Discourse and Evidence Based Practice: In Search of a Paradigm

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Abstract

Evidence based practice is understood as an important element of quality in nursing care and healthcare, in general. Although there seems to be widespread support of evidence based practice, there are challenges for nurses to keep up with the continuously growing literature and be able to transfer this knowledge to their clinical practice. An analysis of the literature has been undertaken to reveal the socio-historical influences and to examine the current discourse around evidence based practice. The dominant paradigm has been identified and voices of resistance noted. Consideration of cultural variables is discussed. It is suggested that practitioners take a critical stance and utilize evidence from a variety of perspectives.
Introduction

In the past decades, there have been tremendous advances in the health sciences with the development of new technology and new knowledge. Nurses are increasingly challenged to deliver high quality care supported by ‘evidence based practice.’ Evidence based practice (EBP) ensures that all health care is supported by firmly grounded evidence. It means integrating clinical expertise with the best available clinical evidence from systematic reviews of research (Gray, 2009). It is widely believed that practices based on research findings are more likely to result in desired patient outcomes. This represents a shift in the culture of health care provision away from basing decisions on opinion and past practice. However, it has been noted in nursing journals and blogs that nurses are struggling to implement evidence based practice. Nurses face challenges when translating best evidence into clinical practice. Relevant research-based databases are not comprehensive in many areas of nursing research. On the other hand, there is an ongoing explosion in the amount and type of information available (Craig & Smythe, 2002; Ersser& Nicol, 2010). In this paper, a discourse analysis of evidence based practice as presented in journal articles and texts will be undertaken to determine how this topic is discussed and understood. The texts will be assessed as to their paradigmatic orientation. A discourse analysis will examine the socio-historical influences on evidence based practice and on how different types of evidence are valued as privileged. Consideration of cultural issues influencing the discourse will also be discussed.

The Search

Electronic database searches were conducted to identify articles and texts on evidence based practice. The search included published meta-analyses, systematic reviews and existing
guidelines relevant to the topic, with a preference for those published within the last ten years. The search was limited to English language literature. Large databases such as PubMed and CINAHL, available through the AU library, were employed to access the primary and secondary literature. Keywords and Boolean phrases used were ‘evidence based practice’ (EBP) and ‘evidence based nursing.’ General Internet search engines and websites of key organizations were scanned to locate additional publications. The search generated a wealth of evidence. Results were refined, in an advanced search, to include full text, peer reviewed articles. Eight articles and one text were selected to review. (See Appendix)

Paradigmatic Orientation

Paradigms are lenses for viewing and interpreting our world. In nursing, paradigms are used as frames that hold the vocabulary, theories and principles, as well as the presuppositions and values related to inquiry (Weaver & Olsen, 2006). The paradigms that have been largely used in nursing are positivistic, interpretive and critical. Six of the texts reviewed on EBP were consistent with a positivist orientation.

The positivist paradigm arose from a philosophy based on rigid rules of logic and measurement of ‘truth’ or absolute principles and prediction (Weaver & Olsen, 2006). Much of the discourse around ‘evidence based practice’ suggests a positivist application. In Sullivan’s article (2013), “A Science Perspective to Guide EBP”, published in the Journal of Childbirth Education, the author suggests a need to create a culture that values evidence based nursing practice from a ‘science perspective’ in both education and in organizations. In the article, EBP is defined as a “problem solving approach” and Sullivan suggests practitioners utilizing a five step process to apply EBP. Evidence is rated for its’ reliability. From a positivist viewpoint, objectivity enhances the credibility of evidence. Sullivan’s (2013) article suggests that personal
experience is based on professional experience and insight gained from skills that are accumulated over a career, are referred to as intuition. Personal experience is considered a lower level of evidence because it does not offer a way to compare the evidence with a population. Anecdotal evidence is very weak because it cannot be verified (Sullivan, 2013, p.55). The label ‘science’ reflects the dominant understanding of generating evidence through science and encompasses a technical rational approach in keeping with a positivist orientation.

In a second article published in the Journal of Nursing Care Quality, Pipe (2006) describes strategies for leadership based on a model known for its effectiveness in aligning the process of EBP and theory driven care. The author calls for a blending of evidence based practice and theory driven care to ensure patient safety and to optimize outcomes. This is in keeping with Gephart’s (1999) idea of the positivist who searches for contextual and organizational variables that may contribute to organizational action. Pipe’s (2006) proposed model allows nurses to systematically move towards EBP using principles of research utilization and standard nomenclatures. The research suggests the use of rating scales resulting in measureable outcomes. Methodologically, a positivist approach employs such designs, interventions and manipulations to verify the truth. The positivist’s focus on experimental and quantitative methods to describe and predict are again noted in the comparative effectiveness research study by Teresia et al (2013). The authors predict the cost effectiveness of a program designed to implement evidence based training.

