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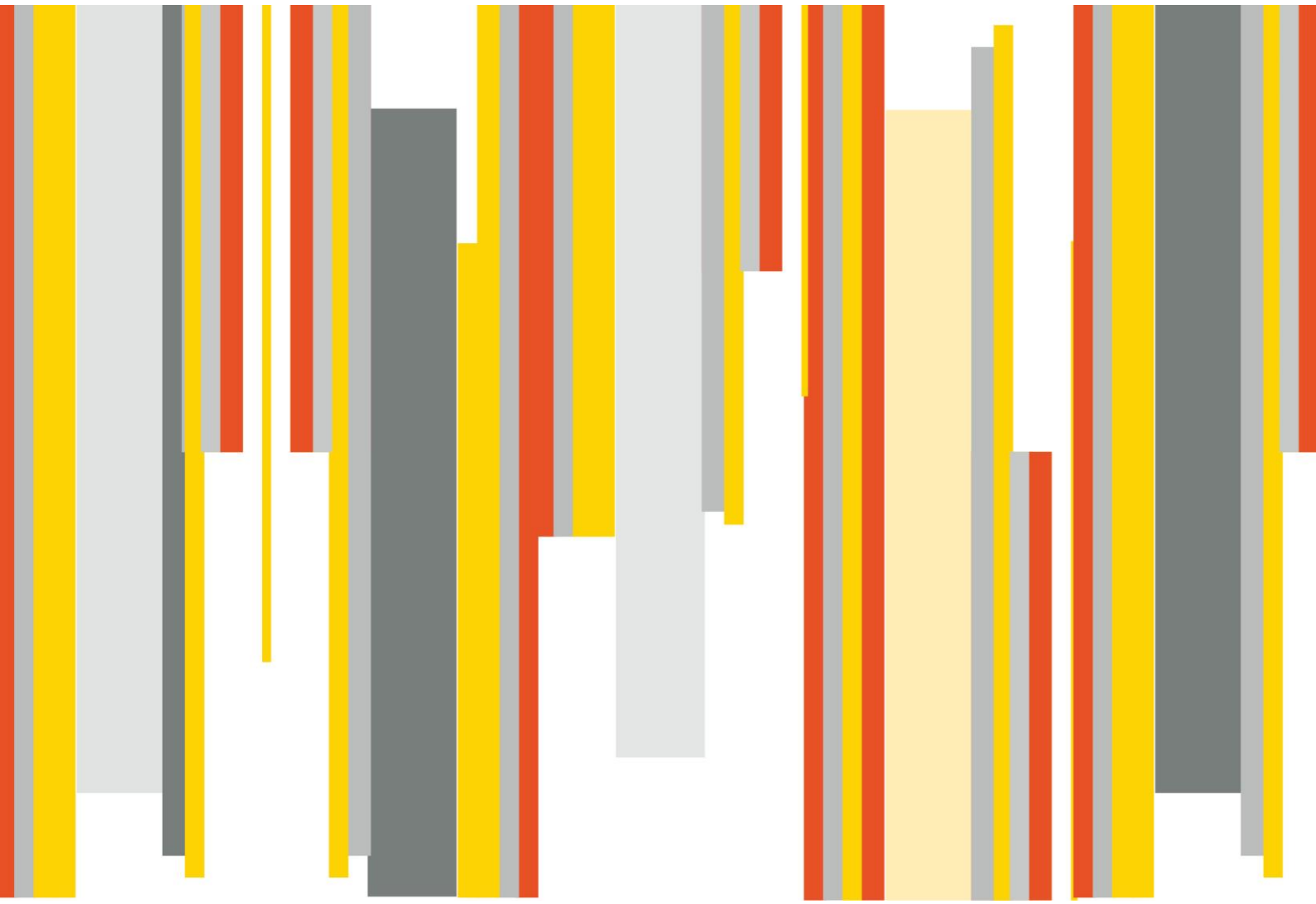

The Implementation of Evidence-Based Practice in Nursing in Danish Hospitals

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Content

Abstract

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The Implementation of Evidence-Based Practice in Nursing in Danish Hospitals

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Mentor:

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Background: It is understood and widely accepted by healthcare professionals globally that providing care in an evidence-based manner increases the quality of care and promotes better patient outcomes. The complexity of the development of evidence-based nursing practices continues to create challenges for healthcare professionals.

Aim and objective: The aim of this report was to describe the implementation of evidence-based practice within the field of nursing in Danish hospitals. The objective was to identify the process of implementation of evidence-based practice through interviews of nurse experts and to present the results in the form of a report in order to spread knowledge on implementation practices.

Design: Data were gathered in the spring of 2016 through semi-structured interviews of nurse experts employed at five different hospitals in Denmark.

Results: Nurse experts described the developmental process of systematic reviews and clinical practice guidelines within the field of nursing in Denmark. Nurse experts reported the use of several different implementation models that are used in practice to assist the implementation process. This report presents various examples and practical approaches to the implementation of clinical practice guidelines and evidence-based practice into nursing practice.

Conclusion: In Denmark, there is a strive for quality in healthcare and standardization of nursing practices. Several national organizations support healthcare professionals in various ways, which ultimately enhances evidence-based clinical decision-making in patient care. Nurse experts put great effort into the integration of best available evidence into daily nursing practice. Successful implementation of evidence-based practice is complex and requires uniform efforts from hospital employees at all levels of the organization. The implementation of evidence-based practice in nursing proves to be a focus in Danish hospitals

Keywords: Nursing Practice, Evidence-Based, Implementation, Practice Guidelines

Preface

Implementation of evidence-based practice in nursing proves to be a complex process, which requires healthcare professionals to take into account resources, practices and culture at a facility specific, local, regional and national level. Nurse management, nurses, nurse educators and researchers continue to search for innovative research-based interventions to implement evidence-based practice into daily nursing practice. The aim of this practical report was to examine the implementation of evidence-based practice in nursing in five Danish hospitals. The primary aim is in supporting future collaboration between Nordic countries on the implementation of best practice in nursing through sharing of experiences and information on different implementation practices and on the utilization of evidence-based practice models.

The process of discovering how evidence-based practice in nursing is implemented in Danish hospitals required several interviews of healthcare experts from various hospitals around Denmark. A warm thank you goes out to all the experts who so patiently helped me during this research process. I would also like to express my most sincere gratitude and appreciation for the staff at the Nursing Research Foundation in Finland. I am especially grateful for the guidance and support from researcher Anne Korhonen, who worked as my mentor. It is my hope that future collaboration in regards to evidence-based practice in nursing can be strengthened between healthcare professionals in the Nordic countries and also elsewhere.

Helsinki
10 October 2016

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Background

The public and professional community increasingly demands for accountability and quality improvement in healthcare. (Stevens 2013) It is known that evidence-based practice (EBP) is vital in improving the quality of healthcare and in improving patient outcomes. (Melnyk & Fineout-Overholt 2011) Nursing plays a key role in the achievement of EBP in healthcare settings, particularly in standardizing and aligning healthcare practices with evidence at the point of care. EBP is a fundamental part of nursing practice, nursing science and nursing education. (Pearson et al. 2012, Stevens 2013, Jun et al. 2016) A recent integrative review by Saunders and Vehviläinen-Julkunen (2016) proves that nurses are familiar with the concept of EBP, have positive attitudes towards EBP and believe that EBP can improve the quality of healthcare and patient outcomes. However, most nurses, regardless of their primary roles, practice settings or nationalities, are not ready for EBP and feel that their knowledge and skills are insufficient for the implementation of EBP. (Saunders & Vehviläinen-Julkunen 2016) Similar findings were reported in a study by Saunders et al. (2016a) of Finnish nurses´ readiness for EBP. Nurse leaders and educators should take action and enhance collaboration with stakeholders in order to implement effective strategies for promoting the use and integration of the best available evidence to make EBP a standard of daily nursing practice. (Saunders et al. 2016a) The development of evidence-based practice continues to be a current topic and there is a special emphasis on the implementation of EBP into clinical decision-making. (Stevens 2013, Saunders & Vehviläinen-Julkunen 2016)

Evidence-based practice

Sackett et al. (1996) defined evidence-based medicine (EBM) as the “conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients” (71). The definition of EBM or EBP can be applied to nursing, and in this report evidence-based practice in nursing will refer to the definition described above. Haynes et al. (1996) created a model containing three components necessary for evidence-based clinical decision-making: clinical expertise, research evidence and patient preferences. In 2000, Sackett et al. rewrote the definition of EBM to emphasize patient values and preferences as “…the integration of best research evidence with clinical expertise and patient values”. Because scarce resources in healthcare may have an effect on clinical decision-making, DiCenso et al. (1998) adapted Haynes et al. (1996) model of evidence-based clinical decisions by adding resources as a fourth component.

