Evidence-based practice: bibliometric review of national publications in nursing journals

Prática baseada em evidências: revisão bibliométrica das publicações nacionais em periódicos de enfermagem

Prática basada en evidencias: revisión bibliométrica de las publicaciones nacionales en periodicos de enfermería

The objective of this research is to find studies about evidence-based Nursing practices in the Brazilian context, to identify themes, approaches to decision making and methodological approaches. It is a bibliometric revision in the databases LILACS, PubMed/MEDLINE, CINAHL and Scielo, including publications from 2000 on. The results were treated by frequencies and by the creation of meaning nuclei to define the thematic approach to decision-making. 58 articles were obtained, most from 2009 to 2015 (n = 43), with thematic approaches: attention to individuals, family, community (32.14%); Nursing work process (17.86%); Training, education and teaching in nursing (5.36%); Concepts of evidence-based practice - EBP (16.07%); Instrumentalization for EBP (23.21%) and implementation of EBP (5.36%). The most frequent methods among the articles surveyed were: integrative revision and revision of the literature (n = 13 for each method). The expansion of these publications is contributing to the development of more judicious and safe practices, being crucial to EBP for Nursing as a profession, scientifically based.

Descriptors: Evidence-based nursing; Evidence-based practice; Nursing research.

Objetivou-se reconhecer estudos sobre a prática da Enfermagem baseada em evidências científicas no contexto nacional brasileiro, com a finalidade de identificar temáticas, enfoques para a tomada de decisão e abordagens metodológicas. Trata-se de revisão bibliométrica nas bases LILACS, PubMed/MEDLINE, CINAHL e Scielo, publicações a partir de 2000. Os resultados foram tratados por frequências e construção de núcleos de sentido para definição do enfoque temático para tomada de decisões. Obteve-se 58 artigos, maioria de 2009 a 2015 (n=43), com os enfoques temáticos: Cuidado ao indivíduo, família, comunidade (32,14%); Processo de trabalho da Enfermagem (17,86%); Formação, Ensino e Docência em Enfermagem (5,36%); Conceituação da prática baseada em evidências - PBE (16,07%); Instrumentalização para PBE (23,21%) e Implementação da PBE (5,36%). Os métodos mais frequentes dos artigos levantados foram: revisão integrativa e revisão da literatura (n=13, respectivo para cada método). A expansão dessas publicações vem a contribuir com o desenvolvimento de práticas mais criteriosas e seguras, sendo crucial a PBE para uma Enfermagem enquanto profissão cientificamente constituída.

Descritores: Enfermagem baseada em evidências; Prática Clínica Baseada em Evidências; Pesquisa em Enfermagem.

Se objetivou reconhecer estudos sobre a prática da Enfermería Basada en Evidencias científicas en el contexto nacional brasileiro, con la finalidad de identificar temáticas, enfoques para la toma de Decisiones y abordajes metodológicos. Se trata de una revisión bibliométrica en las bases LILACS, PubMed/MEDLINE, CINAHL y Scielo, considerando publicaciones a partir de 2000. Los resultados fueron tratados por medio de frecuencias y construcción de núcleos de sentido para definición del enfoque temático y toma de decisiones. Se obtuvieron 58 artículos, la mayoría de 2009 a 2015 (n=43), con los enfoques temáticos: Cuidado al individuo, familia, comunidad (32,14%); Proceso de trabajo de Enfermería (17,86%); Formación, Enseñanza y Docencia en Enfermería (5,36%); Conceptuación de la práctica basada en evidencias - PBE (16,07%); Instrumentalización para PBE (23,21%) e Implementación de la PBE (5,36%). Los métodos más frecuentes de los artículos recopilados fueron: revisión integrativa y revisión de la literatura (n=13, respectivo para cada método). La expansión de estas publicaciones contribuye al desarrollo de prácticas con más criterio y seguras, siendo crucial la PBE para la Enfermería como profesión científicamente constituida.

Descritores: Enfermería basada en la evidencia; Práctica clínica basada en la evidencia; Investigación en enfermería.
INTRODUCTION

There has been a worldwide movement to improve the quality of health services, which is boosting the integration between research and assistance practices, to develop competences for the use of the best scientific evidences\textsuperscript{1, 2}. That is because the quality of assistance, the safety of the patient and the costs of assistance are associated to the competence of the professionals, so that these results can be used in the practice of care\textsuperscript{3}.

This reality is another indication of the importance of nurses presenting their practice based on the results of scientific investigations. However, although desirable, these professionals are not always prepared to consume research results\textsuperscript{2,4,5}.

The term "evidence-based" implies the use and application of research as a basis for decision-making on health care. The use of research results is one of the pillars of evidence-based practice (EBP). The health care professional should know how to obtain, interpret and integrate the evidence from research with clinical observations and assistance demands\textsuperscript{4-6}.

