Retraction announcement about the article "Evidence-based nursing management: Challenges and facilitators"

This article has been retracted at the request of the authors. The Publisher and the authors would like to apologize for any inconvenience caused.

REVIEWS

Evidence-based nursing management: Challenges and facilitators

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Abstract

This review introduces a new approach for nursing management called Evidence Based Nursing Management (EBNMgt). EBNMgt is the integration of the best research evidence with nurse managers' expertise and nurses' preferences. Even though it is commonly acknowledged that health care should be evidence-based, evidence-based decision making in the field of nursing management has not been addressed adequately in terms of what actually determines the quality of nursing care and working conditions of nurses. This review discusses the significance of evidence-based nursing management from the perspective of both academics and managers, and elaborates on both the difficulties of implementing evidence-based nursing management and ways of facilitating implementation. Collaborative models between universities and hospitals could be used as a method to facilitate the implementation of evidence-based nursing management in order to improve nursing care and the working environment. Like evidence-based nursing, evidence-based nursing management should also be carefully studied for the professionalization of nursing and for better patient care.

Key words

Evidence-based management, Nursing, Nurse managers

1 Background

Even though there are many studies suggesting that nursing care should be evidence-based, the importance of using evidence-based decision making in nursing management as an important indicator of the quality of patient care is not very widely considered [1, 2]. As with evidence-based nursing practices, decision making in nursing management should be based on the best available evidence.

Basing nursing practices on research and evidence with a view to improving patient care and nurses' working conditions is one of the most important topics facing nurse managers and researchers. In its strategic plan covering the years 2011-2013, the American Organization of Nurse Executives included the use of evidence-based nursing practices as a way of improving the quality of nursing care and the working environment [3]. Improving the outcomes of nursing care, the quality of care services and the working environment depends on combining evidence-based nursing (EBN) with evidence-based management (EBMgt) [2].

This article, discusses the difficulties and facilitators related to the practice of EBMgt, opens up for discussion the significance of EBNMgt for nurse researchers and managers, and describes the basic principles of EBNMgt.

2 Evidence-based management

EBN emerged out of the Evidence-Based Medicine movement [4]. EBN is defined as a process of decision making in which nurses make a decision by integrating the best available evidence with their own clinical expertise together with patient preferences [5].

EBMgt could be defined as basing organizational practices and managerial decisions on the best available evidence. Similar to other evidence-based practices, environmental factors and ethical implications are also carefully considered for managerial decisions [6].

Researchers in the field of management should not merely focus on understanding organizational life, but they should also conduct studies that elaborate on managerial practices with a view to explaining, as well as predicting, the implications of managerial actions. In order to implement EBMgt, managers need to improve their skills in finding the best evidence and critically appraising that evidence to assess its validity. It is suggested that implementing an evidence-based approach is difficult because the management approach greatly varies across organizations [7]. However, EBMgt is important not only because it helps professionalize management, but also because it provides different managers with a shared language [8], as well as increasing the effectiveness of organizational leadership [2].

In a study conducted by Niedzwiedzka [9] in Poland, it was found that only 15% of medical managers thought that research results affect care practices, and that only 3.2% utilized progress in scientific knowledge in their decision-making processes. Participating managers reported that the biggest barrier to utilizing research results in decision making was the inability to access research results.

EBMgt is a critical tool that helps nurse manager leaders with such important issues as improving the quality and effectiveness of nursing management [10]. Briner et al. [11] suggest that the following steps could be taken to use the EBMgt approach:

- The start of the process is the nurse manager's formulation of a question about a managerial problem.

- Relevant internal, organizational evidence or data are examined, and the problem is reformulated in light of this examination.

- External evidence from published research about the problem would also be identified and critically appraised.

- The opinions of stakeholders and the ethical implications of the decision are reviewed.

- The final managerial decision, which would attempt to take account of and integrate all these sources of information, would be made.

