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Discussion Shared decision making in chronic care in the context of evidence based practice in nursing

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Abstract

In the decision-making environment of evidence-based practice, the following three sources of information must be integrated: research evidence of the intervention, clinical expertise, and the patient's values. In reality, evidence-based practice usually focuses on research evidence (which may be translated into clinical practice guidelines) and clinical expertise without considering the individual patient's values. The shared decision-making model seems to be helpful in the integration of the individual patient's values in evidencebased practice. We aim to discuss the relevance of shared decision making in chronic care and to suggest how it can be integrated with evidence-based practice in nursing.

We start by describing the following three possible approaches to guide the decisionmaking process: the paternalistic approach, the informed approach, and the shared decisionmaking approach. Implementation of shared decision making has gained considerable interest in cases lacking a strong best-treatment recommendation, and when the available treatment options are equivalent to some extent. We discuss that in chronic care it is important to always invite the patient to participate in the decision-making process.

We delineate the following six attributes of health care interventions in chronic care that influence the degree of shared decision making: the level of research evidence, the number of available intervention options, the burden of side effects, the impact on lifestyle, the patient group values, and the impact on resources.

Furthermore, the patient's willingness to participate in shared decision making, the clinical expertise of the nurse, and the context in which the decision making takes place affect the shared decision-making process. A knowledgeable and skilled nurse with a positive attitude towards shared decision making – integrated with evidence-based practice – can facilitate the

© 2016. This manuscript version is made available under the CC-BY-NC-ND 4.0 license http://creativecommons.org/licenses/by-nc-nd/4.0 shared decision-making process. We conclude that nurses as well as other health care professionals in chronic care should integrate shared decision making with evidence-based practice to deliver patient-centred care.

Summary statement

What is already known about the topic?

- Evidence-based practice advocates the integration of research evidence with clinical expertise and patient values in the decision-making process for an individual patient.
- The current focus in evidence-based practice whether in education or research is often limited to the use of research evidence.
- Shared decision making integrates research evidence with clinical expertise and patient values.

What this paper adds

- A discussion of the relevance of the integration of shared decision making to evidencebased practice in nursing for individual patients with a chronic condition.
- The identification of attributes of health care interventions, such as side effects or lifestyle impact, that are relevant to the integration of shared decision making with evidence-based practice.
- An illustration of how to integrate shared decision making with evidence-based practice in chronic care.

Key words

Chronic care, evidence-based practice, nursing, (shared) decision making

1. Introduction

Evidence-based practice is widely recognised as being relevant to the improvement of nursing care (Grimshaw et al., 2006; Heater et al., 1988; Melnyk and Fineout-Overholt, 2008). Its origin is in medical science (evidence-based medicine). Although there are several definitions of evidence-based practice, the most common definition is *"the integration of the best research evidence with clinical expertise and the patient's preferences and values"* (Sackett et al., 2000). Given the popularity of evidence-based medicine, the phrase has been radically expanded, adopted, and adapted by other disciplines within the health care arena. The nursing discipline adopted the term evidence-based nursing (French, 1999). Evidence-based practice has become a generic term used across various health care professions, including nursing.

Several variations of evidence-based practice models have been reported. Most of them share the following five process steps: (1) formulate answerable questions, (2) efficiently search for the best research evidence, (3) appraise the research evidence critically, (4) integrate the research evidence, clinical expertise, and the patient's values into the individual decision-making process, and (5) evaluate the process and result (Sackett and Rosenberg, 1995; Gawlinski and Rutledge, 2008).

Health care interventions using evidence-based practice are often determined by the level of the underlying research evidence, which is usually depicted in a hierarchal pyramid.

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Systematic reviews of randomised controlled trials and high-quality single randomised controlled trials are at the top of the hierarchy of research evidence, while editorials and expert opinions are at the bottom of that hierarchy (Mantzoukas, 2008). Nevertheless, the level of research evidence on efficacy often cannot be directly applied in clinical practice. Clinical guidelines have been developed to facilitate the interpretation of research evidence into clinical practice. GRADE (Grades of Recommendation, Assessment, Development, and Evaluation) (Guyatt et al., 2008) offers a system for rating the strength of recommendations in clinical practice guidelines. The system is designed for guidelines that examine alternative management strategies or interventions, which may include no intervention or the current best management practices (Guyatt et al., 2011). GRADE provides a framework that, in addition to the quality of research evidence, takes into consideration the balance between the desirable and undesirable outcomes of alternative intervention strategies, patient group values, and resource use. These recommendations may vary in strength due to fluctuations in upgrading or downgrading the quality of evidence, the balance between desirable and undesirable outcomes (of alternative intervention strategies), patient values, or costs on the process (Guyatt et al., 2011).

Education and research related to evidence-based practice emphasise the use of research evidence in clinical practice (Melnyk and Fineout-Overholt, 2006; Squires et al., 2011), which is sometimes translated into clinical practice guidelines (May et al., 2014), and focus less on the individual patient's values in the decision-making process (Barratt, 2008; Melnyk and Fineout-Overholt, 2006; Satterfield et al., 2009). Counselling and educating patients about health care decisions fall within nurses' scope of practice, putting them in a position to influence the patient's choices (George, 2013). To help patients make a choice, nurses have to not only use research evidence but also interpret the evidence or recommendation to meet the needs of their individual patients in the decision-making process (Melnyk and Fineout-Overholt, 2006; Satterfield et al., 2009). See Box 1 for a case description. This skill requires integrating the research evidence or the clinical practice recommendation with clinical expertise while also integrating the individual patient's values into the process (Melnyk and Fineout-Overholt, 2006; Satterfield et al., 2009).

We agree with Satterfield et al. (2009), who acknowledge the importance of integrating shared decision making with evidence-based practice because shared decision making includes the individual patient's values into the process. We focus on integrating shared decision making with evidence-based practice for patients with a chronic condition in nursing.