In 2005, Pearson et al. developed the Johanna Briggs Institute (JBI) Model of Evidence Based Healthcare, which conceptualized evidence-based healthcare and how it is operationalized. EBP was conceptualized as “clinical decision-making that considers the best available evidence; the context in which the care is delivered; client preference; and the professional judgement of the health professional” (Pearson et al. 2005, 209). The model was recently revised by Jordan et. al (2016) (see Figure 1). During the clinical decision-making process, healthcare professionals are to consider the following four aspects of healthcare practices: feasibility, appropriateness, meaningfulness and effectiveness. The revised JBI model consists of four major components of evidence-

based healthcare: evidence generation, evidence synthesis, evidence transfer and evidence utilization. (Jordan et al. 2016)

Figure 1. The JBI Model of Evidence Based Healthcare (Jordan et al. 2016)

The three main pragmatic components of evidence synthesis include systematic reviews, evidence summaries and clinical guidelines. (Jordan et al. 2016) The core of evidence synthesis is the systematic review of literature, which is a form of research. (Pearson et al. 2005, Jordan et al. 2016) The systematic review is defined by Pearson et al. (2005) as "essentially an analysis of all of the available literature (i.e. evidence) and a judgement of the effectiveness or otherwise of a practice…" (211). Systematic reviews function as a foundation for clinical practice guidelines (CPG). CPGs are "statements that include recommendations intended to optimize patient care that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options" (Institute of Medicine (IOM) 2011, 15). There is a need to develop and implement strategies for increasing the use of CPGs in healthcare. It is vital that healthcare professionals identify and understand the barriers and facilitators in the use of guidelines. Jun et al. (2016) state that nurses` knowledge, attitudes and perceptions work as internal barriers as well as facilitators for the use of CPGs. External barriers include the usability, format, contents and accessibility of CPGs in practice. Staff support and education is a requirement at the time of implementation of guidelines as well as following the implementation phase. Nurses play a key role in the healthcare system, and thus nurses must have an active role in the development, implementation and updating of CPGs. (Jun et al. 2016)

It is important to make a distinction between the concepts of implementation and dissemination. The National Institutes of Health (NIH) defines implementation as the "use of strategies to adopt and integrate evidence-based health interventions and change practice patterns within specific settings" (2013, Section 1, para 11). In implementation, the emphasis is on adapting intervention strategies to best fit the specific setting. The aim of dissemination, on the other hand, is the spreading of knowledge and the associated interventions. It is the "targeted distribution of information and intervention materials to a specific public health or clinical practice audience" (NIH 2013, Section 1, para 11). Jordan et al. (2016) emphasize that there is no single, linear approach to implementation of evidence into policy and practice. The JBI model contains four overarching principles of the complex process: culture, capacity, collaboration and communication.

During the EBP movement, a great number of models have been developed by nurse scientists in order to understand the aspects of EBP. (Stevens 2013) Holopainen et al. (2010) developed a model for the development of EBP (YHKÄ-model). The model is available on the Finnish Nursing Research Foundation (Hoitotyön tutkimussäätiö HOTUS 2016) website or from the following link *http://www.hotus.fi/hotus-fi/yhtenaisten-kaytantojen-kehittamisen-malli*. In the center of the model there is a figure, which represents the development process of best practices in working environments. Surrounding the figure are the international, national, regional and operational levels, which represent the responsibilities of the various parties in developing synthesized evidence and in standardizing nursing practices. (Holopainen et al. 2010) The YHKÄ-model was used as a framework for this report, and the focus was mainly on implementation of EBP in nursing.

A brief overview of the Danish healthcare system

The Danish healthcare system is mainly financed by taxes and publicly owned. During recent years, an increasingly centralized approach has taken place in regards to the planning and regulation of the Danish healthcare system. Following structural reform, there has been a reduction in the number of regions and municipalities. Currently, there are 98 municipalities and 5 administrative regions in Denmark: Capital Region of Denmark, Region Zealand, Region of Southern Denmark, Central Denmark Region and North Denmark Region. Similarly, the hospital structure has gone under reform with fewer, larger and highly-specialized hospitals. (Olejaz et al. 2012)

The state, regional and local administrative levels exist, upon which the health system is organized. The planning and regulation of the healthcare system takes place at a state and local level, with the state holding the overall regulatory and supervisory functions. (Olejaz et al. 2012) At the state level, the Ministry of Health is in charge of the administrative functions in relation to the organization and financing of the healthcare system. (Ministry of Health 2016) Regulation takes place through laws and initiatives, national and regional guidelines, licensing systems for healthcare professionals and national quality monitoring systems. The five regions in Denmark are responsible for hospitals, prenatal care centers, community psychiatric units and for the financing of self-employed healthcare professionals. The main responsibility of the municipalities is to provide disease prevention and health promotion. (Olejaz et al. 2012)

Concepts

- Evidence-based practice (EBP) is the “conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients” (Sackett et al. 1996, 71).
- Implementation is the “use of strategies to adopt and integrate evidence-based health interventions and change practice patterns within specific settings” (NIH 2013, Section 1, para 11).
- The systematic review “is essentially an analysis of all of the available literature (i.e. evidence) and a judgement of the effectiveness or otherwise of a practice…” (Pearson 2005, 211).
- Clinical practice guidelines (CPG) are “statements that include recommendations intended to optimize patient care that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options” (IOM 2011, 15).
- Nurse expert refers to the healthcare professionals who were interviewed during the research process.

Scope of the report

This report is the product of an internship task, which was defined by the Nursing Research Foundation in Finland. The report was written under the mentorship and supervision of researcher Anne Korhonen. The author of the report collected information on the topic while living in Denmark for a short period of time. The research questions and the scope of the report were defined throughout the data collection process. Eventually, the topic was narrowed down to describe the implementation of evidence-based practice within the field of nursing in hospitals located in Denmark. The primary aim of the report remained the same throughout the research process: to support future collaboration amongst healthcare professionals in Nordic countries in regard to implementation of evidence-based practice in nursing.

Aims and research questions

The aim of this report was to describe the implementation of evidence-based practice within the field of nursing in Danish hospitals. The objective was to identify the process of implementation of evidence-based practice in nursing through interviews of nurse experts and to present the results in the form of a report. The primary aim of the report is to support future collaboration amongst healthcare professionals in Nordic countries in regards to implementation of evidence-based practice in nursing.

The research questions for the report are:

1. In Denmark, who produces systematic reviews and national clinical practice guidelines within the field of nursing?
2. How are national clinical practice guidelines and evidence-based practice implemented into nursing practice and is a model utilized in the process of implementation?
3. In general, how is evidence-based practice in nursing visible in Danish hospitals?

Research process

The data were collected in the spring 2016 over a four-month time period through semi-structured interviews (Polit & Beck 2012) of nurse experts who were employed in five different hospitals (2 regional hospitals, 3 university hospitals) throughout Denmark. The names of the participants and hospitals will not be mentioned in order to protect the confidentiality of the participants. The professional roles of those interviewed included Assistant Head of Clinic, Quality Consultant, Professor, Clinical Head Nurse, Development and Innovation Specialist, Clinical Nurse Specialist and Head Nurse. The participants were contacted through email and informed of the aim and research questions of the report. A total of 22 experts were contacted during the entire research process. Eight experts were interviewed in person and two experts were interviewed by phone. The interviews were held in English, because the author of the report lacks knowledge of the Danish language. The interviews were not recorded. Notes were taken during and after the interviews. The face-to-face interviews lasted from 1–3 hours and were held at the hospitals in which the nurse experts were employed. The phone interviews lasted from 10–30 minutes. During the interviews, the topic remained focused on the research questions. Data saturation was not reached during the research process. (Polit & Beck 2012)

Results

Development of systematic reviews

The development of systematic reviews and national clinical practice guidelines in nursing was discussed in each interview. Several nurse experts expressed that the development of systematic reviews was part of their job description, as well as the responsibility of university researchers. The role of university researchers was beyond the scope of this report.

