Oncology Nurses and the Experience of Participation in an Evidence-Based Practice Project

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Purpose/Objectives: To illuminate the experiences of oncology nurses who participated in an evidence-based practice (EBP) project in an institution with an EBP organizational structure.

Research Approach: A descriptive phenomenologic approach and in-depth interviews with each participant.

Setting: An oncology-focused academic medical center with an established organizational infrastructure for EBP.

Participants: 12 RNs working in an oncology setting who participated in an EBP project.

Methodologic Approach: Descriptive, qualitative phenomenologic approach through use of interviews and analysis of interview text.

Findings: Four essential themes (i.e., support, challenges, evolution, and empowerment) and 11 subthemes emerged that reflected nurses' professional and personal growth, as well as the creation of a culture of EBP in the workplace.

Conclusions: The participants described the EBP project as a positive, empowering personal and professional evolutionary experience with supports and challenges that resulted in improvements in patient care.

Interpretation: To the authors' knowledge, the current study is the first qualitative study to demonstrate improved nursing outcomes (e.g., professional growth, improved nursing performance) and nurses' perception of improved patient outcomes (e.g., ongoing healthcare collaboration, evidence-based changes in practice).

Key Words: evidence-based practice; research use; professional issues; nursing administration

ONF, 41(4), 382–388. doi: 10.1188/14.ONF.382-388

Nursing is the largest profession in the U.S. healthcare workforce and has been nationally recognized for its potential to lead transformation in health care (Institute of Medicine [IOM], 2010). Transforming health care will require the generation and use of current and high-quality research to improve organizational and patient outcomes. In other words, improving healthcare quality in the United States will require evidence-based practice (EBP). EBP is in contrast to practice that is based on tradition, routine, personal preference, or opinion (Rutledge & Bookbinder, 2002). A large gap exists between what research has shown and what healthcare providers actually use in practice, so patients do not "reap the full benefit" of the investment in research (IOM, 2001, p. 145). Because of the recognized importance of the nursing profession as a major player in transforming the healthcare system with relation to the Affordable Care Act (2013), healthcare providers should strive to implement EBP.

Nursing leaders describe implementing EBP as a complicated and elusive goal (McCorkle, 2009). Many nursing studies have documented the struggles nurses face in accessing, evaluating, and implementing EBP. In an integrative review of studies using the BARRIERS scale, frequently used to assess nurses' use of research in practice, barriers to research use (e.g., limited access to information, limited ability to interpret information, limited ability to apply information) were found during a 15-year period from 1991–2006 (Carlson & Plonczynski, 2008). Nurses outside of the United States have also identified those obstacles (Gerrish et al., 2007). The challenge to the actualization of EBP in oncology nursing is addressed by the Oncology Nursing Society's current research agenda, which includes translational research as a priority (Berger, Cochrane, & Mitchell, 2009). Translational research explores the knowledge-to-practice gap in an effort to improve the quality of nursing practice.

Survey research in nursing has shown little increase in nursing use of EBP, reporting consistent obstacles. Many of those obstacles have been more recently attributed to the nursing workplace, shifting the focus of EBP research away from individual nurse factors to the contextual variables affecting EBP (Kitson, 2007). Nurse leaders stress the importance of creating nursing work environments with an infrastructure conducive to and supportive of EBP (Gerrish et al., 2012; Titler, Everett, &

Adams, 2007). Many infrastructures that support EBP have been implemented, usually in the form of a dedicated project lead (Rycroft-Malone et al., 2004; Stetler & Caramanica, 2007). No intervention studies have examined the process or outcome of infrastructures that support EBP (Cummings, Estabrooks, Midodzi, Wallin, & Hayduk, 2007; Flodgren, Rojas-Reyes, Cole, & Foxcroft, 2012).

Intervention studies measuring the implementation of EBP programs and their relationship to patient outcomes are lacking and needed, but limitations exist for randomized, controlled trials in the study of EBP (Wallin, 2008). Healthcare providers have called for qualitative inquiry and mixed-methods approaches to "capture the fine-grain detail of research use and articulate it more fully" (Wilkinson, 2013, p. 1). Qualitative study into the nature of the EBP process and the meaning of participation in the EBP process can inform current practice and future intervention studies. Qualitative research can give a voice to those nurses who incorporate EBP in settings where an infrastructure for EBP has been put in place. The purpose of this study was to discover the meaning of participation in the EBP process for nurses working within an established infrastructure for EBP through phenomenologic qualitative inquiry.