These steps could be used as they are or adjusted in order to guide EBMgt practices in different fields.

The most important study on EBMgt is the Executive Training for Research Application-EXTRA, supported by the Canadian Health Services Research Foundation, which was conducted by a number of health care leaders across the country from different fields of expertise, including nurse leaders [12]. The aim of the EXTRA project was to develop capacity and leadership in health care institutions in order to optimize the utilization of evidence. The individual projects conducted by nurses who participated in the EXTRA project mostly focused on chronic conditions, patient security, nursing care and integrated care [13]. Focusing on human resources in nursing, two studies conducted as part of this project dealt with improving the use of human resources and planning for leadership in nursing [12].

3 Challenges in the implementation of evidence-based management

3.1 Challenges related to research report and research suggestions

Managers do not use evidence in their decisions for various reasons. Among these reasons are not making the use of evidence a priority, a lack of attention paid to the environment in which the evidence will be applied, research results being irrelevant to the problems at hand, and unrealistic research proposals [14]. Most research is conducted by academics, but this research is not available to the practitioners [15]. Moreover, the results of some organizational studies are not relevant to managerial practices [16].

As with other evidence-based practices, for EBMgt decisions, too, there is no single agreed-upon description of useable evidence. Management studies, especially those in the field of health care, are relatively new, and the amount of available evidence is rather limited. Therefore, nurse managers should thus take into account the widely accepted indicators of health care results [2].

Results of clinical studies have high generalizability and transferability even though these results may have emerged in different countries, different populations, and different health care systems. However, generalizability and transferability of results of management studies is rather lower [7, 8], largely because the organizational culture, organizational structure, and differences in health systems prevents it [7].

Lavis et al. [17] conducted a study on how to improve the use of systematic reviews in the decision making processes of health care managers and policy makers. The results of this study suggest that among the factors that hinder the utilization of research evidence by managers are policy makers not having sufficient skills and expertise, their negative attitude and lack of interest in research evidence, a lack of managerial support, academics' use of technical jargon in research publications, and that these publications are specifically addressed to academic readers. Interaction between policy makers and researchers, conflict, competition, trusting researchers, and the enthusiasm of health care personnel about research evidence increases the likelihood of the utilization of research evidence by managers.

3.2 Challenges related to research method

In management studies, research topics and methods are mostly based on social sciences. The research focuses on such issues as values, interest, and power, which are more qualitative in nature and difficult to explain [8]. There is no consensus on research methods, research questions, and research results [18]. It is more difficult to clearly define and measure the variables used in the research [10].

Even though some analysts maintain that EBMgt should follow evidence-based medicine and use systematic reviews in decision-making processes [19], it is not possible to conduct randomized controlled studies in the field of management. Asking the same research question in management studies is rare. Therefore, meta-analysis studies that would evaluate the effectiveness of managerial interventions cannot be conducted [11]. Evidence-based decision making does not necessarily mean that all answers to the formulated questions will be found. At the same time, evidence-based decision making ensures better decision making [20], and it helps to draw a more complete picture of the situation at hand in order to adopt a more comprehensive perspective on the problem [11].

3.3 Cultural differences

When clinical and management are compared on the basis of evidence-based decision making, one could say that there has not been as much progress in the field of management. One of the most important reasons is the cultural difference between clinical professionals and management. Clinical professionals are more homogeneous, and thus speak the same language. This helps them achieve a uniform knowledge, attitude and behavior in the clinic about evidence-based

practices. However, managers have different professions and come from different backgrounds. The knowledge they use mostly comes from personal experience. They tend to emphasize their personal experience, comparing it with research evidence, and are often reluctant to change their minds. They are more interested in the implementation of knowledge than the seeking of it. A change in culture is essential for managers to adopt an evidence-based approach [7]. Organizational culture is the biggest barrier to the implementation of EBMgt. Among other barriers are weak organizational leadership, a lack of resources, a lack of knowledge about EBMgt, and the difficulty of implementation [14].

