

Assessment of an intervention for the diffusion of evidence-based nursing in a teaching hospital



Avaliação de intervenção para difusão da enfermagem baseada em evidências em hospital de ensino

Evaluación de intervención para propagar la enfermería basada en evidencias en un hospital de enseñanza

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ABSTRACT

Objective: To evaluate an intervention for the diffusion of evidence-based practice among the nurse leaders of a public teaching hospital.

Methods: This is a descriptive-quantitative study based on the evaluation of workshops at a teaching hospital in the Triângulo Mineiro region of the state of Minas Gerais, Brazil, in 2016, conducted from the conceptual perspective of "Diffusion of Innovation and Skills for the Use of Evidence-Based Nursing in Care Settings". We applied an Evidence-Based Practice Questionnaire and analysed the individual evaluations of each participant according to the frequency of cores of meaning and the calculation of content validity index.

Results: Ninety percent of the nurse leaders agreed to participate in the evaluation. The leaders had a positive attitude toward incorporating evidence into practice (average = 5.4; SD = ±1.3). Their main difficulty was the ability to understand research (average = 3.5; SD = ±1.3). Motivational aspects related to intervention had the highest content validity index (CVI = 0.9).

Conclusion: The workshops encouraged the diffusion of information regarding the need to incorporate scientific evidences to better qualify the care provided by nurse leaders in the public teaching hospital.

Keywords: Evidence-based nursing. Evidence-based practice. Hospitals, teaching.

RESUMO

Objetivo: Avaliar intervenção para difusão da prática baseada em evidências entre lideranças de enfermagem de um hospital público de ensino.

Métodos: Estudo quantitativo-descritivo sobre avaliação de Oficinas realizadas em hospital universitário do Triângulo Mineiro, em 2016, desenvolvidas na perspectiva conceitual da Difusão de Inovações e Competências para Prática de Enfermagem Baseada em Evidências em Cenários Assistenciais. Foi aplicado *Evidence-Based Practice Questionnaire*, analisadas avaliações individuais dos participantes conforme frequência de núcleos de sentido e cálculo do índice de validade de conteúdo.

Resultados: A adesão foi de 90% das lideranças, que apresentaram atitudes positivas à incorporação de evidências à prática (média = 5,4; dp = ± 1,3). A habilidade de compreender pesquisas foi a principal dificuldade (média = 3,5; dp = ± 1,3). Os aspectos motivacionais relacionados ao desenvolvimento da intervenção apresentaram maior índice de validade de conteúdo (IVC = 0,9).

Conclusão: As oficinas favoreceram a difusão de informações sobre a necessidade de incorporação de evidências científicas para qualificar a assistência das lideranças de Enfermagem no hospital público de ensino.

Palavras-chave: Enfermagem baseada em evidências. Prática clínica baseada em evidências. Hospitais de ensino.

RESUMEN

Objetivo: Evaluar intervención para difusión de práctica de enfermería basada en evidencias entre líderes de enfermería de un hospital de enseñanza pública.

Métodos: Estudio cuantitativo-descriptivo para evaluar talleres desarrollados en hospital académico, en la región del Triángulo Mineiro, 2016, bajo concepto de Difusión de Innovaciones y Habilidades para práctica de enfermería basada en evidencias. Se aplicó el *Evidence-Based Practice Questionnaire*, se analizó evaluación de cada participante, como también la frecuencia de centros de significado e índice de validez de contenido.

Resultados: Se obtuvo adhesión del 90% de los líderes, tenían actitudes positivas para incorporar evidencias en práctica (promedio=5.4, sd=±1.3), la capacidad de comprender investigaciones científicas fue la principal dificultad (promedio=3.5, sd=±1.3). Aspectos de motivación relacionados con el desarrollo de intervención mostraron mayor índice de validez de contenido (IVC = 0.9).

Conclusión: Talleres ayudaron a difundir la necesidad de incorporar evidencia científica para calificar asistencia ofrecida por líderes de Enfermería en hospital público de enseñanza.

Palabras clave: Enfermería basada en la evidencia. Práctica clínica basada en la evidencia. Hospitales de enseñanza.

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■ INTRODUCTION

The integration of quality scientific evidence with healthcare practice, and associating evidence with professional expertise and the preferences of users, their families, and communities, is a complex issue for Contemporary Nursing, and represents a cornerstone for the practice of Evidence-Based Nursing (EBN) ⁽¹⁻³⁾.

