Perceived Barriers to Evidence Based Practice: a Generational Comparison

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The effort to apply research into clinical practice is an ongoing and challenging process. The nursing profession must begin to bridge this gap between research and practice in order to provide patients with safe and effective nursing care (Strickland & O'Leary-Kelley, 2009). The first step in an effort to close this gap may involve applying the process of utilizing a clinical problem-solving strategy that is grounded in the most current available evidence from research, commonly referred to as evidence based practice (EBP) (Polit & Beck, 2012). Thus, exploring perceived barriers to EBP is an important area of research. Findings from such research may raise issues or areas of improvement that the nursing profession can address in order to advance evidence-based nursing (Polit & Beck, 2012). Often advanced practice nurses play a key role in this process by staying up to date with current best practices, and providing support and encouragement to staff in implementing EBP. Many recent research studies exist that examine nurses’ perceived barriers to implementing EBP. Simultaneously, there has been research conducted on generational differences among nurses, such as differences in learning styles. A CINAHL search using the phrases ‘evidence based practice’ and ‘BARRIERS’ and ‘generational differences’ elicited no results. Therefore we concluded that no current research is available to specifically examine EBP and barriers to implementation amongst the varying generations of Baby Boomers, Generation X, and Millennials.

Defining the Generations

There are currently four generational cohorts working in the nursing profession: The Veterans, born between 1922-1945; The Baby Boomers, born between 1945-1964; Generation X, born between 1965-1979; and the Millennial Generation, born between 1980-2000 (Blythe, et al., 2008). As the vast majority of nurses from the Veteran generation have retired, leaving too
small a sample size, this study will focus on the Baby Boomer, Generation X, and Millennial nurses currently in the workforce.

- **Baby Boomers** were born in the relative economic prosperity and scientific development of the post WWII years, lending the generation a sense of optimism (Weston, 2006). They have been described as being very driven by their work and success, and as being focused on freedom and lack of conformity (Blythe, 2008; Weston, 2006).

- **Generation X** grew up in a time of less economic certainty, many either living in two-career households or single parent households, which led to increased independence and self-reliance (Weston, 2006). This generation is assertive and self-directed, more tolerant of diversity, and more comfortable with technology than the older cohorts (Blythe, 2008; Weston, 2006). Specific to the workplace, Generation X also has been described as being less loyal to an employer or organization, and as placing greater value on the work-life balance (Weston, 2006).

- **Millennials** were also often born into two-career or single-parent households, but by this time there was support in place for the children and their families. Their lives were very structured with educational and leisure activities (Weston, 2006). They are the most technologically savvy of all the generations, are interested in contributing to the multicultural world in which they live, are self-reliant, optimistic, and value teamwork and feedback (Blythe, 2008; Weston, 2006).

**Literature Review**

Evidence-based practice has become the standard of nursing professional practice over the past few decades. The integration of research into practice through EBP is one of the American Nurses Association's (ANA) *Standards of Professional Practice* (ANA, 2002). The American
Association of Colleges of Nursing considers EBP to be one of the essential components of nursing baccalaureate education, stating that “professional nursing practice is grounded in the translation of current evidence into practice.” (AACN, 2008, p.15). There is, however, a large body of evidence related to what is often called the research-practice gap: available research is not being implemented in practice to provide the best possible care to patients (IOM 2001, 2006). In order to bridge this gap, and bring nursing practice in line with its goals and professional standards, it is important to discover and overcome the barriers to implementing evidence into practice. As the current nursing workforce spans several generations, nurse leaders must ensure that their efforts are reaching all staff; therefore the question of generational differences related to these barriers is an essential component to bridging the research-practice gap.

The following is an abbreviated review of the available literature related to both barriers to implementation of EBP and to generational differences in the nursing workforce.

The Rogers’ Diffusion of Innovation model identifies four main elements of the diffusion process; a process in which new information is dispersed or utilized (Funk, Champagne, Wiese, and Tornquist, 1991). Rogers four elements include: (a) the innovation of new information, (b) the communication channel or sharing of information, (c) time it takes to accept or refute the new information, (d) the social system involved in problem solving the new idea (Funk et al., 1991). Rogers’ model of the diffusion process showed a correlation with previous research findings about the nursing profession’s tendencies in research utilization, which identified closely with the four elements of this process. It is from this model that researchers were able to develop a 29 item BARRIERS questionnaire that categorized answers into these four main elements: (a) characteristics of the nurse/adopter of the research, (b) characteristics of the
organization/setting that may use the research, (c) characteristics of the innovation/research, (d) characteristics of the communication/accessibility of the research (Funk et al., 1991).