One of the biggest barriers to EBMgt practices is the insufficient amount of correct and valid knowledge. Other barriers include such factors as organizational culture, organizational values, the effect of different styles of management, lack of a clear description for success criteria [10]. Among other factors complicating the implementation of EBMgt are unfavorable working conditions, poor working methods, the negative attitudes of managers and colleagues, and personal beliefs [21].

Kovner et al. [22] identified the following five main barriers to using evidence in managerial decisions in the field of health care:

- Little evidence has been generated about best management practices, and such evidence is not widely shared.

- Health care organizations have lacked sufficient size and critical mass to conduct and assess applied research.

- Health care systems have traditionally focused on operating margins and past budgets.

- Health care managers lack training and experience in collaborating with health services researchers and lack commitment to the values of applied research.

- Nonprofit health care organizations lack accountability.

4 Facilitators of evidence-based management

What is crucial for EBMgt practices is the fact that the research should be easily understandable and applicable in different institutions [10]. It is necessary to arouse the managers' interest in conducting research, participating in others' research, and utilizing the results of this research [7]. An evidence-oriented leadership and communities of practice for knowledge sharing are necessary to build an evidence-based culture [6]. Among other factors facilitating research utilization in the field of management are the presence of a research culture in the organization, personal beliefs, good working organization, and effective self-discipline [21].

Participants in a previously conducted study suggested that the implementation of EBMgt requires certain conditions, such as having enough time and financial resources, building new structures and processes (committees, web pages, employees specializing in these tasks), cultural exchange, communication, incentives, and collaboration with knowledge brokers as well as with people who produce evidence [14]. Collaborating with research centers is a way of ensuring access to these facilitators [10].

Managers and health policy makers indicate that they prefer reading shorter research reports to the longer ones [17]. According to Kovner and Rundall [19], presentation of evidence should:

- Present timely evidence,

- Be brief,

- Avoid technical jargon,

- Provide clear descriptions of the questions,

- Integrate the context of the research and findings,

- Evaluate the strength of evidence,

- Give suggestions for practice,

- Offer easy access to evidence.

In order to facilitate the implementation of EBMgt, academics studying in this field should concentrate on the solutions to problems and come to an agreement on research findings in such a way that managers could also easily understand them [6]. Academics should also make sure that their research is user-friendly in its presentation, terminology and accessibility [10]. The presence of a culture of questioning could positively affect the implementation of EBMgt [19].

5 Evidence-based nursing management

Along with the efforts to base clinical decisions and practices on evidence, the use of evidence has also become an important issue for managers, researchers and policy makers. Even though health managers and clinicians support the use of evidence in clinical practice, they are much slower in integrating EBMgt into their own practices [23]. A similar situation is the case for the decisions made by nurse managers. Managers need different types of evidence from clinicians, and they use this evidence differently [24].

6 Challenges in the implementation of evidence-based nursing management and some suggestions

Caine and Kendrick [25] focus on how managers perceive their own roles concerning the facilitation of evidence-based nursing practices, it was found that managers supported evidence-based nursing in theory, but did not do much to facilitate it in practice. Although it was found that nurses in managerial and leadership positions utilized research more extensively, this research was mostly about patient care rather than solving managerial problems. Nurses, however, would like their managers to be a role-model in implementing research evidence in practice [26]. In another study conducted with the participation of senior nurse managers, it was found that nurse managers were not aware of research findings in the field because they cannot access reports concerning the questions facing them [27].

The evidence-based health care movement generally uses a rigid, quantitative, positivist approach. Therefore, a restricted understanding of the concept of evidence reduces the level of utilization of research results in nursing management [28]. In nursing management, managerial decisions cover every decision concerning improvement of the working conditions of nurses and the health care results. Nurse managers use their personal experience, habits, and the experience of senior supervisors and colleagues in solving problems concerning the working conditions of nurses and health care. However, these approaches fall short of creating better working conditions for nurses and of improving health care for patients. There are a few training programs to aid nurse managers in making evidence-based decisions, and these have been turned into a project to facilitate their dissemination across the world. These programs are sometimes adopted as a national policy [12, 29].