Shared decision making is a process that aims to have the health care professional and the patient jointly arrive at a health care choice that is based on the best available research evidence, clinical expertise, and the values of the *informed patient*. This is the crux of patientcentred care (Charles et al., 1997; Légaré et al., 2010; Weston, 2001). The rationale for shared decision making is based on research evidence that patients want to participate more in their own health care decisions (Barratt, 2008; Coulter, 1997; Coulter, 1999) and on the ethical principle of patient autonomy (Parker, 2001). The rationale for evidence-based practice is based on the claim that an intervention needs to be justified based on research evidence of the effectiveness of the intervention (Parker, 2001) because this leads to a better standard of care (Armstrong, 2002). Evidence-based practice, which currently emphasises research evidence, is sometimes described in the literature as being inimical to patient-centred care (Armstrong, 2002). In contrast, shared decision making has been acknowledged by some authors (Barratt, 2008; Vandvik et al., 2013) as having the potential to strengthen the decision-making process in evidence-based practice by integrating the research evidence with clinical expertise and the individual patient's values. However, how this can be accomplished is still unclear (Barratt, 2008).

In nursing, shared decision making seems particularly relevant in chronic care because it may enhance self-management, self-efficacy, and patient empowerment (Clark et al., 2009; Zoffmann et al., 2008). In chronic care, self-management is inescapable because patients are faced with decisions that influence the course of their disease on a daily basis (Bodenheimer et al., 2002). Self-efficacy, defined as the confidence to carry out certain behaviours in order to reach a specific goal, is recognised as a prerequisite for effective self-management in chronic diseases (Bodenheimer et al., 2002; Freund et al., 2013). We define chronic care, in accordance with 'The Expanded Chronic Care Model' (Barr et al., 2003), as the prevention and management of a chronic disease that is provided by interdisciplinary and inclusive teams in the health care system and the community. Nurses have long been recognised as having a key role in interdisciplinary teams in helping patients manage their chronic disease(s) (Audit Commission, 1999; Kendall et al., 2010; Kratz, 1978).

2. Purpose

This paper aims to discuss the relevance of shared decision making in chronic care and to suggest how it can be integrated with evidence-based practice in nursing. The discussion is primarily relevant to countries in which advance practice nursing and team-based practice is within nursing's scope of practice. However, the discussion is also applicable to other countries.

The discussion primarily elaborates on Step 4 of evidence-based practice (integrating research evidence, clinical expertise, and patient's values into decision-making). The paper first explains shared decision making as one of several possible approaches to guide the decision-making process. It then discusses the integration of shared decision making with evidence-based chronic care, including a description of the different attributes of interventions in health care that determine the degree of shared decision making. The paper continues with a discussion on the impact of the patient, the nurse, and the context on shared decision making. Finally, the implications for nursing are addressed.

3. Methodology

It is not the intention of this paper to provide a systematic and complete review of the literature, but the CINAHL and PubMed digital databases were searched, and a network of experts on evidence-based practice and shared decision making was consulted to include the most relevant papers that underpin our discussion based on previous literature and to ensure that our key points had not already been published elsewhere. The literature search strategy used key words such as '(shared) decision making', 'evidence-based', and 'nurs*' in various combinations. Search parameters were limited to English, Dutch, and German language texts with no date restrictions.

Articles dated through October 2013 in all of the databases were included if they reflected on shared decision making or interventions to implement shared decision making.

4. Shared decision making as an approach to guide the decision-making process

Although health care professionals are legally obligated to inform clients about their treatment and are required to ask for informed consent (Presidential Commission on Medical Ethics, 1982), there are no legal restrictions regulating the manner in which this is carried out.

Table 1 describes three possible approaches to guide the decision-making process (Charles et al. 1999). The paternalistic approach involves the health care professional deciding – either independently or with other health care professionals – what the best treatment or intervention for the patient would be and subsequently informing the patient of that decision and convincing the patient to follow through with that choice. On the other end of the spectrum is the informed approach, in which the patient is provided with information and is entitled to make the decision. Shared decision making is an approach somewhere between these two extremes. Expert information is not only shared from health care professionals to the patient (and proxy) but the patient also shares personal information (patient values) with the health care professional. When the health care professional and the patient deliberate on screening, diagnostic, therapeutic, or palliative interventions (Charles et al., 2003), the decision-making process is a shared experience (Charles et al., 1999).

Since the early 1990s, shared decision making has gained considerable interest in *option-sensitive* or *preference-sensitive* decisions regarding screening and treatment options, which might also include a watchful waiting strategy. These types of decisions are considered option-sensitive or preference-sensitive because there is insufficient evidence about outcomes or there is a need to trade-off known benefits or harms between competing options (Elwyn et al., 2000; Stacey et al., 2014). An example of this would be the choice between surgery and radiation in treating cancer when both options have competing benefits or harm (Stacey et al., 2014).

Various models have been developed to demonstrate how shared decision making can be applied in the clinical setting (Makoul and Clayman, 2006). The essential elements of shared decision making (Makoul and Clayman, 2006) are as follows: define and explain the problem, present options, discuss the pros and cons, clarify the patient's values and preferences, discuss the patient's ability and self-efficacy, discuss the health care professional's knowledge and recommendations, check and clarify the patient's understanding, make or explicitly defer the decision, and arrange follow up. The following additional elements are considered ideal: provision of unbiased information, definition of the patient's desired role of involvement, presentation of evidence including probabilities of treatment outcomes, and mutual agreement (Makoul and Clayman, 2006; O'Connor et al., 2011). However, a complete consensus on the concept has not yet been reached (Makoul and Clayman, 2006).

