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Readiness to Integrate Evidence-Based Practice: What Is the Nurse Educators' Role?

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Introduction

Evidenced-based practice (EBP), identified by the ANA (2010) as a standard of professional nursing practice and by the IOM as a core competency for all healthcare providers (Greiner & Knebel, 2003), remains an integral component of clinical nursing practice involving the utilization of the best available evidence in problem-solving and clinical decision-making concerning patient care (Melnyk & Fineout-Overholt, 2015). A recent multifaceted single-site study explored parents' perceptions of care, infant outcomes, and nurses' perceptions of the organizational culture and readiness to integrate EBP in a 56-bed level III NICU. This poster focuses on the nurses' perceptions of the organizational culture and readiness to integrate EBP over time. Aims of this portion of study included gaining a deeper understanding of nurses' perspectives and ways to improve clinical nursing practices in the NICU.

Review of Literature

Before an evidenced-based clinical practice change can be implemented, it is important to identify strengths and barriers within the system (Melnyk, Fineout-Overholt, & Mays, 2008). In a correlational study, Gale and Schaffer (2009) examined the nurses' perceptions of influencing factors and barriers of EBP integration. The barriers identified most frequently by this sample of nurses and managers ($n = 92$) were insufficient time, lack of staff, and not having the required equipment or supplies whereas the top three reasons to adopt evidenced-based changes in clinical practice included personal interest in the practice change, personal valuing of the evidence, and avoiding risk of negative patient consequences (Gale & Shaffer, 2009). Additionally, unlike the managers, a greater percentage of the staff nurses identified limitations within the practice setting and inability to access information regarding EBP as barriers to the integration of EBP. Analysis of the open-ended responses revealed both the staff and the managers agreed on several issues: too many changes at the same time, the Joint Commission or state mandated requirements viewed as negative motivators, and the absence of resources all perceived as major barriers to successful implementation of practice changes (Gale & Shaffer, 2009).

In a correlational study involving a small group of healthcare professionals ($n = 58$), Melnyk, Fineout-Overholt, Giggelman, and Cruz (2010) utilized the OCSIEP scale (Cronbach's $\alpha = .92$) in an effort to examine relationships between cognitive beliefs, EBP, its implementation, organizational culture, cohesion, and job satisfaction. Statistically significant relationships were found between the perceived organizational culture and readiness to integrate EBP ($M = 79.76$, $SD 14.93$; range 42-116) and EBP beliefs as well as EBP implementation. These healthcare professionals implemented EBP into their nursing care to a greater extent and had stronger positive beliefs about the value of EBP (Melnyk et al., 2010).

Hauck, Winsett, & Kuric (2012) assessed nurses' belief of the importance of EBP, how frequently EBP was incorporated in their daily nursing practice, and the nurses' perception of organizational readiness to integrate EBP after the implementation of an EBP strategic plan. Organizational culture and readiness were measured on the Organizational Culture & Unit Readiness for Integration of Evidence-based Practice Survey (OCSIEP adapted to meet their needs. Hauck et al. scored items as 3 scales: items 1-14 and 16 (referred to as OCS-C, Cronbach $\alpha 0.81-0.92$) measured culture of the organization. Items 15 and 17 addressed providers as EBP champions and decision makers; item 18 measured the organizations readiness to integrate EBP, and item 19 measured the organization's movement towards EBP. Although there were no statistically significant differences noted in the nurses' characteristics over time, there were significant gains made over time in the 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 (Hauck et al., 2012).

In a scoping review of the literature focused predominantly in nursing and addressing organizational barriers to the implementation of EBP (49 articles), Williams, Perillo, and Brown (2015) identified five broad major organizational barriers. Most frequently reported was workload which included issues of staffing, patient acuity levels, increases in patient-based tasks, and staff identifying 'no time' to participate in EBP activities cited in 38 of the 49 articles. The absence of management support of EBP activities (cited in 37 of the 49 articles) was reported nearly as often as workload. A lack of resources particularly in terms of easy accessibility from the patient care areas was cited in 28 of the 49 articles; this also included issues of how to access and interpret the empirical evidence. The fourth barrier identified was lack of authority to change practices (in 22 articles). Staff often did not feel their voice was valued nor did they have power to make changes which may positively impact patient outcomes. Lastly, workplace culture resistant to change was identified in 14 articles where rigid, inflexible workplaces discouraged innovation and thinking outside the box. A disconnect between staff professional goals and the organizational goals were also cited here. All of these barriers impact staff's ability to use EBP or explore ways to implement EBP.

