AN INTEGRATIVE REVIEW OF THE ROLE, CHALLENGES, AND FACILITATORS OF CLINICAL NURSE EDUCATORS IN LABOUR AND DELIVERY UNITS

by

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A SCHOLARLY PRACTICE ADVANCEMENT RESEARCH (SPAR) PROJECT

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Abstract

The role of hospital-based Clinical Nurse Educators (CNEs) is multifaceted and complex, with many regular organizational functions relying on their presence and support. The nursing teams depend on CNEs for various aspects of their nursing work such as professional development, clinical support, and policy development. Despite their essential role to the functions of nursing within healthcare, the activities of CNEs are understudied and their role frequently misunderstood. Furthermore, current literature focuses on the role of the academic CNE, demonstrating apparent disregard for the unique role of the hospital-based CNE. The lack of empirical focus on hospital-based CNEs adds to their role ambiguity, effectively limiting their indispensable organizational support, and contributing to their job stress.

The aim of the Scholarly Practice Advancement Research (SPAR) Project is to identify, review and synthesize the literature pertaining to the role of a hospital-based CNE and to identify elements of the role, and its challenges and facilitators. I used an integrative review method to critically examine the limited evidence available to illuminate the complexity of the CNE role and to identify ways to support CNEs in the successful enactment of their role. Themes representing role components, challenges, and facilitators were identified. The role components were: professional development and clinical support of front-line staff members, clinical competency, leadership and collaboration, and mentoring evidence-based practice through research utilization. Challenges include: role ambiguity, inadequate orientation to role, lack of credibility due to minimal visibility on units, and insufficient time to maintain clinical competency, and appraise research. Facilitators that can minimize these challenges include: creation of clear role descriptions within organizations, establishment of a formal orientations, increased presence on units, and time for maintaining clinical skill competency, as well as

undertaking research appraisal. These facilitators can improve the job satisfaction and retention of CNEs as well as front-line nursing staff members.

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Chapter 1: Introduction

A Scholarly Practice Advancement Research (SPAR) project aims to synthesize personal clinical experience and knowledge acquired through MSN program coursework, with an extensive analysis of the literature to address an issue related to nursing as a discipline (School of Nursing University of British Columbia, 2013). This SPAR project involves critical analysis and integrative review of the current available literature pertaining to the role of hospital-based Clinical Nurse Educators (CNEs). My practical experience illuminated challenges that CNEs encounter in the enactment of their roles, as well as what appear to be facilitators for their success, in relation to a Labour and Delivery (LDR) setting. I provide the reader with the background and significance of the CNE role; the purpose of my analysis; as well as the rationale for my interest in this issue. I describe the project design including: the search methods and data sources; article selection and methodological appraisal of articles. I follow that with my data analysis, integration of findings, recommendations and implications for future practice, and research.

1.1 Background

Clinical Nurse Educators are defined as clinicians who provide education and support for both experienced and inexperienced nurses, in order to promote integration of theory and evidence into practice at the point of care (Coates & Fraser, 2014; Conway & Elwin, 2007). Despite this seemingly clear definition of the CNE role, the term "clinical nurse educator" is often used interchangeably in the literature to depict the role of academic educators within the clinical setting and hospital-based clinical educators (Sayers, DiGiacomo, & Davidson, 2011). Regrettably, the assumption that academic and hospital-based CNEs represent a homogeneous body of practitioners has resulted in the absence of clearly defined roles for both groups that are

appropriate to their differing contexts (Coates & Fraser, 2014). Furthermore, the relatively sparse literature pertaining to the CNE role is less applicable to the hospital-based group compared to the academic group (Sayers et al., 2011). Authors have argued that the limited and inconsistent definitions of the role of hospital-based CNEs have resulted in role erosion and job dissatisfaction among both CNEs and front-line nurses (Coates & Fraser, 2014; Sayers et al., 2011). Given the ambiguity of CNE roles represented by the literature, it is important to focus my analysis, synthesis, and discussion of the literature on the role of hospital-based CNEs rather than on the academic faculty members.

Authors have suggested that CNEs play a fundamental role in the development of nursing, nursing education, and health research because they are well placed to collaborate on relevant practice research which can lead to evidence-based policy development (Sayers et al., 2011). However, the literature has presented differing views about the educational background, clinical experience, and responsibilities vital to CNE success. Some authors have proposed that experienced clinicians with knowledge, skills, and a deep understanding of nursing practice have true potential as hospital-based CNEs (Adelman-Mullally et al., 2013). Others, such as Sayers et al. (2011), have contended that clinical competency alone is insufficient to perform the role proficiently because certain educational and preparatory attributes are necessary to enhance success in the CNE role.

The literature recognizes numerous skills and atributes that are valuable to the success of a CNE: professional development of front-line staff members, evidence-based practice, leadership, communication, and education (Adelman-Mullally et al., 2013; Manning & Neville, 2009; Mateo & Fahje, 1998; McKinley, 2008). Beyond the recognition of core attributes necessary for CNEs to be successful, conflicting views have persisted about the specific expertise required for a CNE

to instill confidence in others and demonstrate competence. Some authors have supported additional elements of expertise including: conflict resolution around clinical education expectations held by front-line staff and management; ability to deal with challenges; sustainable plans for continually updating CNEs' skills and the skills of others; and maintenance of clinical expertise and visibility on the units (Mateo & Fahje, 1998; Manning & Neville, 2009; McKinley, 2008).

Because day-to-day CNE roles and responsibilities have appeared to vary between organizations, as well as within them, I found it difficult to identify core CNE role components in practice. In several organizations authors have described CNE roles that included: managing front-line nursing staff members' education through orientation and in-services; developing education programs; being informed and facilitating changes in nursing informatics and technology; developing policies and procedures; evaluating staff member competence; and supporting research utilization at both unit and organizational levels (Coates & Fraser, 2014; Mateo & Fahje, 1998; Rogan, Crooks, & Durrant, 2008). Given the lack of consistency about CNE roles, the purpose of this paper is to critically analyze and synthesize the literature to identify evidence-supported role responsibilities required for hospital-based CNEs, as well as their challenges and facilitators.

1.2 Significance

Clinical experts bring skills from practice to their roles as CNEs, with the intent to enrich learning opportunities and role model best practice (Adelman-Mullally et al., 2013). Furthermore, because adult learning relies on elements of self-direction and motivation, staff members' needs have also been identified as important factors that shape the CNE role (Considine & Hood, 2000; Wall, 2006). Despite the expectation that CNEs assume the position

of role models, lack of clearly defined role responsibilities in practice can prevent CNEs from enacting their roles successfully (Conway & Elwin, 2007). CNEs are crucial to supporting new and experienced nurses in meeting the standards of care; however, role ambiguity, defined as misunderstanding and conflict around role responsibilities and scope, can pose barriers to the effective execution of their pivotal roles (Sayers, Lopez, Howard, Escott, & Cleary, 2015). Mateo and Fahje (1998) have also emphasized the importance of congruence between staff members' expectations of the CNE role and actual role enactment through clearly defined job expectations, visibility on the units, and role modeling the standards for delivery of care.

1.3 Rationale for Interest

The rationale for my interest in this topic rests on my personal experience in my place of work on an LDR unit. For years, our organization has struggled with the establishment of a clear role for CNEs, as well as supporting them in performing their role productively. Our CNEs have described continued lack of clear job descriptions, orientation to role, support, and insufficiency of time provided for personal clinical and research skill development. Additionally, they have expressed concerns regarding the substantial administrative aspects of their roles. They have suggested that their heavy administrative loads limit their abilities to maintain their clinical skill competency and visibility on the unit, which diminishes their clinical skill confidence and credibility among front-line nurses. The sustained absence of CNE clinical support, presence, and credibility, from the perspective of front-line nurses, has resulted in animosity directed from the front-line nursing staff members toward CNEs. My concern arose from a request for me to consider taking on the CNE role and the difficulty I had imagining a person's success in a position with unclear and often unrealistic expectations, minimal training, and limited support in taking on this complex role.

1.4 Problem Statement

My preliminary search of the literature revealed a scarcity of evidence-based research pertaining to the role of hospital-based CNEs, as well as the challenges and facilitators associated with this role. I found that much of the literature focused on academic CNEs engaging in a clinical setting. In my view, those individuals play a vastly different role within the health care system, and are presented with an entirely different set of challenges to those of hospital-based CNEs. I identified a gap in literature: a lack of evidence-based information pertaining to the role of hospital-based CNEs, as well as the challenges and facilitators that this group encounters in their everyday work. Because I was unable to identify any literature that specifically related to the role of a CNE in LDR, I identified relevant literature from other sources to develop themes pertaining to acute care settings.

1.5 Purpose of Analysis

The purpose of my SPAR project is to critically analyze and synthesize literature pertaining to the role of a hospital-based CNE. Using my synthesis of the evidence-based literature on the role of CNEs, I intend to identify responsibilities relevant to enacting the CNE role in acute care settings, comparable to LDR, as well as facilitators and obstacles encountered by this group when enacting their roles. The identification of these elements forms the basis for my description of the implications for nursing and the advancement of the role.

1.6 Chapter Summary

In this chapter, I introduced my SPAR topic. I discussed the dearth of literature pertaining to the role of hospital-based CNEs, as well as the effect this has had on their role definition, role enactment, and, ultimately, job satisfaction (Coates & Fraser, 2014; Sayers et al., 2011). Due to their extensive clinical backgrounds, they are often expected to mentor best practice as a mode of

enriching front-line staff members' learning (Adelman-Mullally et al., 2013). Unfortunately, the lack of clarity in their roles and unrealistic expectations limit time for maintenance of personal clinical skill competency and research development leading to tension and stress, which can prevent them from enacting their roles successfully (Conway & Elwin, 2007). Because the literature on hospital-based CNEs in perinatal practice is extremely limited I have indicated my intent to synthesize broader literature from acute care settings in hospitals to critically analyze CNE roles.

Chapter 2: Literature Review

This chapter describes the process for my initial literature search, and the integration of the studies applicable to the role of a hospital-based CNE and existing challenges and facilitators.

2.1 Search Strategy

For the purpose of this SPAR project, the Canadian Nurses Association (CNA) and College of Registered Nurses of British Columbia (CRNBC) websites were explored for any information regarding hospital-based CNEs. I also searched the CINAHL, PubMed and Google Scholar electronic databases. A two-step process was used in searching CINAHL and PubMed. I searched "clinical nurse educator" OR "nurse educator" OR "hospital-based educator" and combined these results with a separate search of "role" OR "characteristics" OR "competencies" OR "attributes" OR "job description". Google Scholar was searched using all relevant terms in one search. I found a total of 359 articles; however, I eliminated the majority of the published papers due to their focus on academically-based CNEs within a clinical setting instead of hospital-based CNEs, because the literature pertaining to academic CNEs does not translate to hospital-based CNEs; their roles, responsibilities, and challenges vary significantly (Coates & Fraser, 2014).

I read the articles pertaining to hospital-based CNEs in their entirety to determine their relevance to the CNE role, and its challenges and facilitators. One of the major challenges I found, when attempting to identify relevant studies, was that numerous terms were used within the literature to depict similar nursing positions such as Clinical Nurse Specialist (CNS), Nurse Educator (NE), Advanced Care Practice (ACP) nurse, and Clinical Education Facilitator (CEF). For the purpose of this paper, the acronym CNE is used to depict hospital-based clinical nurse

educator positions. A detailed log of my search activity was maintained and will be further discussed within the methods section of this paper.

2.2 Synthesis of Nursing Literature

The purpose of my initial literature review was to synthesize the nursing literature in order to further clarify the hospital-based CNE role, and its challenges, and facilitators in the context of acute care units. The predominant themes that I identified from my literature review were inadequate descriptions of the hospital-based CNE role, as well as indications that the role was ill-supported, undervalued and underutilized (Conway & Elwin, 2007; Davies, Laschinger & Andrusyszyn, 2006; Fairbrother, Rafferty, Woods, Tyler, & Howell, 2015; Manning & Neville, 2009; Sayers et al., 2011). Recommendations for nursing practice within the literature were identified.