A well-known model of shared decision making created by nurses is "The Ottawa Decision Support Framework" (O'Connor et al., 1998; O'Connor et al., 2011). The framework uses a three-step process that assesses the patient and practitioner determinants of decisions to identify decision support needs, provides decision support tailored to the patient's needs, and evaluates the decision-making process and outcomes. "The Ottawa Decision Support Framework" has been extensively validated through decisional needs assessment studies with patients, the public, and healthcare professionals (Ottawa Hospital Research Institute, 2010).

Recently, Elwyn et al. (2012) developed a simplified shared decision-making model in light of applicability for clinical practice. The essential elements of the model include *choice talk*, *option talk*, and *decision talk* (see Table 2). Choice talk in this model is about clarifying that reasonable options are available to patients. Option talk refers to providing detailed information about the pros and cons of each option, and decision talk refers to supporting the process of considering the patient's preferences (including the patient's right to opt out of making a decision) and deciding on the best option; it is the deliberation. This model emphasizes the importance of good communication skills (Elwyn et al., 2012).

To support shared decision making and integrate it in clinical practice, decision aids have been developed, evaluated, and implemented. Patient decision support tools or decision aids are decision support interventions that help people make choices by describing why and where choices exist and by providing information about the possible consequences of choices (van der Weijden et al., 2012). Their format can be very diverse, ranging from printed fact sheets and booklets to CD-ROMs, videos and interactive websites (Elwyn et al., 2010).

Exposure to patient decision support tools compared to usual care results in increased knowledge of patients, lower decisional conflict, reduced proportions of people who are passive in decision making and reduced proportions of people who remain undecided post-intervention (Stacey et al., 2014).

5. Shared decision making in evidence-based chronic care in nursing

The nurse (or other health care professional) may opt for an approach more like the paternalistic approach when the level of research evidence is high or a recommendation in a clinical guideline is strong. An example of this would be the high level of research evidence and strong recommendation for the beneficial effect of a daily low-dose of aspirin for people who have a high risk of heart attack (Fihn et al., 2012).

Shared decision making is often seen, as described in section 4, as a model that should be used when there is no clear research evidence on the best treatment decision or screening decision and when the options available are, to some extent, equivalent. In chronic care, however, even when the level of research evidence for an option is high and no other competing options exist, there are attributes of the intervention that may require additional considerations. An example of this might be when an intervention dramatically interferes with the patient's lifestyle such that a paternalistic approach is inappropriate. The informed patient approach provides the patient with information and leaves the decision to the patient; however, many patients find it difficult to make the decision themselves. This approach may create uncertainty, and patients may feel abandoned (Elwyn et al., 2012; Quill and Cassel, 1995). However, they do feel supported when deliberating and sharing in the decision-making process with an empathic professional. Therefore, we advocate inviting the chronic patient to be involved in the decision-making processes for their own health care, which in turn may stimulate self-efficacy and self-management (Clark et al., 2009; Zoffmann et al., 2008).

Shared decision making can be integrated with the decision-making step of evidence-based practice in chronic care as depicted in the graph in Figure 1. Although we believe that in chronic care it is important to always invite the patient to participate in the decision-making process, in our opinion, the degree of shared decision making depends on different attributes of the health care intervention. We delineate five attributes based on the four determinants of the GRADE system (Guyatt et al., 2011) that influence the degree of shared decision making in chronic care. Those attributes are the level of research evidence (quality of research evidence), the presence of intervention options (reasonable alternative management strategies or interventions), the burden of side effects (undesirable consequences), patient group values and the impact on resources (resource use) (see Figure 1). We added the impact on lifestyle as a sixth attribute. The undesirable consequences (Guyatt et al. 2013; Andrews et al., 2013) implicitly include impact on lifestyle, for example, the inconvenience of a treatment option. We added this as an additional attribute because lifestyle behaviours are important factors in preventing chronic diseases, and adapting one's lifestyle to a chronic disease is not easy (Wing et al., 2001).

The degree of shared decision making may be lower when the level of research evidence is high, only one option is available, there is no burden of side effects, there is little impact on lifestyle, there is evidence that patients generally consent to the intervention, and there is little impact on resources (see left side of Figure 1). In contrast, the degree of shared decision making is high when the level of research evidence is low, more options are available, the burden of side effects is high, the impact on life style is high, there is evidence that patients

vary considerably in their values towards the intervention, and the impact on resources is high (see right side of Figure 1). In between these conditions, various combinations of attributes are possible, leading to different degrees of shared decision making.

Of course the patient always has a choice, even when there is one strong option with no competing options, to not follow a recommendation. The two patient cases described in Box 2 illustrate different individual decisions based on these attributes.

To facilitate shared decision making in clinical practice (as stated in section 4), Elwyn et al. (2012) designed a feasible three-step model to interpret conceptual descriptions of shared decision making into routine practice. Although this model is built around having alternative preference-sensitive options, we think it could also be used in chronic care to discuss the influence of the attributes when there is only one strong option available. The choice talk in this case might define the problem and offer the patient a choice in doing something about the problem. The option talk step provides information on research evidence, side effects, impact on lifestyle, and impact on resources. It also serves to begin an exploratory discussion of the patient's values and the patient's self-efficacy with regard to an option, and it provides support to explore different ways of adapting this option to the patient's lifestyle. The decision talk might involve sharing ideas and supporting the patient in deciding how this option can be adapted to the patient's lifestyle.

6. Patient, nurse and context influence the decision-making process

Patient

Shared decision making requires the patient's willingness to participate in the decisionmaking process. Nevertheless, even after they have been informed of the range of available options, patients may still prefer to leave the decision to the health care professionals (Clark et al., 2009). These people wilfully forfeit some of their decision-making power to the health care professionals, which Moser et al. (2006) call 'welcomed paternalism'.