The nurse experts who worked in the hospital environment described the process of producing systematic reviews in nursing. The process they described resembled the JBI method of synthesis, which involves the following stages (Godfrey & Harrison 2015, 4):

1. Developing a rigorous proposal or protocol
2. Stating the questions or hypothesis
3. Identifying the criteria that will be used to select the literature
4. Detailing a strategy that will be used to identify all relevant literature
5. Establishing how the quality of primary studies will be assessed
6. Detailing the extraction of data
7. Synthesis and summary

Nurse experts stated that systematic reviews are produced by two reviewers with a minimum of a master´s or PhD level degree. One expert stated that a librarian could be consulted during the research process, for example, for assistance in the development of search words or a search strategy. Following the completion of a systematic review, the nurse expert can develop recommendations for nursing practice. In Denmark, the Center for Clinical Guidelines – Danish National Clearinghouse (Center for Kliniske Retningslinjer CFKR), provides guidance and courses to nurse experts on the development of systematic reviews.

Development of clinical practice guidelines

Various types of guidelines exist in the hospital environment. Not all guidelines are based on evidence, however, these still play an important role in healthcare because they provide information on certain topics, help clarify professional roles, responsibilities or tasks. The focus in this report is on evidence-based clinical practice guidelines and the term ‘guideline’ or `clinical guideline` will be used to refer to national, regional, facility or unit level CPGs in nursing. During interviews, nurse experts expressed that the term `national clinical practice guideline` caused some confusion due to the fact that various national organizations use this same term for the guidelines that they publish.

There are several national organizations in Denmark that assist in the production of national CPGs. The organizations mentioned in this report are the CFKR, the Danish Health Authority (Sundhedsstyrelsen SST) and the National Center for Infection Control (States Serum Institut SSI).

The SSI publishes CPGs for infection control and prevention for the whole of Denmark (SSI 2016). The role of the CFKR and SST in producing CPGs will be described in more detail below.

In 2008, the CFKR was established. The center is owned by the Danish Nursing Society (Dansk Sygepleje Selskab DASYS), which is an umbrella organization for scientific societies within the field of nursing in Denmark. (DASYS 2016a) The CFKR is a Joanna Briggs Collaboration Centre, whose main responsibility is to promote high quality evidence-based clinical guidelines in nursing, even though there is a desire for multidisciplinary collaboration. (Joanna Briggs Collaboration 2016) According to the CFKR website, the main purpose of the center is to assess the quality of clinical guidelines in nursing, to create and maintain a database of the approved clinical guidelines, be part of the national and international cooperation for the development of clinical guidelines, identify areas for future research, to initiate and engage in educational activities in order to strengthen the quality and development of clinical guidelines and to disseminate knowledge about existing clinical guidelines. The operation of the center is based on membership fees from Danish hospitals, university colleges and municipalities. (CFKR 2016)

The center is a member of the Grading of Recommendations Assessment, Development and Evaluation (GRADE) working group (CFKR 2016, GRADE working group 2016). All clinical guidelines that have been commenced or revised at the center after September 2015 have been prepared using the GRADE method (CFKR 2016), which is a transparent approach to grading quality of evidence and strength of recommendations in guideline development (GRADE working group 2016). Prior to this the Oxford method was used. The CFKR provides nurse experts with instruction, guidance and courses on the development of CPGs, including courses on the GRADE method during this transitional phase. (CFKR 2016)

The SST is the supreme authority of healthcare in Denmark. It is part of the Ministry of Health group and also plays a role in developing national CPGs. (SST 2016) In general, the Danish Health Authority produces national clinical practice guidelines in the healthcare field for a broader population such as doctors, nurses, therapists and patients. The purpose of the guidelines is to ensure consistent treatment services of high quality across Denmark. Recently, the SST received funding for the completion of 47 national clinical guidelines, and has carried out this task in collaboration with experts in different areas. (SST 2016) According to one expert that was interviewed, the SST has contacted other national organizations in regards to CPG development, such as DASYS. In this way nurse experts have been able to participate in the process. At the CFKR, CPGs are revised within a 5-year time period. (CFKR 2016) During interviews with experts, a concern rose about the future plan of how and who will be responsible for the continuous revision and evaluation of the national clinical guidelines produced by the SST. In the July 2016 newsletter from DASYS, a proposal was presented that the National Clearinghouse within the SST could be responsible for this task in collaboration with universities. (DASYS 2016b)

The pathway of a national clinical practice guideline in nursing

In this section, the pathway of a national clinical guideline in nursing from idea to approved guideline will be described. The development of a national CPG begins with a clinical question. The question may come from the professional community or from within a specific unit in a hospital facility. The clinical question may be presented to the nurse expert by a healthcare professional, such as a nurse who works at the bedside. Most often, the nurse expert is the initiator of a national CPG. Prior to the initiation of a new CPG, the nurse expert will do a search on the topic of interest to see if a current international or national guideline exists. An international database that can be used in the search for systematic reviews or nursing best practice guidelines includes the JBI Database of Systematic Reviews and Implementation Reports (2016), which several experts that were interviewed reported using in their searches. For the Danish nurse expert, a search for a national CPGs means searching databases such as the CFKR, SST or SSI database. A brief overview of the process of developing a guideline through the CFKR will be given below. See the CFKR manual for the preparation of national CPGs for more detailed information on the drafting process (CFKR 2015).

On the CFKR website, national CPGs are arranged according to their current status: approved, under revision or discontinued. Approved clinical guidelines can be searched for under a variety topics, such as activity, nutrition, psychosocial conditions, respiration and circulation. Information is available on various clinical guidelines that are still in process to promote collaboration amongst experts. Creating a clinical guideline on a specific topic may be impossible due to lack of knowledge or research on the topic. The CFKR publishes literature searches and discontinued clinical guidelines on such topics in order to promote the identification of areas in need of further research. (CFKR 2016)

If the need for a new national CPG is identified, the nurse expert will contact the CFKR and submit a short written description of the topic for a new CPG. The topic will then be available on the CFKR website in order to promote the networking of healthcare professionals who may be interested in collaboration in the development of a clinical guideline. The CFKR will assist nurse experts in the preparation phase of clinical guideline development such as by providing experts with instruction, guidance and courses.

The four main stages in the development of clinical guidelines include (CFKR 2016):

1. Idea for a clinical guideline
2. Preparation of clinical guideline
3. Evaluation of clinical guideline
4. Publication of clinical guideline.

Once an idea for a clinical guideline has been identified, the nurse expert should prepare a focused question and a search strategy. Next, a systematic literature search should be performed followed by an appraisal and assessment of the literature. Evidence is summarized and finally, recommendations are made. The CPG evaluation stage consists of three phases: internal review, external review and public hearing. The CFKR will assign a team of trained external evaluators to evaluate

the clinical guideline using the AGREE II (Appraisal of Guidelines, Research and Evaluation) instrument. (Brouwers et al. 2010) Before publication, the CPG will go through a hearing process during which the CPG is available online for experts and other healthcare professionals to comment on.

Translation and implementation of clinical practice guidelines

Once a new national CPG is approved or updated, it will eventually be directed to the healthcare experts to whom it concerns. The national CPG will most likely need to be translated into a regional guideline and once again to a local, facility or unit level guideline. Regional guidelines refer to those produced amongst experts within one of the five regions in Denmark. Local CPGs are produced in collaboration with experts from healthcare facilities within a specific area such as a municipality.

Translation of national CPGs is a vital phase, which requires close collaboration and the expertise of healthcare professionals within a healthcare facility or within a specific region. During interviews of nurse experts from several different regions in Denmark, it became clear that there is variety in the degree of collaboration in regards to the production of regional guidelines. In some areas, there appeared to be a stronger focus on collaboration at a local or facility level rather than at a regional level. Regardless, each nurse expert reported that national CPGs were translated into clinical guidelines that better fit the context and met the specific needs of the unit, facility or local area. Nurse experts mentioned working together in multidisciplinary collaboration (medical doctors, nurses, quality coordinators) during the translation phase of CPGs.

Successful translation of a clinical guideline is a requirement for successful planning of implementation. A wide spectrum of opinions and experiences were reported amongst nurse experts on the implementation of national CPGs on the hospital units that the experts represented. Implementation of national clinical guidelines appears to be a complex process in which many aspects need to be considered, such as staff expertise and unit or facility resources. According to one expert, adherence to guidelines is a very big challenge in Denmark and is in many ways uncharted territory. Many nurse experts stated that they do not exactly know what is happening in regards to implementation of CPGs at a facility level. There appeared to be limited collaboration with other experts from outside their unit or facility. One expert stated that the translating and implementing of clinical guidelines takes place within the different units at the hospital and is not initiated centrally. Another expert stated that there is no national policy on the implementation of clinical guidelines. However, the CFKR website contains local documents and strategies related to the development and implementation of clinical guidelines from different healthcare facilities throughout Denmark. (CFKR 2016) The SST also provides information online on the implementation of national clinical guidelines. (SST 2014)

Practical approaches to the implementation of clinical practice guidelines

There is so much information available and so many guidelines that having a systematic approach to organizing and accessing information proves beneficial. Currently in Denmark, there are approximately 50 published national clinical guidelines from the CFKR and approximately the same amount from the SST. Nurse experts must also take into consideration changes in Danish laws and regulations that concern healthcare as well as national CPGs from other organizations such as the SSI. One nurse expert stated that within the region there are around 70,000 guidelines, of which not all are evidence-based but regardless, where appropriate, need to be integrated into practice. On a single unit there can be approximately 7,000 guidelines that need to be integrated. The nurse expert went on to explain to great depth how clinical guidelines are integrated into the electronic health record (EHR) for easy access.