2.3 Role of Hospital-Based CNE

Understanding the CNE role was essential for successful role enactment and effective collaboration with other health care professionals (Lamont, Brunero, Lyons, Foster, & Perry, 2015). However, the literature presented very limited, inconsistent, and sporadic descriptions of the CNE role, and no information specific to LDR was located (Sayers et al., 2011). The roles of CNEs have been regarded as perfectly positioned to promote and model the integration of theory into practice (Fairbrother et al., 2015). However, Manning and Neville (2009) suggested that the nurses employed in CNE positions tended to be recruited based on their significant experience in specific clinical areas, rather than their level of formal education, and their leadership and research utilization skills (Malik, McKenna & Plummer, 2015).

The most vital CNE responsibility has been presented by authors as facilitating the professional development of front-line nursing staff members, through clinical support and

formal education development (Davies et al., 2006). Clinical nurse educators have been viewed as well placed to perform these duties because they are regarded as possessing skills in research utilization, allowing them to mentor front-line staff members in the area of evidence-based practice (EBP) (Sayers at al., 2011). Despite the arguments for their critical roles in establishing evidence-based cultures, the literature presents limited information regarding CNEs' engagement with research and EBP (Malik et al., 2015). Moreover, many authors have argued that constant change in the health care system, in combination with a lack of a clear identity for this multifaceted position, has resulted in erosion of the CNE role; they argued that CNEs do not have a deep enough understanding of their role responsibilities to advocate for them adequately during such change (Lamont et al., 2015; Sayers et al., 2011; Strickland & O'Leary-Kelley, 2009).

2.4 Challenges Facing Hospital-Based CNEs

Despite hospital-based CNEs being viewed as trusted and knowledgeable members of healthcare organizations their views and perceptions have scarcely been studied and represented in the literature (Malik et al., 2015; Milner, Estabrooks, & Humphrey, 2005; Sayers et al., 2011). The available literature suggests that the absence of research pertaining to hospital-based CNEs' roles combined with continued organizational changes to the CNE role have eroded the identity, as well as the credibility, of hospital-based CNEs (Dury et al., 2014; Fairbrother et al., 2015; Sayer & DiGiacomo, 2010; Sayers et al., 2011). Additionally, limited research describing and evaluating the CNE role variations in role enactment, as well as non-standardized requirements for clinical competency and qualifications, have complicated CNE role development and performance (Sayers et al., 2011). All of these elements have resulted in isolation of CNEs,

through divergent expectations from nursing staff members, administrators, and educators, which has heightened their role conflict, role confusion, and role overload (Davies et al., 2006).

Many researchers have suggested that role clarity is imperative to understanding roles in relation to shared values, purpose, and responsibilities; a high level of role confusion causes stress in early stages of a new role (Lamont et al., 2015; Manning & Neville, 2009). Authors have agreed that educators have demanding and isolating positions due to heavy administrative as well as clinical workloads, in addition to numerous extra responsibilities beyond their expected scope of practice (Danque, Serefica, Lane, & Hodge, 2014; Manning & Neville, 2009). When taking up the role many CNEs have been surprised by the number of extra responsibilities that were expected as part of their roles but not discussed during their recruitment; the result has been work overload, dissatisfaction, and stress (Manning & Neville, 2009). CNEs' perceptions of disempowerment, as a result of stress from unexpected, unclear, and inconsistent job responsibilities, threaten their quality of work life, their retention, and the retention of front-line nurses (Davies et al., 2006; Sayers et al., 2011). Nevertheless, these challenges have the potential to respond favorably to some facilitators of the CNE role to encourage success.

2.5 Facilitators of CNE Role Success

Authors have indicated that, with organizational understanding and support, nurses in leadership positions, such as CNEs, can be powerful vehicles for change because they can serve as strong advocates for the nursing profession (Lamont et al., 2015). Transparent standards can better delineate the scope of the CNE role so that an expected and reasonable level of performance is articulated (Lamont et al., 2015; Rogan et al., 2008). Davies et al. (2006) argued that clear job activities, in combination with adequate leadership and support networks, have contributed to CNEs' perceptions of empowerment, which is important because high levels of

workplace empowerment and low levels of job-related tension are more likely to result in greater job satisfaction.

2.6 Chapter Summary

In this chapter I have presented my preliminary literature search, which exposed a gap within the literature pertaining to the role of hospital-based CNEs. I have described some of the responsibilities associated with the CNE role, challenges in role enactment, and some facilitators that have the potential to improve the function of this role. Regrettably, much of the literature that I located focused on the role and challenges of academic CNEs within clinical placements as opposed to hospital-based CNEs. This discrepancy in focus has left organizations with minimal evidence to support their hospital-based CNE role standards, resulting in CNEs' difficulty describing, defending and performing their role functions effectively. My preliminary findings led me to consider further research evidence to integrate a body of knowledge pertaining to this pivotal role. Integrating available evidence can create an empirical basis for CNE role function to flourish. Chapter 3 provides a description of the methodology for the integrative approach that I used to guide this project, a more detailed literature search, and the process of data evaluation and analysis.

Chapter 3: Methodological Approach: Integrative Review

In this chapter I provide details regarding the integrative review process used to guide this project. I also describe the methodological aspects of this paper, including my processes for the literature search, data evaluation, and data analysis.

3.1 The Integrative Review Approach

The design of this project is based on the principles of an integrative review. This is the most comprehensive methodological approach to reviews because it includes experimental and non-experimental studies to promote understanding of a phenomenon and foster evidence-based practice (Souza, Silva & Carvalho, 2010; Whittemore & Knafl, 2005). An integrative review is a systematic and rigorous tool used in the process of synthesizing available evidence regarding a subject; the result can direct practice using scientific knowledge, while reducing biases and errors (Souza et al., 2010). Using the integrative review I aim to define concepts through the process of reviewing theories and evidence; and analyzing methodological problems associated with a particular topic. The overall aim is to improve nursing knowledge, as well as to inform research, practice, and policy initiatives (Souza et al., 2010; Whittemore & Knafl, 2005).

3.2 Problem Identification

Souza et al. (2010) suggested that identifying a problem and defining the research question are the most important initial phases of the review process because they guide the development of the inclusion and exclusion criteria used to determine the papers to incorporate in the review. Because the term "clinical nurse educator" is used in the literature to describe both academic faculty members educating nursing students in a clinical setting and hospital-based educators providing continuing education to front line staff members, the process of identifying a clear research question for this project is crucial to identifying relevant literature (Sayers et al., 2011;

Souza et al., 2010). As previously stated, the research problem being addressed in this paper is the lack of literature and evidence pertaining to the role of hospital-based CNEs, and their challenges, as well as facilitators influencing role enactment. My research questions are: 1) What are the core responsibilities and expectations of hospital-based CNEs; and 2) What are the facilitators and challenges encountered by hospital-based CNEs in enacting their roles; and 3) What are some of the recommendations within the literature for the improvement of the CNE role?

3.3 Literature Search

My search was challenging because limited literature was available on my topic. I searched the previously mentioned synonymous terms for CNEs, as well as their role, within several databases. My search terms were the following key terms and terms for titles and abstracts: clinical nurse educator, nurse educator, hospital-based educator, characteristics, competencies, attribute, and job description. I used Boolean operators AND, OR, and NOT to connect and define the relationships between my search terms. I limited my search to published peer review articles in full text and English language options, with the search yielding 75 results from CINAHL, 32 from PubMed, and 252 from Google Scholar.

The titles and abstracts of all results were reviewed and papers were eliminated or included based on several inclusion and exclusion criteria. Included articles were written in the English language, available in full text, and relevant to the job description of a hospital-based CNE, including their role challenges, facilitators, and expectations. Due to the scarcity of relevant literature on this topic, I included all applicable articles regardless of their year of publication. I reviewed the reference lists of all acceptable articles to identify further relevant literature. Articles were excluded based on a focus on academic CNEs as opposed to hospital-

based CNEs. All duplicate articles were also eliminated. Due to the paucity of peer-reviewed research, non-peer reviewed articles published on nursing organizational websites, such as the Canadian Nurses Association (CNA) and College of Registered Nurses of British Columbia (CRNBC), were considered and appraised for their validity for this project.

My search process yielded 24 possible articles from CINAHL, 0 from PubMed, and 14 from Google Scholar. After I reviewed the abstracts for the 38 published papers I eliminated an additional 23 papers with a focus on academic or faculty-based CNEs. Their foci had not been clear from their titles. The final number of articles which met all inclusion and exclusion criteria was five. These five articles were read in their entirety and their reference lists were explored to identify 10 additional studies meeting the inclusion criteria, which resulted in 15 relevant articles.

I formed a matrix to identify key methodological aspects of the selected papers, provide summaries of the samples and methods in selected research and concept papers, and describe strengths and limitations of the included papers (Table 1). I created a separate thematic matrix to help organize the findings into the areas of focus for my research questions: the role of a CNE, the challenges, and the facilitators, and the recommendations (Table 2).

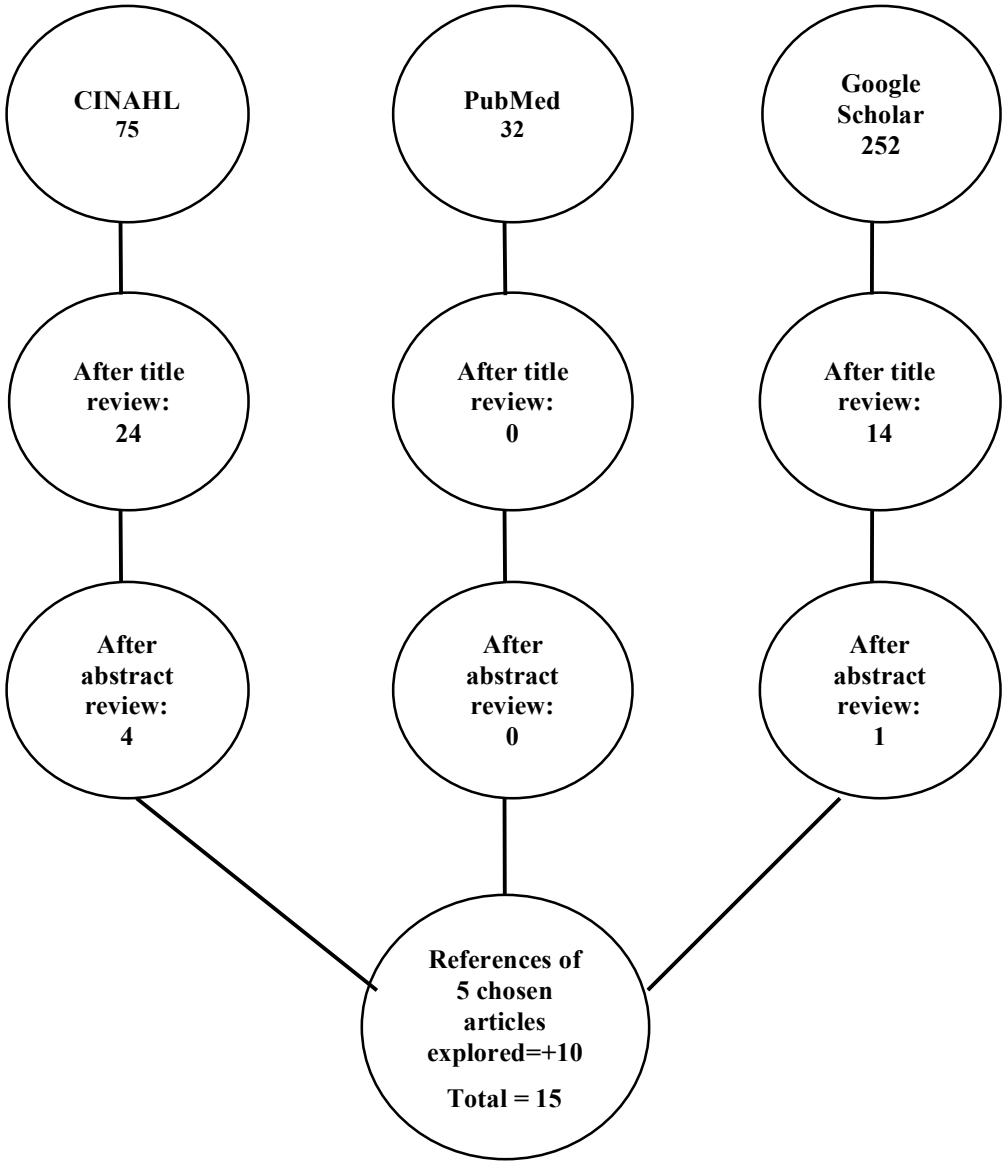

Figure 1. Flow chart of the electronic database study selection process

3.4 Data Evaluation

I undertook the data evaluation phase by focusing on the integrative review approach. Because integrative reviews include diverse primary data sources their evaluation is often considered more complex than the evaluation of more similar data sources, making the choice of a sampling frame imperative (Whittemore & Knafl, 2005). Whittemore and Knafl (2005) suggested that a systematic analytic method be well established prior to undertaking the actual review. The Joanna Briggs Institute critical appraisal tools were used to organize and evaluate the literature (The Joanna Briggs Institute, 2017). The majority of the data available for this project was based on level 4 evidence from descriptive, non-experimental studies with a few studies having incorporated a mixed-methods approach. I then used a hierarchical approach to matrix data organization and evaluation because Souza et al. (2010) suggested this was an appropriate method in the case of integrative reviews with diverse sampling frames inclusive of theoretical and empirical evidence. The approach involved my analysis of the validity of the studies' findings. I placed the systematic review at the top of the hierarchy, followed by integrative reviews, mixed-methods studies, and descriptive, cross-sectional, observational, and non-experimental studies.