The willingness of the patient to participate in shared decision making is affected by a few factors. Patients are more likely to prefer shared decision making after the acute stage of a disease (Briel et al., 2007; Clark et al., 2009) rather than during it. In acute care, as with first aid situations, for example, there is often not enough time or need to use shared decision making. However, the care of chronic diseases is different because no immediate life-threatening situation exists. Age also seems to influence the willingness to participate in shared decision making. Younger patients regard shared decision making as the preferred style of interaction with health care professionals more frequently than older patients (Clark et al., 2009; Degner et al., 1997; Singh et al., 2010). Furthermore, patients with higher levels of education seem to prefer shared decision making more often than patients with a lower educational level (Clark et al., 2009; Degner et al., 1997; Singh et al., 2009; Degner et al., 2010).

Although the expressed preferences of patients to be involved in decision making differ, research indicates that patients want more involvement in decision making compared to what actually occurs (Tariman et al., 2010). In a study of preferred and actual roles in decision making for cancer patients, Singh et al. (2010) reported that 40 per cent of the patients experienced discordance. Therefore, it is important for nurses to explore the patient's desire to be involved in the decision-making process. However, nurses have to bear in mind that when offered a role in a decision-making process, some patients initially decline decisional responsibility because they are surprised, unsettled, or uncertain (Elwyn et al., 2012). They want health care professionals to tell them what to do. If this occurs in a patient consultation, Elwyn et al. (2012) suggest 'deferring closure' by reassuring the patient that the health care

professionals are willing to support the process and are not abandoning the patient. If a patient who has been informed on the decisional dilemma ultimately does not want to engage in the shared process, this decision also has to be respected.

Nurse

The nurse's clinical expertise, mode of professional preparation, depth of professional knowledge, skills, attitude, and values influence the decision-making process (Melnyk and Fineout-Overholt, 2004; Rycroft-Malone et al., 2004; Thompson et al., 2001). Clinical expertise is expressed and embedded in daily practice, and it is often tacit and intuitive (Rycroft-Malone et al., 2004). Furthermore, nurses not only act on their own clinical expertise but also on the clinical expertise of other nurses and health care professionals (Thompson et al., 2001). Moral norm, defined as the person's feeling of moral obligation towards performing a given behaviour, was identified by Cote et al. (2012) as the most important predictor of nurses' intention to use research evidence in decision making. A nurse who has knowledge, skills, and a positive attitude towards shared decision making and evidence-based practice is in the position to facilitate a shared decision-making process (Edwards and Elwyn, 2009; Melnyk and Fineout-Overholt, 2008).

Context

There are many rituals or routines in the nursing profession that are often the result of social influences within a group (peer pressure). These can potentially hinder the integration of shared decision making with evidence-based practice (Zeitz and McCutcheon, 2005). Other contextual factors that influence decision making include the following:

- social factors such as local opinion leaders in nursing teams and the nursing culture;
- organisational factors such as time for research activities, hospital size, staffing support, organisational innovativeness, integration of recommendations into organisational structures and processes, access to resources and research findings, organisational climate, provision of education, availability of knowledge and skills within organisations, inter-organisational collaboration, finances, and workload;
- and societal factors such as crises in nursing or workforce shortages (Larrabee et al., 2003).

Edwards and Elwyn (2009) mentioned the following requirements for an organisation that supports shared decision making:

- a culture of participation and patient-centeredness in which patient involvement in treatment options is a key outcome;
- agreement about situations in which shared decision making is needed, initiated, accessed, and sustained;
- inter-professional collaboration with formal and informal communication routines;
- data systems such as digital patient records;
- continuing professional development;
- and decision support systems and technologies.

7. Implications for nursing

After identifying three ways of decision making, it is our opinion that chronic care patients should be offered shared decision making. However, as discussed above, the degree of shared decision making may differ based on different attributes of health care interventions. The

patient, the nurse, and the context of the situation also influence this process; all have several implications for nursing.

For the nurse, a positive attitude towards shared decision making and evidence-based practice is required to integrate the two (Melnyk and Fineout-Overholt, 2008; Melnyk et al., 2010; Thiel and Ghosh, 2008). Nurses have to acknowledge the importance of exploring the wishes of the patient to be involved in a decision-making process while also keeping in mind that patients may initially decline decisional responsibility and that they may change their minds once they are informed of the range of options available to them.

The essential skills for establishing effective shared decision making are good clinical communication skills that include developing a rapport with the patient, providing focused communication and risk communication, and having the ability to explore the patient's values and preferences (Elwyn et al., 2000; Elwyn et al., 2012; Zoffmann et al., 2008). Evidence-based practice skills are also relevant to the process (Edwards and Elwyn, 2009).

As reported in the literature, nurses do not always possess sufficient communication or evidence-based practice skills, and their attitude towards shared decision making and evidence-based practice is not always positive (Clark et al., 2009; Fineout-Overholt et al., 2005; Kajermo et al., 2000). Providing nurses with training in shared decision making and helping them acquire a patient-centred attitude, along with the implementation of decision support tools, could significantly improve nurses' use of shared decision making (Légaré et al., 2010). The implementation of decision support tools is important because they are effective in helping patients make choices (Stacey et al., 2014).

The importance of considering and addressing contextual factors in establishing shared decision making and evidence-based practice is recognised (Edwards and Elwyn, 2009; Melnyk and Fineout-Overholt, 2004). For instance, it is important that nurses become aware of existing rituals and routines and develop a critical attitude towards adhering to these rituals. Furthermore, establishing a closer link between clinical practice guidelines and decision support tools that provide information about the six attributes of health care interventions might help nurses establish a more effective use of shared decision making and evidence-based practice (van der Weijden et al., 2012).

