

Abstract

A multifaceted single-site study explored parents' perceptions of care, infant outcomes, and nurses' perceptions of organizational culture and readiness to integrate Evidence-based Practice (EBP) in 56-bed level III NICU.

The nurses' perceptions of the organizational culture and readiness to integrate EBP increased steadily over a 12-month period; wide variations in the nurses' perception scores were observed.

Aims of this portion of study included gaining a deeper understanding of nurses' perspectives of the organizational culture and ways to improve clinical nursing practices in the NICU.

The findings require nurse educators to answer the question, What is the nurse educators' role in supporting the nursing staff throughout the integration of a practice change?

Introduction

Evidence-based practice (EBP) is a standard of professional nursing practice (ANA, 2010) and is identified by the IOM as a core competency for all healthcare providers and an integral component of clinical nursing practice (Greiner & Knebel, 2003). It involves the utilization of the best available evidence in problem-solving and clinical decision-making concerning patient care (Melnik & Fineout-Overholt, 2015).

Barriers previously identified include: organizational barriers such as insufficient time, lack of staff or resources, too many changes concurrently (Gale & Schaffer, 2009); workload issues including inadequate staffing and increased patient acuity levels, absence of management support of EBP activities, lack of resources and knowledge how to access and interpret empirical evidence, lack of authority to change practice, and resistant workplace culture to change or innovation (Williams, Perillo, & Brown, 2015).

Factors supporting nurses' readiness to implement EBP and competencies include: familiarity and an understanding of EBP concepts (Saunders & Vehviläinen-Julkunen, 2016); adequate resources including staff support, adequate staffing, time, easy accessibility to resources and information regarding EBP, an understanding of nursing research and working knowledge of EBP to successfully retrieve empirical studies, understand the research, critique and synthesize empirical evidence.

Implementation of an EBP strategic plan improved nurses' perceptions of the importance of EBP, their perceptions of the organizational readiness, the frequency of EBP integrated into clinical practice as well as movement towards EBP (Hauk, Winsett, & Kuric, 2012).

"System-wide implementation of EBP occurs when the evidence is strong, the context is receptive to change, and the change process is facilitated through a supportive infrastructure" (Fineout-Overholt & Melnik, 2005, p.28).

Methods and Materials

1. The *Organizational Culture & Unit Readiness for Integration of Evidence-based Practice Survey-Unit (OCRSIEP-UNIT)* (Melnik & Fineout-Overholt, 2015) is a 25-item scale intended to measure the NICU nurses' perceptions of organizational culture within the NICU and readiness to integrate EBP in caring for micro-premature infants. It uses 3-rating scales: the 5-point rating scale ranging from "not at all" to "very much," or "not ready" to "past ready and onto action," or frequencies ranging from "none to 100%." The scale generates a total score ranging from 25 to 125; scores closer to 125 reflect greater organizational readiness for or movement towards a culture of EBP. Higher individual item scores indicate greater degrees of perceived readiness to integrate EBP into clinical nursing practice.
2. The OCRSIEP-UNIT survey and demographic questions totaled 35 questions. No identifying information was collected.
3. Nearly 100 NICU nurses were invited to participate in the online study.
4. The survey remained available to staff for approximately 5 weeks during each collection period (at the onset, at 6 months, and 12 months.)
5. Staff were provided a hyperlink to access the online study from their personal or work computers.

Results

- Responses rates varied between collection periods of baseline, 6 months, and 12 months (36, 51, 24 respectively)
- Overall perception scores of organizational culture and unit readiness to integrate EBP increased steadily over time with wide variations in individual nurse's perception scores

Table 1. Overall Perceived Organizational Culture and Unit Readiness to Integrate EBP

Time	Number of Responses	Range of Scores	Mean Score (SD)
Baseline	36	36 - 122	78.54 (1.19)
Six Months	51	54 - 118	81.37 (1.22)
Twelve Months	24	54 - 111	85.42 (1.29)

Table 2. Perceived EBP Culture and Unit Readiness to Implement EBP in NICU

Individual measure	Baseline	Six Months	12 Months
NICU's readiness to implement EBP	3	3.35	3.46
Movement in NICU towards a EBP culture	3.05	3.28	3.46

Discussion

The study was presented to the NICQ Council, prior to the onset of the study. The NICU nurses ranged in age from 23 to 71-years-old with most nurses employed in the unit for > 5 years and many > 20years. Some seasoned nurses had little understanding of EBP concepts. In contrast, younger nurses had a good working knowledge of EBP concepts and activities.

Nurses implemented the Neonatal Integrative Developmental Care model to care for premature infants (<26 wk gestation). Prior to implementation of the change in nursing practice, seven educational classes were held to introduce staff to the model and provide a basis for the practice change.

Barriers were immediately identified as the practice change was perceived necessary by administration with little input sought from staff. Some nurses voiced frustration with unfamiliarity with EBP concepts. Surprisingly, despite repeated reassurances, many nurses voiced reluctance to participate in the study fearing management could identify individual responses and retaliate.

All scores remained slightly above the mid-mark score of 75 indicating the need for further development of a culture to embrace EBP. Overall, nurses did not feel ready and wanted more support to integrate the practice change.

Conclusions

The wide range of nurses' perceptions of the organizational culture and their readiness to integrate EBP at each collection period requires further investigation as to possible barriers and necessity for additional support.

So what is the nurse educators' role?

The significance to the future of nursing of nursing cannot be underscored. It is essential that nurse educators recognize the study implications and incorporate varied strategies in clinical practice, clinical practicum and classroom activities to:

- ❖ Facilitate a deeper understanding of how to integrate EBP into practice
- ❖ Employ strategies that enhance the learner's ability to successfully implement EBP and ultimately improve patient outcomes

- Provide formal classes to nurses as to how to evaluate the level of the evidence and formulate a PICO question (Levin & Chang, 2014)
- Promote participation in Journal Clubs (Gardner, Kanaskie, Knehans, Salisbury, Doheny, & Schirm, 2016)
- Encourage participation in research activities (Ayoola, Adams, Kamp, Zandee, Feenstra, & Doornbos, 2017)
- Promote the use of resources such as librarian and online tools including Johns Hopkins Model and Guidelines (www.hopkinsmedicine.org/evidence-based-practice/ebp_education.html)
- Redesign courses to effectively increase students' knowledge, skills, and attitudes towards EBP (Ruzafa-Martínez, López-Iborra, Barranco, & Ramos-Morcillo, 2016)

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