EBN presents itself as an opportunity to enhance the scientific production of nursing and legitimise the profession. Today, nursing is already producing a relevant body of knowledge ⁽⁴⁾. However, this framework should be expanded by means of scientific research using methods that provide insight into how technological advances and sociocultural networks affect care and respond to the everyday demands of care ⁽²⁻⁴⁾. At the same time, nursing research potentially strengthens the ethical commitment and humanistic work of this profession, and its results may support the range of collaborative relationships between members of the nursing staff and favour the establishment of a supportive organizational environment ⁽¹⁻⁴⁾.

However, this expansion will have little impact if the knowledge is restricted to researchers. It is becoming increasingly necessary to invest in strategies that draw the production of scientific evidence closer to care, considering that the research results must compose the repertoire of those who are directly linked to the care practice ⁽²⁻⁶⁾. In the scenario of university teaching hospitals, where nurses and managerial staff actively participate in a variety of shared academic activities, it is crucial to promote the approximation of scientific research and the use of its results ⁽⁶⁾.

To promote a bold profile in vocational training with technical and scientific qualification and critical judgment, it is important to encourage the use of research results both in education and in care experiences ⁽⁴⁾. This action can also benefit the nurses working at teaching hospitals since the best scientific evidence could help them create and choose products, processes and interventions. Consequently, hospitals would optimise costs and obtain more effective results for the health of the population ⁽¹⁻⁶⁾.

It should be noted that a characteristic of nursing is contact with the human condition, which includes culture, subjectivities, communication, and other human healthcare needs. Nursing care goes beyond the positivist determination of the biomedical rationale for its performance. Considering that nursing research has its own

theories – which are broad – interdisciplinary methods, and designs that are not merely experimental, such as qualitative research or a social approach in health, the translation of research findings into practice becomes a complex challenge ⁽²⁾.

Several international models have been delineated to support the implementation of scientific evidence in the context of the nursing practice and individual change in healthcare teams and organisations ⁽¹⁻³⁾. A review of literature on international models usually undertaken in hospitals for the achievement of EBN among nurses concluded that although these models support organisational change and individual skills, research is still needed to assess the results and the sustainability of their application in the care scenarios ⁽³⁾. At a national level, the authors identified only two papers on initiatives for the participation of nurses in the incorporation of quality research results in the nursing practice ⁽⁶⁻⁷⁾. This context led to the following question: what is the evaluation of an intervention to diffuse evidence-based practice by nursing leaders in a teaching hospital?

In general, contemporary scientific productions indicate that the engagement of leader nurses is critical to transform the hospital context and make it more favourable to EBN ^(1, 5). In the organisational environment, nursing leadership, namely nurses occupying managerial posts, are essential to enable conditions in the work routine that generate changes in technical care procedures or conduct. Moreover, nursing leaders can encourage health teams to use broad critical judgment in bedside decision making, and thus act beyond the traditional repetitive procedure ⁽⁵⁾. Therefore, the aim of this paper was to assess an intervention for the diffusion of evidence-based practice among nursing leaders of a teaching hospital.

■ METHODS

This is quantitative descriptive study for the evaluation of an intervention performed in a large, public general teaching hospital (332 beds) and reference in high-complexity healthcare of southern Minas Gerais. The proposal of the intervention and its evaluation was guided by the conceptual models of Rogers ⁽⁸⁾ for the diffusion of innovations, and of Melnyk, Gallagher-Ford and Fineout-Overholt ⁽¹⁾ (renowned researchers on the theme) on skills for evidence-based nursing practice in care scenarios. The conceptual models were selected because of their potential to facilitate the incorporation

of innovations in organizations⁽⁸⁾ and due to the timeliness of the proposal of Melnyk, Gallagher-Ford and Fineout-Overholt⁽¹⁾, which describes in detail the steps for the implementation of EBN among nurses in the hospital setting. We believe that the outlines of both models corresponded (Chart 1).

With regard to the participants of the proposed intervention, an interest group was identified consisting of the nurse managers. This intentional sample included all the managerial nurses of the inpatient units in the organisation chart of the hospital. The workshops excluded managers who worked exclusively with administration, who were on holiday, or those who for some management or care-related reason could not leave the sector during the workshops. A list was requested at the nursing division to identify the participants, who totalled 18 management nurses of the inpatient units.