Methods

Design

Husserl (1931) developed phenomenology as the study of the essence of humans' experiences. Phenomenology values the subjective experience. Rather than attempting to exclude subjectivity, phenomenology highlights subjective experience as the topic for investigation (Van Manen, 1990). Van Manen's (1990) outline for the application of phenomenologic research was used as a framework for the current study. Oncology nurses' experience of participation in an EBP project within an established nursing EBP infrastructure was the focus of this study.

Setting and Sample

The context of this study was Memorial Sloan Kettering Cancer Center, an oncology-focused academic hospital with a variety of oncology nursing settings. An established infrastructure dedicated to the actualization of EBP existed within the overall nursing administration; its responsibility was defined to include all oncology nursing settings within the institution. The EBP nursing department infrastructure included the position of director of nursing research and EBP (filled by a doctoral-prepared nurse researcher), a non-nurse research associate, and a part-time nurse researcher. The director developed two main foci for the department: an EBP committee structure that drew practice nurses from a breadth of clinical areas to identify and implement EBP projects and a nursing research fellowship that provided education and guidance for nurses to lead EBP projects.

Once institutional review board approval was obtained from Memorial Sloan Kettering Cancer Center, a purposive sample was drawn from nurses who had participated in an EBP project in this setting. Nurses were emailed a request to participate in the study, a description of the purpose of the study, and the identity of the nurse researcher conducting the study. Snowball sampling was used as an additional method to increase the number of participants. Some participants were asked to identify other potential nurses who had been in EBP projects. The potential participants were asked to contact the nurse researcher if they were interested in being part of the research. Fourteen nurses responded, and interviews were conducted in a private space within the institution for convenience. Twelve full-time nurses were interviewed for the final analysis. Saturation had been reached after 10 nurses were interviewed, but two additional nurses had already been scheduled, so those interviews were conducted. Demographic data were collected during the interview. Six participants were advanced practice nurses, and six were staff nurses. All of the participants were females aged 27–58 years, with a range of 5–39 years of nursing experience. Participants were involved in an EBP project any time from the past five years to the present.

Data Collection

Signed consent, including the permission to be audio recorded, was obtained from each participant prior to the interview. Interview confidentiality was contained in the written consent and reviewed verbally by the researcher, who explained that (a) confidentiality protection was ensured using an encrypted website for uploading of audio recordings for transcription, (b) interviews would only be reviewed by the researcher and doctoral-prepared colleagues, (c) none of the research staff were employees of the participants' workplace, and (d) pseudonyms for each participant were used in the transcription of audio recorded interview data and for reporting the findings. Participants were asked for their personal email addresses for any communications required for the study, including review of the interview transcriptions for accuracy. Participant confidentiality was important because the study had the approval of the organization that employed the participants. Each participant was informed of the right to withdraw consent and stop the interview at any time without penalty.

In-depth interviews were conducted, and each nurse was asked to tell what it was like to participate

in an EBP project with the question, "Tell me, what was it like to participate in an EBP project in nursing?" The nurse researcher encouraged responses in a nonleading manner by saying, "Tell me more about that," or, "What else was it like?" until the participants felt they had no more to share. Sources of researcher bias were identified and documented prior to the interviews. Likewise, a journal was kept so that the researcher could bracket personal biases, a technique in phenomenologic research that involves recognizing researcher bias and placing those biases knowingly aside during the interview process so as not to interfere with the interview or its analysis (LoBiondo-Wood & Haber, 2013).

Data Analysis

Qualitative research recognizes the subjective experience of the researcher and includes rigorous steps to minimize researcher bias. Interviews were analyzed with an attitude referred to as phenomenologic reduction, which involves openness to the participants' responses. Analysis was first conducted by reading each interview transcript as a whole, then through the identification of categorizations of meanings revealed by the participants. Several statements in different parts of an interview were often attributed to the same category of meaning; they were repeated at different times in different ways but interpreted as conveying the same meaning. This process was conducted for each interview, with frequent revisits to each interview to ensure the proper capture and categorization of meanings, as expressed by the participants. The essential meanings identified and consistently expressed by the participants emerged as the structure of essential meanings. The elicited structure was checked against the raw data by the researcher and the three qualitative researchers contributing to the analysis to confirm the findings. To assist in identifying personal biases, the researcher responded to the interview question and recorded it to raise any prereflective unidentified biases associated with the research question. In addition, the researcher maintained a personal journal throughout the course of the interviews, documenting any personal bias prior to transcription, coding, and interpretation. Bracketing of these biases also was part of the interviewing technique.