1. **From clinical guideline to daily documentation:** Experts within a certain region in Denmark work together to integrate the recommendations from national clinical guidelines into the region's EHR. The translation and integration of guidelines is carried out by a group of representatives from several healthcare facilities in the region. The group meets regularly to discuss new national CPGs and whether the guidelines can be implemented into the EHR.

   Purpose: Daily nursing documentation is systematized and recommendations are integrated into the EHR. An individual guideline is implemented within three months after it has been approved. This approach supports the use of CPGs and enables uniform practices and the following of recommendations amongst nurses across the entire region. Integration of guidelines into daily documentation allows for nurses to recognize whether their actions are based on evidence and to easily access and utilize evidence in their daily work.

   Process: National CPGs are translated into regional guidelines and documents, which are stored in a regional database. Summaries of the original regional guidelines are created, which contain the main points of the clinical guideline. Each summary is structured in the same way and the main points include the purpose of the guideline, the patient (target) group, the definition of concepts, what to do, recommendations, what to document, what to monitor, who is responsible for the implementation (all nurses or nurses with a specific competence) and references. The full guideline can be accessed via the summary. The link to the summary is available directly through the EHR. The care plans are modified to be as evidence-based as possible and to contain certain items that need to be acknowledged by the nurse caring for the patient. Certain hospital employees have been trained to develop the EHR.

   The process of integrating regional guidelines into the EHR consists of 4 main phases: identifying the clinical problem, identifying recommendations from clinical guidelines, modifying the EHR or creating a care plan, and monitoring or evaluating the implementation of the care plan in nursing practice (Figure 2).

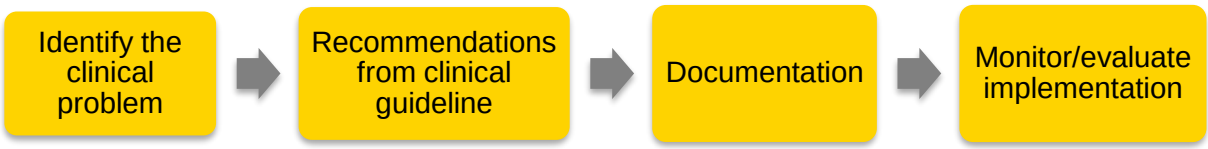

Figure 2. Main phases of integrating a clinical guideline into the EHR ***(published with permission from nurse expert 8.9.2016)***

Example of the process of integration of a CPG into the EHR: A regional CPG addresses the need for identifying hospitalized adult patients who are in need of enhanced oral hygiene practices. The clinical problem is defined: to identify hospitalized adult patients who are in need of enhanced oral hygiene practices to ensure that the patient can maintain good oral hygiene and continue normal tooth brushing in order to prevent diseases and conditions that occur from poor oral hygiene. Recommendations for addressing the clinical problem are taken from the guideline, such as using a screening mechanism, teaching staff and tooth brushing using fluoride. Next, the recommendations are added to the documentation. In this case the screening mechanism and a generic care plan for oral hygiene were added to the EHR. Implementation is then monitored by calculating the proportion of patients who are in need for enhanced oral hygiene that have been screened within the first 24 hours after admission. Monitoring includes identifying if oral hygiene care plans were utilized for patients who were identified to be at risk for poor hygiene.

Example of consulting a clinical guideline through the EHR: A renal patient is admitted into the hospital and a care plan in the EHR is created for the patient. The nurse adds various appropriate nursing diagnosis to the care plan. Under the nursing diagnoses, the nurse can add a description of the patient's symptoms, goals and treatment. These options are structured according to the CPGs. The patient's preferences concerning his/her own care can also be added into the care plan. The nurse enters the weight of the renal patient into the EHR, but wants to check what is the difference between a patient's wet and dry weight. The nurse can easily access the CPG on wet and dry weight from a link next to where the weight of the patient is added. The nurse evaluates the care plans at different time intervals depending on the specific issue.

2. **Implementation of national clinical practice guidelines through staff training**: At one hospital, nurse experts explained the process of implementing CPGs into practice through staff training. Recently approved and translated guidelines are sent by email to each nurse. Each nurse is given time to read the guideline and then the nurse is required to sign off that it has been read. Nurses are encouraged to discuss issues that arise in regards to the CPG. The guideline is discussed in monthly evidence-based practice meetings. At this hospital, the guidelines were stored in a computerized patient journal which allows for quick access. The Head Nurse from the unit can work with Information Technology (IT) staff members to integrate the clinical guidelines into the EHR.

3. **Promoting implementation through collaboration between nurse experts in a committee:** In one hospital, a Clinical Nurse Specialist (CNS) is employed on each of the inpatient units. The CNSs from each unit meet together on a regular basis and form a committee, called the Committee for the Implementation of Evidence-Based Nursing Clinical Practice Guidelines. The committee participates in “theme days” on implementation of CPGs together with members from the CFKR and head nurses from each of the units.

   The committee´s tasks include:
   - Creating a priority list every six months of the approved CPGs from the CFKR that should be implemented
   - Provide information on the newly approved national CPGs
   - Assess how the CPG can best be translated into practice at the hospital in question
   - Identify necessary resources and identify stakeholders
   - Provide recommendations and create a strategy for implementation of approved CPGs
   - Plan evaluation of implementation

   Process: A newly approved CPG is discussed in the committee meeting. The committee will discuss which units the guideline can be implemented on and how the guideline will be implemented. The committee will designate the CNS who will be responsible for the implementation of the guideline. Each unit has their own way of implementing guidelines. Implementation is evaluated through an annual questionnaire that the Head Nurses on the units will send to staff members. The level of implementation is evaluated through color-coded indicators. Green indicates that a CPG has been fully implemented, yellow indicates that the CPG has been partially implemented, red indicates that the CPG has not been implemented, purple indicates that there is no desire to implement the CPG. An example of a CPG that has not been implemented is the clinical guideline for the identification of fall risk and fall prevention interventions for geriatric patients admitted to surgical or medical hospital units.

4. **Standardizing healthcare practices through a multidisciplinary approach:** In order to standardize healthcare practices at a facility level, a Committee for Multidisciplinary Clinical Policies, Guidelines and Instructions was established. The committee focuses on working together on CPGs that require a complex approach to implementation. The need for the committee arose from the concern that guidelines for certain conditions, such as heart attacks, varied amongst different units in one hospital. Since national CPGs for certain conditions can come from different sources at a national level, it is necessary to discuss the guideline in a systematic way in collaboration with healthcare experts from different fields. The committee meets to discuss whether one unified facility-level guideline can be created for the condition in question.

Strive for quality in healthcare through consistent documentation practices

In order to improve the quality of healthcare in Denmark, a national model for quality assessment and improvement was established. The model called the Danish Healthcare Quality Program (Den Danske Kvalitets Model DDKM) is an accreditation program for healthcare providers and is operated by the Danish Institute for Quality and Accreditation in Healthcare (IKAS). Accreditation standards are written to improve quality of healthcare and they include certain minimal requirements. Standards are not written to strictly delegate what healthcare professionals are to do, but to encourage reflection and inspire improvement of healthcare services. Standards consist of a descriptive part, which describes the purpose of the standard. Various indicators are included in the standards. The indicators comprise the measurable elements of the standard set. A surveyor team can assess compliance of a standard set by rating the indicators. (IKAS 2016)

According to one nurse expert, the indicators from the DDKM are essentially a list of items that need to be checked off to indicate completion, for example, when a patient is admitted to the hospital. The concern arose that currently nurses spend a considerable amount of time documenting mandatory indicators that are not always adapted to the direct needs of the individual patient. At one hospital, the level was raised beyond the minimum standards in the quality program because healthcare professionals believed this would raise the quality of care. A new quality program was published during late spring 2016, at around the same time as the interviews were performed. Nurse experts expressed uncertainty in how to integrate the new program into practice.