The proposed intervention

The researchers held workshops and the nurse leaders made up the focal group that attended these workshops. Workshops were the preferred mode because the proposal calls for shared learning through a motivational group activity guided by hermeneutic-dialectical inter-

ventions⁽⁹⁾. This approach allowed the researchers to explore data related to the experiences and situations of the participants during the implementation of EBN in this context. The workshops were guided by literature on the subject and the prior experiences of the conductor group. The conductor group consisted of members who work on the strategic project of the sector that is responsible for assisting the development of research in this hospital. The aim of the conductor group was to plan and facilitate the workshops. The members of the conductor group were two nurses at the hospital with experience in group mediation, two faculty members, three post-graduate students – one master’s degree student and one doctoral degree student – and six graduate students, all of which were linked to the graduate program in nursing at the university of the teaching hospital. The faculty members and nurses with experience on the subject trained the other members of the group to outline the conduct and concepts, and the participants were divided into coordinators, facilitators and observers⁽⁹⁾ in the workshop. Meetings were systematically held before and after each workshop to plan intervention techniques, evaluate the process, and readjust courses.

The workshops were divided into warm up, use of expression strategies, questioning of the addressed is-

Stages	Model of Rogers	Proposal of Melnyk, Gallagher-Ford and Fineout-Overholt
I	Knowledge stage: relates to the understanding of the social system variables regarding the need to change and incorporate innovations	Identify problems in the nursing practice. Formulate questions using the PICOT strategy and conduct a systematic search of evidence, anchored in quality research results
II	Persuasion stage: corresponds to the relative advantages caused by change and the adoption of innovation	Involve interested parties (nursing co-workers, and other professionals; institution leaders; people, families and other groups that may benefit from the changes in care) that can contribute to criticism and the implementation of the intervention in the healthcare setting
III	Decision stage: corresponds to the adoption or rejection of the proposed change and incorporation of innovations	Integrate evidence with the nurses’ expertise and preferences of the users for the adoption of the best clinical decision
IV	Confirmation stage: refers to the diffusion of results and the reorganisation of the system for change and the incorporation of innovations	Assess the impact of the intervention; diffuse the results among the users, co-workers and policymakers. Incorporate the evidence to internal protocols in order to generate the best practices in the healthcare environment. Support other working groups in the conduct of EBN

Chart 1 – Description of the correspondence found between the model of diffusion of innovations and skills for evidence-based nursing practice in care scenarios. Uberaba/MG, 2016

Source: Prepared by the authors, 2016.

sues, exchange, articulation with the overall theme, and a review of the meeting⁽⁹⁾. The overall aim of the workshop was to approach the subject of EBN, practically question EBN in this hospital, and collectively construct viabilities for the implementation of EBN in the scenario. At the end of each workshop, the participants individually completed a semi-structured form guided by the statements: "what I enjoyed most about the meeting", "the most important thing I learned during the meeting" and, "what I would change about the meeting". The researchers held five workshops with the interest group that lasted 120 minutes each, from 09/08/2016 to 16/09/2016. Participation in the interest group meant that the members would be absent from the unit. To guarantee their presence, the researchers signed an agreement with the head of the nursing division so that the workshops could occur during the weekly meetings that the head of the division held with the interest group, in an appropriate room within the hospital.

The evaluation of the intervention

For the evaluation of Stage I (Chart 1) the previously translated and culturally validated Evidence-Based Practice Questionnaire (EBNQ)⁽¹⁰⁾ was applied to initial diagnose EBN in the interest group. This instrument contains 24 structured items on the Practice, Attitudes, Knowledge and Skills of EBN. The items are arranged in a Likert scale of 7 points, and the higher the score, the better the EBN. The questionnaire was associated with the demographic characterisation prepared by authors, and applied in the first workshop. Stages II and III (Chart 1) covered the evaluation of the actual workshops. To make such an assessment, the members of the conductor group jointly and thoroughly read the semi-structured forms answered by the interest group. The evaluative aspects were divided into two dimensions, namely: Conceptual Apprehension of EBN, where they identified the concepts present in the evaluations of the participants; and Motivational Aspects for the Diffusion of EBN, which identified aspects of the subjective experience of the participants stated in these evaluations. Convergent parts of the evaluations were transcribed for both themes, and arranged in cores of meaning.

