

# Challenges to Implementing IT Support for Evidence Based Practice Among Nurses and Assistant Nurses: A Qualitative Study

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## ABSTRACT

When practitioners make decisions as well as treat and care for patients they interpret patient specific information according to evidence based medical knowledge. This process is complex as evidence is infrequently available in a form that can be acted upon at the time decisions must be made. The aim of this paper is to (1) explore how primary, secondary and municipality care in Sweden work with the process of managing knowledge, (2) explore how nurses and assistant nurses experience availability of medical knowledge when and where they need it and (3) conditions for developing a coherent IT-based knowledge portal for different areas of knowledge bases in healthcare. The results show significant deficiencies in the knowledge management process of the participating organizations. The knowledge management processes are not embedded in business processes, activities and relationships, which cause major difficulties for practitioners to keep up with the latest medical evidence.

## KEYWORDS

Evidence Based Medicine, Healthcare Information Systems, Healthcare Knowledge Management, Knowledge Management

## INTRODUCTION

Internationally, evidence based medicine (EBM) has been a priority for many years. Both the World Health Organization and the European Commission emphasize that health and social services should be based on the best research evidence (Stokke, Olsen, Espehaug & Nortvedt, 2014). Delivering good quality care is a complex endeavor that is highly dependent on patient information and medical knowledge. It is widely recognized that the main benefits of using evidence based medical knowledge are to improve and update clinical practice and to enhance the quality of care and outcomes for patients (Veeramah, 2016). EBM is the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients (Sackett, 1997). It aims to improve quality and safety of care by eliminating decision-making based on more traditional methods in favor of using (a) current best evidence in conjunction with (b) patient values and preferences, and (c) individual clinical

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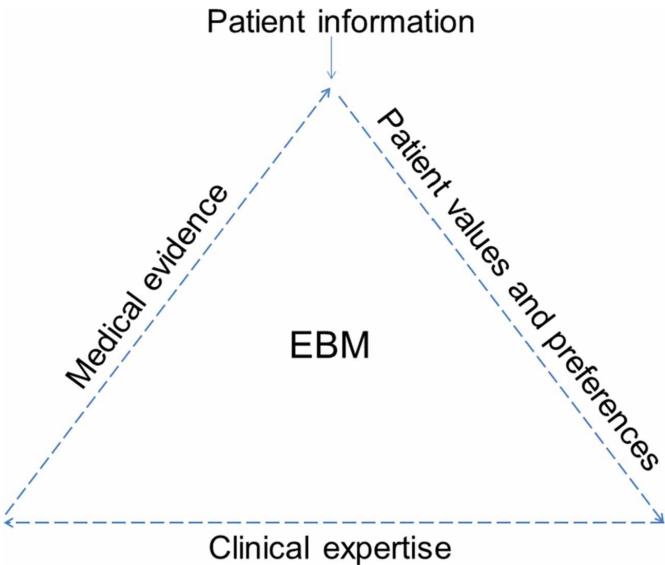
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expertise (Houser & Oman, 2011, p. 3) (Figure 1). Following the principles of EBM practitioners are required to formulate questions based on patients' medical history, current clinical problems, values and preferences, search the literature for answers, evaluate the evidence for its validity and usefulness, and finally apply the information to patients (Lenz & Reichert, 2007).

Practicing EBM is challenging. One reason is inability to access patient's past and current medical history due to interpretability issues. It is also complicated, as healthcare practitioners usually do not have time to search for medical knowledge while the patient is in the office. Therefore, literature search usually takes place offline (Lenz & Reichert, 2007). Practitioners who search for knowledge all too often find that existing knowledge is not accessible in real time and may not necessarily map to the issue at hand (Clancy & Cronin, 2005). Some practitioners may even choose not to actively look for the needed knowledge as textbooks may be out of date, information in journals is too difficult, if not impossible, to translate into daily work practice and current information systems (IS) such as IT-based knowledge repositories are not widely used as they are not developed to meet practitioners' knowledge needs (Krasniqi & Persson, 2012). To alleviate this untenable situation, systematic reviews and medical guidelines are continuously developed. It is, however, still challenging to ensure that healthcare practitioners actually apply the latest medical knowledge, as there is no single point of access to the needed knowledge. Medical guidelines and other important medical knowledge are contained in numerous autonomous IT-based knowledge repositories at different levels (local, regional, national). Each of them is developed based on the need to disseminate knowledge about a particular medical specialty to particular target groups with particular needs of knowledge. Considering that a practitioner, such as a nurse within municipality care, needs to access knowledge about several specialties, the situation is sub-optimal, as the individual is forced to access several repositories in order to find the needed knowledge (Krasniqi & Persson, 2012).

The Swedish Ministry of health and social affairs have in their IT-strategy for Swedish healthcare (2006) emphasized the need to develop decision support systems and other knowledge-based support systems that provide timely and easy access to relevant medical knowledge. This is important since studies have supported the conclusion that patient outcomes are substantially improved when healthcare is based on evidence versus tradition or clinical expertise alone (Houser & Oman, 2011). The perceived benefits are faster dissemination of new knowledge, e.g., new treatment methods, and continuous

Figure 1. Evidence based medicine (adapted from Rexhepi, 2015)



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