8. Implications for future research

Several research questions on the implementation of shared decision making in chronic care in nursing emerge from this discussion. Patients as well as nurses need to be empowered in the shared decision-making process. Furthermore, for nurses as well as other health care professionals, the ability to recognise a patient's willingness to participate soundly in shared decision making is invaluable. The question of how to accomplish this—through education, training, instruction—then arises. In this context, patient decision-making tools are significant. The diversity of their format raises the question as to what their preferred format should be. Research on valid decision-making instruments is recommended.

Although the discussion addresses the relevance of shared decision making in evidencebased practice in chronic care, the preferred timing and integration of shared decision making in the patient-care chain and the optimal usage of shared decision making are questions to be addressed in future research. Finally, the importance of establishing a closer link between clinical practice guidelines and decision support tools is recognised. However, the question of how clinical practice guidelines can be adapted to facilitate shared decision making remains.

9. Conclusion

The literature seems to regard shared decision making and evidence-based practice as two different concepts and processes. However, shared decision making acknowledges the importance of evidence-based practice, and evidence-based practice acknowledges the importance of integrating patient values and clinical expertise with research evidence. This article addresses the apparent suitability of shared decision making as a model for many chronic care decisions that comprise different attributes of health care interventions, the patient's values, the nurse, and the context that affect shared decision making when integrated with evidence-based practice.

Establishing a policy of shared decision making within an organisation is not easy. It requires a positive attitude and nurses with specific communication skills, such as risk communication and value elicitation. Providing nurses with proper training and the development of clinical guidelines and decision support tools for patients with established links to these guidelines are essential for the provision of the support that is crucial for proper implementation of shared decision making by nurses.

We believe that nurses, as well as other health care professionals in chronic care, should integrate shared decision making with evidence-based practice to deliver patient-centred care and to involve patients in their decision-making process, which in turn may encourage self-efficacy, self-management, and patient empowerment.

REFERENCES

- Andrews, J.C., Schunemann, H.J., Oxman, A.D., Pottie, K., Meerpohl, J.J., Coello, P.A., Rind, D., Montori, V.M., Brito, J.P., Norris, S., Elbarbary, M., Post, P., Nasser, M., Shukla, V., Jaeschke, R., Brozek, J., Djulbegovic, B., Guyatt, G., 2013. GRADE guidelines: 15. Going from evidence to recommendation-determinants of a recommendation's direction and strength. Journal of Clinical Epidemiology 66 (7), 726-735.
- Armstrong, D., 2002. Clinical autonomy, individual and collective: The problem of changing doctors' behaviour. Social Science & Medicine 55 (10), 1771-1777.
- American College of Sports Medicine and the American Diabetes Association, 2010. Exercise and Type 2 Diabetes: American College of Sports Medicine and the American Diabetes Association: Joint Position Statement. Medicine & Science in Sports & Exercise 42(12), 2282-2303.
- American Diabetes Association, 2002. Diabetes Mellitus and Exercise. Diabetes Care 25, s64-68.
- Audit Commission, 1999. First assessment: A review of district nursing services in England and Wales. Audit Commission Publications, Abingdon.
- Barr, V.J., Robinson, S., Marin-Link, B., Underhill, L., Dotts, A., Ravensdale, D., Salivaras, S., 2003. The expanded Chronic Care Model: An integration of concepts and strategies from population health promotion and the Chronic Care Model. Hospital Quarterly 7 (1), 73-82.
- Barratt, A., 2008. Evidence based medicine and shared decision making: The challenge of getting both evidence and preferences into health care. Patient Education and Counseling 73, 407-412.
- Bodenheimer, T., Lorig, K., Holman, H., Grumbach, K., 2002. Patient self-management of chronic disease in primary care. Journal of the American Medical Association 288 (19), 2469-2475.
- Briel, M., Young, J., Tschudi, P., Hugenschmidt, C., Bucher, H.C., Langewitz, W., 2007. Shareddecision making in general practice: Do patients with respiratory tract infections actually want it? Swiss Medical Weekly 137 (33-34), 483-485.
- Canadian Diabetes Association., 2008. Clinical Practice Guideline for the Prevention and Management of Diabetes in Canada. Canadian Journal of Diabetes 32(1), S1-S201.
- Charles, C., Gafni, A., Whelan, T., 1997. Shared decision-making in the medical encounter: What does it mean? (or it takes at least two to tango). Social Science & Medicine 44 (5), 681-692.
- Charles, C., Gafni, A., Whelan, T., 1999. Decision-making in the physician-patient encounter: Revisiting the shared treatment decision-making model. Social Science & Medicine 49 (5), 651-661.
- Charles, C., Whelan, T., Gafni, A., Farrell, S., 2003. Shared Treatment Decision Making: What does it Mean to Physicians? Journal of Clinical Oncology 21 (5), 932-936.
- Clark, N.M., Nelson, B.W., Valerio, M.A., Gong, Z.M., Taylor-Fishwick, J.C., Fletcher, M., 2009. Consideration of Shared Decision Making in Nursing: A Review of Clinicians' Perceptions and Interventions. The Open Nursing Journal 3, 65-75.
- Cote, F., Gagnon, J., Houme, P.K., Abdeljelil, A.B., Gagnon, M.P., 2012. Using the theory of planned behaviour to predict nurses' intention to integrate research evidence into clinical decision-making. Journal of Advanced Nursing 68 (10), 2289-2298.
- Coulter, A., 1997. Partnerships with patients: The pros and cons of shared clinical decisionmaking. Journal of health services research & policy 2 (2), 112-121.
- Coulter, A., 1999. Paternalism or partnership? Patients have grown up-and there's no going back. BMJ 319 (7212), 719-720.