Saunders and Vehviläinen-Julkunen (2016) reviewed 37 articles to determine factors supporting nurses' readiness to implement EBP and competencies. The authors reported that overall the nurses were familiar with EBP concepts although inconsistencies were noted in their interpretation; education was also associated with familiarity. The majority of nurses had favorable attitudes and beliefs towards EBP, yet rarely took part in EBP activities citing the nurses wanted additional education and skills to successfully incorporate EBP in their clinical practice (Saunders & Vehviläinen-Julkunen, 2016).

Studies highlight the importance for an organizational culture supportive of EBP with 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 retrieving, understand the research, critique and synthesize empirical evidence. A strong relationship between perceived organizational culture and readiness to integrate EBP was clearly identified (Melnyk et al., 2010). "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 & Melnyk, 2005, p.28).

Method

The OCRSIEP-UNIT is intended to measure nurses' perceptions of organizational culture within the NICU and their readiness to integrate EBP. Approximately 100 NICU nurses were invited to participate in the online study. The survey remained available to staff for approximately 5 weeks during each collection period (at the onset, at 6 months, and 12 months.) Staff were provided a hyperlink to access the study from their personal or work computers. No identifying information was collected. The OCRSIEP-UNIT consists of 25 different scored items within 19 substantive items. Three rating scales are used including a 5-point rating scale ranging from "not at all" to "very much" or "not ready" to "past ready and onto action" while questions related to frequencies ranged from "none" to "100%." The OCRSIEP-UNIT 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 (Melnyk et al. 2010). A mid-mark score of 75 indicates the need for an intervention to further develop the culture to embrace EBP. Higher individual item scores indicate greater degrees of perceived readiness to integrate EBP into their clinical nursing practice.

Results

Responses rates varied between collection periods of baseline, 6 months, and 12 months (36, 51, 24 respectively). Although overall scores increased steadily over time, there were wide variations in the nurses' perception scores ($M=78.54$ at onset, range 36-122; $M=81.37$ at 6 months, range 54-118; $M=$

85.42 at 12 months, range 54-111). Similarly, individual mean scores increased over time for both rating the NICU's readiness to implement EBP (3, 3.35, 3.46 respectively) and movement in NICU towards an EBP culture (3.05, 3.28, 3.46 respectively).

Conclusion

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 perhaps need for further education. So what is the nurse educators' role? The significance to the future of nursing cannot be underscored. It is essential that nurse educators recognize the implications of this study and incorporate various strategies in the clinical practicum as well as classroom activities to facilitate a deeper understanding of how to integrate EBP into clinical practice. Strategies such as teaching how to evaluate the level of the evidence and formulate a PICO question (Levin & Chang, 2014), journal clubs (Gardner, Kanaskie, Knehans, Salisbury, Doheny, & Schirm, 2016), participation in research activities (Ayoola, Adams, Kamp, Zandee, Feenstra, & Doornbos, 2017), and redesigning courses to effectively increase students' knowledge, skills, and attitudes towards EBP (Ruzafa-Martínez, López-Iborra, Barranco, & Ramos-Morcillo, 2016) may enhance the learner's ability to successfully implement EBP and ultimately improve patient outcomes.

Title:

Readiness to Integrate Evidence-Based Practice: What Is the Nurse Educators' Role?

Keywords:

Evidenced-based practice, organizational culture and EBP and readiness to implement EBP

References:

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Abstract Summary:

A recent multifaceted single-site study explored nurses' perceptions of the organizational culture and readiness to integrate EBP over time. Although overall scores increased steadily over time, there were wide variations in the nurses' perception scores. The findings require nurse educators to answer the question, 'what is the nurse educators' role?'