Rigor in the analysis was established in qualitative research by the application of the criteria of credibility, auditability, and fittingness (LoBiondo-Wood & Haber, 2013). Credibility is identified as "the truth of the findings as judged by participants and others within the discipline" (LoBiondo-Wood & Haber, 2013, p. 119). Credibility was proven by returning to the participants to review the transcription to confirm its accuracy and the interpretations and categorizations of meaning by the researcher. Validity, often referred to as credibility in the qualitative research field, was achieved by having the participants read the descriptions and interpretations of the researcher (Creswell, 2007; Van Manen, 1990). Credibility was achieved when the participants concurred with the researchers' themes, and the opportunity was given to correct any misinterpretations. Feedback from the participants indicated that no corrections were needed. Reliability is often addressed in qualitative research in terms of how multiple coders of transcriptions agree on their interpretations of text (Creswell, 2007), which was applied in the current study by including three doctoral-prepared qualitative nurse researchers to verify coding, themes, subthemes, and essences that the researchers interpreted from the transcripts. For the criterion of auditability, explicit examples are provided to allow for the reasoning of the interpretation to be clearly followed by the reader. Fittingness is achieved when "faithfulness to everyday reality of the participants [is] described in enough detail so that others in the discipline can evaluate importance for their own practice, research, and theory" (LoBiondo-Wood & Haber, 2013, p. 122). Readers should experience the "phenomenological nod," which occurs when they recognize "an experience that [they] have had or could have had" (Van Manen, 1990, p. 27). This occurred with the doctoral peer readers employed during the analysis.

Results

The participants discussed at length the meaning that participating in EBP projects had for them. The types of EBP projects varied from limiting blood draws in the intensive care unit to prevent anemia to the use of perioperative aromatherapy to reduce nausea. Many participants discussed their experience of becoming experts in their topics, negotiating practice changes with the nursing administration and the medical board, and presenting their work at local, national, and international conferences.

Support

The first theme recognized by researchers was support, with subthemes of organizational context, EBP structures and process, and EBP work group context. The value of a supportive organizational context was shared repeatedly. One nurse said, "[The EBP Director has] really brought a culture to this institution where we're really thinking outside the box and thinking about, 'How can we improve our practice?' Not that we're doing things wrong, but can we do it better?" Another nurse said, "EBP is running through the pipes in this place." A nurse described the support of EBP structures and processes when she said, "It just continued with monthly meetings,

with individualized meetings at the unit level. So there was again that support and resources, just there for the asking. And that's what made the difference." Many voiced the support of the librarian. Another nurse said,

> We did all the lit[erature] searches. We worked very closely with [the librarian]. . . . We have the privilege of having a library that's fully stocked and fully staffed, and we have one librarian who's dedicated to nursing and EBP.

One nurse described the support that came through the context of the EBP work group. She said,

> I'm only humbled by people who have worked with me. It's really a community of nurses who have contributed a lot. It's really not, it's really not my work alone. I mean, truly, if you understand evidence-based, it's not one person's work. It's a lot of people's work. . . . It encourages me to say, "I can't just drop this now."

She also discussed support from outside nursing when she said,

> You know, I had support from one or two doctors who really made a difference. I had support from two doctors, I would say, that stood out, or three doctors who stood out, to say, "Maybe you should do it this way. Maybe this," who gave me confidence along the way to say, "Keep going," who gave me a lot of positive and constructive feedback.

A nurse discussed the support she received from the EBP team, particularly across disciplines within nursing, forging relationships beyond her usual work group. She said,

> I felt good working with them because I felt like they knew what they were doing. So, even if I was kind of on the fence about things, they were still reviewing. We were working as a team, so it was nice, you know? And they came from different areas. I didn't know [her] before I started working with her. So that was nice, you know?