National guidelines in Denmark specify the twelve areas in the Danish Nursing Minimum Data Sets (NMDs). Essentially, the NMDs are a strategy for standardizing the collection of nursing data through the systematic documentation of care given to patients. The guidelines do not specify exactly what is necessary for nurses to document, but provide a framework for the professional assessment of the individual needs of patients. (Håkonsen et al. 2012) DASYS (2016a) helps develop and disseminate national guidelines for documentation of the NMDs. DASYS´ strong focus on the development of nursing documentation and on creating a national consensus on the use of nursing data in healthcare was discussed in some of the interviews of nurse experts.

> **Evaluation of clinical practice guideline implementation through auditing:** Several nurse experts reported that audits on nursing documentation are carried out on a regular basis. In this way, the level of implementation can be evaluated. If the level of implementation is below the desired level, interventions can be planned to enhance implementation.
>
> **Example:** The CNSs from different units at one hospital chose a specific day when they monitored all inpatients for pressure ulcers. The CNSs studied the completed documentation in the patients` EHR for completeness. Through the auditing process, CNSs were able to evaluate how well the guideline for pressure ulcers had been implemented in practice. Prior to auditing it was believed that the guideline had been successfully implemented. Following the audit, the percentage of patients who got pressure ulcers while hospitalized was unacceptably high. The need for an intervention for the prevention of pressure ulcers was identified. The audit will need to be repeated following the intervention.

Implementation models

According to some nurse experts, there is a lack of a formalized implementation model in Denmark. During interviews it became apparent that several different models for implementation are used in the hospital environment. Each model will be briefly described below.

Model for the implementation of national CPGs

The SST has published an implementation model that contains nine steps and a description of the main tasks (see Figure 3). The order for proceeding through the steps is flexible and requires the evaluation of the specific situation. For more information, see the handbook (Nationale Kliniske Retningslinjer Implementeringshåndbog) available on the SST website. (SST 2014)

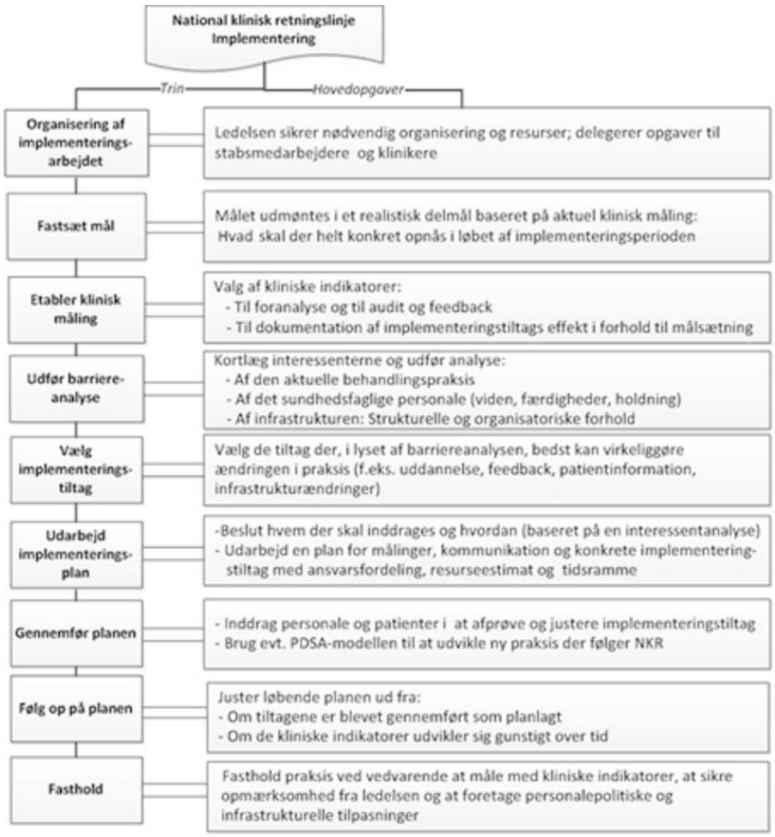

***Figure 3**. Model for the implementation of national clinical practice guidelines by the Danish Health Authority (SST 2014)*

Step 1: Organize the implementation work

Main tasks: Management ensures the necessary resources are available and delegates tasks to staff employees and clinicians

Management is ultimately responsible for the implementation of national CPGs. Successful implementation requires commitment from management. Management ensures that realistic goals and

plans are established for implementation and that the necessary resources are available. Management should involve staff members, patients and relatives in CPG implementation.

Step 2: Set goals
Main tasks: Goals are translated into realistic targets that can be reached within the implementation time period
Realistic goals and targets can help motivate healthcare professionals to make changes in daily practice. The ultimate objective of implementation is that all patients have the possibility of receiving care that is based on current, up-to-date CPGs.

Step 3: Establish clinical measurements
Main tasks: *Selection of clinical indicators*
Indicators are used to measure and monitor the compliance rates of the integration of CPG recommendations. A plan should be made for how data and feedback will be analyzed and audited.

Step 4: Perform an analysis of barriers
Main tasks: Mapping stakeholders and perform analysis of the current treatment practices, of structural and organizational issues and of health professionals` knowledge, skills and attitudes

Step 5: Select implementation initiatives
Main tasks: Select the necessary actions that will enable changes in practice (training, feedback, infrastructure changes)
It is imperative that the analysis of barriers is considered before selecting initiatives. Making changes in infrastructure and technology alone will not lead to successful implementation. Health professionals´ knowledge, skills and attitudes towards the CPG need to be addressed.

Step 6: Create an implementation plan
Main tasks: Decide who should be involved and how (based on the stakeholder analysis). Create a plan which considers measurements, communication and concrete implementation initiatives with responsibilities, time frame and an estimation of resources.

Step 7: Complete the plan
Main tasks: Involve staff and patients to try out and adjust the implementation efforts
The implementation plan should be divided into appropriate, manageable tasks that can be implemented at the operational level. The Plan, Do, Study, Act model can be used.

Step 8: Follow up on the plan
Main tasks: Make necessary adjustments to the implementation plan
All those involved in implementing a CPG need information on how the implementation and compliance rates have progressed. Possible obstacles need to be addressed.

Step 9: Maintain changes in practice
Main tasks: Maintain changes in practice by continuing to measure the clinical indicators. If needed, continue making infrastructural and organizational adjustments. (SST 2014)

Framework for implementation drivers

At one hospital, experts chose to follow the Swedish guideline for implementation provided by the National Board of Health and Welfare (Socialstryelsen 2012). The guideline contains a translated version of the triangular model of implementation drivers by Fixsen and Blase (2008). Fixsen et al. (2009) describe six functional stages of implementation that appear to impact each other in complex ways: exploration, installation, initial implementation, full implementation, innovation and sustainability. The core implementation components include staff selection, preservice and in-service training, ongoing coaching and consultation, staff performance assessment, decision support data systems, facilitative administrative supports, systems interventions (see Figure 4). The core components of implementation consist of methods, called implementation drivers, to develop staff competency, establish organizational functions necessary for the effective use of evidence-based programs and develop leadership to be capable of managing technical and adaptive challenges within and external to the organization. These implementation drivers guide a purposeful, active and integrated approach to implementation. (Fixsen et al. 2010)