Content Outline:

Introduction

1. Evidenced-based practice (EBP- a standard of professional nursing practice (ANA,2010) and a core competency for all healthcare providers by IOM (Greiner & Knebel, 2003)
 - A) Remains an integral component of clinical nursing practice
 - B) Involves the utilization of the best available evidence in problem-solving and clinical decision-making concerning patient care (Melnyk & Fineout-Overholt, 2015).
2. A recent multifaceted single-site study explored parents' perceptions of care, infant outcomes, and nurses' perceptions of the organizational culture and readiness to integrate EBP
 - A) Single site- 56-bed level III NICU.
3. Poster focuses on the nurses' perceptions of the organizational culture and readiness to integrate EBP over time.
 - A) Aims of this portion of study included gaining a deeper understanding of nurses' perspectives and ways to improve clinical nursing practices in the NICU.

Review of Literature

1. Before an evidenced-based clinical practice change can be implemented:
 - A) Important to identify strengths and barriers within the system (Melnyk, Fineout-Overholt, & Mays, 2008).
 - B) Gale and Schaffer (2009) examined the nurses' perceptions of influencing factors and barriers of EBP integration.
 - a) The barriers identified most frequently by this sample of nurses and managers ($n = 92$) were insufficient time, lack of staff, and not having the required equipment or supplies whereas the top three reasons to adopt evidenced-based changes in clinical practice included personal interest in the practice change, personal valuing of the evidence, and avoiding risk of negative patient consequences (Gale & Shaffer, 2009).
 - b) Unlike the managers, a greater percentage of the staff nurses identified limitations within the practice setting and inability to access information regarding EBP as barriers to the integration of EBP.
 - c) Analysis of the open-ended responses revealed both the staff and the managers agreed on several issues: too many changes at the same time, the Joint Commission or state mandated requirements viewed as negative motivators, and the absence of resources all perceived as major barriers to successful implementation of practice changes (Gale & Shaffer, 2009).

2. In a correlational study involving a small group of healthcare professionals ($n = 58$), Melnyk, Fineout-Overholt, Giggelman, and Cruz (2010) utilized the OCRSIEP scale (Cronbach's $\alpha = .92$) in an effort to examine relationships between cognitive beliefs, EBP, its implementation, organizational culture, cohesion, and job satisfaction.

A) Statistically significant relationships were found between the perceived organizational culture and readiness to integrate EBP ($M = 79.76$, $SD 14.93$; range 42-116) and EBP beliefs as well as EBP implementation.

B) These healthcare professionals implemented EBP into their nursing care to a greater extent and had stronger positive beliefs about the value of EBP (Melnyk et al., 2010).

3. Hauck, Winsett, & Kuric (2012) assessed nurses' belief of the importance of EBP, how frequently EBP was incorporated in their daily nursing practice, and the nurses' perception of organizational readiness to integrate EBP after the implementation of an EBP strategic plan.

A) Organizational culture and readiness were measured on the Organizational Culture & Unit Readiness for Integration of Evidence-based Practice Survey (OCRSIEP adapted to meet their needs.

B) Hauck et al. (2012) scored items as 3 scales:

a) Items 1-14 and 16 (OCRS-C, Cronbach $\alpha 0.81-0.92$) measured organizational culture

b) Items 15 and 17 addressed providers as EBP champions and decision makers

c) Item 18 measured the organizations readiness to integrate EBP

d) Item 19 measured the organization's movement towards EBP

C) Findings:

a) No statistically significant differences noted in the nurses' characteristics over time

b) There were significant gains made over time in the 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 (Hauck et al., 2012).

4. In a scoping review of the literature focused predominantly in nursing and addressing organizational barriers to the implementation of EBP (49 articles), Williams, Perillo, and Brown (2015) identified five broad major organizational barriers.

A) Most frequently reported:

a) Workload including staffing, patient acuity levels, increases in patient-based tasks

b) Staff identifying 'no time' to participate in EBP activities (cited in 38 of the 49 articles)

B) The absence of management support of EBP activities (cited in 37 of the 49 articles) was reported nearly as often as workload.

C) A lack of resources particularly in terms of easy accessibility from the patient care areas (cited in 28 of the 49 articles)

a) This also included issues of how to access and interpret the empirical evidence.

