence-based practice, organizational support as a strategy to lead and enhance processes of change for evidence-based practices, and an organizational culture that encourages nurses to challenge professional practices and incorporated behaviors. Additionally, the organization must promote access to training specifically targeted at evidence-based practices. This continued education must be understood as a central dimension of professional development, and the articulation with higher education institutions is a fundamental strategy in preparing nurses to be autonomous in their implementation of scientific evidence⁽²⁹⁾.

Managers also must consider evidence-based practices as a nuclear dimension in the strategic guidance of nursing care in the context of health care, also understanding that communication and relationships between peers can potentiate the best scientific evidence in the practice of care⁽²⁹⁾.

Worldwide, nurses are the largest professional group in the field of health. Therefore, they must have an active role in developing, implementing, and updating evidence to ensure the quality of care⁽³⁰⁾, in order to ensure quality nursing practices that are safe, low-cost, harmonic and justified⁽³¹⁾.

The findings of this study have implications for the planning and development of post-graduation courses in nursing. They can also have implications for the elaboration of health policies. Furthermore, it provided information on the perceptions about research skill development in nursing MS and about the factors that influence its implementation in clinical environments, in addition to factors that can have a positive or negative effect in the transferring of knowledge into practice.

This study has several limitations. Firstly, the focus group depends a lot on a discussion that can limit participants' attempts to produce a useful discourse. Nonetheless, considering the depth of the data found and the fact that the main investigator is a well-trained and qualified moderator, we believe this limitation did not affect this research. Secondly, the sampling method is easier to operate, but prevents us from producing any generalizations based on the results of the study. Thirdly, the sample was small, despite being large enough to allow a deep and detailed description of the issue.

Further research should be carried out, involving more participants and addressing factors that influence the development of research practices, while selecting strategies to facilitate the development of research practices in clinical nursing.

■ CONCLUSION

Appreciation for research skills in the context of practice, team involvement, improvements in nursing care outcomes, a better understanding of investigation processes, communication of results, and the translation of knowledge into the clinical environment are contributions that research skills acquired in MS bring to nursing.

In addition to transferring research skills into clinical practice, the constraints to research development and the expectations surrounding it in nursing are categories that emerged in this study.

The existence of opportunities for personal and professional development, the need to improve one's knowledge, the dissemination of the knowledge produced, the availability

of nurses for research, as well as collaborative changes and dynamics were highlighted as facilitators for the development of investigative practices, while resistance to change and lack of appreciation were pointed out as obstacles.

Continuous training, peer motivation, encouragement to carry out research practices, the development of research projects, and the improvement of nursing care outcomes are among the main expectations of participants regarding the development of nursing research.

These findings have important implications for the development of research skills in post-graduation, and for policymakers to elaborate health and nursing education policies.

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■ **Author Contributions:**

Conceptualization: Rogério Ferreira, Luís Sousa e Cristina Lavareda Baixinho
Data curation: Rogério Ferreira
Formal analysis: Rogério Ferreira, Luís Sousa and Cristina Lavareda Baixinho
Investigation: Rogério Ferreira and Teresa Dionísio Mestre
Methodology: Rogério Ferreira, Júlio Belo Fernandes, Luís Sousa and Cristina Lavareda Baixinho
Project administration: Rogério Ferreira, Luís Sousa and Cristina Lavareda Baixinho
Resources: Rogério Ferreira
Software: Rogério Ferreira, Luís Sousa and Cristina Lavareda Baixinho
Supervision: Rogério Ferreira, Luís Sousa and Cristina Lavareda Baixinho
Validation: Teresa Dionísio Mestre, Júlio Belo Fernandes, Helena José, César Fonseca and Óscar Ferreira
Visualization: Júlio Belo Fernandes, Helena José and César Fonseca.
Writing – original draft: Rogério Ferreira, Júlio Belo Fernandes, Luís Sousa, Helena José and Cristina Lavareda Baixinho
Writing – review & editing: Rogério Ferreira, Luís Sousa and Cristina Lavareda Baixinho.

The authors declare that there is no conflict of interest.

■ **Corresponding author:**

Rogério Ferreira
E-mail: ferrinho.ferreira@ipbeja.pt

Received: 02.02.2024
Approved: 08.13.2024

Associate editor:

Dagmar Elaine Kaiser

Editor-in-chief:

João Lucas Campos de Oliveira