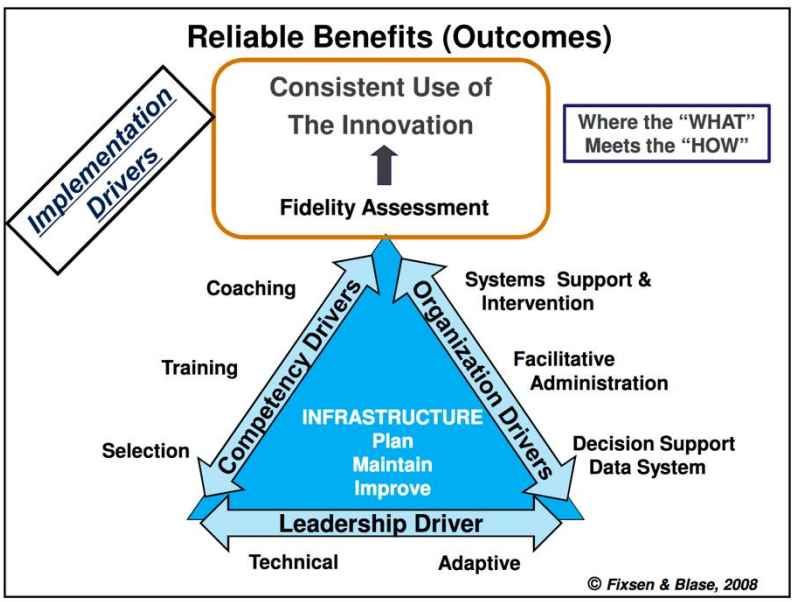

***Figure 4**. Framework for implementation drivers (Fixsen & Blase 2013, 16)*

Plan, Do, Study, Act (PDSA) improvement cycle

One nurse expert reported that the PDSA improvement cycle (see Figure 5) was used for improvement of quality and accreditation issues. The PDSA cycle was originally introduced by Walter Shewhart in 1924 and developed further by William Edwards Deming. The continuous cycle is a systematic series of steps for gaining knowledge for continual improvement of a process. The cycle begins with the Plan step, which involves identifying a goal, formulating a theory, defining success metrics and putting a plan into action. In the Do step, components of the plan are implemented. During the Study step, outcomes are monitored to test the validity of the plan. The cycle ends with

the Act step, which includes the integration of that which was learned during the process. Adjustments are made as needed. (The W. Edwards Deming Institute 2016)

***Figure 5**. Model for improvement. (Associates in Process Improvement 2016)*

Evidence-based practice pocket model

At one hospital, an EBP pocket model was utilized to enhance a pluralistic approach to EBP implementation (see Figure 6). The model was inspired by the work by Wilmann & Stoltz (2003), Sackett et al. (1996) and DiCenso et al. (1998). The model has been printed and laminated to enable the possibility for nurses to carry it in their pockets during daily practice. Posters of the model have also been created to reinforce and visualize the approach to EBP. The EBP pocket model can be used on the unit in daily team meetings and monthly EBP conferences. It works as a reminder that evidence is not the only aspect that matters in evidence-based practice.

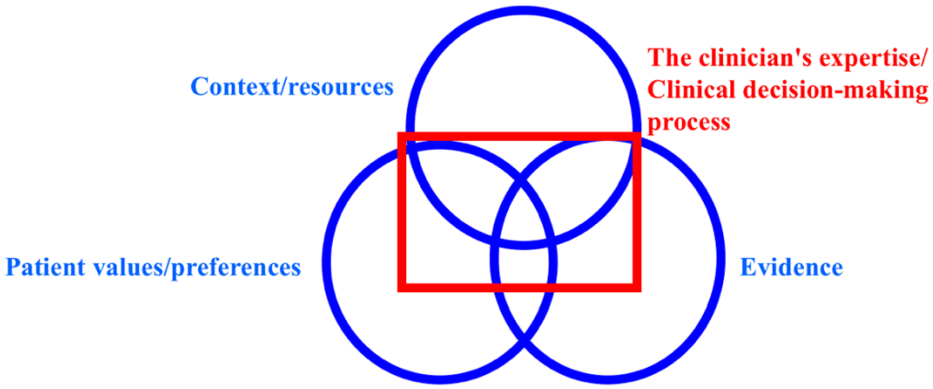

***Figure 6**. Evidence-based practice (EBP) pocket model (Nyland & Kirketerp 2007)*

Implementation model inspired by the Knowledge-to-Action-Cycle

At one hospital, a model was developed for the implementation of CPGs, which was inspired by the Knowledge-to-Action-Cycle (Graham et al. 2006). The implementation model that was created includes the seven phases of the Knowledge-to-Action Cycle. The phases are listed on the Canadian Institute of Health Research (n.d.) funded website called KT Clearinghouse.

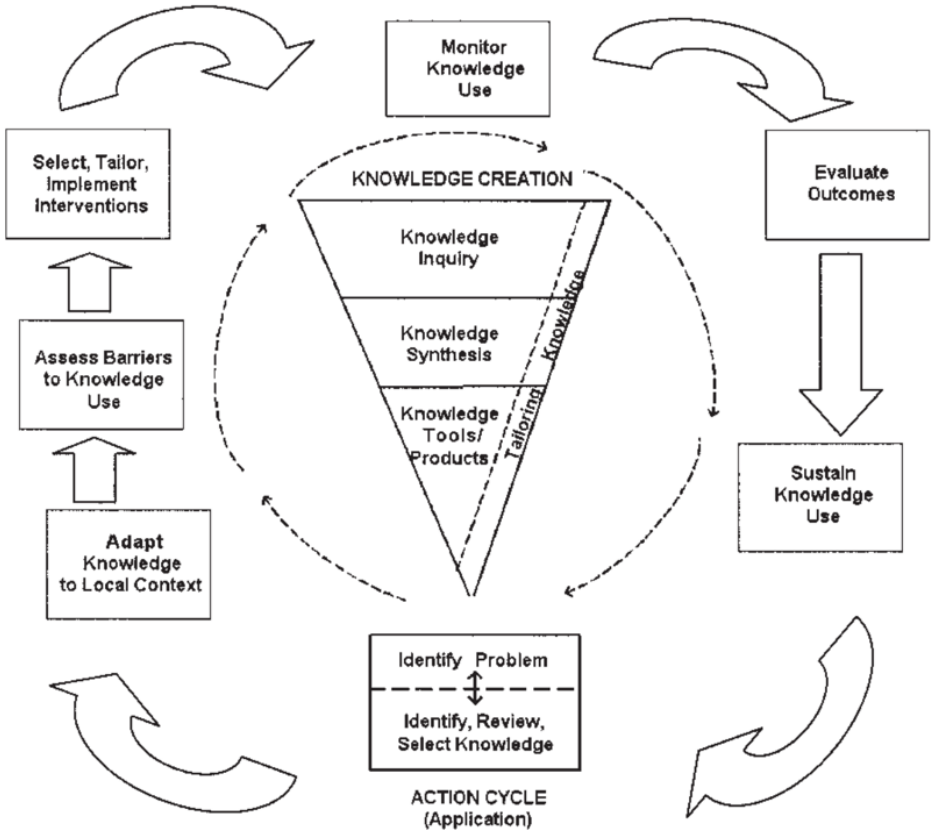

***Figure 7**. The knowledge to action process (Graham et al. 2006, 19)*

Example of how the model is used:

Phase 1: Select a CPG to be implemented

Prior to implementation of a CPG, the "Committee for CPGs" will plan and execute the process. The committee will assess organizational communication, resources and the possible preparation of documents that will go into the hospital database or EHR. The committee will send the prepared material to the Head Nurses who will forward it to possible resource personnel.

Phase 2: Customize the CPG to the local context
Each unit will identify resource personnel who are familiar with the implementation process. Resource personnel consist of one or more nurses. The Head Nurses from the units are responsible for the implementation process together with the resource personnel and coordinator. The difference between current practices and the CPG recommendations need to be identified. What are the current procedures? What should be discontinued and what should be introduced? An analysis must be completed on the current level of knowledge, resources and skills. In addition, an analysis should be done on how the CPG will have an effect on staff members, the patient pathway and local documents.

Phase 3: Rate the barriers of the use of the CPG
Knowledge, attitudes, motivational or organizational barriers need to be rated. An analysis focusing on whether or not patients want to receive care according to the CPG can be completed. Resistance in the implementation process can be caused by lack of information sent to stakeholders.

Phase 4: Select, customize and implement interventions
The implementation process must take into consideration the complexity of daily practice. It must be adapted to the culture and environment on each unit. If an effective method for implementation has been identified on a unit, it should be used again. In order to develop healthcare professionals' skills in the use of CPGs, it is necessary to get information on the background of the CPG. It takes time and requires collaboration to integrate a CPG into daily practice.

Phase 5: Monitor the implementation and use of knowledge
Evaluate the change in the level of knowledge and the attitudes towards the new interventions. The CPG may include measureable indicators that can be evaluated.

Phase 6: Evaluate results/outcomes
Evaluation can be performed through auditing the implementation of the CPG. It may also be necessary to evaluate professionals` level of satisfaction with the intervention. Patient outcomes may provide valuable information on the success of implementation.

Phase 7: Maintain and keep the focus on the use of the CPG
Maintenance and possible adaptations to the process must be considered early on in the process of implementation. It is necessary to acknowledge financial, human and organizational resources.

Practical approach to the implementation of EBP into nursing practice

Many experts reported working on practical approaches towards evidence-based nursing practice for several years. The different approaches will be described below. There appeared to be a need for the strengthening of collaboration and sharing of knowledge of practical approaches with others outside the facility or region. One expert mentioned that the sharing of information could be done through the publication of research articles, but time constraints hindered this.