3.5 Data Analysis

The data analysis phase for an integrative review is intended to be thorough, unbiased, and inclusive of an innovative synthesis of the analyzed evidence; it requires an organized approach to accurately assess the rigor and characteristics of each study (Souza et al., 2010; Whittemore & Knafl, 2005). Unfortunately, strategies for integrative review data analysis remain lacking in development, making data analysis one of the most difficult phases due to a high possibility of error (Whittemore & Knafl, 2005). In order to extract all pertinent data from the

selected articles, a previously prepared instrument, such as a matrix, minimizes the risk of errors in transcription and increases precision when checking information (Souza et al., 2010). Whittemore and Knafl (2005) described a few phases to be considered in the data analysis phase of an integrative review. These included: data reduction; data display; data comparison; and conclusion drawing and verification.

3.5.1 Data Reduction

First, the identified primary sources of the integrative review ought to be divided into logical subgroups to facilitate further analysis (Whittemore & Knafl, 2005). After this is complete, similar and contrasting data are extracted, categorized and grouped into coded categories to simplify and focus the information so that it can be organized it into a more manageable framework (Whittemore & Knafl, 2005). Whittemore and Knafl (2005) suggested that each primary source ought to be reduced to a single page with similar data extracted from each subgroup; that process allows for simple data display which further facilitates data analysis and synthesis.

3.5.2 Data Display

According to Whittemore and Knafl (2005), data display allows for comparison across all primary sources; it can be in the form of matrices, graphs, charts, or networks. I chose to use the Matrix Method to organize the data because this method is preferred at all levels of research for its simplicity (Gerrard, 2013). Using the matrix method allowed me to succinctly organize the data and to systematically compare primary sources on methods, samples, specific variables, and themes, as suggested by Whittemore and Knafl (2005). I chose to compile two separate matrices into rows of articles organized into respective columns of pertinent information, which followed the formatting suggested by Gerrard (2013). The first matrix included all relevant

methodological information from the primary sources such as study design, research methods, findings, and strengths and limitations (Table 1). The second matrix was more thematic in nature; it focused on the role of a CNE, role challenges, role facilitators, and recommendations from the primary sources for the advancement of the CNE role (Table 2).

3.5.3 Data Comparison

After the data were reduced and organized into a logical framework it was possible for me to undertake data comparison. Data comparison involves an iterative process of examining the organized data to identify patterns, themes, or relationships; as demonstrated within my second matrix (Whittemore & Knafl, 2005). The information within my matrices allowed me to compare and synthesize the design, sample, setting, research methods, findings, strengths and limitations of the studies, as well as various thematic concepts from the literature.

3.5.4 Conclusion Drawing and Verification

Conclusion drawing and verification is the final phase of data analysis which transforms the descriptive themes into more tangible information (Whittemore & Knafl, 2005). Following Whittemore and Knafl (2005), I identified patterns, processes, similarities, differences, and formed generalizations about the analyzed data. Several patterns that I identified were poor definition of the CNE role, CNEs' heavy workload limiting their ability to be clinically present in practice environments, poor orientation to CNE roles, as well as limited support in new CNE roles (Danque et al., 2014; Davies et al., 2006; Dury et al., 2014; Wall, 2006). The most prominent gap in the literature was the definition of the CNE role and its responsibilities, the effect of which is further discussed in the following chapter (Manning & Neville, 2009; Wall, 2006).

The patterns and differences made it clear to me that, because the CNE role was poorly defined, it was often misunderstood and underutilized (Fairbrother et al., 2015; Lamont et al., 2015; Sayers et al., 2011; Wall, 2006). By identifying the gaps in literature, and the strengths and limitations of the articles included in the integrative review, I was able to discuss recommendations for future research and nursing practice, as well as the implications arising from my analysis of primary research sources.

3.6 Presentation of Findings

The final stage of conducting an integrative review is the presentation of findings (Whittemore & Knafl, 2005). After I completed my data analysis I summarized the most important elements and conclusions and presented them to the reader in as neutral a manner as possible, including any methodological limitations present in the review, as suggested by Whittemore and Knafl (2005). My presentation of the final results aimed to capture the current level of knowledge of the topic to contribute to our understanding of the phenomenon (Whittemore & Knafl, 2005). The most important elements that I identified were the inconsistent definitions of the CNE role and the challenges this creates for the role enactment. However, the majority of the available literature focused on the CNEs' subjective experience of their role, with limited information regarding the perceived value of this role by the front-line nursing staff members.

3.7 Chapter Summary

In this chapter I described the methodology I chose to guide this integrative review, the process of problem identification, and a detailed depiction of the literature search process. I also provided examples to illustrate how I used the five-step approach, as described by Whittemore and Knafl (2005), to systematically organize my findings in an unbiased and rigorous manner.

My integration of the literature served to identify core responsibilities relevant to the role of CNEs; the role's barriers and facilitators; and recommendations for CNE role success. In my next chapter I present my integrative review findings.

Chapter 4: Findings and Recommendations

I organized this chapter around the themes that I identified from the limited literature that I was able to locate. I have described how lack of role clarity has affected CNEs, the role challenges resulting from this ambiguity, and some facilitators to address these challenges. More specifically I integrated the most commonly identified themes to articulate a proposed role for a CNE, including: professional development of nursing staff members, clinical support of staff members, clinical practice competency, and mentoring EBP through research utilization. I presented the theme of challenges experienced by CNEs in the enactment of the role, such as: role ambiguity, inadequate guidance and support, lack of credibility, and research utilization deficits. I identified some recommended facilitators of the CNE role, including: role transparency; adequate level of educational preparation and orientation to the role; sufficient guidance and managerial support; continued practice development and visibility; and access to research utilization. I presented my integrated themes and discussed them in the context of the literature for each section of my findings chapter.

4.1 Role and Responsibilities of Hospital-Based CNEs

Based on years of clinical experience CNEs were usually considered experts in their specialties, and regarded as perfectly placed to support front-line staff members in continuing education; while playing a vital role in nursing staff members' professional development through hands-on clinical support (Davies et al., 2006; Dury et al., 2014; Milner et al., 2005; Wall, 2006). Although the Canadian Nurses Association (CNA) (2017) did not provide information describing the functions of hospital-based CNEs, themes were extracted from documents created to address the role of Clinical Nurse Specialists (CNSs). The CNA (2017) presented a very broad definition of the CNS role, and included responsibilities of a clinician, consultant, educator, researcher, and

leader. This description of role components was similar to the broad spectrum of expectations of CNEs that I identified from my analysis of the literature. CNSs are registered nurses who possess Master of Science in Nursing degrees, as well as extensive skills, knowledge, and clinical experience in a specialty area, and provide services at various levels such as: patient care, practice settings, and system levels (CNA, 2017). Furthermore, their practice is presented as dynamic, with the role transforming over time in response to changes in practice, population health needs, and health care environments (CNA, 2017). Clinical Education Facilitators (CEFs) was another term for a nursing role that could be viewed as comparable in their function to CNEs; they coordinate and organize staff members' training, provide orientation to new nurses, and support all front-line nursing staff members' professional development (McCormack & Slater, 2006).

Primarily, CNEs have been identified as having responsibilities for creating engaging learning environments and continuing education experiences in response to the needs of nurses in the areas in which they are employed (Sayers et al., 2011; Wall, 2006). More specifically, CNEs have been expected to be responsible for planning and leading unit-specific activities within organizations to promote quality improvement, continuing education for front-line staff members, evaluation of staff members' competence, and policy development (Dury et al., 2014; Fairbrother et al. 2015; Manning & Neville, 2009; Strickland & O'Leary-Kelley, 2009). In relation to education, their duties have been described as: nursing staff member development, education course development, program development, and standards development in alignment with organizational policies and protocols (Considine & Hood, 2000; Malik et al., 2015; Nicolette & Ulmer, 1995; Rogan et al., 2008). However, in hopes of establishing their value to the units and front-line staff members, Manning and Neville (2009) found that CNEs also often took on numerous other duties including counselling, pastoral duties, and managing intra-team

conflicts when no one else would deal with these problems.

The four most frequently identified responsibilities of CNEs within the literature were professional development of front-line nursing staff members, clinical support of staff members, clinical practice competency to role model safe and effective clinical practice, and supporting evidence-based practice through research utilization. The reviewed literature further described a number of other components of the CNE role; I will discuss the ones most commonly addressed, such as: effective collaboration and leadership.

4.1.1 Professional Development of Nursing Staff Members

All experienced clinicians may not possess the skills necessary to mentor and support front-line staff members. Some authors believed that CNEs' fundamental purposes ought to be continuing clinical education for nursing staff members and supporting their professional development; which involved staff members' training in new skills, assessment of competency guidelines through provision of in-services, and support of front-line staff members' completion of mandatory training (Considine & Hood, 2000; Conway & Elwin, 2007; Fairbrother et al., 2015). In addition to continuing education of experienced nursing staff members, CNEs' responsibilities also included implementation, coordination, and evaluation of the education and orientation programs for new staff members (Davies et al., 2006; Fairbrother et al., 2015; Lamont et al., 2015). While playing an important role in clinical guidance and support of individuals throughout their professional development, CNEs were also identified as sources of key clinical information and as a result were frequently deemed responsible for policy-making (Malik et al., 2015; Milner et al., 2005; Sayers et al., 2015). Nonetheless, CNEs regularly felt unprepared for the multitude of responsibilities their new roles entailed, resulting in perceptions

of time constraints and feelings of inadequacy (Danque et al., 2014; Malik et al., 2015; Sayers et al., 2015).

4.1.2 Clinical Support of Staff Members

The CNA (2009) stated that CNSs, similarly to CNEs, play a critical role in mentoring and supporting nurses through clinical teaching, provision of learning resources, and promoting evidence-based practice. Considine and Hood (2000) believed that safe clinical progression of front-line staff members depended on sufficient levels of education and clinical support from CNEs through demonstration and mentorship of EBP (Sayers et al., 2015). Even though some researchers found that a key function of CNEs was the support of new staff members in their transitions to the units, others argued that they were also regarded as accountable for the assessment of clinical competence and the provision of support and clinical expertise for experienced nurses (Conway & Elwin, 2007; Fairbrother et al., 2015). However, CNEs' effective and evidence-based support of front-line staff members also required modelling clinical practice competency.

4.1.3 Modeling Clinical Practice Competency

For CNEs to adequately support front-line staff members with daily practice issues authors have argued that CNEs ought to be clinically competent and role model current clinical practice (Seccombe, Hiscox & Wilson, 2008; Wall, 2006). The CNA (2009) stated that all specialty nursing roles, such as CNSs and CNEs, assume responsibility for the maintenance of their skills and competency in all areas of their practice; however, many CNEs reported that their organizations did not provide time for their professional development and maintenance of clinical competence (Fairbrother et al., 2015; Wall, 2006). Nonetheless, Milner et al. (2005) argued that, for CNEs to model safe care and expected best practice for nurses, administrators,

and clinicians, they required the skills and time to utilize research to support EBP in their clinical practice settings.