As it is the responsibility of both nurse researchers and nurse practitioners to ensure research utilization, hospital-university collaboration projects are especially crucial for eliminating barriers regarding the use of evidence in nursing management decisions [30, 31]. These cooperatively conducted studies will also facilitate building an evidence-based organizational culture.

Williams [2] suggested the following strategies for building an EBMgt culture:

- Understanding the value of learning from research.

- Assuming responsibility as a leader by integrating EBMgt into decision making processes.

- Building a common language and understanding by opening up research utilization for discussion.

- Encouraging others to utilize the strongest evidence available and acting as a role model by practicing EBMgt.

- Forming EBMgt groups to establish collaboration between academics and practitioners.

- Integrating the expectations of EBMgt into management performance objectives and evaluations.

Health systems are not organized in such a way that managers could be held responsible and accountable for utilizing research in decision making processes. EBMgt can be implemented only if health system holds certain individuals or groups responsible for knowledge management [19]. External organizations such as Joint Commission International (JCI) could put pressure on managers to have them implement EBMgt.

Steps towards an evidence-based nursing management

The steps suggested by Briner et al. [11] for an EBMgt approach could be reformulated for EBNMgt as follows:

1) Formulating an answerable question: A clear question is formulated addressing a current problem in nursing management. For instance, what is the most effective way to reduce nursing turnover?

2) Searching for evidence in the literature on management as well as nursing management: After the question is formulated, existing resources are researched for evidence. Some of the resources that consider problems in nursing management are as follows:

> The Cochrane Library (http://www.thecochranelibrary.com/view/0/index.html)
>
> The Campbell Collaborative (http://www.campbellcollaboration.org/)
>
> Canadian Health Services Research Foundation (http://www.chsrf.ca/Home.aspx)
>
> Royal College of Nursing (http://www.rcn.org.uk/)
>
> PubMed (http://www.ncbi.nlm.nih.gov/pubmed/)
>
> Journal of Nursing Management
>
> Journal of Nursing Administration
>
> Nursing Administration Quarterly

3) Critical appraisal of the research evidence: The validity and applicability of the research evidence related to the existing problem in nursing management are assessed.

4) The opinions of stakeholders and the ethical implications: After the research evidence is critically evaluated, the views of nurse managers and other managers would be considered regarding the applicability of research evidence, and the preferences of nurses would be discussed.

5) Decision making for implication: The strongest evidence that stakeholders agree upon is chosen to be implemented to solve the existing problem in nursing management.

6) The decision is implemented: The evidence-based nursing management decision is implemented.

7) The results of evidence-based decision are evaluated: The effectiveness of the EBNMgt implemented is evaluated in terms of health care and working environment, and new plans are made in light of this evaluation.

7 Implications for nursing management

It is known that the implementation of EBN is a multi-dimensional and complex process. It should be kept in mind that this process involves even more barriers for EBNMgt. It is therefore necessary that the results of the research on nursing

management be applied in practice, and managers and academics work together in addressing the problems and generating solutions to eliminate the gap between the theory and practice of management. Researchers interested in nursing management should take a closer look at the field of practice in order to be able to better address the practical problems faced. Nurse managers should also seek ways to collaborate with nurse researchers to be able to adopt a scientific approach in solving managerial problems. Collaboration between these two parties will create synergy and facilitate the achievement of more effective outcomes. Using collaborative models as a method could facilitate implementing EBMgt in order to improve the quality of health care and working conditions. This collaboration will also help building an evidence-based culture. Like EBN, EBNMgt should also be carefully studied for the professionalization of nursing and better patient care.

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