1. **Involving nurses in the unit to participate in the planning of implementation:** At one hospital, an item requiring development is brought to the attention of the Clinical Head Nurse, who is responsible for five separate units. The Nurse Supervisors from each of the five units will choose two nurses to participate in a project to create an implementation plan for the specific item in need of development. The implementation model that is used to guide the process is the Fixsen and Blase (2008) framework for implementation drivers.

   The Clinical Head Nurse will plan a course for the nurses working on the project. The course consists of a total of five days during which the project members meet together and plan a strategy to address the issue. The days are spread out in such a way that the whole process takes from 2.5 weeks to 3 months. In this way, the nurses have time in between meetings to search the available evidence. After the completion of a literature search, the nurses can make recommendations for nursing practice. The AGREE II instrument is used to assess the recommendations (Brouwers 2010). Finally, the nurses will meet to draw up an implementation plan. The plan will be evaluated and then presented to the rest of the nurses on the different units.

   Positive: Staff members are able to actively participate in the process of research, planning and implementation with guidance from the Clinical Head Nurse. Participation may increase staff motivation to implement the plan into daily practice. This process gives nurses the opportunity to influence their work in an evidence-based manner and also enhances the nurses' professional development and EBP skills.
   Challenges: The projects are time intensive and at times the Clinical Head Nurse has not been able to plan a full five-day course for the nurses involved in the project. The course has sometimes been shortened to three days and the implementation model has been left out. The process requires close support from the Clinical Head Nurse and continuous assessment on how the nurses are proceeding through the different phases. It is also important to consider how the implementation plan is perceived by all the staff members who are required to implement the plan into practice.
   Example: A project was initiated to address pain control measures on the hospital units. The problem that was encountered was that the nurses in the project were not able to sufficiently narrow down the topic. The nurses' focus was on why is pain control important. They needed guidance in narrowing down the topic to what do we know about pain control and what knowledge is missing in our facility?

2. **Open communication between the nurse expert and the nurses** who work at the bedside proves crucial in facilitating EBP in nursing. One expert created a model of the process of EBP (Figure 8). A clinical question may arise while a nurse is caring for a patient on whether one way of doing something is more effective than another. Research may need to be done if there is no guideline available on the topic. The nurse at the bedside may need assistance in the search for evidence for the clinical question. The nurse expert can assist the nurse in the research process or then perform the research on the nurse's behalf. After the research is complete, the nurse expert will communicate the available evidence to the nurse with the clinical question and with other staff members at a unit of facility level. If there is insufficient evidence to prove whether a certain treatment or procedure is effective, a study may be designed and performed on the unit.

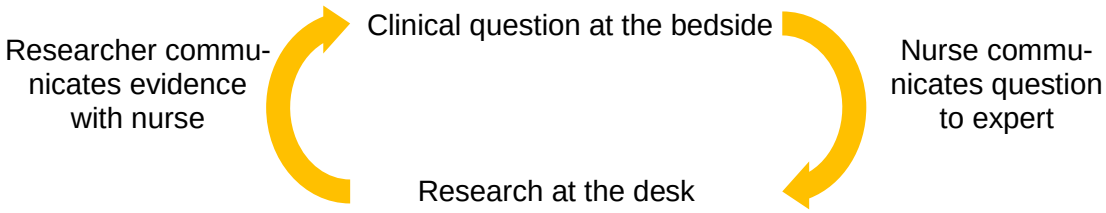

***Figure 8**. Process of EBP (published with permission from nurse expert 8.9.2016)*

3. **Evaluation of staff members' and the organization's readiness for EBP** helps in the planning and developing of practices and in meeting the needs of staff members. One expert stated that three different questionnaires were developed and sent out to nurses in which they were to score their own and the organization's readiness for EBP.

4. **Supporting the professional development of nurses** was clearly the focus on one unit. The nurse experts who were interviewed discussed the systematic approach to implementing evidence into practice through various activities that are organized on a regular basis.
   - **EBP meeting:** Every month a meeting is held for all of the nurses who are on shift that day. One of the nurses on the unit will be assigned to hold a presentation on a certain topic. The concept behind the meeting is the question "How can that be?". The nurse will use the EBP pocket model to guide the presentation.
   - **Internal nursing conference:** A unit level nursing conference is held once a month except during the month of July. The nurse expert on the unit plans the topics for the conferences one year in advance. Some examples of topics include:
     - Cultural challenges of everyday life for social and healthcare students with different ethnic background
     - Health education tools for particularly vulnerable patients
     - Handling of complaints and patient insurance
     - Handling of patient data

- **Facebook page for nursing research and education:** The nurse expert on one unit created a private Facebook page to improve knowledge transfer between nurse experts and nurses. Everyone on the unit including nurse experts, nurses and nursing students are encouraged to join. Participation is voluntary. Knowledge on evidence is shared on a broad level and experts from elsewhere who work within the field have also joined. At the time of the interview there was an estimated 400 followers mainly from around Denmark, but also from Norway.
- **Regular career development discussions:** Nurses are encouraged to develop professionally and are able to discuss goals for career development one-on-one with the nurse expert on a regular basis.
- **Annual report of EBP development:** The nurse expert on the unit publishes an annual report on the developmental progress made in regards to EBP. It is essentially a summary of all the training, research and development activities that have been organized during the year. The annual report is a way to share knowledge between all staff nurses on the progress that has been made.
- **Systematic training for newly hired nurses:** The unit offers a two-year educational program for newly hired nurses with or without prior work experience. The planning of such a program came after the realization that newly hired nurses lacked sufficient theoretical skills due to an intense focus on mastering practical skills. The purpose of the program is to support nurses` theoretical expertise. The program begins with a structured theoretical training, which is divided into 4 parts.
    - Evidence-based nursing (2 days): Examples of topics include ethics, communication and providing culturally competent care.
    - Care and treatment of diseases/disorders specific to the unit (3 days)
    - Treatment of a complex disease specific to the unit (2 days)
    - "Clinical guidance" (1 day): Training on how to mentor students during their clinical practice.
    - The training ends with a minor thesis or small research assignment. The purpose of the thesis is to support the academic thinking of newly hired nurses. The nurse will present the thesis to all of the nurses on the unit. A certificate is given to the nurses who complete the program.

5. **Providing the necessary support structures for new-graduate nurses** helps during the transitional period from student to professional nurse. Nurse experts believe that nurses in Denmark receive high quality education. In general, new-graduate nurses have a mindset that is open to EBP and the use of best available evidence in decision-making. They are interested in theory, question their practices and know how to search for evidence in databases. However, the concern was mentioned by a few nurse experts that new-graduate nurses lack basic practical skills. During the transitional phase, new-graduate nurses may be so focused on learning practical skills that they lose sight of the whole picture. In order to address this issue, systematic training and educational support is provided for new-graduate nurses. At one hospital a two-month preceptorship is provided under the supervision of an experienced nurse. Training days are organized that focus on various topics that are relevant in the specific field.

6. **The availability of highly-educated nurses** has an effect on the unit`s ability to develop nursing practices in an evidence-based manner. One expert felt that the lack of a sufficient amount of highly-educated staff on the unit hindered the implementation of EBP. On one unit at a different facility, managerial support towards nurses choosing to further their education was clearly a focus. It is also important to enable highly-educated nurses to use their academic skills in practice.
    - **Article writing workshop:** On one unit, nurse experts provide systematic support and coaching to nurses who desire to continue their education. Article writing workshops are offered four times a year to provide nurses with practical experience in publishing articles. The nurses publish articles on a variety of topics. The articles are published either in a scientific nursing journal or professional nursing journal.
    - **Journal club:** Master`s degree level nurses on the unit are prepared for PhD level training through journal clubs. Journal clubs are held six times a year. The purpose of the journal clubs is to increase the participants` knowledge of research methods and evaluation of scientific articles. Participants read and discuss articles together.
    - **"Nurse academy":** A total of four CNSs on the unit work as regular staff nurses except for one day a week when they work on scientific projects or tasks. A specific workplace has been created for the CNSs and it is referred to as the "nurse academy". It is a place where the CNSs have access to a library and an online database. They can work together and consult each other on various scientific projects or tasks.