Since the development of the BARRIERS scale, nursing research has conducted numerous studies utilizing this tool to aid in identifying nurses’ perceived barriers to research utilization. Strickland and O’Leary-Kelley (2009) utilized the BARRIERS scale to determine the barriers and facilitators facing nurses pertaining to practice changes through evidence-based research. The research was conducted through questionnaires that were mailed to 300 hospital-based nurse educators across California, with a 41% response rate. After analyzing the participants responses through the BARRIERS scale, results suggested that the number one barrier to practice changes of EBP was the setting/organization; the second being the nurse/adopter; thirdly, the communication/accessibility regarding the issue at hand; and fourth, the research itself (Strickland & O’Leary-Kelley, 2009).

Setting again ranked high as a barrier to research utilization in a study that examined barriers to research utilization and research use among nurses working with older adults by Bostrom, Kajermo, Nordstrom, and Wallin (2008). The study used the BARRIERS scale to identify the perceived barriers, as well as identify facilitators of research use, among the surveyed nurses. The three reasons resulted most frequently were: the work environment does not lend itself to implementing research, the nurse is not able to knowledgably talk about research, and the research is not in an accessible central location (Bomstrom et al., 2008). The nurses in this study reported desire for improved support from managers as well as articles in a ‘native language’ to boost research utilization.

Similarly, McKenna, Ashton, and Keeney (2004) conducted the barriers to evidence-based practice in primary care study, which again reflected setting as a major barrier. This
research study utilized both the BARRIERS questionnaire and the Evidence-Based Medicine in Primary Care questionnaire to develop a new tool labeled Evidence-Based Practice in Primary Care. The questionnaire was delivered to general practitioners and nurses to assess the perceived barriers to the utilization of EBP in the workplace. Even though the BARRIERS scale itself was not used in this study, many concepts that emerged were similar. The barriers that were identified were:

- organizational issues concerning cost, changes in work, time limitations, patient compliance, lack of incentives to use evidence-based practice…difficulties encountered with research findings, massive amounts of literature, limited funding for primary care research and results not being easily transferable into primary care practice (McKenna, Ashtom, & Keeney, 2004, p. 184).

Numerous reasons influence the gap in the nursing professions research-to-practice disparity. To fully grasp how barriers to research utilization affect the nursing profession, it may also be important to examine generational differences and the influence of these differences in barriers of EBP. The study, *Generational differences in nurses from a large metropolitan medical center*, examined generation groups and learning styles (Robinson, Scollan-Koliopoulos, Kamienski, & Burke, 2012). The study suggested these generational findings: nurses from older generations, like Baby Boomers, learn and assimilate information best when experience is taught alongside of subject matter; nurses from Generation X more often learn best from the affective domain rather than the cognitive domain; the Millenial generation nurses are more focused on computer-based learning and team oriented simulation activities (Robinson et al., 2012). In addition, a similar study sought to identify how nurses from the various generations view two aspects of the workplace environment: unit climate and nurse manager’s leadership style (Farag,
Both cohorts perceive their unit climate as characterized more by warmth and belonging than by structure and administrative support. However, Baby boomers rated their climates more positively for both warmth & belonging and administrative support. These results, according to the authors, are consistent with reported generational differences. Literature supports generation X requiring immediate feedback and reward. Baby Boomers are more likely to respect the chain of command, while Gen-Xers are less comfortable in a structured environment, are more likely to disagree with management and expectations, and place less importance on/loyalty to the organization (Farag, Tullai-McGuinness, & Anthony, 2009). These studies showing key differences between learning styles and perceptions across generations support the need for further research to examine how barriers to EBP may affect nurses of different generations.

**Purpose statement**

As discussed, there is myriad research available regarding evidence-based practice and the barriers perceived by nurses to its implementation. There is also a growing body of evidence regarding generational differences in the nursing workforce. No research has been done, however, on the relationship between these two issues.

The purpose of this study is to explore the relationship between generational differences among nurses and their perceived barriers to EBP. We will do so by answering the question: Among Baby Boomer, Generation X, and Millenial nurses, does a particular generation have an increased number of perceived barriers or differing perceived barriers to implementing Evidence Based Practice compared to the other generations? The study participants will include a random sampling of nurses working in acute care settings in the state of Michigan. We will perform the study using a survey format using Funk, et al.’s (1991) BARRIERS scale. The respondents will
be categorized according to their generation, and responses compared between and amongst the generations. In doing so, we will not only further our understanding of what barriers exist to implementation of EBP in acute care settings, but also note any generational differences in these barriers. This will improve nurse leaders’ ability to provide the necessary support to nurses of all generational cohorts to successfully implement EBP.

Theoretical Framework

Lewin’s Theory of Planned Change

German social psychologist Kurt Lewin developed, as part of his psychological field theory, the *Theory of Planned Change*, which is the process that a group goes through in “altering an event or events” (Chaney & Hough, 2005). Central to this theory are *forces*, which are all the existing properties of a particular social situation over time. These include specific events, past, present and future; and more abstract, emotional forces such as hope, aspiration, and emotional investment (Chaney & Hough, 2005). These forces can either be *driving* forces, which increase the intensity of a particular change event, or *restraining* forces, which combine to diminish the intensity of the same (Chaney & Hough, 2005).