4.1.4 Mentoring Evidence-Based Practice through Research Utilization

Clinical nurse educators, similarly to CNSs, advance the nursing profession through developing nursing knowledge and using research to promote evidence-based practice and excellence in clinical practice (CNA, 2009). Authors regard CNEs as perfectly placed within organizations to act as change agents through dissemination of current best practice literature and mentoring others to use evidence-based practice (Milner et al., 2005; Milner et al., 2006; Sayers et al., 2011; Strickland & O'Leary-Kelley, 2009). CNEs are expected to utilize leadership and effective collaboration skills to inform and lead front-line staff members in evidence-based practice, and to develop organizational policies and procedures reflective of EBP (Davies, et al., 2006; Milner et al., 2005; Milner et al, 2006; Rogan et al., 2008).

4.1.5 Leadership and Collaboration

Leadership skills development among CNEs was paramount in the successful enactment of their role and could occur at various organizational levels, such as administration, education, practice, research, and policy development; incorporating current and future learning needs necessary to engage in leadership activities can empower others to achieve excellence in nursing care (Dury et al., 2014; Manning & Neville, 2009; Rogan et al., 2008). Hospital-based CNEs apply effective communication and collaboration in role modeling leadership to front-line staff members through leadership program development and utilization of EBP for continued quality improvement (Dury et al., 2014; Rogan et al., 2008). Furthermore, Lamont et al. (2015) found that nurses in advanced practice nursing positions, such as CNEs, who work collaboratively are more likely to achieve positive work outcomes for their organizations through more efficient use

of nursing resources, resulting in improved job satisfaction and retention of CNEs as well as front-line staff members (Conway & Elwin, 2007; McCormack & Slater, 2006).

Successful role relationships were associated with clear leadership and vision; leaders who dealt with role issues proactively and responded to role-related questions promoted role clarity, cooperation, and collaboration (Sayers et al., 2011; Wall, 2006). Successful collaboration was found to be dependent on individual qualities, such as: role modeling respect, support, and approachability to enhance therapeutic organizational relationships (Lamont et al., 2015; Wall, 2006). The development of leadership attributes can be enhanced through self-reflection, collaboration, accountability, and opportunities to build on previous individual professional experiences with delegation, continuing education and leadership (Dury et al., 2014; Rogan et al., 2008; Sayers et al., 2011).

4.1.6 Discussion

As previously discussed, the roles of CNEs were very multifaceted and included responsibilities such as: assisting with practice change, orientation and professional development of front-line nursing staff members, being a source of information; as well as demonstrating clinical competency, research utilization skills, and leadership skills (Brunt, 2014; Davies et al., 2006; Dury et al., 2014; Milner at al., 2005; Milner et al., 2006; Wall, 2006). Hospital education departments ought to focus on the lifelong learning of nurses and their preparation to lead change through advanced practice nursing roles, such as a CNE, because experienced clinicians with a deep knowledge and understanding of nursing practice and leadership have potential to act as educational leaders (Adelman et al., 2013; Harper, Aucoin, & Warren, 2016). Unfortunately, the quantity of responsibilities expected of CNEs, and the resulting time constraints, posed numerous challenges for the role enactment of novice, as well as experienced CNEs.

4.2 Barriers Facing Hospital-Based CNEs

I integrated many proposed barriers to the successful enactment of the CNE role after analyzing the relevant literature. The predominant ones that I included under this theme and discussed in greater detail were: role ambiguity, qualification for the role and research-based deficits, inadequate guidance and support, time constraints, and lack of credibility. Some of the less prevalent barriers I identified in the literature were: absence of communication regarding role descriptions and role differentiation within the job descriptions; unrealistic role expectations; budgetary constraints; and shortage of qualified nursing personnel to take on the CNE role (Conway & Elwin, 2007; Davies et al., 2006; McCormack & Slater, 2006; Rogan et al., 2008; Sayers et al., 2011; Wall, 2006).

4.2.1 Role Ambiguity

The role of a CNE was diverse and encompassed a wide variety of skills. Unclear role definitions, expectations, and responsibilities have resulted in overlap with other advanced practice nursing roles and confusion about CNE role function (Brunt, 2014; Danque et al., 2014; Fairbrother et al., 2015; Sayers et al., 2011; Wall, 2006). Without clear inter-institutional communication, members of various organizations have held differing expectations about the responsibilities of the CNE role, resulting in role conflict and increased workload due to assignment of unexpected and unfamiliar tasks (Manning & Neville, 2009; Sayers et al., 2011). Differing expectations of CNEs increased the likelihood of role ambiguity, conflict, and overload, resulting in job tension and stress (Davies et al., 2006). Nevertheless, clarification of the CNE role alone is insufficient, as this will not ensure that the individual is adequately prepared for the multitude of responsibilities expected of them (Milner et al., 2005). Many authors argued that inadequate managerial guidance and support of CNEs exacerbated existing

role ambiguity, as CNEs lacked the resources to advocate for their specific role functions within their organizations (Davies et al., 2006; Malik et al., 2015; Manning & Neville, 2009; Milner et al., 2006; Strickland & O'Leary-Kelley, 2009; Wall, 2006).

4.2.2 Inadequate Guidance and Support

Regardless of their background and exposure to orientation sessions, many novice CNEs described suboptimal levels of guidance and support in their new positions, which exacerbated organizational role ambiguity, as well as the CNEs' level of stress and isolation (Davies et al, 2006; Fairbrother et al., 2015; Wall, 2006). Many CNEs linked suboptimal orientation, minimal support, and lack of organizational leadership to negative effects on their practice when they were faced with unclear responsibilities and unreasonable expectations from management and front-line staff members (Conway & Elwin, 2007; Davies, et al., 2006; Sayers et al., 2011). When CNEs were exposed to these work conditions, they experienced increased work stress, decreased productivity, and increased sick leave (Cangelosi, Crocker & Sorrell, 2009; Conway & Elwin, 2007; Dury et al., 2014; Fairbrother et al., 2015; Manning & Neville, 2009). Given the current limited organizational support of CNEs, some authors suggested that adequate CNE education, grounded in leadership and research utilization, can aid CNEs' transition into their new roles (Lamont et al., 2015; Wall, 2006).

4.2.3 Qualifications for the Role and Research-Based Deficits

I was unable to find any consistent points in the literature regarding the qualifications required for the enactment of the CNE role. Strickland and O'Leary-Kelley (2009) suggested that CNEs' educational background and clinical experience provide an adequate foundation of knowledge and skills necessary to transition into the leadership role of a CNE. Unfortunately, CNEs were found to have varied educational backgrounds and diverse levels of experience;

when combined with inadequate orientation processes varying backgrounds and experiences resulted in CNEs feeling uninformed and unprepared for the multitude of CNE responsibilities, such as research utilization and modeling evidence-based practice (Fairbrother et al., 2015).

Because CNEs are expected to model best practice, understanding their research utilization behaviors is of vital importance; however, minimal research exists on CNEs' perceptions of research utilization and evidence-based practice (Milner et al., 2006; Strickland & O'Leary-Kelley, 2009). Regrettably, administrators often expected CNEs to possess skills in research utilization with little regard for whether their levels of education and training adequately prepared them for this aspect of their work (Milner et al., 2006). Malik et al. (2015) found that most CNEs demonstrated very low levels of confidence in their research appraisal skills due to insufficient preparation and time for appraisal of literature on regular basis. Other barriers to research utilization identified by Strickland and O'Leary-Kelley (2009) included: CNEs' lack of motivation, interest, incentive, support, and resources for research appraisal. They found that CNEs' lack of motivation is likely due to limited knowledge and skills in critical appraisal of literature, and a lack of sufficient time to gain these valuable skills. They further argued that poor research appraisal skills often resulted in CNEs' lack of authority to bring about procedural change on their units because they often did not possess the skills, resources, or time to facilitate their work (Davies et al., 2006; Strickland & O'Leary-Kelley, 2009).

4.2.4 Time Constraints

Despite the importance of being clinically present and supportive for front-line staff members, CNEs described a continuing struggle with time management to meet their organizational and staff needs, while maintaining necessary clinical competency with the limited time provided for their professional development (Fairbrother et al., 2015; Wall, 2006). The

organizational expectations of the CNE role including policy development, staff members' orientation, and continuing education, increased their administrative focus, which resulted in absence of the direct patient contact necessary to maintain their clinical competency and credibility so that they could role model best practice to front-line staff members (Davies et al., 2006; Fairbrother et al., 2015; Harper et al., 2016; Manning & Neville, 2009; Mateo & Fahje, 1998; Morgan, 2012). CNEs indicated that having multiple areas of responsibility resulted in their reduced visibility and credibility among front-line staff members, increased their feelings of job dissatisfaction and their perception of erosion of their roles, and ultimately resulted in poor CNE retention within the health care system due to burnout (Danque et al., 2014; Davies et al., 2006). Poncet et al. (2007) defined burnout as the inability to cope with the emotional stress at work, resulting in feelings of failure and exhaustion, and an overall decreased level of well-being.

4.2.5 Lack of Credibility

CNEs often described working long hours and taking work home to establish and support their credibility within their organizations (Manning & Neville, 2009). However, because they often put in the extra hours at home and out of sight, their levels of effort generally went unnoticed by their peers and front-line staff members, and the lack of acknowledgement of their hard work left CNEs feeling unappreciated and frustrated (Danque et al., 2014). CNEs would frequently compensate for their lack of visibility on the unit by taking on numerous additional tasks not associated with their roles, such as counselling, pastoral duties, and conflict resolution, so that they could be viewed as hard working by front-line staff members (Manning & Neville, 2009). As a result of taking on these tasks they often worked numerous additional hours per week during personal time to complete their administrative tasks and were left with no time to

focus on maintaining their clinical competency or research appraisal skills (Manning & Neville, 2009).

4.2.6 Discussion

Ongoing economic restructuring and reduced funding have resulted in the re-evaluation of nursing positions, with several types of nursing positions being combined to increase cost effectiveness and efficiency; those economically-driven changes have contributed to lack of clarity in CNE role descriptions and CNE utilization on units (Nicolette & Ulmer, 1995; Sayer & DiGiacomo, 2010). Clinical nurse educators are expected to meet the needs of nurses in continuously changing health care environments despite minimal preparation, limited guidance during their transitions into their roles, increasing patient acuity, and workforce shortages (Harper et al., 2016). Role ambiguity and inadequate and unclear description of role responsibilities lead to front-line staff members holding unrealistic expectations of the CNE role and responsibilities (Conway & Elwin, 2007). CNEs often described feeling insecure, overwhelmed, and guilty for adding to nurses' workload with educational content; which resulted in their isolation and exposure to incivility and animosity in the workplace from their CNE peers and front-line staff members (Danque et al., 2014). CNEs also portrayed high levels of fear of failure in response to their multiple responsibilities and time constraints; they had difficulty sustaining regular clinical support of front-line staff members while maintaining their own activities (Danque et al., 2014; Fairbrother et al., 2015).

The demanding CNE role can be isolating due to heavy workloads and numerous unanticipated responsibilities, resulting in many new CNEs often lacking the time to dedicate to maintenance of clinical competency (Coates & Fraser, 2014; Danque et al., 2014; Dury et al., 2014; Manning & Neville, 2009). CNEs struggled with the responsibility of relieving nursing

staff members' clinical duties to allow them to attend mandatory training because of the limited time they had to maintain their clinical competency for direct patient care (Fairbrother et al., 2015). Bell, Bossier-Bearden, Henry, and Kirksey (2015) suggested that CNEs needed to increase their presence and visibility on their units to maintain their clinical comfort levels and competency, and collegiality with front-line staff members. Increased presence and clinical competency of CNEs would improve front-line staff member support and unit morale and retention rates of front-line staff members and CNEs (Sayers et al., 2011).

Wall (2006) further argued that the current emphasis on theory development and research in nursing may be alienating many bedside nurses from exploring CNE careers. The promotion of academic and research skills in clinical areas continues to be hindered by staff members' inexperience and reluctance to engage with theory and research, perpetuating the practice-theory gap (Considine & Hood, 2000; Sayers et al., 2015). Organizations have often added research utilization to the CNE role in an attempt to bridge the research-theory-practice gap; however, leaders have shown little regard for CNEs' training, skills, or abilities to perform these activities successfully (Milner, Estabrooks & Myrick, 2006). I was also able to identify a number of relevant facilitators, within the literature, with the potential to address these challenges.