This ‘systematic’ approach to EBP is noted in Plastow’s (2006) work, Implementing Evidence Based Practice: A Model for Change. Four steps are utilized in EBP including identifying the clinical question, finding and evaluating the evidence and then implementing the evidence. The article is situated from a positivist stance where the underlying assumption is to
predict and control human behaviour. By using a systematic approach, and following the four steps to evidence based practice, nurses can make the safest and best clinical decision.

Ontologically, positivists believe that logical deductive reasoning, scientific inquiry, and replicable findings will converge upon objective truths (Plack, 2005). For nurses, much emphasis has been placed upon clinical guidelines as they are often regarded as one of the ‘gold standard’ documents - summarizing the best available evidence for various practice processes. In the Journal of Advanced Nursing, the editor proposes that evidence ranges from expert opinion to the synthesis of results of randomized controlled clinical trials (Fawcett, 2009). Clinical guidelines are also referenced in the Plastow (2006) article and are noted “to increase the confidence and skills and reduce the fear of ridicule, as evidence is clearly available to support the planned intervention” (p. 467). These clinical guidelines reflect a technical, rationalist, managerial approach and are firmly anchored in the positivist paradigm.

In Gray’s (2009) highly praised text, Evidence Based Healthcare and Public Health, the reader is provided with guidance on decision making about health services and public health. Evidence based medicine is purported to be an essential approach to clinical practice. Knowledge derived from research can be used to improve the health of patients and the public. The author notes the strength of the evidence is determined by the quality of research. This text reflects a positivist approach in that the author notes distinguishing features of research as “the ability to provide new knowledge and to produce results that are generaliseable” (p. 126).

An interpretive approach to evidence based practice was noted in one article. The interpretive approach highlights a different perspective on EBP. The interpretive paradigm studies phenomena through the eyes of people in lived situations (Weaver & Olsen, 2006). The focus of inquiry, unlike positivism, is subjectivity. Manzouka’s (2007) article acknowledges that
the definition of EBP may differ depending on the individual’s epistemology and perspective. Variations in the EBP definition have an epistemological base. The author suggests that individual nurses will choose the EBP formation that is most appropriate and fitting for them and their specific situation. In keeping with an interpretive lens, the assumption is that EBP is value-laden and its interpretation varies depending upon how an individual may interpret their reality and attribute meaning in their lives. Mantzouka (2007) advises that “the validity of evidence will be judged not on truthfulness but on how well reasoned it is by the individual practitioner and how coherent they are with the other decisions and actions taken for a specific patient.” (p. 253). Ontologically this is consistent with the view of the interpretivist where meaning is personal and socially constructed (Plack, 2005).

Critical theorists believe it is essential to look beyond the perceptions of the individual to the factors that lead to the development of those perceptions, including the underlying assumptions, both of the individual and society (Plack, 2005). Raising questions about social norms and values from cultural, social, political, economic, race, gender, and class perspectives allows for entrenched beliefs to be challenged. Two articles by Leeman & Sandelowski (2012) and Clarke (1997) challenge the current stance on evidence based practice and subscribe to a critical paradigm. Both articles expose alternate views and question the widespread acceptance of the dominant scientific paradigm supporting evidence based practice. Ontologically, critical theorists believe that knowledge is often shaped by political, cultural, ethnic, racial, gender and historical factors and has become a taken-for-granted reality. Clarke (1997) explores the origin of evidence based medicine to reveal its current connection with evidence based practice. The author adopts a critical stance and questions the domination of one type of evidence over another.
The goal of critical inquiry exposes inequities that occur in society as a result of uncritical or unquestioned acceptance of the dominant culture (Kim, 2003). Activism and advocacy, keys in critical inquiry, are noted in Leeman and Sandelowski’s (2012) article in their consideration of the relevant contextual factors related to variations in outcomes. The authors question the lack of attention to evidence derived from practice and the reluctance to see qualitative modes of inquiry as providing real evidence. The authors advocate for practice based evidence, including evidence concerning the contexts, experiences and practices of healthcare providers working in real world practice settings.

In summary, the methodology, epistemology and ontology of nine works relating to evidence based practice were considered. The dominant discourse around EBP arose out of a positivist paradigm. In most cases, translation of evidence into practice is conceived of a linear process moving from clinical trials and systematic reviews which provide a rational decision making framework as the right approach to enable the provision of superior patient care.