Challenges

The second theme encountered was challenges, and it was accompanied by subthemes of knowledge, time, and resistance to change. Most of the nurses talked about their initial apprehension to participate because of a lack of knowledge. One nurse said, "So we decided to look at those guidelines, and I'm not a graduate student. I have a bachelor's, but I have no . . . I've never done any graduate work. I know very little about EBP, so I was intimidated." Another nurse said,

> We first had a workshop that we were all asked to attend. I'm a clinical nurse specialist here, and the nurse leaders from inpatient and outpatient [were also asked to attend]. And that's really where I learned initially about how to do EBP and what was involved in it.

One nurse said, "You know, it's not as obvious as a librarian would be doing it. So that's a struggle at first." The participants repeatedly mentioned the challenge of time in participating in the EBP projects. Time challenges included getting time off to do the work and to get to the group meetings, as well as the time it took to complete projects. Even when time off work was permitted, it was a challenge to find the time. Another nurse said,

> I think the only issue was that the people in my role [of clinical nurse specialist] would tend to go to the meetings a lot, but it was a little bit harder for the staff nurses, the clinical nurses, due to scheduling issues. So they might not have been there every meeting.

A nurse expressed frustration and was the only nurse expressing discontent about the ongoing challenge of finding the time. She said, "You know, on paper, they said they have. [Administration] would give you protected time. It's not protected time. Someone calls in sick, there you go. This is the least priority. Your priority is clinic." Another nurse said,

> Yes, and how am I going to find time to do this? I'm working. I've got X, Y, and Z, I'm taking this clinic, I'm doing this, and it was much more daunting. Although we did make a point to try to get nurse leaders to get nurses paid time off, you know, they still needed to find the time to do this, you know, off from work.

One nurse related the time it took to do the project. She said, "It was a long process, but it was good because, you know, we saw all our hard work, you know, have a change in our practice that was based on evidence." Another nurse discussed the challenge of encounters with resistance to change. She said,

> I think the biggest drawbacks of these, of EBP, is people not accepting it as what they want to go forward with, that they're resistant to change. And that's a big problem because then if you're going to do all this research, what's the point if no one's going to adopt it? So you really have to have leadership, you know, on board.

Another nurse added,

> We finally came up with a consensus of what should be done, just the logistics of implementing it. It's still not fully implemented, like, two years later. And I think what we found is that although a nurse might lead the project, it might be really helpful to have, like, an implementation team actually implement the work after we finish.

A nurse said, "We had to go through a few hoops to get it approved to be used in the main hospital."

Evolution

The third theme was evolution, which was accompanied by the subthemes of discovery, transformation and expanding boundaries, and professional development. Nurse participants shared their enjoyment in learning, the discovery of new things, and the personal and professional transformation they experienced during the EBP process. The term *transformation* was used because of the intensity with which the meaning of these experiences were shared, bringing several of the participants to tears in the telling or using physical demonstrations of enthusiasm, such as a fist pump emphasizing, "I did it!" One nurse said,

> The fun part is when you discover. You read something, and you think, "I didn't know this." And it just gives me, it settles my mind too, like, "Oh, okay." It validates what I know and teaches me a new thing, "Oh, okay, this is a new way of looking at it." So that's a satisfaction of knowing more and just gives me more edge over a subject topic. And being able to talk to my colleagues, doctors, to say, "Okay, I know what you're talking about." So that's a fun part.

A nurse said, "Am I doing, saying something that will help patients? Or maybe there's something out there that can help them, and I'm still using these same medications. So evidence-based is fun." Many described a transformation. One nurse said, "It was a life-changing experience." Another nurse said,

> I think differently now about everything. Like someone recently said at [a medical meeting], a paper was presented, so I looked at that, thinking, "Maybe they're right, but it was a very small sample, so I don't know. Maybe those people were in the low-risk group anyway for other reasons." It just made me think more about all that I read and what people say. You know, just thinking, it just made me think more about what I hear.

Participation in the EBP program resulted in a variety of professional development activities, which one nurse described. She said,

> It's because of that, of the evidence-based, that led me to say, "I don't want to do this anymore. I'm tired of telling patients to do these things because I don't think I would do it." . . . But that led to a study, the study that's going to help improve or say, "Okay, this is a better way."

A nurse described her experience of presenting her EBP work at conferences. She said,

> I felt respected. I did not feel respected before, no. I've spoken internally, you know, at things. I've presented here. I think I felt very respected, so the reception was just incredible. I mean, people were just really very impressed with what we think is such a, you know, a simple little thing but really went far.