- Degner, L.F., Kristjanson, L.J., Bowman, D., Sloan, J.A., Carriere, K.C., O'Neil, J., Bilodeau, B., Watson, P., Mueller, B., 1997. Information needs and decisional preferences in women with breast cancer. Journal of the American Medical Association 277 (18), 1485-1492.
- Edwards, A., Elwyn, G., 2009. Shared Decision-Making in Health Care: Achieving evidencebased patient choice. University press, Oxford.
- Elwyn, G., Edwards, A., Kinnersley, P., Grol, R., 2000. Shared decision making and the concept of equipoise: The competences of involving patients in healthcare choices. The British journal of general practice 50 (460), 892-899.
- Elwyn, G., Frosch, D., Thomson, R., Joseph-Williams, N., Lloyd, A., Kinnersley, P., Cording, E., Tomson, D., Dodd, C., Rollnick, S., Edwards, A., Barry, M., 2012. Shared Decision Making: A Model for Clinical Practice. Journal of General Internal Medicin 27 (10), 1361-1367.
- Elwyn, G., Frosch, D., Volandes, A.E., Edwards, A., Montori, V.M., 2010. Investing in deliberation: A definition and classification of decision support interventions for people facing difficult health decisions. Medical Decision Making 30 (6), 701-711.
- European Pressure Ulcer Advisory Panel and National Pressure Ulcer Advisory Panel, 2009a. Pressure Ulcer Treatment: Quick Reference Guide. National Pressure Ulcer Advisory Panel, Washington DC.
- European Pressure Ulcer Advisory Panel and National Pressure Ulcer Advisory Panel, 2009b. Prevention of Pressure Ulcers: Quick Reference Guide. National Pressure Ulcer Advisory Panel, Washington DC.
- Fihn, S.D., Gardin, J.M., Abrams, J., Berra, K., Blankenship, J.C., Dallas, A.P., Douglas, P.S., Foody, J.M., Gerber, T.C., Hinderliter, A.L., King, S.B., 3rd, Kligfield, P.D., Krumholz, H.M., Kwong, R.Y., Lim, M.J., inderbaum, J.A., Mack, M.J., Munger, M.A., Prager, R.L., Sabik, J.F., Shaw, L.J., Sikkema, J.D., Smith, C.R., Jr., Smith, S.C., Jr., Spertus, J.A., Williams, S.V., 2012. 2012 ACCF/AHA/ACP/AATS/PCNA/SCAI/STS guideline for the diagnosis and management of patients with stable ischemic heart disease: Executive summary: A report of the American College of Cardiology Foundation/American Heart Association task force on practice guidelines, and the American College of Physicians, American Association for Thoracic Surgery, Preventive Cardiovascular Nurses Association, Society for Cardiovascular Angiography and Interventions, and Society of Thoracic Surgeons. Circulation 126 (25), 3097-3137.
- Fineout-Overholt, E., Melnyk, B.M., Schultz, A., 2005. Transforming health care from the inside out: Advancing evidence-based practice in the 21st century. Journal of Professional Nursing 21 (6), 335-344.
- French, P., 1999. The development of EBN. Journal of Advanced Nursing 29, 72-78.
- Freund, T., Gensichen, J., Goetz, K., Szecsenyi, J., Mahler, C., 2013. Evaluating self-efficacy for managing chronic disease: Psychometric properties of the six-item Self-Efficacy Scale in Germany. Journal of Evaluation in Clinical Practice 19 (1), 39-43.
- Gawlinski, A., Rutledge, D., 2008. Selecting a Model for Evidence-Based Practice Changes: A Practical Approach. AACN Advanced Critical Care 19 (3), 291-300.
- George, T.P., 2013. How nurses can encourage shared decision making. Nursing 43 (8), 65-66.
- Grimshaw, J., Eccles, M., Thomas, R., MacLennan, G., Ramsay, C., Fraser, C., Vale, L., 2006. Toward Evidence-Based Quality Improvement: Evidence (and its Limitations) of the Effectiviness of Guideline Dissemination and Implementation Strategies 1966-1998. Journal of General Internal Medicin 21, S14-20.
- Guyatt, G.H., Oxman, A.D., Kunz, R., Falck-Ytter, Y., Vist, G.E., Liberati, A., Schunemann, H.J., 2008. Going from evidence to recommendations. BMJ 336 (7652), 1049-1051.