In nursing, the implementation of EBP is a construct, which means that the approximation of the research to the work contributes to intensify the critical judgement of this group in front of operational demands. Also, it favors the incorporation of innovations and the taking of safer decisions for problems experienced in the day-to-day work\textsuperscript{5}.

Considering this situation, investigative action in nursing can be understood as stimulus to elevate the scientific, technological and artistic quality of professional knowledge\textsuperscript{4}.

There is a paradox in national nursing researches. Despite the increase in the production of knowledge, there was no significant impacts on hospital practice, still centered on task development, be it because of traditional concepts or because of a medical subculture of care\textsuperscript{2,5,7,8}.

It was found that, in the last 10 years, studies on evidence-based practice (EBP) for nursing have been expanding in Brazil\textsuperscript{7,8}. However, the scenario is still challenging, as claimed by many important researches in the field\textsuperscript{2,5,7,8}.

In this context, the present study aims to recognize studies of EBP for nursing in the national context, to identify the themes, approaches to decision making and methodological approaches of these studies.

METHOD

This is a bibliometric review study. This method allows one to collect, select, and analyze scientific productions critically, after careful planning, in an attempt to answer a guiding question\textsuperscript{9}.

Bibliometrics is related to the analysis of information in a quantitative approach, and allows to organize and classify some characteristics of the publications, including the mechanisms of search for works and how to access them, allowing for the identification of patterns and information of the state of art in a particular field\textsuperscript{9,10}.

For this revision, a synthesis of EBP studies was conducted, whose guiding questions were: what studies on evidence-based practice in the Nursing field have been published in Brazil? In what dimensions does the thematic focus of these studies contribute to decision-making in Nursing practice?

The inclusion criteria considered articles about EBP published in full, in Brazilian journals specific to the Nursing area, from 2000 on. The search occurred between November 2015 and January 2016, in the LILACS, PubMed/MEDLINE, CINAHL and Scielo databases. Respecting the specificities of each database, the following Descriptors in Health Sciences (DeCS and MeSH) were used, either isolated or coupled: evidence-based clinical practice, evidence-based nursing and nursing research.

When the same article was found in two databases, it was attributed to the database that contained the largest number of articles. The publications found were previously selected by a reading of titles and summaries. The ones that were according to the inclusion criteria were completely evaluated by peers.
The articles were analyzed as to their bibliometric publication data, including: year, journal, method, and regarding their thematic focus as a contribution for decision-making in nursing.

In order to categorize the thematic approach to making decisions in nursing among the selected publications, the Bardin technique was applied through a thematic analysis, which is swift and effective. It works through dismembering the text in units, categories, ordered according to analog reunification, among the different possibilities of categorization. The articles were analyzed to detect convergent aspects, thematic categories and subcategories, and these, classified by similarities, as they were found in the text. The categorization criterion defined for this content analysis was the lexicon: classification of words according to their meaning, with pairing of synonyms and near synonyms.

Data processing was conducted through a quantitative analysis (relative and absolute frequencies), identifying dimensions and content that would subsidize the elaboration of items. The results are presented descriptively in tables and frames.

**RESULTS**

From the crossing of the previously defined keywords, 58 studies were obtained, from which 53 were included. The first five year period (2000 to 2008) presented a total of 10 articles identified while the second (2009 to 2015), 43 articles. 2015 was the year with the highest concentration of publications (n = 12).

As to the journals, this is how the studies were distributed: Einstein São Paulo (n=1), Revista Mineira de Enfermagem (n=1), Texto & Contexto Enfermagem (n=1), Revista Gaúcha de Enfermagem (n=1), Online Brazilian Journal of Nursing (n=2), Escola Anna Nery de Enfermagem (n=3), Revista Eletrônica de Enfermagem (n=5), Acta Paulista de Enfermagem (n=6), Revista Brasileira de Enfermagem (n=8), Revista da Escola de Enfermagem da USP (n=9), Revista Latino Americana de Enfermagem (n=16).

The thematic focus of publications to support decision-making in nursing have been categorized according to the meaning center (Picture 1), in the following categories: care for individuals, family, community (32.14%); Nursing work process (17.86%); Training, education and teaching in nursing (5.36%); Concept of EBP (16.07%); Instrumentalization for EBP (23.21%) and implementation of EBP (5.36%) (Table 1).