The authors considered that Step IV (Chart 1) served as validation of the proposed intervention. Two evaluative matrices were organized for every workshop corresponding to each dimension, and completed by consensus among the members of the conductor groups. Thus,

each individual assessment of the participants received scores for the responses to the statements "what I enjoyed most about the meeting", "the most important thing I learned during the meeting" and, "what I would change about the meeting". In the case of relevant responses to the dimensions, regardless of the frequency of appearance, the answers received score 1, and in the absence of references or negative positions for any evaluative dimensions the answers received a zero score. The Content Validity Index (CVI) was used as an evaluative measure. The CVI was composed by the proportion number of relevant responses/number of total responses⁽¹¹⁾. In this study, the CVI was calculated for each of the evaluative dimensions per workshop, and the average CVI for all the meetings. The minimum agreement was 0.8⁽¹¹⁾.

The analytical procedure emerged from the organisation of an Excel® database. The quantitative variables were presented by measures of central tendency and dispersion (mean and standard deviation), and analysed using the Statistical Package for the Social Sciences (SPSS) version 21.0. The cores of meaning were analysed for absolute and relative frequencies. As for the ethical aspect, the researchers observed resolution CNS 466/2012⁽¹²⁾, and research was approved by the Research Ethics Committee of the Universidade Federal do Triângulo Mineiro, in 2016, under opinion No. 1.1618.872. The data were collected after the participants signed an informed consent statement.

RESULTS

The teaching hospital has 18 nursing leaders for the inpatient care units. Regarding participation, the average was 16.2 participants per workshop (SD = ± 2.7). Most of the participants were women (95%) with an average age of 35.1 years (SD = ± 2.7 years), in a stable common law relationship (85%), and self-declared Caucasian (60%). On average, they had concluded the nursing programme 11.1 years ago (SD = ± 3.9 years), had been working as nurses for 10.5 years (SD = ± 3.8 years), and had been working at the hospital where the intervention occurred for 9.5 years (SD = ± 4 years). All the participants had specialisation post-graduate courses and six had a master's degree.

With respect to Stage I and the diagnosis of competencies in EBN of the nursing leaders, the aspects of Attitude related to EBN had the highest total average compared to the other aspects (5.4; SD = ± 1.3). It is worth noting that the total average of every analysed aspect and its respec-

Table 1 – Descriptive analysis of aspects related to the Evidence-Based Practice Questionnaire according to the evaluation of the nursing leaders of the teaching hospital. Uberaba/MG, 2016

Aspects ^a	Average	SD
Performs professional practice according to EBN		
Formulated a question	5.1	1.2
Sought relevant evidence once the question was formulated	4.7	1.3
Critically evaluated all the literature found	4.7	1.3
Combined the evidence with his/her knowledge and experience	4.6	1.1
Evaluated the results of his/her practice	4.6	1.5
Shared this knowledge with co-workers	4.2	1.2
Total	4.7	1.3
Attitudes related to EBN		
Set time for new evidence in my work schedule	3.6	1.8
I am open to questions about my practice	5.9	1.3
EBNs are fundamental for professional practice	6.6	0.7
I change the practice according to the evidence I have found	5.4	1.2
Total	5.4	1.3
Knowledge and skills for EBN		
Research skills	3.5	1.3
Computer skills	4.3	1.3
Monitoring and practice review skills	4	1
Ability to transform needs into research questions	3.9	1.1
Knowledge of the main types and sources of information	4.1	0.9
Ability to identify gaps in professional practice	4.7	1.1
Knowledge on how to collect evidence	3.6	1.1
Ability to critically analyse the evidence	4.3	0.9
Ability to determine validity of the material	4.4	0.6
Ability to determine clinical applicability	4.4	1.2
Ability to apply the knowledge to individual cases	4.4	1
Shares ideas and knowledge with co-workers	4.1	0.8
Diffusion of new ideas about care among co-workers	4.3	0.9
Ability to review his/her own practice	4.9	0.9
Total	4.2	1

Source: Research data, 2016.

^aSentences presented in a summarised form, adapted from the original questionnaire.

tive standard deviation correspond to the average calculated value of all the issues concerning every aspect (Table 1).

Examined individually, the items with the highest averages were: 'I am open to questions about my practice' (5.9; SD = ± 1.3), 'Formulated a question' (5.1; SD = ± 1.2) and 'Capacity to review his/her own practice' (4.9; SD = ± 0.9). The aspects that obtained the lowest averages were:

'Research skills' (3.5; SD = ± 1.3), 'Knowledge on how to collect evidence' (3.6; SD = ± 1.1) and 'Set time for new evidence in my work schedule' (3.6; SD = ± 1.8), which are characterised as aspects that hinder EBN (Table 1).