Empowerment

The fourth theme was empowerment, and it included the subthemes of challenging the status quo and making a difference in patient care. The nurses described their newfound knowledge of the EBP process as having empowered them to take action in changing patient care and in challenging the status quo. One nurse said,

> And now I find that as a nurse, we have to question what we do. Because there are a lot of old-timers around who say, "Well, this is just the way we've been doing it." Well, it doesn't mean that things can't change.

Many shared the importance of making a difference for patients. A nurse said, "I'm always thinking of, 'Okay, well, how can I improve my patient care?' You know, 'What can I do differently?'"

Integrated Essential Essence

An interpretive statement notes the essential themes and subthemes as expressed in one summary sentence. In the current article, the statement describes the integrated essential essence of the experience for the nurses who answered the question, "What is the lived experience of participating in an EBP project?" The integrated essential essence that emerged from this study was that participation of nurses in an EBP project is an empowering evolutionary journey marked by support and challenges toward personal and professional growth and improvements in patient care.

Discussion and Implications for Nursing

The experience of participation in EBP supports the need for organizations that integrate EBP. Similar to the identification of the essentials of magnetism through qualitative inquiry in workplaces with known positive measures on nurse retention and other variables (McClure, Poulin, Sovie, & Wandeh, 2010), this study sought to discover the essentials of EBP in the experience of nurses in one setting with an EBP infrastructure. The specific EBP structures and processes in place and the benefit of group work were highlighted, echoing previous research (Gerrish et al., 2012). The potential effect of nursing on improving patient outcomes is illuminated by the nurses in the current study. Nurses

Knowledge Translation

Participating in supported evidence-based practice (EBP) projects empowers oncology nurses and improves perception of patient outcomes.

EBP infrastructure gives oncology nurses a workplace culture that supports implementation of EBP projects.

Positive nurse and patient outcomes described by the participants indicate that EBP infrastructure would be an improvement in the workplace.

empowered to challenge the status quo and work with interdisciplinary colleagues to improve patient care are necessary to meet the challenge set by the IOM's (2010) future of nursing report. By transforming the nursing work environment, creating a culture supportive of EBP, and addressing known EBP challenges, nurses can better base their practice on evidence to improve patient outcomes. The culture the nurse participants described also resulted in positive outcomes for the individual nurses involved by transforming personal and professional outlooks.

Establishing an EBP culture can potentially increase nurse satisfaction and nurse retention and decrease nurse turnover, which adds to the significance of embracing an EBP culture in the workplace. These findings are similar to a pilot study of an EBP implementation program in which nurses involved in the program, although not demonstrating a statistically significant change in job satisfaction, demonstrated a reduced rate of job turnover of about 50% (Levin, Fineout-Overholt, Melnyk, Barnes, & Vetter, 2011). The authors of that study concluded that the potential outcome of implementing EBP would be increased nurse retention rates in the workplace, which could have major implications for cost and quality in the healthcare system.

Future Research

The current study emphasizes the value of qualitative research methodology in the repertoire of investigative inquiry. Qualitative research findings add value to a program of implementation research in nursing (Squires, Estabrooks, Gustavsson, & Wallin, 2011). Findings from this study may contribute to future intervention studies through operationalizing the themes identified, including nurse outcomes. Descriptive studies should be performed to update the knowledge of the prevalence of EBP programs in the nursing workplace. This study should be replicated in different settings to advance the understanding of nurses and the EBP experience, as well as test if the findings can be reproduced in different clinical settings with different individuals.

Limitations

Sampling bias is an inherent potential of purposive sampling, where participants with a positive experience may be more likely to respond. This study took place in the nurses' workplace and, although the nurse researcher was not an employee of the institution, the initial call for participants was communicated through the EBP nursing department. Nurse participants may have been inhibited to express opinions that could conflict with the EBP culture despite the assurance of confidentiality provided verbally and in the informed consent. The unique skills and personal attributes of the EBP nursing leader may have contributed to the meaning of the nurses' experience of EBP, underlining the importance of replicating this study in other settings.

Conclusion

The transformation the nurses experienced included feeling that their roles were expanded through collaboration and interaction with other disciplines and departments, as well as outside the organization. This type of transformation in the nursing workplace, which occurred through participation in an EBP project within an EBP infrastructure, is the foundation for nursing to assume a role in the transformation of health care.

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