4.3 Facilitators of CNE Role Success

Strickland and O'Leary-Kelley (2009) found that CNEs' clinical background and experience provided the foundational knowledge and skills necessary to role model and mentor best practice. However, others have argued that clinical experience and presence on a unit in order to maintain clinical competency and support staff members is insufficient in facilitating a culture of learning within the organizations (Lamont et al., 2015; McCormack & Slater, 2006). A culture of learning was influenced by several professional and organizational facilitators of CNE

success such as: the clarity and transparency of individual roles, organizational support and CNE visibility, and utilization of research (Davies et al., 2006; Dury et al., 2014; Lamont et al., 2015; Malik et al., 2015; McCormack & Slater, 2006; Strickland, & O'Leary-Kelley, 2009).

4.3.1 Role Transparency

Key facilitators of the CNE role were clarity of role expectations and job descriptions, as well as role transparency to illuminate any commonalities and overlap with other advanced nursing practice roles (Conway & Elwin, 2007; Lamont et al., 2015). Role clarity was especially important for understanding of CNEs' values and purposes, particularly in regard to alignment of CNEs' responsibilities with organizational objectives (Lamont et al., 2015). A clear vision for the CNE role ought to be created through the development of standards and differentiation of role from other advanced practice nursing roles (Rogan et al., 2008). Unfortunately, role clarity alone was not sufficient in ensuring CNE success, as organizational support of CNEs' every day function was paramount to their visibility and success.

4.3.2 Organizational Support and CNE Visibility

Successful role enactment was associated with clear guidance and support, having the opportunity to spend time with CNE predecessors, and the presence of networking opportunities with other CNEs (Lamont et al., 2015; Manning & Neville, 2009; Wall, 2006). Wall (2006) found that CNEs who felt supported were better able to deal with role concerns and responded better to role-related questions from front-line staff members which fostered role clarity and respect between CNEs and front-line staff members. Davies et al. (2006) also found that CNEs felt significantly more satisfied in their roles when they felt sufficiently supported in their transition to the new CNE role through adequate orientation, continued support from senior CNEs, and being given adequate time to engage in both clinical and non-clinical activities (Lamont et al., 2015).

Balance between clinical and non-clinical duties resulted in stronger network building among CNE peers and front-line staff members, and increased CNEs' power within their organizations; increased power provided them with the autonomy necessary to be confident, creative, and innovative in their role enactment (Davies et al. 2006). Strategic positioning of CNEs within an organization and increasing visibility were the key factors identified in support of CNE role enactment (Dury et al., 2014; Wall, 2006). A study performed by Morgan (2012) suggested that increased visibility improved CNE credibility and job satisfaction among CNEs, as well as front-line staff members.

4.3.3 Leadership Skills and Research Utilization

Milner et al. (2006) described many facilitators of CNEs' leadership abilities and research utilization such as: attainment of related skills through higher education, positive attitudes, and participation in research (Rogan et al., 2008; Wall, 2006). Despite the positive effect that effective leadership and utilization of EBP can have on the care provided by front-line staff members, many organizations required CNEs to have completed only an undergraduate level of education (Dury et al., 2014; Strickland & O'Leary-Kelley, 2009). As leadership and research can frequently be insufficiently addressed at this level of education, many CNEs were entering the position with minimal leadership abilities and skills in research utilization (Strickland & O'Leary-Kelley, 2009). Clinical nurse educators with graduate level education possessed better understanding of leadership skills, described less barriers to research utilization, and felt better prepared to participate in research-related leadership roles as a result of the advanced education they received (Manning & Neville, 2009; Strickland & O'Leary-Kelley, 2009; Wall, 2006).

4.3.4 Discussion

Successful CNE role enactment has been contingent on positive organizational conditions and environments, specifically role clarity and transparency, because understanding one's own identity was essential in collaboration and understanding of the roles of others (Lamont et al., 2015; Sayers et al., 2011). Davies et al. (2006) stated that the literature presented ample evidence in support of having access to information, support, and resources as this can empower individuals within a workplace. They indicated that when individuals felt empowered it increased their commitment, motivation, work effectiveness, and job satisfaction, while decreasing burnout. They further argued that CNEs ought to be empowered through a socialization process into the role with the help of a senior CNE; that process would foster improved understanding of the role to better model EBP through increased confidence in research utilization, visibility, and credibility for front-line staff members. Some authors proposed that a work-place mentorship program linking CNEs with mentors experienced in leadership and research utilization could be used to help bridge theory-practice gaps (Davies et al., 2006; Danque et al., 2014; Malik, et al., 2015; McCormack & Slater, 2006; Milner et al., 2005; Milner et al., 2006; Strickland & O'Leary-Kelley, 2009). Other researchers have suggested that this is insufficient and a higher level of education ought to be required for CNEs to embody these roles to enable them to read and appraise research more effectively, allowing research utilization to become a more influential part of their practice (Milner et al., 2006).

4.4 Recommendations for CNE Success

The CNA (2009) stated that nursing professional associations assume partial responsibility for promoting the advancement, recognition, and integration of the CNS or CNE role throughout Canada; however, this responsibility is shared with the government, unions, and

nursing regulatory bodies. Given the lack of support CNEs receive from these sources currently, their crucial role can be supported in a number of ways at organizational levels. Upon gaining awareness of the role components, daily challenges and facilitators associated with this pivotal nursing role, it is clear that refinement of the role and changes among organizational members' perceptions about the role are needed for the nursing profession to benefit from the presence of CNEs. The literature presented several strategies for the advancement of the CNE role, such as: clarification of the role description, educational recommendations, organizational support for the CNE role, improved research utilization, and recommendations for future research.

4.4.1 Clarification of CNE Role

A well-defined role identity and role boundaries were identified as critical recommendations from the literature to validate and advance this vital role, as well as to improve CNEs' job satisfaction (Coates & Fraser, 2014; Conway & Elwin, 2007; Dury et al., 2014; Rogan et al., 2008; Sayers et al., 2011). Individual organizational administrators can minimize role ambiguity through the construction of current and clear job descriptions, providing role consistency and transparency across the organization, and explaining the relevance of the role to all organizational members (Davies et al., 2006; Fairbrother et al., 2015; Lamont et al., 2015; Milner et al., 2005). Ongoing clarification of specific role responsibilities and boundaries can be communicated within teams and to individuals across the organization so that the CNE role is successfully enacted and positively received (Lamont et al., 2015; Sayers et al., 2011). Clearly articulated roles and responsibilities would be useful to standardize the educational and experience requirements for nurses to occupy CNE positions (Conway & Elwin, 2007; Dury et al., 2014; Milner et al., 2005).

4.4.2 Educational Recommendations

Dury et al. (2014) argued that educational requirements for CNEs ought to be regulated and standardized to promote lifelong learning and support role development. Nevertheless, there are currently no standardized experience and education requirements for CNE positions. Some researchers have argued that the current CNE preparation in relation to leadership and research utilization is inadequate (Sayers et al., 2011). Leadership skills are used every day to navigate ever-changing health care environments to deliver positive outcomes (Gaudine & Lamb, 2015; Sayers, 2012; Sayers et al., 2015; Sherman & Bishop, 2007; Sims, 2009). Because the CNE role does not require a graduate level of education, but has been associated with leadership for front-line staff members' support and role modeling EBP, some authors argued that the inclusion of leadership and research utilization education in all levels of the nursing curriculum ought to be considered (Sims, 2009; Strickland & O'Leary-Kelley, 2009).

Concurrently authors have portrayed CNEs as advanced practice nurses, similar to Clinical Nurse Specialists (CNSs), which ought to require a graduate level of education, to ensure adequate skills in leadership, adult teaching and learning, collaboration, research utilization, and knowledge translation, in addition to the necessary relevant clinical experience (Rogan et al., 2008; Strickland & O'Leary-Kelley, 2009). Malik et al.'s (2015) study supported this finding as the study participants with the highest qualifications had more positive attitudes toward research and were more likely to value and utilize best evidence for practice. Nevertheless, until such curricular changes occur, Malik et al. (2015) suggested that strategies ought to be designed for assisting individuals to increase knowledge, appreciation, and skills in relation to leadership and research (Dury et al., 2014; Manning & Neville, 2009; Wall, 2006). It

is possible that a graduate level of education is an appropriate requirement for organizations to consider when supporting individuals in taking on CNE positions.

4.4.3 Organizational Support

Effective administrators were necessary to create empowering work conditions for their staff members (Davies et al., 2006). Dury et al. (2014) suggested that regardless of the specific educational requirements for CNEs, organizations ought to demonstrate commitment to improving the CNE role function and to fostering lifelong learning through adequate support; without continued organizational support none of the recommended transformations would improve CNE role function. This organizational support would include leadership skill development, adequate resources and numbers of CNEs to meet organizational needs, and organizational stability, and mentorship programs (Danque et al., 2014; Davies et al., 2006; Wall, 2006). CNEs' current lack of support and heavy workloads can be addressed through implementation of a formal transition process, which would allow CNEs to identify a mentor in their transition into the CNE role and utilization of research (Coates & Fraser, 2014; Dury et al., 2014; Malik et al, 2015).

4.4.4 Improved Research Utilization

Reconfiguration of the CNE role, improved education and organizational support through mentorship and network building with other advanced nursing practice roles, and involvement with research mentoring can enhance CNEs' research knowledge and skill (Milner et al., 2006). Malik et al. (2015) recommended that individual strategies to enhance CNEs' appreciation, knowledge, and perceptions of research utilization be encouraged and supported by organizations.

4.4.5 Recommendations for Future Research

Further research is necessary to better articulate CNEs' role expectations, orientation, support processes, and research practices (Malik et al, 2015; Rogan et al., 2008). The literature presented several recommendations for future qualitative and quantitative research to further elucidate CNEs' roles and their needs (Sayers et al., 2011). Future studies can describe CNEs' perspectives of role barriers and facilitators to provide detailed insight into their needs for orientation, factors enhancing role enactment, nursing staff member development, and research utilization (Malik et al., 2015). In 2005 Milner et al. urged the research community to examine the knowledge, skills and resources needed by CNEs to utilize research effectively in practice and to articulate CNEs' specific responsibility and accountability for research utilization. They further argued that there is a need to objectively assess CNEs' abilities to utilize research findings rather than relying on subjective self-reported information because assessing the relationship between CNEs' levels of education and research utilization with an objective instrument would support claims about this relationship. Awareness of CNEs' perceptions of barriers and facilitators to research utilization may promote the changes necessary to implement EBP, in order to bridge the gap from research to practice (Sims, 2009; Strickland, & O'Leary-Kelley, 2009).

4.5 Chapter Summary

In this chapter I have presented and discussed my findings with regard to the role components and responsibilities of hospital-based CNEs, the challenges they face in enacting their roles, and some facilitators to address these challenges. Numerous components of effective CNE role enactment were identified; however, only a few were consistently recommended throughout the reviewed literature. The most consistently recommended role components and

responsibilities supporting CNE success were: communication and collaboration in leadership, mentoring EBP through research utilization, and maintaining clinical competence in order to better assist with clinical support and professional development of front-line nursing staff members. The most prominent barriers presented by the literature were: role ambiguity, inadequate qualification for the role and deficits in knowledge of research utilization, inadequate guidance and support, time constraints, and lack of credibility. The facilitators of CNE role success discussed were: role transparency, organizational support and CNE visibility, and adequate leadership and research utilization skills. I also discussed the key recommendations from the literature, such as: clarification of the role description, educational recommendations, organizational support for the CNE role, improved research utilization skills, and recommendations for future research. I began each section with a summary of the components I extracted from the literature and then presented the components in greater detail and discussed them. In the following chapter I discuss the nursing implications of the findings from the literature.

Chapter 5: Nursing Implications

In this chapter, I present the implications of the themes and recommendations described in the findings chapter, as well as the limitations of this paper and conclusion. More specifically, the implications discussed are: nursing administration, practice, education and research.