**Power Relations: A Critical Perspective**

A critical theory perspective assumes that truth exists as taken for granted realities shaped by social, political, cultural, gender and economic factors that over time are considered real. (Weaver & Olsen, 2006). The theory is largely concerned with countering oppression and redistributing power and resources. Critical theory calls for us to question the voice of those in power to reveal underlying assumptions. The work of Michel Foucault, a critical theorist, focuses on these concepts of power and knowledge. It is understood that power both limits and produces knowledge. Foucault believed that the development and maintenance of the power relation between nursing and medicine is linked to the control of scientific knowledge by both disciplines (Henneman, 1995). This may be helpful in understanding the dominant paradigm
and the evolution of ‘evidence based practice’ in healthcare today.

The ‘science’ of medicine has long been a powerful influence in medical education and the structure of health care institutions. It has also created a significant gap between nursing and medicine in terms of their scientific basis. Scientific discourses, especially those in medicine, have gained prominence over others because of their socio-historical influences. In our contemporary health care, science often achieves the status of ‘truth’ shaping our dominant, taken for granted understandings of what is legitimate (Cheek, 2004). A review of the literature on evidence based nursing and health care suggests a dominant positivist paradigm. In evidence based practice, there is what could be described as, a hierarchy of evidence. The hierarchy privileges certain types of evidence and silences others. At the top of the hierarchy, are scientific research and systematic reviews; at the bottom is anecdotal evidence which cannot be verified. Science aims to uncover the ‘truth’ where evidence emerges from objective and generalizable sources that are definite, accurate and truthful. This is said to allow practitioners to work in a predictable, objective manner. Indeed, it is difficult to refute the importance of science in nursing and healthcare. However, in nursing, different types of knowledge may also inform practice. Carper’s (1999) patterns of knowing in nursing incorporate the personal and aesthetics into the production of knowledge. These patterns are influential in ontological reflection on ways of being in the world. All these ways of acquiring, processing, reflecting, and evaluating nursing knowledge are important in developing a comprehensive clinical perspective. Often, in the discussion of evidence based practice, these types of knowledge are marginalized and are not seen are equally influential. For example, the clinical anecdote, which could be defined as the knowledge gained from the clinical experience of the practitioner, is the lowest ranking of evidence cited in Sullivan’s (2013) article. “Personal experience is based on professional
experience and insight gained from skills that are accumulated over a career...also referred to as intuition...considered a lower level of evidence because it does not offer a way to compare the evidence within a population.” (p. 55) Empirical, quantitative, research based clinical interventions are seen to best guide evidence based practice. The lack of attention given to qualitative modes of inquiry is seen to silence the voices of practitioners in real world practice settings (Leeman et al, 2012). The experiences of these health care providers including nurses, physicians, health educators, administrators and others could, individually or collectively, provide context to health care decisions and could also serve to improve patient outcomes.

In discourse analysis, we are challenged to move from seeing language not simply as a reflection or description but as a means of our understanding of reality. Muir Gray’s (2009) text portrays EBP as an unalterable fact, a rational decision making framework that is unquestionably the right approach to follow because it enables the provision of superior patient care in an efficient and effective manner. It places the emphasis on “science, not opinion or guesswork.” (p. 427) Foucault argued that power in society was related to the type of dominant knowledge at the time, and also to the types of discourse used. For example, the types of discourse used in professions such as medicine helped to sustain the power of doctors, and in particular the power that their specialized knowledge gave them (Oliver, 2010). Science and research have led to a hierarchy and power regime whereby ‘hard’ science and research are considered by some as the only science of worth, and where the so called ‘soft sciences’ are considered a looser way of generating evidence and therefore of less value. Mantzoukas (2013) contends that powerful groups, who base their status on the ability to develop, conduct and disseminate scientific findings do so to “maintain and increase their powerful and hegemonic positions”(p. 252). The author suggests that those who project scientific findings as the only acceptable form of evidence
are highly established researchers, academics with authoritative positions in government and industry who have a vested interest in presenting clinical research as the correct way of practising. This plays a role in the re-production of dominance by legitimizing one type of evidence as superior to another.

The discussion of clinical guidelines in the JAN article, as one of the ‘gold standard’ documents is an interesting example of how language is used to assign value to a practice. Language is used here to portray clinical guidelines as valid and the best way of practising. The discourse indicates that evidence not emerging from findings of scientific research is considered ‘intuitive’ or ‘guesswork’ practice. Accordingly, if nurses want to practice in a valid and secure manner they need to implement scientific findings. If they do not, they are at risk of practising in an unsafe manner. In this way, the ‘gold standard’ documents are privileged information. Intuition that has been long valued by nurses and women is not considered ‘gold’.