Regarding steps II and III, the Motivation and Diffusion aspects for EBN were the most recurrent. The nursing leaders considered the 'Opportunity to expose the practice

Table 2 – Frequency of cores of meaning by thematic dimension according to the evaluation of the workshop by nurse leaders of the teaching hospital. Uberaba/MG, 2016

Thematic Dimension	n(%) ^a
Conceptual apprehension of EBN	
Incorporation of research results into practice	15 (23.4)
Knowledge, attitudes and practices that facilitate EBN	7 (10.9)
Responsibility for the authorisation of research projects in the hospital	7 (10.9)
EBN as a resource to systematise nursing care	6 (9.4)
Concept of EBN	6 (9.4)
Research design	6 (9.4)
Steps for implementing EBN	5 (7.8)
Classification of levels of evidence	4 (6.3)
Healthcare quality and patient safety through EBN	4 (6.3)
Barriers to the implementation of EBN	3 (4.7)
History of EBN	1 (1.6)
Motivational aspects for the diffusion of EBN	
Opportunity to expose the practice reality	23 (18.9)
Group interaction	14 (11.4)
Feeling of potential for change of the hospital reality	14 (11.4)
Identification of local structures that support EBN	12 (9.5)
Expansion of autonomy and critical judgment of the nurse	11 (8.9)
Encourage partnerships between faculty, researchers and nurses	10 (8.2)
Stimulate personal initiatives for the adoption of EBN	8 (6.5)
Awakening to the production and consumption of research findings	7 (5.7)
Capacity to deal with the feelings generated due to the barriers of EBN	7 (5.7)
Possibility to review the professional performance	6 (4.9)
Learning by a non-traditional method	6 (4.9)
Exchange of experiences	5 (4.1)

Source: Research data, 2016.

^aRelative frequency according to numbers of appearances of responses among participants, considering that one participant could submit more than one response

reality'; the 'Group interaction', and the 'Feeling of potential for change of the hospital reality' as the greatest gains of participation in the workshops. The best perceived content was related to the 'Incorporation of research results into practice', 'Knowledge, attitudes and practices that facilitate EBN', and 'Responsibility for the authorisation of research projects at the hospital' (Table 2).

As to the validation of the intervention, Stage IV, the validity of the workshops was confirmed by agreement of the nurse leaders regarding the evaluation dimensions. There was greater concordance for the dimension "Motivational and Diffusion Aspects for EBN" (average CVI = 0.9; SD = ± 0.1) (Table 3).

■ DISCUSSION

The results presented for Stage I of this study converge with the results of international studies. A North American study with 1977 nurses identified that the aspects that facilitate EBN are a history of participation of nurses in research projects and the frequent need of information to update the practice. The main identified difficulties are related to not understanding the research methods and critical analysis of scientific articles⁽¹³⁾. In Norway, a survey with 407 nurses found that the difficulties for EBN were lack of authority to propose changes and not knowing how to search for appropriate scientific evidence⁽¹⁴⁾. Of 314 nurses

Table 3 – Validation of workshops according to concordance of the thematic dimensions for the analysis of the evaluations of the nursing leaders at the teaching hospital. Uberaba/MG, 2016

Thematic Dimension	CVI		
	Average	Median	SD
Conceptual apprehension of EBN	0.7	0.6	0.1
Motivational aspects for the diffusion of EBN	0.9	0.9	0.1

Source: Research data, 2016.

in Spain and North America, the nurse managers had the second best performance for competencies of EBN (Professional Practice, average = 5.04; Attitudes, average = 5.42; Knowledge, average = 5.17)⁽¹⁵⁾.

A qualitative study with six nurse managers in Taiwan identified attitudes that favour EBN, although it also identified little experience in its implementation. Difficulties were related to the absence of policies that stimulate the development of the EBN. Despite the managerial positions of the nurses, they felt they had little authority to make changes, and mentioned difficulties in accessing scientific productions while working⁽¹⁶⁾.

Regarding steps II and III of this study, national experiences of a similar nature were not identified, which reveals the innovative aspect of this production and its potential for the implementation of EPB with managerial nurses in hospitals.