- Guyatt, G., Oxman, A.D., Akl, E.A., Kunz, R., Vist, G., Brozek, J., Norris, S., Falck-Ytter, Y.,
 Glasziou, P., DeBeer, H., Jaeschke, R., Rind, D., Meerpohl, J., Dahm, P., Schunemann,
 H.J., 2011. GRADE guidelines: 1. Introduction-GRADE evidence profiles and summary of
 findings tables. Journal of Clinical Epidemiology 64 (4), 383-394.
- Heater, B.S., Becker, A.M., Olson, R.K., 1988. Nursing Interventions and Patient Outcomes: A Meta-Analysis of Studies. Nursing Research 37 (5), 303-307.
- Kajermo, K.N., Nordstrom, G., Krusebrant, A., Bjorvell, H., 2000. Perceptions of research utilization: Comparisons between health care professionals, nursing students and a reference group of nurse clinicians. Journal of Advanced Nursing 31 (1), 99-109.
- Kendall, S., Wilson, P., Procter, S., Brooks, F., Bunn, F., Gage, H., McNeilly, E., 2010. The nursing contribution to chronic disease management: A whole systems approach: Report for the National Institute for Health Research Service Delivery and Organisation programme. Queen's Printer and Controller of HMSO 2010, Herts.
- Kratz, C.R., 1978. Care of the long-term sick in the community : Particularly patients with stroke. Churchill Livingstone, Edinburgh.
- Larrabee, J.H., Janney, M.A., Ostrow, C.L., Withrow, M.L., Hobbs, G.R.J., Burant, C., 2003. Predicting registered nurse job satisfaction and intent to leave. Journal of Nursing Administration 33, 271-283.
- Légaré, F., Ratté, S., Stacey, D., Kryworuchko, J., Gravel, K., Graham, I., Turcotte, S., 2010. Interventions for improving the adoption of shared decision making by healthcare professionals. Cochrane Database of Systematic Reviews (5), 1-45.
- Makoul, G., Clayman, M.L., 2006. An integrative model of shared decision making in medical encounters. Patient Education and Counseling 60 (3), 301-312.
- Mantzoukas, S., 2008. A review of evidence-based practice, nursing research and reflection: Levelling the hierarchy. Journal of Clinical Nursing 17 (2), 214-223.
- May, C., Sibley, A., Hunt, K., 2014. The nursing work of hospital-based clinical practice guideline implementation: An explanatory systematic review using Normalisation Process Theory. International Journal of Nursing Studies 51 (2), 289-299.
- Melnyk, B.M., Fineout-Overholt, E., 2004. Evidence-based practice in Nursing & Healthcare. Wolters Kluwer Lippincott Williams & Wilkins, Philadephia.
- Melnyk, B.M., Fineout-Overholt, E., 2006. Consumer preferences and values as an integral key to evidence-based practice. Nursing Administration Quaterly 30 (2), 123-127.
- Melnyk, B.M., Fineout-Overholt, E., 2008. The Evidence-based practice Beliefs and Implementation Scales: Psychometric Properties of Two New Instruments. Worldviews on Evidence-Based Nursing 5 (4), 208-216.
- Melnyk, B.M., Fineout-Overholt, E., Stillwell, S.B., Williamson, K.M., 2010. The Seven Steps of Evidence-based practice: Following this progressive, sequential approach will lead to improved health care and patient outcomes. American Journal of Nursing 110 (1), 51-53.
- Moser, A., van der Bruggen, H., Widdershoven, G., 2006. Competency in shaping one's life: Autonomy of people with type 2 diabetes mellitus in a nurse-led, shared-care setting: A qualitative study. International Journal of Nursing Studies 43 (4), 417-427.
- O'Connor, A., Stacey, D., Jacobsen, M.J., 2011. Ottowa Decision Support Tutorial: Improving Practitioners' Decision Support Skils. Ottowa Hospital Research Institute: Patient Decision Aids. Retrieved on 5-2-2014, from:
 - https://decisionaid.ohri.ca/ODST/pdfs/ODST.pdf
- O'Connor, A.M., Tugwell, P., Wells, G.A., Elmslie, T., Jolly, E., Hollingworth, G., McPherson, R., Bunn, H., Graham, I., Drake, E., 1998. A decision aid for women considering hormone therapy after menopause: Decision support framework and evaluation. Patient Education and Counseling 33 (3), 267-279.

Ottowa Hospital Research Institute, 2010. Ottowa Decision Support Framework: Update, Gaps and Research Priorities. Ottowa Hospital Research Institute, Ottowa. Retrieved on 5-2-2014, from:

https://decisionaid.ohri.ca/docs/ODSF-workshop/ODSF-Workshop-Summary.pdf

- Parker, M., 2001. The ethics of evidence-based patient choice. Health expectations 4 (2), 87-91.
- Presidential Commission on Medical Ethics, 1982. Making Health Care Decisions: The Ethical and Legal Implications of Informed Consent in the Patient-Practitioner Relationship. President's Commission, Washington, DC.
- Quill, T.E., Cassel, C.K., 1995. Nonabandonment: A central obligation for physicians. Annals of Internal Medicine 122 (5), 368-374.
- Rycroft-Malone, J., Seers, K., Titchen, A., Harvey, G., Kitson, A., McCormack, B., 2004. What counts as evidence in evidence-based practice? Journal of Advanced Nursing 47 (1), 81-90.
- Sackett, D.L., Rosenberg, W.M.C., 1995. The need for evidence-based medicine. Journal of the Royal Society of Medicine 88 (11), 620-624.
- Sackett, D.L., Straus, S.E., Richardson, W.S., Rosenberg, W.M., Haynes, R.B., 2000. Evidencebased medicine: How to practice and teach EBM. Churchill Livingstone, Edinburgh.
- Satterfield, J.M., Spring, B., Brownson, R.C., Mullen, E.J., Newhouse, R.P., Walker, B.B., Whitlock, E.P., 2009. Toward a transdisciplinary model of evidence-based practice. Milbank Quaterly 87 (2), 368-390.
- Singh, J.A., Sloan, J.A., Atherton, P.J., Smith, T., Hack, T.F., Huschka, M.M., Rummans, T.A., Clark, M.M., Diekmann, B., Degner, L.F., 2010. Preferred roles in treatment decision making among patients with cancer: A pooled analysis of studies using the Control Preferences Scale. The American Journal of Managed Care 16 (9), 688-696.
- Squires, J., Estabrooks, C., Gustavsson, P., Wallin, L., 2011. Individual determinants of research utilization by nurses: A systematic review update. Implementation Science 6 (1), 1.
- Stacey, D., Legare, F., Col, N.F., Bennett, C.L., Barry, M.J., Eden, K.B., Holmes-Rovner, M., Llewellyn-Thomas, H., Lyddiatt, A., , Thomson, R., Trevena, L., Wu, J.H.C., 2014.
 Decision aids for people facing health treatment or screening decisions. Cochrane Database of Systematic Reviews (1), 1-331.
- Tariman, J.D., Berry, D.L., Cochrane, B., Doorenbos, A., Schepp, K., 2010. Prefered and actual participation roles during health care decision making in persons with cancer: A systematic review. Annals of Oncology 21, 1145-1151.
- Thiel, L., Ghosh, Y., 2008. Determining registered nurses' readiness for evidence-based practice. Worldviews on Evidence Based Nursing 5 (4), 182-192.
- Thompson, C., McCaughan, D., Cullum, N., Sheldon, T.A., Mulhall, A., Thompson, D.R., 2001. Research information in nurses' clinical decision-making: What is useful? Journal of Advanced Nursing 36 (3), 376-388.
- Van der Weijden, T., Boivin, A., Burgers, J., Schünemann, H.J., Elwyn, G., 2012. Clinical practice guidelines and patient decision aids: An inevitable relationship. Journal of Clinical Epidemiology 65 (6), 584-589.
- Vandvik, P.O., Brandt, L., Alonso-Coello, P., Treweek, S., Akl, E.A., Kristiansen, A., Fog-Heen, A., Agoritsas, T., Montori, V.M., Guyatt, G., 2013. Creating clinical practice guidelines we can trust, use, and share: A new era is imminent. Chest 144 (2), 381-389.
- Weston, W.W., 2001. Informed and shared decision-making: The crux of patient-centered care. Canadian Medical Association Journal 165 (4), 438-439.
- Wing, R.R., Goldstein, M.G., Acton, K.J., Birch, L.L., Jakicic, J.M., Sallis, J.F., Jr., Smith-West, D., Jeffery, R.W., Surwit, R.S., 2001. Behavioral science research in diabetes: Lifestyle changes related to obesity, eating behavior, and physical activity. Diabetes Care 24 (1), 117-123.