D) Fourth barrier identified was lack of authority to change practices (in 22 articles).

b) Staff often did not feel their voice was valued nor did they have power to make changes which may positively impact patient outcomes.

E) Lastly, workplace culture resistant to change was identified in 14 articles where rigid, inflexible workplaces discouraged innovation and thinking outside the box.

F) A disconnect between staff professional goals and the organizational goals were also cited G) All of these barriers impact staff's ability to use EBP or explore ways to implement EBP.

5. Saunders and Vehviläinen-Julkunen (2016) reviewed 37 articles to determine factors supporting nurses' readiness to implement EBP and competencies.

A) The authors reported that overall the nurses were familiar with EBP concepts although

a) inconsistencies were noted in their interpretation

b) education was also associated with familiarity

B) The majority of nurses had favorable attitudes and beliefs towards EBP

a) rarely took part in EBP activities citing the nurses wanted additional education and skills to successfully incorporate EBP in their clinical practice (Saunders & Vehviläinen-Julkunen, 2016).

6. Studies highlight the importance for an organizational culture supportive of EBP

A) 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 retrieving, understand the research, critique and synthesize empirical evidence.

B) A strong relationship between perceived organizational culture and readiness to integrate EBP was clearly identified (Melnyk et al., 2010).

C) "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 & Melnyk, 2005, p.28).

Method

1. The OCSIEP-UNIT is intended to measure nurses' perceptions of organizational culture within the NICU and their readiness to integrate EBP.

2. Approximately 100 NICU nurses were invited to participate in the online study.

3. The survey remained available to staff for approximately 5 weeks during each collection period (at the onset, at 6 months, and 12 months.)
4. Staff were provided a hyperlink to access the study from their personal or work computers.
5. No identifying information was collected.
6. The OCSIEP-UNIT survey and demographic questions totaled 35 questions.

Results

1. Responses rates varied between collection periods of baseline, 6 months, and 12 months (36, 51, 24 respectively).
2. Overall scores increased steadily over time
 - A) there were wide variations in the nurses' perception scores
 - a) $M=78.54$ at onset, range 36-122
 - b) $M=81.37$ at 6 months, range 54-118
 - c) $M= 85.42$ at 12 months, range 54-111
 - B) Wide variations in individual scores for readiness to implement EBP
 - a) $M= 3$ at onset
 - b) $M= 3.35$ at 6 months
 - c) $M= 3.46$ at 6 months
 - C) Wide variations in individual scores for movement in NICU towards organizational culture supporting EBP
 - a) $M= 3.05$ at onset
 - b) $M= 3.28$ at 6 months
 - c) $M= 3.46$ at 6 month

Conclusion

1. 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 perhaps need for further education.
2. So what is the nurse educators' role?
3. The significance to the future of nursing cannot be underscored.

A) It is essential that nurse educators recognize the implications of this study

activities
clinical practice

- a) incorporate various strategies in the clinical practicum as well as classroom
- b) facilitate a deeper understanding of how to integrate EBP into

4. Strategies that may enhance the learner's ability to successfully implement EBP and ultimately improve patient outcomes:

A) Teaching how to evaluate the level of the evidence and formulate a PICO question (Levin & Chang, 2014),

B) Journal clubs (Gardner, Kanaskie, Knehans, Salisbury, Doheny, & Schirm, 2016)

C) Participation in research activities (Ayoola, Adams, Kamp, Zandee, Feenstra, & Doornbos, 2017)

D) Redesigning courses to effectively increase students' knowledge, skills, and attitudes towards EBP (Ruzafa-Martínez, López-Iborra, Barranco, & Ramos-Morcillo, 2016)

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Professional Experience: I am an Assistant Professor at Fairleigh Dickinson University, Teaneck, NJ teaching Pediatric Nursing, and Nursing Research. I continue to work as a part-time as a NICU nurse and am the principal investigator for an ongoing longitudinal study in the NICU at St. Barnabas Medical Center, Livingston, NJ.

Author Summary: Dr. Couper is an Assistant Professor at Fairleigh Dickinson University where she enjoys teaching Pediatric Nursing along with Nursing Research. Her career has focused on pediatric and neonatal health issues.