A national experience described the results of a programme with 86 nurses at a hospital in Paraná. It consisted of an educational practice to teach research methodology, and resulted in the conclusion of 28 research projects conducted by the nurses⁽⁷⁾. Another project, also anchored in the conceptual framework of Rogers⁽⁸⁾, guided 39 nurses in the development of EBN. The nurses completed 20 research projects related to the main problems of each of their practice areas⁽⁶⁾. The professors of the nursing course and nursing division of the hospitals oversaw both experiences. The integration between university, researcher nurses and practicing nurses also proved effective in an international experience for the sustainable implementation of EBN in hospitals⁽¹⁷⁾.

In the United States, an experience with managing nurses of a surgical centre showed the application of the Iowa model to create a guide for EBN. In addition, hours in the usual work load of the nurses were reserved to search for and critically analyse the scientific articles⁽¹⁸⁾. Another

initiative was an eight-month education program featuring 142 nurses in managerial positions. In a partnership with the university faculty, classes and tutoring were offered to the nurses⁽¹⁹⁾. A quasi-experimental study in midwestern United States to expand EBN in the organisational culture of a hospital, with 270 nurses, including managers, concluded that the engagement of leaders substantially contributed to changing the organisational culture with regard to the incorporation of scientific evidence in the healthcare practice, since this category of nursing favoured shifts in beliefs and the viability of incorporating evidences into daily work⁽³⁾.

Regarding Stage IV, it was observed that most of the interventions identified in literature were not conducted to disseminate a setting that encourages EBN among managerial nurses. The intervention reported in this research addressed this issue. The absence of initiatives with this approach has been related to the increased difficulty that developing countries have in implementing EBN.

Characteristics of the nurse manager profile, weaknesses in interpersonal correspondence with the nursing staff and the distance between their work and the provided care are considered barriers for the implementation of EBN in the Brazilian hospital scenarios^(2, 20). As presented in a study conducted in a general hospital in southern Minas Gerais, the nursing staff has its own difficulties in understanding the role of nurse managers in the inpatient units. The management practices of these nurses was represented as bureaucratic and largely distanced from care⁽²⁰⁾.

It is therefore necessary to invest in aspects that reach beyond the competencies for EBN, including enhancing the efficiency of leadership practices among managing nurses by stimulating transformational leadership based on cooperation, an inspiring vision, and the commitment to share the importance of applying scientific evidence in care⁽²⁻³⁾.

Regarding the sample size of this study, it was not intended to represent the population of nurse managers. For the context in question, the participants composed almost the entire interest group. The proposal of intervention and its evaluation were characterised as a pilot that should be expanded to other public teaching hospitals in Brazil. Thus, these results have contributed to the diffusion of interventions in the scope of developing countries that could support EBN. In view of the gap in scientific literature on this subject at the national level, the results of this study potentially encourage the advancement of nursing knowledge and strategies that enable the implementation of EBN in teaching hospitals.

■ CONCLUSIONS

The evaluation of the workshops as an intervention proposal for the diffusion of EBN among nurse managers of the public teaching hospital revealed some favourable aspects. The development of this intervention identified that this group has positive attitudes regarding EBN. The main difficulties were related to the definition of time to incorporate evidence during work and the skills required to critically analyse scientific articles. In general, the workshops were spaces for the apprehension of knowledge, attitudes, and practices that are essential for the incorporation of scientific evidence in clinical practice. Most of all, however, the workshops had an impact on the dimension of motivational aspects for the diffusion of EBN in hospitals.

It was noted that, in accordance with the conceptual framework adopted in this study, the validity confirmation stage of this intervention would not end with the analysis of its impact. In addition to this diffusion, the results obtained in the workshops should allow reflection on the cultural reorganisation of the teaching hospital, which could enable initiatives such as the creation of guidelines and institutional policies to encourage the incorporation of evidence into practice, and consequently generate best practices in the healthcare and teaching scenario. Although the sample was mostly composed of the participants, the size of the sample was a limitation of this study. It is therefore important to characterise these workshops as a pilot study. It is also necessary to conduct further research to monitor the behaviour of the group submitted to this intervention and determine whether they acquired the required skills and overcame the barriers of EBN. It is important to highlight the gaps in national production regarding initiatives for the implementation of EBN in hospitals among nurse managers, and the need for new studies on this subject since the incorporation of research results to the clinical nursing practice is considered a worldwide challenge.

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