**Cultural Variables and the Influence on Discourse**

While discourses mirror societies and cultures, discourses can also shape events and experiences. Understanding the historical evolution of EBP may help in understanding how gender inequalities and the culture of health care systems factor into the discourse. Evidence based practice has been rooted in the medical trend of evidence based medicine which has influenced health care professions. It has become essential for knowledge and is currently a practice expectation in healthcare organizations (Edwards, Chapman & Davis, 2002). The dominant discourse around EBP suggests that scientific, research based clinical interventions are given preference over traditional care as the best evidence available. Historically, the scientific and objective have been linked with the masculine (Keller, 1999). The scientific receives extra validation from the cultural preference for what is called masculine. The feminine, be it a branch
of knowledge, a way of thinking becomes devalued by its exclusion from the special social and intellectual value placed on science (Keller, 1999). The widely accepted definitions of EBP convey unconscious messages that create inequality by promoting certain types of evidence as more valid and depicting traditional intuitive ways of knowing as not valid.

Many of our health care organizations subscribe to this definition. According to these definitions, personal experience, intuition and patterns of knowing that have been the basis of Carper’s patterns of knowing, widely accepted in nursing, would be subjugated by the masculine technical approach (Porter, 2010). Clarke (1999) identifies this as a ‘retrograde step’. By adopting a monopoly of evidence type, the author questions what the implications are for other types of evidence.

Evidence based practice is regarded as an essential component of providing modern healthcare. In many ways, there has been a preoccupation with productivity and quality to improve the cost effectiveness of health care. Gray (2009) suggests that as the pressure on resources increases, opinion based decision making will be eradicated. Administrators will be called “to make rational healthcare decisions in the face of financial pressures” (p. 13). The use of hard evidence and clinical pathways may be seen to provide administrators with a ‘truth’ or certainty that substantiates their decision making.

While proponents of evidence based decision making indicate that evidence is never the sole determinant and that decisions must integrate patient preference and values, the dominant discourse focuses on the importance of scientific evidence to decision making. The categorization of levels of evidence is illustrative of this. ‘Decision trees’ are often incorporated to enable a quantification of the effects or impacts of different options of any decision. (Gray, 2009). This type of clinical evidence may also be used to inform decisions made by the
insurance industry regarding coverage of health care services. We must question how these types of defined pathways can incorporate individual choice and patient values and who is best served by evidence based practice.

In summary, a literature review indicates that the dominant discourse around evidence based practice is associated with a positivist orientation. The discourse of resistance challenges the dominant discourse to take an eclectic view of evidence ranging from scientific and humanistic to personal experience. In raising our critical consciousness, it is important to be aware of the dominant discourse around evidence based practice, to reflect on issues of power and control and to be mindful of the cultural variables that influence the discourse. By adopting a critical stance towards evidence gained from a variety of perspectives, we can hear the voices of patients and health care providers to better inform our decision making.
References


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### APPENDIX

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<th>AUTHOR/S</th>
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<td>Fawcett, J. (2009).</td>
<td>Evaluating use of clinical guidelines: a crucial component of evidence based practice.</td>
<td>Journal Article</td>
<td>Positivism</td>
<td>Clinical guidelines are regarded as one of the ‘gold standard’ documents summarizing the best available evidence for practice. The editorial calls for an evaluation to determine if clinical guidelines are adopted and found to be effective.</td>
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<td>Leeman, J. &amp; Sandelowski, M. (2012).</td>
<td>Practice based evidence and qualitative inquiry.</td>
<td>Journal Article</td>
<td>Critical Theory</td>
<td>To increase the use of evidence in practice, nurses and other healthcare providers are called to incorporate more practice based evidence into the evidence base for practice.</td>
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<td>Manzoukas, S.</td>
<td>The evidence based practice ideologies.</td>
<td>Journal Article</td>
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<td>Individual nurses must choose an evidence based practice that is most appropriate for them and their specific situation. The best way to teach EBP is through the analysis of a personal ideology.</td>
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<td>Pipe, T.</td>
<td>Optimizing nursing care by integrating theory drive evidence based practice.</td>
<td>Journal Article</td>
<td>Positivism</td>
<td>The article describes the application of a model for change to EBP.</td>
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<td>Sullivan, D.</td>
<td>A science perspective to guide evidence based practice.</td>
<td>Journal Article</td>
<td>Positivism</td>
<td>The author discusses the need to create a culture that values evidence based nursing practice from a science perspective.</td>
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<td>Teresia, J.</td>
<td>Comparative effectiveness of implementing evidence-based education and best practices in nursing homes: Effects on falls, quality-of-life and societal costs</td>
<td>Journal Article</td>
<td>Positivism</td>
<td>A comparative effectiveness research study estimated the effects on falls, and the associated societal costs of implementing evidence-based education and best practice programs in nursing homes</td>
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