5.1 Implications for Administration

Organizations continue to undergo rapid change, resulting in continuing transformation of CNEs' roles to suit organizational needs (Sayers et al., 2011). The CNA (2009) stated that nurses are responsible for pursuing life-long learning in their practice areas; however, several authors suggested that increased organizational support, CNE role clarity, and CNEs' visible presence on units could improve productivity, job satisfaction, and retention of both front-line nurses and CNEs (Sayers, 2012). Hospital administrators ought to address the lack of clarity in the CNE role and its responsibilities, as many authors argued this ambiguity can have negative effects on health care providers, culture of the units, and overall function of organizations (Conway & Elwin, 2007; Fairbrother et al., 2015; Manning & Neville, 2009).

The themes I have identified from my integrative review suggest that extensive administrative support is needed to enhance CNE recruitment, job satisfaction, and long-term sustainability through provision of adequate resources and organizational stability. Critical elements of organizational support, as suggested by several authors, are developing clear CNE role descriptions and career pathways that incorporate adequate time for leadership skill development, research utilization, and clinical support of front-line staff members through their presence (Milner et al., 2005; Sayers et al., 2011; Strickland & O'Leary-Kelley, 2009). Managers' attention to CNE development of leadership and collaboration skills, through education and networking opportunities, was important for achieving positive organizational

outcomes, such as efficient use of nursing resources, improvements in nurses' job satisfaction and productivity and retention (Lamont et al., 2015).

My themes suggest that administrators ought to provide suitable mentorship programs, continuing opportunities for professional development, social networks, and well-staffed environments to support CNEs. A formal transition process into well-defined CNE roles with clear expectations is needed, as authors argued that without this support, CNEs will continue to experience role ambiguity, duplication of roles, and job frustration (Manning & Neville, 2009; McKinley, 2008; Sayer & DiGiacomo, 2010). Administrators' attention to role boundaries can reduce negative individual and organizational effects arising from nurses transitioning into unclear CNE roles, and improve collegiality among CNEs and front-line nurses, as well as job satisfaction and retention of CNEs and front-line staff members (Danque et al. 2014; Sayers et al., 2011; Seccombe et al., 2008). The literature suggested that those elements can enable CNEs to enact their roles more successfully and better inform health care professionals about their value (Davies et al., 2006; Milner et al., 2006; Pollard, Ellis, Stringer & Cockayne, 2007; Seccombe et al., 2008). Administrators can also support CNE roles by connecting new CNEs to more senior CNEs; which can decrease stress and burnout, and increase work effectiveness (Davies et al., 2006).

My themes suggested human and financial organizational resources are necessary to consider because pre-existing budgetary constraints have resulted in inadequate numbers of advanced practice roles, such as the CNEs, leading to them feeling overworked, as well as rendering them ineffective in the eyes of front-line staff members due to their lack of availability (Wall, 2006). Organizations can benefit from attention to time management and CNE support because Davies et al. (2006) argued that, when level of job stress is low for CNEs, their job

satisfaction will result in improvements in front-line staff members' education, support and retention. Nonetheless, my themes showed that this is not the current way the CNE role is enacted and management within organizations ought to collaborate with CNEs as well as front-line staff members in creating a role with presence, visibility, and hands-on support at the forefront (Harper et al., 2016; McKinley, 2008; Morgan, 2012; Sayer & DiGiacomo, 2010; Seccombe et al., 2008; Wall, 2006).

5.2 Implications for Practice

My themes suggested that several implications for practice are associated with CNEs' success, such as balanced administrative and clinical workloads to allow for improved visibility on the units, and time set aside for direct patient contact for CNEs; balanced workloads can improve CNEs' clinical competency and credibility within organizations. Many authors argued that maintenance of core knowledge and clinical skills, and competence is paramount to provide effective clinical support and front-line nursing staff member development; they are calling for a more equal balance of CNEs' administrative and clinical responsibilities because spreading educators too thinly diminishes their credibility within organizations (Davies et al., 2006; Harper et al., 2016; Mateo and Fahje,1998; Morgan, 2012; Sayer & DiGiacomo, 2010; Sayers et al., 2011; Seccombe et al., 2008; Wall, 2006). My themes also illuminated the desire of front-line staff members to have CNEs' available and visible on the units to assist with unfamiliar practice issues, thereby increasing their level of perceived support and job satisfaction (Davies et al., 2006; Dury et al., 2014; Mateo & Fahje, 1998; Wall, 2006).

My themes described a way that CNE visibility can be increased at a practice level which is implementation of a back to floor initiative. It placed CNEs on units as opposed to in their offices, increasing CNE presence and visibility with a positive influence on front-line staff

members' perception of the value and credibility of the CNEs' role (McKinley, 2008; Morgan, 2012). My themes indicated that CNEs could assist in orientation of new staff members to their roles and facilitate the development of their competence, which plays a significant role in front-line nursing staff member retention (McCormack and Slater, 2006). Therefore, supporting CNEs in being more clinically present may enhance collegiality with front-line staff members and mutual appreciation; decrease feelings of isolation; and improve the clinical skills, perception of empowerment, and job satisfaction of both CNEs and front-line staff members (Davies et al., 2006; Sayer & DiGiacomo, 2010; Sayers et al., 2015; Strickland & O'Leary-Kelley, 2009).

5.3 Implications for Education

My themes suggested that implications for administration and practice are insufficient in supporting CNE success. Educational implications also ought to be considered. Some authors recommended that CNEs ought to be educated at a graduate level with opportunities for exposure to courses on leadership and research methods (Dury et al, 2014; Milner et al., 2005; Milner et al., 2006; Strickland & O'Leary-Kelley, 2009). Education and support in research utilization may improve CNEs proficiency, enabling them to better model EBP to front-line staff members, while improving their credibility among staff members as well as their own job satisfaction. My themes indicated that CNE empowerment through adequate education, preparation and support has the potential to reduce work stress during the high anxiety transition period into the CNE role, and improve relationships with management as well as front-line staff members; lack of improved relationships can result in burnout and poor retention (Davies et al., 2006; Manning & Neville, 2009).

CNEs are responsible for the professional development of front-line nursing staff members and providing the education necessary for them to perform their unit specific duties

safely and to develop sound clinical judgment (Davies et al., 2006; Fairbrother et al., 2015; McNiesh, 2007; Wall, 2006). The administration, practice and education implications discussed can be especially important for acute care nursing areas, such as LDR, due to the high levels of acuity, and associated work stress and burnout (Bell et al., 2015; McNiesh, 2007).

5.4 Implications for Labour and Delivery Units

Nurses entering specialty care areas, such as LDR, have been expected to reach preset milestones within very short timeframes; those demands require professional development and support to provide safe patient care in a fast paced and continuously changing specialty (Bell et al., 2015; Fairbrother et al., 2015; Saghafi, Hardy & Hillege, 2012; Sayers et al., 2011; Wall, 2006). McNiesh (2007) claimed that the perinatal environment requires specialized training and application of knowledge, which CNEs are in the perfect position to enhance. Clinically competent CNEs in specialty areas, such as LDR, utilize evidence-based best practice which is essential for front-line staff members' competency development in emergency situations and in working with technological advances (Considine & Hood, 2000; Milner et al., 2006; Strickland & O'Leary-Kelley, 2009). Because technology and approaches to care are in constant flux in LDR (new instruments for neonatal resuscitation, different modes of epidural analgesia or new standards of admission to the unit) CNEs support for front-line staff members through hands-on demonstrations and in-services are vital (Bell et al., 2015; McNiesh, 2007).

CNEs' facilitation of front-line nurses' critical thinking and problem-solving skills have promoted high standards of care, which are paramount in many acute care settings, such as LDR, where novice nurses are expected to gain specialized skills quickly and the nursing staff members' turnover is often high (Bell et al., 2015; McNiesh, 2007). McNiesh (2007) suggested that clinical experience is a fundamental component of clinical judgment, as seemingly stable

situations in LDR settings can change to a life and death situation quickly; as in situations of hypertension, obstetric bleeding, and thromboembolism (Bell et al., 2015). An appropriate number of well-trained and supported LDR nurses who feel confident in their care, and have a strong foundation in clinical practice, problem solving skills, and clinical decision-making, is essential to ensure a high standard of care and positive patient outcomes in these emergency situations (Bell et al., 2015; Considine & Hood, 2000; Sayers, 2012). Hospital-based CNEs are in the perfect position to provide front-line staff members with ongoing training and support to promote positive organizational outcomes.

Any deficiencies in the support of specialized front-line nursing staff members can create challenges for recruiting and retaining adequate numbers of nurses into specialties, such as LDR (Bell et al., 2015). Critically low staffing levels in LDR have had a negative impact on staff nursing member retention resulting from job dissatisfaction, stress, and burnout (Bell et al., 2015). CNE presence offers the potential to support the professional development of larger numbers of specialty-trained nurses (Bell et al., 2015; Milner et al., 2006; Sayers et al., 2011; Strickland & O'Leary-Kelley, 2009). The literature does not provide suggestions for adequate ratios of CNEs to front-line staff members; however, managers in organizations experiencing a high turnover of CNEs and front-line staff members ought to take steps towards identifying the cause. Staff member survey can be used to illuminate possible solutions as suggestions for support could improve the function of the CNE role (Bell et al., 2015; Davies et al., 2006; Manning & Neville, 2009).

5.5 Limitations and Implications for Research

Some major limitations of this paper were identified after using the hierarchical organizational approach as suggested by Souza et al. (2010); the articles with the highest level of

evidence are at the top, followed by the remaining literature according to the level of presented evidence. One of the key limitations of this project was the predominantly low level of evidence within the available literature. Aside from1 systematic review, 1 integrative review, and 4 mixed methods studies, the other seven articles were based on descriptive qualitative exploratory approaches, cross-sectional and non-experimental surveys, and pilot surveys. In addition, there were two workshop retreats from grey literature, with limited description of their methodologies. Furthermore, the participants in most of the studies were selected using purposeful sampling methods which, despite being necessary in descriptive exploratory research, can present the researcher with biased perspectives. In the papers consulted for the integrative review data collection and analysis information was limited; the lack of information might have been due to the word limits imposed by the publishing journals. Eleven studies did provide the reader with limited description about data collection and analysis processes; however, the remaining 3 studies provided minimal to no information regarding this process. The absence of this information raises questions about validity of the findings when one cannot evaluate the methods used to gain the results.

A limitation of this paper was the absence of literature pertaining to hospital-based CNEs in acute care settings, especially LDR. My review produced no guiding literature about CNE enactment in LDR so that I had to apply themes to form conclusions using LDR-based literature. Furthermore, many authors agreed that CNEs could provide support and guidance to front-line nursing staff members in the form of professional development; however, the literature did not discuss the need for CNEs to possess adequate teaching skills to achieve those aims (Fairbrother et al., 2015; Sayers et al., 2011; Wall, 2006). Future research is needed to provide a clear definition of the CNE role and to establish objective benefits resulting from CNE presence in

LDR settings, which could possibly be depicted using CNE and front-line staff members' job satisfaction, retention, and patient outcomes.

5.6 Chapter Summary

This chapter discussed the nursing implications of my findings. I identified administrative responsibilities for role clarification, adequate organizational support, and a formal transition process into the CNE role. The practice implications I identified included increased CNE presence and visibility on units, while education implications pointed to adequate leadership and research utilization preparation, possibly through a graduate level of education. These implications combined have the potential to clarify the CNE role, better prepare CNEs for the leadership and research responsibilities of their roles, improve job satisfaction, collegiality and clinical competency of both CNEs and front-line nurses, and improve CNE credibility in the organizations. The research implications of my findings suggested future research ought to focus on a clear definition of the CNE role and assess the value of CNE presence on units, as depicted by the job satisfaction and retention of both front-line staff members and CNEs. The limitations of this project were also discussed and were related to the dearth of literature regarding hospital-based CNEs, as well as the overall low level quality of existing literature for my topic.

5.7 Conclusion

Despite identified limitations, the literature has provided important components of the CNE role, as well as its challenges and facilitators. Successful CNEs require leadership, collaboration, and communication skills, in addition to clinical skill competency and research utilization abilities. Barriers to successful role enactment have included poorly defined roles and responsibilities, lack of organizational support, and difficulty maintaining clinical skill competency and staying informed about current research due to the time constraints and

emphasis placed on some elements as opposed to other elements associated with the role. Facilitators comprised role clarity, organizational support and conditions supporting empowerment, increased research utilization skills, and opportunities for novice CNEs to find mentors to ease the process of transitioning into the new roles. Moreover, formal education and training standards could better prepare CNEs for the use of leadership and research utilization skills, which may not be sufficiently addressed within undergraduate studies or gained purely through extensive clinical experience.