- Zeitz, K., McCutcheon, H., 2005. Tradition, rituals and standards, in a realm of evidenced based nursing care. Contemporary Nurse 18 (3), 300-308.
- Zoffmann, V., Harder, I., Kirkevold, M., 2008. A Person-Centered Communication and Reflection Model: Sharing Decision-Making in Chronic Care. Qualitative Health Research 18 (5), 670-685.

Box 1: Case description in which an evidence-based decision has to be made

Case 1

A patient who is seriously ill and hospitalized is at risk for pressure ulcers. According to the latest research evidence, this patient has to lie down on a pressure ulcer prevention mattress and has to

be repositioned on different sides every few hours. The nurse acts in accordance with this research evidence to prevent pressure ulcers. After a few weeks, however, this patient becomes pre-

terminally ill and does not want to be repositioned anymore. The nurse now has to decide with the patient (and proxy) to comply with the research evidence on pressure ulcers or to comply with the patient's desire for more comfort.

(European and National Pressure Ulcer Advisory Panel, 2009a, 2009b)

	Paternalistic	Shared approach	Informed patient
	approach		approach
Information	Medical, legally required	Medical and	All relevant
exchanges	one-way transfer of	personal information	information shared
	minimum information	relevant for decision	largely one way from
	from health care	making is exchanged	health care
	professional to patient	between patient and	professional to
		health care	patient
		professionals	
Deliberation	Health care professional	Health care	Patient (plus
	(plus potential other	professional and	potential others)
	professionals)	patient (plus	
		potential others)	
Deciding on	Health care professional	Shared between	Patient
treatment to		health care	
implement		professionals and	
		patient	

Table 1: Analytical stages of treatment decision making in different approaches (Charles et al., 1999)

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Table 2: Key elements of shared decision making (Elwyn et al., 2012)

1. Choice talk

Making patients aware that reasonable options are available Components include:

- a. Step back: Summarise and say, 'Now that we have identified the problem, it's time to think about what to do next'.
- b. Offer choices
- c. Justify choices: Emphasise the importance of respecting individual preferences and the role of uncertainty
- d. Check reaction
- e. Defer closure: If patient wants you to decide, reassure that you are willing to support the process

2. Option talk

Providing more detailed information about options

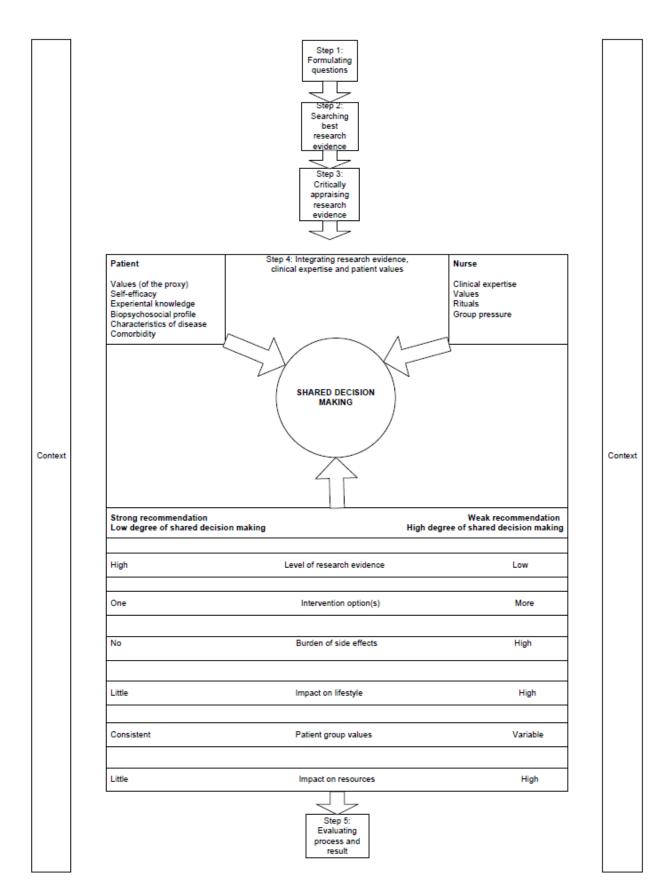
- a. Check knowledge
- b. List options
- c. Describe options
- d. Provide patient decision support
- f. Summarise

3. Decision talk

Supporting the process of deliberating on the best option

- a. Focus on preferences
- b. Elicit a preference
- c. Moving to a decision
- d. Offer review

Figure 1: Integrating shared decision making with evidence-based practice



Box 2: Two case descriptions of shared decision making