<table>
<thead>
<tr>
<th>Centers of Meaning</th>
<th>Subcategories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care for the individual, family, community</td>
<td>Venous ulcer care; Elderly Health; Renal Transplant Care; Blood transfusion; Intensive Enteric Nutrition; Wound healing; Pneumonia associated with mechanical ventilation; Cervical cancer; Patients with strokes; Liver transplant; Mental and family disorders; Onco-hematology; Hyperthermia; Urinary catheterization; Pressure ulcer prevention; COPD; Death/dying process; Hypertensive care.</td>
</tr>
<tr>
<td>Guidelines for the Nursing work process</td>
<td>Professional urgency/emergency skills; Sterilization Material; Nursing Board; Work overload; Identification of users; Staff sizing; Organizational culture; Pre-surgery recommendations; Interventions in Catheterization; Nursing consultation themes.</td>
</tr>
<tr>
<td>Training, education and teaching in nursing</td>
<td>Distance Education; Teaching; Perception of research in universities.</td>
</tr>
<tr>
<td>Concepts of clinical practice based on evidence for nursing</td>
<td>Priorities in research; Dissertations and theses on adolescent research, concepts about EBP; Principles on EBP; Integrative revision concepts; Methodological trends for EBP.</td>
</tr>
<tr>
<td>Instrumentalization for clinical practice based on evidence in nursing</td>
<td>Validation of questionnaires for EBP; Reproductive health scale validation; Access to databases; PICO strategy; Search for evidence; Information available online; Clinical trials based on evidence.</td>
</tr>
<tr>
<td>Implementation of clinical practice based on evidence in nursing</td>
<td>Research group for infection control; Strategies for implementing the EBP; Project for the implementation of EBP.</td>
</tr>
</tbody>
</table>

Table 1. Studies on EBP in Brazilian scientific journals of nursing, according to thematic focus for decision-making in nursing practice. Uberaba/MG, 2016.

<table>
<thead>
<tr>
<th>Meaning Centers/Thematic Focus</th>
<th>Publications*</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care for the individual, family, community</td>
<td>12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29</td>
<td>18</td>
<td>32.14</td>
</tr>
<tr>
<td>Nursing work process</td>
<td>25, 30, 31, 32, 33, 34, 35, 36, 37, 38</td>
<td>10</td>
<td>17.86</td>
</tr>
<tr>
<td>Training, education and teaching in nursing</td>
<td>39, 40, 41</td>
<td>3</td>
<td>5.36</td>
</tr>
<tr>
<td>Concepts of EBP</td>
<td>4, 6, 7, 8, 10, 42, 43, 44, 4, 6, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55</td>
<td>8</td>
<td>16.07</td>
</tr>
<tr>
<td>EBP Instrumentalization</td>
<td>51, 52, 53, 54, 55</td>
<td>13</td>
<td>23.21</td>
</tr>
<tr>
<td>EBP Implementation</td>
<td>56, 57, 58</td>
<td>3</td>
<td>5.36</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>55</td>
<td>100.00</td>
</tr>
</tbody>
</table>

*Some publications are compatible with more than one thematic focus, so the total obtained exceeds the total of publications included. The numbers presented refer to the articles surveyed and cited in the references.

Regarding the methods used in publications, integrative revisions and literature reviews were the most frequent (n = 13, for each method). Six of the articles had participating research, such as converging assistance research, as their methodology. Eight publications were qualitative and four studies were methodological, such as the validation of instruments. Five publications were quantitative exploratory studies. The other publications were distributed in: an observational study, a case study and an editorial (Table 3).
Table 3. Distribution of methodological approaches used according to thematic focus on nursing decision-making. Uberaba/MG, 2016.

<table>
<thead>
<tr>
<th>Focus</th>
<th>Literature Review</th>
<th>Methodological studies</th>
<th>Quantitative Exploratory</th>
<th>Participating Research</th>
<th>Qualitative approaches</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Care for the individual, family, community</td>
<td>n(%)</td>
<td>n(%)</td>
<td>n(%)</td>
<td>n(%)</td>
<td>n(%)</td>
<td>n(%)</td>
</tr>
<tr>
<td></td>
<td>9 (28.12)</td>
<td>0</td>
<td>2 (50)</td>
<td>4 (80)</td>
<td>2 (28.57)</td>
<td>1 (25)</td>
</tr>
<tr>
<td>- Nursing work process</td>
<td>3 (9.38)</td>
<td>1 (25)</td>
<td>2 (50)</td>
<td>0</td>
<td>2 (28.57)</td>
<td>2 (50)</td>
</tr>
<tr>
<td>- Training, education and teaching in nursing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2 (28.57)</td>
<td>1 (25)</td>
</tr>
<tr>
<td>- Concepts of EBP</td>
<td>8 (25)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>- EBP Implementation</td>
<td>10 (31.25)</td>
<td>3 (75)</td>
<td>0</td>
<td>0</td>
<td>1 (14.29)</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>32 (100)</td>
<td>4 (100)</td>
<td>4 (100)</td>
<td>5 (100)</td>
<td>7 (100)</td>
<td>4 (100)</td>
</tr>
</tbody>
</table>

DISCUSSION

The scientific texts produced by a field of knowledge are expected to portray the profession it represents. The production of knowledge in nursing aims to transform the social and cultural practice of care in health. In Brazil, the involvement of nurses in the development of nursing research happened from the creation of the university career in 1963, evolving greatly with the beginning of the first Masters course in nursing, in 1972, at the Anna Nery School of Nursing, in the Federal University of Rio de Janeiro.