Support for the CNE role is necessary given the continuous changes in health care. CNEs' continued clinical support for front-line staff members allows them to better adapt to the units, acquire new knowledge and skills, develop their competence and confidence, and improve their job satisfaction and retention (Danque et al., 2014; Nicolette & Ulmer, 1995). Specialty nursing areas, such as LDR, can especially benefit from the presence of a qualified CNE as these areas often experience high levels of burnout and turnover in front-line staff members. These project outcomes can provide management, CNEs and front-line nurses with an evidence-based CNE role description, including responsibilities and expectations. The findings also point to facilitators and barriers associated with the successful enactment of the CNE role. Attention to facilitators and barriers can facilitate organizational discussion in relation to the role and promotion of its success.

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Appendix A

Table 1. Matrix of relevant methodological data from primary literature sources

Authors and Citation	Methodology	Research Methods	Findings	Strengths and Limitations
Milner, Estabrooks, & Myrick, 2006 Research utilization and clinical nurse educators: A systematic review. *Journal of Evaluation in Clinical Practice, 12*(6), 639-655.	**Study Design:** -systematic review using computerized bibliographical databases, Journal for Nurses in staff Development, Journal of Continuing Education in Nursing, and Nursing Education Today **Objectives:** -report findings of a systematic review of literature regarding clinical nurse educators and research utilization using the PARIHS framework **Sample population:** -articles with clinical nurse educators, clinical nurse specialists and practice developers as samples **Setting:** -not specified	**Data Collection:** -CINAHL, Medline, PsycInfo, ERIC, HSTAR, Dissertation Abstracts, ABI Inform, Web of Science -inclusion criteria: clinical nurse educators, clinical nurse specialists and practice developers; research utilization; adequate description of research design in English – 12 articles met criteria **Data Analysis:** -Promotion Action on Research Implementation in Health Services (PARIHS) framework	-common limitations: data collection through self-report, error associated with memory recall, poorly described conceptualization and definitions of research utilization, underlying assumptions not addressed, theoretical framework not identified, and no report on instrument reliability and validity -themes: professional characteristics, information seeking behaviors, attitudes and beliefs, involvement in research activities -strong clinical background and skills/knowledge related to specialty are important attributes to facilitate of role -CNEs have lack of comfort using research; support in this is needed -important precursors to effective facilitation: positive attitudes toward research, higher levels of education, and the reading of professional journals	**Strengths:** -21-year span of article publication allowing for broader understanding of the development of this phenomenon -very clear and appropriate inclusion criteria **Limitations:** -due to limited information on CNEs, had to broaden search to include roles such as clinical nurse specialists and practice developers which despite being "conceptually different with respect to their specific objectives" were presented as facilitating change and encouraging of professional development to improve patient outcomes. -no specific exclusion criteria with rationale given

Sayers, DiGiacomo, & Davidson, 2011. The nurse educator role in the acute care setting in Australia: Important but poorly described. *Australian Journal of Advanced Nursing,28*(4), 44-52.	**Study Design:** -integrative literature review using Ganong's method of analysis **Objectives:** -describe the nurse educator role in acute care settings in Australia **Sample population:** -Clinical Nurse Educators **Setting:** -Australia	**Data Collection:** -key words: education, nursing, nurse-educator, teaching methods, clinical, outcomes health care, Australia -questions guiding review: 1) What is the role of nurse educator in the contemporary Australian health care system? 2) What is the impact of the nurse educator role on patient outcomes? 3) What are the key challenges facing the nurse educator role? -inclusion criteria: references focus on nurse educator role and nurse education in Australian acute care, published between 2000-2008 **Data Analysis:** -none described	-main themes: role ambiguity, educational preparation for the role and career pathways, nursing workforce shortages and partnerships with academia (drawing together common issues/concerns -term nurse educator role was used generally making it difficult to differentiate between roles -minimally explored role challenges: role identity/ambiguity/conflict; education preparation of the nurse educator as clinical competence alone insufficient to ensure success; varied career backgrounds/pathways; effective partnership with academia -engaging in collaborative partnerships to further clinical education	**Strengths:** -very specific focus on CNEs in Australia -clear exploration of identified themes **Limitations:** -limited inclusion/exclusion criteria such as language and not differentiating between academic CNEs and hospital-based ones
McCormack & Slater, 2006 An evaluation of the role of the clinical education facilitator. *Journal of Clinical Nursing,* 15(2), 135-144. doi:10.1111/j.1365-2702.2006.01275.x	**Study Design:** - Realistic evaluation as described by Pawson and Tilley (1998). **Objectives:** -identify whether clinical education facilitators (CEFs) made a difference to the learning experiences of nurses in a large teaching hospital **Sample Population:** -50% random sample of all	**Data Collection:** -on-the-spot interviewing; max. 15 minutes long -4 standardized interview questions for all researchers to elicit information from staff -information recorded and transcribed in full -3 focus groups of up to 8 nursing leaders/senior nurse managers/consolidation nurses each -survey based on the Nursing	-minimal work evaluating the effectiveness of practice-based education roles. -analysis of the CEF's job description in each directorate showed that the CEF had more than 16-21 different tasks as part of their role. -despite CEF's aim to support lower grade nurses, higher grade nurses consider them to be more effective in their role than lower grade nurses.	**Strengths:** -valid instrument used for survey -used a separate pilot group to review and revise interview questions -3 various data collection methods **Weaknesses:** -focus on large sample size limited interview time and therefore the amount of information provided -did not include the CEFs in focus groups which may have been enlightening for the group

	wards and departments in each of the seven directorates where a CEF was employed -up to five nurses on each ward/department were interviewed for a total 105 participants -all Registered Nurses between the grades of 'D' 'D' (junior nurses) and 'I' (senior nurse managers) were identified as the target population for receipt of the NWI-R questionnaire - stratified sample of 20% was sought-randomly selected list of 20% of nurses from each clinical grade (D-I) was selected. This was to ensure the representativeness of the sample in each directorate. -total sample size was 342 nurses (50%/n=172 response rate **Setting:** -not specified	Work Index Revised (NWI-R) -pilot study for the on-the-spot interviews conducted across three wards with 20 nurses randomly selected from wards not involved in the final study. **Data Analysis:** -the NW1-R questionnaire was constructed using FORMIC 3 (questionnaire designing and analysis software package) and results analyzed using the Statistical Package for Social Science 9.0 -interview data transcribed in full and the NUD*IST 5.0 software package for qualitative research; 10 step approach to data analysis -computation of internal consistency of scoring on each concept calculated for total sample using a Cronbach's alpha. -ANOVA used for analysis of variance -Post hoc analysis (least squared differences) used to located significant differences	-despite clarity of why CEF role was established, limited clarity in regard to details of how role was operated -lower grade nurses feeling less supported, not listened to and perceiving themselves to have little influence on the organization.	-bias towards higher grade nurses -findings merely speculative, as no measurement of the learning culture of the organization prior to the CEFs being recruited -response rate of only 50%
Fairbrother, Rafferty, Woods, Tyler, & Howell, 2015 Commencing a nurse education role development journey	**Study Design:** -participatory action research baseline inquiry; mixed method baseline survey **Objectives:** -establish role parameters,	**Data Collection:** -consecutive sampling -baseline survey was distributed both online and in hardcopy to allow for maximum opportunity for response. -following the survey 3 focus	-Role dissatisfaction was widespread. -responsible for tracking, organizing and clinically relieving staff to attend or run, mandatory training - area of dissatisfaction	**Strengths:** -video conferencing to promote attendance of final group analysis session -both quantitative and qualitative aspects to enrich data/findings

in a regional Australian health district: Results from a mixed method baseline inquiry. *Journal of Nursing Education and Practice.* 5(8), 7-16. doi: https://doi.org/10.5430/jnep.v5n8p7	typical activity profiles and views and attitudes about their roles, professional practices & linkages, among a sample of regional Australian nurses in Nursing Education Roles (NERs). **Sample population:** -38 (84 % response rate) Nurse Educators (NEs) and Clinical Nurse Educators (CNEs) **Setting** -Northern New South Wales Local Health District	group discussions (n = 10, n = 10 and n = 13) were held to discuss the results. **Data Analysis:** -activity profile and role satisfaction were assessed using chi-square or one-way analysis of variance (ANOVA) analysis, against position category (NE or CNE) of respondent. -open-ended survey responses and focus group discussion transcripts were subject to thematic content analysis	-felt that responsibility for mandatory training should lie with the unit manager. -all participants felt that bedside teaching of nurses was their fundamental role and were frustrated that they were not always able to do this adequately -work duplication and limited communication across the various regionally-defined levels of the health district = lack of standardized learning packages and practice guidelines	-demographic differences between NEs and CNEs were not significant **Limitations:** -single site -consecutive sampling may result in participant bias
Malik, McKenna, & Plummer, 2015 Perceived knowledge, skills, attitude and contextual factors affecting evidence-based practice among nurse educators, clinical coaches and nurse specialists. *International Journal of Nursing Practice, 21*, 46-57. doi:10.1111/ijn.12366	**Study Design:** -survey design: questionnaire containing quantitative and a small number of qualitative questions **Objectives:** -understand nurse educators' (NEs) and clinical coaches' (CCs) perceived barriers and motivators for EBP -investigate attitudes, knowledge and skills in fostering EBP in the clinical setting -identify factors affecting the implementation of EBP in the clinical setting **Sample population:**	**Data Collection:** -67 question Likert style questions formulated from 3 validated research tools with room for comments -demographic details, sources of knowledge, knowledge practice gap, skills rating, attitudes to EBP **Data Analysis:** -analyzed using SPSS (Statistical Packages for Social Sciences v. 17.0. -frequencies and percentages were calculated for demographic data and descriptive statistics (mean, median and standard deviation) for each item -themes were identified for the responses in comments section.	-Of the 135 participants, 47% 'good' knowledge; 25% 'fair'; and 24% 'very good'; 2% 'excellent'; 2% 'poor' in relation to EBP -time as a barrier to finding research -research findings not easily transferable into practice -hard for them to implement changes -difficult to keep up to date with current evidence -overall found positive attitudes towards EBP	**Strengths:** -both quantitative and qualitative data to ensure richness of data collected **Limitations:** -only 31% response rate -the ones who responded may have been either positively or negatively passionate skewing the results – generalizability difficult -only 1 health-care network used therefore not able to generalize to other populations -no validity and reliability testing of questions from tools

	-435 questionnaires distributed - 135 participated, (31% response rate) -41 NEs, 10 CCs and 84 Clinical Nurse Specialists, **Setting:** -tertiary hospital in Victoria, Australia			
Lamont et al., 2015 Collaboration amongst clinical nursing leadership teams: A mixed-methods sequential explanatory study. *Journal of Nursing Management, 23*(8), 1126-1136.	**Study Design:** -sequential explanatory mixed-methods design in 2 phases (1 = quantitative, 2 = qualitative to explain initial findings) **Objectives:** -explore and describe intra-professional collaboration amongst ward-based nursing leadership teams at a metropolitan acute care hospital **Sample population:** -71 nurses (Nursing Unit Managers, Nurse Educators, Clinical Nurse Consultants) -67% response rate **Setting:** -500 bed tertiary hospital in Sydney, Australia	**Data Collection:** -questionnaire, using Collaborative Behaviour Scale (CBS Likert scale) mailed to all eligible participants between May and June 2012 via the hospital internal mail system (asked to return them anonymously) -semi-structured focus group meetings conducted in April and May 2013, to follow up on initial findings (heterogeneous group to enrich discussion); audio recorded and subsequently transcribed by the first and second authors -demographic data **Data Analysis:** -descriptive analyses of the quantitative data using the Statistical Package for the Social Sciences -non-parametric tests used to compare total CBS scores of participants.	-determinants of successful collaboration comprise interpersonal relationships, conditions within the organization and the organization's environment -themes: #1-professional role and accountability; sub-themes: transparency, clarity of individual roles; intra/interpersonal aspects of role functioning; #2-organizational infrastructure and governance. -as a consequence of role clarity and transparency, autonomy and collegiality could co-exist, reducing role conflict and enhancing collaboration.	**Strengths:** -67% participant response rate -valid instrument used -qualitative data independently read/coded by two researchers and transcripts read by two more **Limitations:** -social desirability due to self-report surveys -only 2 focus groups -1 metropolitan hospital, hence the results cannot be generalized