Evidence-based practice in nursing in Danish hospitals

All those interviewed were asked how is EBP in nursing visible in Danish hospitals. This question opened a lot of discussion on what is evidence-based practice and what does it look like? Is EBP something that can be sensed when we walk onto a hospital unit? Guidelines may exist for certain treatments but, regardless, what is EBP? One expert reminded that EBP in nursing is not only about guidelines and the implementation of guidelines. Evidence is only one part of evidence-based decision-making and cannot stand alone. Patient preferences, clinician expertise and the context or resources are all vital parts of the whole picture. One expert stated that EBP in nursing is visible in the hospital unit when a nurse with a clinical question can use his/her knowledge and clinical expertise, consult the clinical guideline, involve the patient in the decision-making process while considering the specific context and the available resources.

Cultural aspects that effect implementation of EBP were discussed in interviews. A few nurse experts commented that it is hard to change the way that nurses think and to motivate nurses to change their practices. In general, however, nurses in Denmark have adapted to a more evidence-based way of thinking in recent years. It is important to realize that even within the same hospital there are cultural differences between EBP promoting practices and the attitudes or motivation of healthcare professionals. In one interview, the cultural differences between the Intensive Care Unit (ICU) and other units was discussed. The ICU had a structured plan for the implementation of best practice and the atmosphere supported the use of the best available evidence in decision-making.

The Danish political and healthcare system has an impact on how visible EBP is in nursing practice. The strive for quality in healthcare and standardization of practices across Denmark increases efforts in the integration of EBP. In Denmark, there is an abundance of national CPGs that can be integrated. According to the Danish Health Authority, the purpose of the guidelines is to "support uniform efforts across municipalities, regions and the practice sector – regardless of where the patient lives" (SST 2016, para III). Implementation of national CPGs is vital in the promotion of equitable and high quality healthcare in Denmark.

The majority of nurse experts agreed that implementation of EBP in nursing is a focus in Denmark. One nurse expert reported that there has been a shift in the focus from health technology assessment to quality, patient involvement and shared decision-making. Nurse experts believed that this shift proves that there continues to be a focus on EBP because quality, patient involvement and shared decision-making are all vital aspects of EBP. The nurse experts who were interviewed mainly held managerial positions and clearly strived to promote EBP in nursing practice.

Challenges

Promotion of EBP at the bedside is complex. The main challenges that were reported by nurse experts included time constraints, staff members' lack of motivation towards EBP implementation, lack of highly-educated staff, absence of a national policy for implementation and lack of collaboration at a facility, local, regional and national level.

Nurse experts from two different hospitals expressed concern about time constraints in the field of nursing. One nurse expert felt that the research culture within the hospital is poor due to the fact that nurses have no time to deal with extra tasks. The hospital also lacked highly-educated staff with a strong focus in nursing research and with the necessary skills to plan and execute implementation measures into practice. There was a desire to employ nurses with a minimum of a master`s level degree.

Motivating staff members to change their professional practices proved to be a challenge. It is the responsibility of the nurse expert to evaluate the attitudes, motivation and knowledge of staff members on the specific units. Providing information on the reasons behind the change and involving staff members helps change attitudes. Each unit in each facility appears to have their own way of working with EBP implementation. Lack of collaboration at a local, regional and national level may hinder the spread of knowledge of best practices and practical approaches to EBP implementation. Nurse experts agreed that lack of collaboration may lead to differing levels of quality of care within Denmark. Lack of collaboration appeared to be a cultural issue. In some facilities, nurse experts did not feel comfortable approaching other healthcare professionals to question their practices in EBP implementation. They were hesitant and unsure of who should make the initial contact.

Conclusion

Review of the results

Those interviewed during the research process described the developmental process of systematic reviews and national clinical practice guidelines within the field of nursing in Denmark. Several national organizations in Denmark support healthcare professionals in the implementation of evidence-based practice, which ultimately enhances clinical decision-making in patient care. The Center for Clinical Guidelines plays an important role in the national and international cooperation for the development of high-quality evidence-based clinical practice guidelines in nursing. The center provides nurse experts with guidance and courses on systematic review and clinical practice guideline development. (CFKR 2016) The Danish Health Authority participates in the preparation of national clinical practice guidelines, which are aimed for a broader audience. In Denmark, there is a strive for quality in healthcare and standardization of healthcare practices. It is believed that the approved national clinical practice guidelines will contribute to ensuring consistent patient care of high quality across all of Denmark. (SST 2016) The Danish Health Authority also provides healthcare professionals with practical information on the implementation of clinical practice guidelines. (SST 2014)

Successful implementation of evidence-based practice in nursing at a hospital level is complex and requires uniform efforts from hospital management and healthcare professionals from all fields. Nurse experts described several different practical approaches along with examples on the implementation of evidence-based practice. Nurse experts also reported the use of different implementation models to guide the complex implementation process. Nurse experts put great effort into integrating best available evidence into daily nursing practice. The implementation of evidence-based practice in nursing proves to be a focus in Danish hospitals.

Discussion

Healthcare environments are complex and as Jordan et al. (2016) emphasize, there is no single, linear approach to implementation that will continuously succeed to move evidence into practice. It proves necessary for nurse experts to acknowledge issues relating to stakeholder engagement, the translation of knowledge into the local context, responsiveness to local knowledge requirements and sustainability. (Jordan et al. 2016) During the implementation process, it is vital to pay close attention towards the monitoring of progress for unanticipated influences and progress towards implementation goals. (Damschroder 2009)

At a global level, there is an increase in efforts to design and test innovative approaches to implementation. Saunders et al. (2016b) designed education interventions for nurses at a university hospital in Finland, which improved nurses` confidence and actual knowledge in employing evidence-based practice into daily decision-making at the bedside. Titler et al. (2016) used a Translating Research Into Practice (TRIP) intervention to promote the use of many existing evidence-based fall prevention interventions in hospitalized adult patients, which succesfully decreased fall rates and increased patient safety and outcomes. In order to facilitate implementation of evidence-based interventions in clinical practice in Denmark, the Center for Clinical Guidelines has created a project to test the effectiveness and evaluate the applicability and feasibility of the Getting Research Into Practice (GRIP) framework, which is a framework developed by the JBI. The program is planned to begin in November 2016 with the first phase. The program will provide valuable information on the feasibility and applicability of the program in the Danish context.

Transferability of results in Finland

Finland and Denmark have much in common, which facilitates the comparison and consideration of the transferability of results. Finland and Denmark are population wise similar with an average 5.49 million people in Finland and 5.53 million people in Denmark in 2015. Both countries are located in northern Europe with fairly similar healthcare systems. According to statistics from 2013, Denmark spends a larger percentage per GDP (9.4%) on health than Finland (6.9%). (OECD Factbook statistics 2016a, 2016b) The hospital structure is similar in Denmark and Finland, with large and highly-specialized university and regional hospitals spread throughout the country. Both countries have strong national organizations, which are part of the Joanna Briggs Collaboration, that strive to enhance evidence-based practices within the field of nursing. (Joanna Briggs Collaboration 2016) Danish experts in nursing have approached the implementation of evidence-based practice in a systematic and research-based manner. The results from this report can be, to a certain degree, transferred into the Finnish context after careful analysis of the specific local resources and cultural context.

Ethical considerations

Participation in the research process was voluntary. All the participants were informed through email of the aim of the report and research questions prior to the interviews. The participants were informed that their confidentiality would be protected throughout the entire research process. (Polit & Beck 2012) The names of the participants and the hospitals where the interviews took place are not mentioned in the report. Data collection did not require ethical approval. The author of the report strived to maintain integrity, reliability and validity throughout the entire research process. Certain challenges existed that may lower the reliability of the results: the author had no prior knowledge of the Danish healthcare system or of the current situation in regards to implementation of evidence-based practice in nursing in Denmark, and language and cultural barriers existed due to the fact that the author had no knowledge of the Danish language or culture. The author of the report paid special attention to maintaining respect for the local community and for the participants through endeavoring to accurately translate the knowledge of the local situation of implementation of evidence-based practice. (Olsen 2003) The report was sent to experts (n=11) prior to publication to enable the clarification of all aspects of the report. Due to the qualitative nature of the report and the small number of participants, the results are not generalizable to all Danish hospitals or other types of healthcare settings.

Recommendations and proposals for action

1. Healthcare management should evaluate the organization`s and staff members` readiness for evidence-based practice in order to plan realistic implementation strategies that take into consideration important aspects such as resources.
2. Implementation plans should be systematically developed, but also flexibly tailored to fit the specific situation and context. In complex situations, a multidisciplinary approach should be taken by involving healthcare professionals from various fields and also including patients in the planning process.
3. Healthcare professionals should strive to maintain a supportive work atmosphere where staff members are encouraged to develop professionally and to change their practices in an evidence-based manner. Open communication is imperative when dealing with issues that require change in professional practice.

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