In order for a planned change to become permanent and sustainable within an organization, three essential steps must occur:

1. *Unfreezing* requires recognition of a needed change, such as implementation of a particular EBP, by a nurse leader or *change agent*. This leader is responsible for both enlightening others as to the needed change and motivating them to accept the process of change (Shirey, 2013). They must create a sense of dissatisfaction with the status quo and a sense of urgency surrounding the change event (Chaney & Hough, 2005; Shirey, 2013).
2. *Moving or Transitioning* is the change itself, which must be viewed as a process rather than an event (Shirey, 2013). It involves an inner transition, “a cognitive redefinition by the participants of attitude and behavior toward the planned change” (Chaney & Hough, 2005, p. 209). It requires creation of a detailed action plan to guide participants through the change (Shirey, 2013). There is often a great deal of resistance to change because of uncertainty and fear, which is best overcome through communication and group involvement in the change process and decision making (Chaney & Hough, 2005; Shirey, 2013).

3. *Refreezing* is the stage in which the change is reinforced and stabilized. It requires that the change become embedded in the structure and culture of the organization and its policies and procedures (Shirey, 2013).

**Application of Lewin’s theory to the proposed study**

The BARRIERS scale is used to identify both internal and external factors that nurses consider barriers to changing practice. These are the *restraining forces* that inhibit the change process, according to Lewin. By clearly identifying the restraining forces, one can then focus on increasing the intensity of corresponding driving forces. For example, one question of the BARRIERS scale related to internal characteristics is the nurse not feeling capable of evaluating the quality of research. Therefore, the change agent can focus efforts on educating staff on how to critically evaluate research (Funk, et al., 1991). The nurse leader or change agent will be able to work with staff nurses to create a plan of change that responds to the specific forces at play as defined by the participants. By comparing generational differences, the nurse leader has the opportunity to customize their efforts as needed for each cohort, ensuring that the needs of all are appropriately met.
**Conceptual Map**

A conceptual map relating the proposed study to Lewin’s change theory can be found in the appendix. The potential driving and diminishing factors in each stage of change are outlined, with examples drawn from the BARRIERS scale. The nurse educator or nurse manager, as the change agent, is responsible for identification of change, and cultivation of driving forces to overcome the barriers, or diminishing forces, perceived by the participants. By comparing these perceptions among the differing generations the nurse leader is able to assure that his or her efforts are reaching the diverse needs of each generation.

**Research Questions**

A descriptive research design will be used for this study; with the purpose of describing and documenting perceived barriers to EBP as it occurs in the clinical setting for different generations within the nursing workforce. The results from a descriptive research study provide detailed information on a specific variable (barriers) in an established population (generations) (Wood & Ross-Kerr, 2011). Responses to the BARRIERS scale will be collected for data analysis and comparison. The use of the BARRIERS scale in many previous research studies improves the reliability and validity of the instrument (Wood & Ross-Kerr, 2011).

Two research questions are relevant to this study: (a) What are the specific elements perceived by the Baby Boomer, Generation X, and Millenial nurses to be barriers to EBP? (b) Among the Baby Boomer, Generation X, and Millenial nurses, does a particular generation have an increased number of perceived barriers or differing perceived barriers to implementing EBP compared to the other generations?
Summary

Current research regarding implementation of evidence-based practice supports the concept that there are several internal and external factors that may be considered barriers to implementation. One valid measurement tool that has been used in researching this is the BARRIERS scale developed by Funk, et al. Available research on generational differences among nurses shows that there are significant differences in several areas, including learning styles, perception of the work environment, and desired leadership style. This study is designed to address a major gap in the research on these two topics. To date, there is no available literature on generational differences in perceived barriers to the implementation of EBP. The purpose of the study, then, is to answer the question, Among Baby Boomer, Generation X, and Millenial nurses, does a particular generation have an increased number of perceived barriers or differing perceived barriers to implementing Evidence Based Practice compared to the other generations?

The theoretical framework for the study is social psychologist Kurt Lewin’s Theory of Planned Changed. Lewin theorizes that change occurs as process in three phases: unfreezing, moving/transitioning, and refreezing. In each stage there are both driving and diminishing forces that impact the success of the change. By understanding the barriers to change (or diminishing forces) perceived by nurses, the nurse leader, or change agent, can focus on specific driving forces in response. As several generational differences exist among the various age cohorts in the nursing profession, it is important to discover whether or not these differences extend into their perceived barriers to EBP.

In chapter 2 we will build upon the information from this chapter. We will provide a more in-depth review of the literature related to both implementation of EBP and generational
differences. This will be followed by a thorough discussion of Lewin’s change theory, its use prior studies, and applicability to the proposed research.
References


Appendix

Concept Map: Generational Differences in Barriers to EBP Implementation Within the Framework of Lewin’s Theory of Planned Change