Considering the direct relations between the development of research and its connection with university institutions and researcher formation centers, the expansion of these settings contributes to strengthen nursing as a scientifically structured practice.

In this context, investigative actions in nursing can be understood as stimuli to elevate the scientific, technological, and artistic quality of professional knowledge in Nursing. On the other hand, such actions have been increasingly recognized as essential to the practice of care in the clinical field, since they enable the acquisition of knowledge, the evaluation of actions, and offer greater security to make nursing decisions at work.

The production and dissemination of knowledge seeks to lead to reflection on the incorporation of new ways and know-how in Nursing. The expansion of the translation/transfer of research results and new knowledge grows as it is used/applied and decreases if the contrary happens. In particular, it is essential to use the results of health researches to modify practices and empower the nurses of the services, so that they can make decisions based on the best scientific evidences.

Several studies point out that obstacles to the use of knowledge produced in nursing are focused primarily on the dissemination of research results.

The results of this review show that there has been a growth in the number of scientific publications of nursing on EBP, especially in the last five year period analyzed, converging with a national movement. It demonstrated that publications on EBP in Nursing involve the different fields that make up the action of the Nurse: assistance, education and management. At the same time, many approaches were used.

On the other hand, it is possible to assume that the realization of the EBP is more a result of the interest and motivations of autonomous groups of researchers than of institutional or governmental policies, regarding previously...
identified priorities. In the literature, the evidence has been characterized in a hierarchical form or in a continuum, depending on the type of research design, i.e. the methodological approach employed in the study.62

The evidence is classified at five levels according to its strength: Level 1 - strong evidence of at least a systematic review of multiple randomized, controlled and well-delineated studies; Level 2 - strong evidence of at least one randomized controlled study, well delineated and of appropriate size; Level 3 - evidence of well delineated studies without randomization, with a single pre- and post- group, cohort, temporal series or case-control; Level 4 - evidence of well-delineated studies conducted in more than one center or research group; Level 5 - opinions of respected authorities, based on clinical evidence, descriptive studies or reports of specialist committees49,62.

As for the methods employed in the analyzed articles, they are capable of producing evidence of levels 4 or 5. As Lacerda et. al. inquire,7 what have the nursing publications been searching for when it comes to EBP? The most notable absence are publications involving the development or analysis of clinical nursing trials54. Several studies analyzed in this review preferred to obtain the knowledge produced on a given care issue or health event than to respond how to specifically act about it.

Considering the studies and evidence level, these studies not only sought irrefutable and reproducible results, such as the realization of meta-analysis, but also employed various methodological designs, especially reviews that include primary and secondary research. Another issue is whether this diversity of modes makes it possible to find, through the use of varied methods, the same evidences for the same practice of care.7,8

CONCLUSION
The present study found that there has been an expansion of scientific articles covering EBP in the national field in the nursing journals considered, in particular from 2009 on.

The articles identified have the potential to contribute to the practice of nursing in various dimensions for decision-making, considering the centers of meaning: care for the individual, family, community; Nursing work process; Training, education and teaching in nursing; Concepts of EBP; Instrumentalization for EBP and implementation of EBP.

The methodological outline of the articles included in this analysis generates low-level evidence (4/5). This reality must be discussed in the production of nursing knowledge, because of the need to expand in the development of research that uses methodological outlines with a higher level of control. Also, it is necessary to invest in the development of new methods of EBP and evidence generation quality control, more specific to the multidimensionality that characterizes the know-how of this profession.

In general, the expansion of publications that discuss EBP contributes to the development of more judicious and safe practices. The EBP is crucial to nursing, as it strengthens its know-how as a scientifically constituted profession.

REFERENCES


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REFACS (online) 2017; 5(3-Special Edition):429-439
33. Monteiro EA, Mazin SC, Dantas RAS. Questionário de Avaliação da Sobrecarga do Cuidador Informal: validação para o Brasil. Rev Bras


CONTRIBUTIONS
Fernanda Carolina Camargo was responsible for designing, analyzing, interpreting data and writing the article. Luan Augusto Alves Garcia was responsible for analyzing the data and writing the article. Álvaro da Silva Santos and Helena Hemiko Iwamoto performed a critical revision of the article.

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