		-thematic analysis of focus group transcripts		
Strickland & O'Leary-Kelley, 2009 Clinical nurse educators' perceptions of research utilization: Barriers and facilitators to change. *Journal for Nurses in Staff Development, 25*(4), 164-173. doi:10.1097/NND.0b013e3181ae142b	**Study Design:** -descriptive design **Objectives:** -what are the CNE perceived barriers and facilitators to research uptake (RU)? -relationship between CNE characteristics and perceptions around RU when compared with staff nurses, administrators and academic educators **Instrument:** -questionnaire **Sample population:** -convenience sampling of hospital-based CNEs -79% CNE -18% education directors/ administrators -3% informatics, education specialist **Setting:** -California	**Data Collection:** -questionnaires using BARRIERS scale **Data Analysis:** -means for 29 items calculated -narrative data identifying other barriers/facilitators evaluated for themes and coded for interpretation -one-way analysis of variance and t-tests performed on values: years of experience as a CNE, certifications held, level of education, regional locations, job title classifications, institutional bed size, and Magnet status.	-insufficient time to implement new ideas and read research; lack of authority for nurses to change procedure -3rd and 5th highest barrier was the nurse herself: inability to evaluate quality of research; lack of awareness of research -6th barrier: statistical analyses not being understandable -additional themes: lack of education/research knowledge (97%), motivation/interest (93.6%), support/resources/funding (93.5%), time (80%) -CNE's EBP use is a key facilitator as are seen as a resource and role modelling for staff	**Strengths:** -asked many relevant questions, allowed written responses to let participants express their true sense of barriers **Limitations:** -convenience sample of self-selected participants - risk of bias due to participant interest in RU/EBP (decreased generalizability) -most responses were from non-profit organizations, higher response from profit group may yield different results -many findings referred to "Magnet" status which is not defined and leaves reader unaware of meaning or significance
Milner, Estabrooks, & Humphrey, 2005 Clinical nurse educators as agents for change: Increasing research utilization.	**Study Design:** -cross sectional survey design with qualitative methods -Roger's diffusion of innovation theory to guide selection of variables for inclusion **Objectives:**	**Data Collection:** - computer-assisted telephone interviewing (CATI) -14 independent variables for inclusion criteria based on recommended ratio (30 cases to variable) and estimating small effect size for dependent variable	-significant relationships between age, awareness, adaptiveness, attitude, cosmopolitan-ness, innovation, involvement, educators, staff nurses, diploma, degree and overall research utilization	**Strengths:** -compared varied groups of nurses **Limitations:** -small sample size or inaccuracy of indicators to accurately measure variables of interest -distinguishing between undergrad and grad education may have yielded different results

International Journal of Nursing Studies, 42(8), 899-914.	-explore relationships between characteristics of clinical nurse educators (CNEs) and research utilization (RU) -develop strategies to enhance RU in CNEs -improve understanding of CNE needs to enhance use of research in clinical practice **Sample population:** -nurses registered with AARN who consented to participate in research on their 2002 registration renewal (82 nurses) -random sampling from initial pool of 389 participants -sample stratified by role (staff nurse, educator, manager) and regional size (urban, small urban, rural) **Setting:** -Alberta, Canada	-Likert scale, nominal scale with greater weight applied dependent on level of involvement in research activity **Data Analysis:** -SPSS 12.0 for Windows -3 groups: nurses, educators, managers as research utilization may be role driven) -ANOVA used to compare variables -Turkey post hoc test to analyze groups based on role/size -bivariate stats used to examine variable scores to assess strength of association between variables -variables that met the assumption of normality, linearity, homoscedasticity were included and 4 separate linear regressions ran to determine which variables predicted the 4 types of research utilization	-the greater the age the more subtraction from the predicted RU score -CNEs had higher scores on awareness, attitude, involvements than managers and staff nurses	-issues of internal/external validity as CNEs may have had artificially high scores due to social desirability as RU is one of CNE's roles -variables included may not be accurate measures posing threats to internal validity -assumption that if CNEs are accessing research that they are able to critique and appraise it
Davies, Laschinger, & Andrusyszyn, 2006 Clinical educators' empowerment, job tension, and job satisfaction: A test of Kanter's theory.	**Study Design:** -nonexperimental survey design **Objectives:** -examine clinical educators' perceptions of empowerment and its relationship to perceived job tension and job satisfaction in hospital	**Data Collection:** -A brief demographic questionnaire -a 31-item scale designed to measure job satisfaction among hospital staff nurses, encompassing eight types of satisfaction: satisfaction with scheduling, coworkers, family/work balance, extrinsic	-access to information, support, resources and opportunities for growth, knowledge, and challenge provide individuals with a sense of power in the workplace. -significant negative relationships were found between job tension and all empowerment variables.	**Strengths:** -wide variety of sites -adequate sample size **Limitations:** -self-reported questionnaire -sample obtained from the provincial licensing body's registration list, the accuracy of which is dependent on how registrants completed their

Journal for Nurses in Staff Development, 22(2), 78-86.	settings **Sample population:** -random sample from the provincial registry board. -209 RNs invited - 141 participated (67% response rate) **Setting:** -central Canadian province (teaching, nonteaching, urban, and rural centers)	rewards, professional opportunities, interaction, praise/recognition, and control/responsibility. **Data Analysis:** -hierarchical multiple regression performed to determine the effect of the empowerment variables on perceptions of job tension	-CNEs' perceptions of formal and informal power were positively related to their perceptions of workplace empowerment. -when CNEs perceived presence of sufficient support for their work, they were more satisfied.	registration as some CNEs may not have given permission to release their names for research purposes. -only provincial sample as opposed to national
Danque, Serefica, Lane, & Hodge, 2014 Incivility in the Hospital Environment. *Journal For Nurses In Professional Development*, 30(4), 185-189. doi:10.1097/NND.0000000000000059	**Study Design:** -descriptive qualitative exploratory approach **Objectives:** -occurrence of incivility in the nurse educator-staff nurse relationship in hospital environments. **Sample population:** -6 nurse educators **Setting:** -large acute care hospital located in the southeastern United States	**Data Collection:** -survey questionnaire with five open-ended questions -audiotaped interview -purposive and snowball sampling techniques **Data Analysis:** -Qualitative content analysis to identify prominent themes and patterns among them -narrative responses were analyzed for recurring responses and then organized into themes	-themes: feeling overwhelmed, sensing rudeness, fearing failure, valuing support, and meriting responsibility. -subthemes: feelings of guilt and insecurity	**Strengths:** -a framework used for developing trustworthiness of the inquiry to achieve credibility, dependability, confirmability, and transferability. -another investigator examined the content of the data analysis. -independent qualitative methodologist (expert in qualitative research) reviewed the themes -Peer review helped avoid bias and confirm, disprove, or extend emerging themes. **Limitations:** -use of single location -lack of participant diversity in terms of gender and years of experience
Dury, Hall, Danan, Mondoux, Aguiar Barbieri-Figueiredo, Costa, & Debout, 2014	**Study Design:** - descriptive cross-sectional pilot survey **Objectives:** -explore the competencies, education requirements and regulation of specialist	**Data Collection:** -purposive snowball sampling for a convenience sample of nurse educators, clinical nurses and specialist nurses, national nursing association members, and chief nursing officers from	-education programs and titles awarded to SNs around Europe vary greatly between countries -lack of clarity in their education, regulation, scope of practice and competency requirements.	**Strengths:** -during data collection, the number of countries represented was continuously checked and reminder messages were sent to experts from absent countries (attempted to get the most varied sample possible)

Specialist nurse in Europe: Education, regulation and role. *International Nursing Review, 61*(4), 454-462. doi:10.1111/inr.12123	nurses (SN) in Europe. -describe and clarify the level of education, regulation, scope of practice and competency requirements for the SN in Europe. **Sample population:** 550 members of the European Federation of Nurse Educators and ten members of the European Specialist Nurses Organizations - 77 experts from 29 European countries responded **Setting**: -Europe	all European countries -online questionnaire with 7 closed-ended questions with a list of choice answers and open comments option **Data Analysis:** -Excel's statistical functions were used to analyze the responses to 7 closed-ended questions -two open-ended survey responses were analyzed qualitatively using a deductive approach	-increased visibility through better use of strategic positions and use of their professionalism to show the public what their work entails	-clear exclusion criteria for received surveys -rich sample **Limitations:** -some countries only had 1-2 participants with differing opinions making generalizability difficult -survey was in English which could have limited some people's understanding of the questions
Manning & Neville, 2009 Work-role transition: From staff nurse to clinical nurse educator. *Nursing Praxis in New Zealand*, 25(2), 41.	**Study Design:** -qualitative descriptive methodology utilizing transition theory **Objectives:** -describe nurses' experiences as they transition from staff nurse to the role of CNE **Sample population:** -purposive sample of 8 Clinical Nurse Educators (CNEs) employed as senior nurses within their first six months to two years as a CNE **Setting:**	**Data Collection:** -one semi-structured interview of approximately one hour, tape recorded and transcribed by the researcher **Data Analysis:** -cutting, pasting and grouping of segments of the text into categories -5 main themes: 1-entering transition, 2-getting started, 3-chaos and turmoil, 4-overwhelmed, 5-opening doors	-the need for continued practice development, linked to improved job satisfaction through clinically-based practice education programs for nurses. -high level of role confusion and stress in early stages of the new role - lack of awareness about what the role actually entailed. -felt they 'went in blind' -lack of understanding and preparation for the change in role and status -suboptimal or non-existent orientation programs -tried to manage the new role transition by working harder and	**Strengths:** -Bridges' (2003, 2004) transition framework was utilized to present the findings of the study. **Limitations:** -carried out in one district health board -limited to the opinions of only those 8 CNEs and not who they interacted with who may have viewed their contribution differently

	-New Zealand District Health Board		longer, however this only led to feeling stressed and anxious -working long hours, and taking work home on weekends	
Wall, 2006 Nursing research. living with grey: Role understandings between clinical nurse educators and advanced practice nurses. *Nursing Leadership (1910-622X), 19*(4), 57-71.	**Study Design:** -exploratory qualitative study **Objectives:** -explore how Advanced Nurse Practitioners (ANP) roles are understood and differentiated, with a particular emphasis on the relationship between nursing educators and advanced practice nurses. **Sample population:** -purposeful convenience sample of six nurses (4 CNEs and 2 ANPs) **Setting:** 600-bed tertiary care hospital in Alberta	**Data Collection:** -semi-structured interviews with respondents who currently function in either of the two role categories. -educational level, years of experience, current role responsibilities, reporting relationships, working relationships, role conflict between their role and the other (ANPs with CNEs and vice versa) and barriers to the implementation of clear roles. **Data Analysis:** -analyzed by coding key words and phrases in the transcripts and collapsing these into general categories. -peer review was utilized to confirm the conclusions of the study.	-role confusion occurred - how the informants differentiated their roles, what their job duties were and how the organization supported successful role implementation. -the extent to which CNEs and ANPs were visible was role defining feature due to its association with credibility -CNE's key responsibilities: routine problem-solving and basic staff education, product use and skills certification (CPR, IVs) -there is indeed role confusion in this practice setting which demonstrates how nurses in potentially conflicting roles differentiate their job duties.	**Strengths:** -findings were presented to the nursing leadership team at the study hospital and acknowledged by them as accurate. -the results were reviewed by two of the researcher's university-based research mentors **Limitations:** -despite the small sample size, there was tremendous similarity in the responses of the participants, indicating data saturation
Rogan, Crooks, & Durrant, 2008 Innovations in nursing education: Standard development for nurse educator practice.	**Study Design:** -2-day retreat grounded in learning organization theory -self-directed learning package (scope of practice, standard development definitions, potential frameworks for writing standards, and examples of	**Data Collection:** -standard development over an 18-month period included the following stages: literature review, creation of the standards through organized retreats and workshops, ratification of the standards using the Delphi technique, and implementation of the standards into practice.	-role domains of the nurse educator significantly overlapped with APN expectations -a philosophy of nursing education that provided a sound mission statement and vision for nursing education was developed., which assisted with the revision of the scope of the	**Strengths:** -the standards were brought back to the nurse educator group to demonstrate the merging of the two projects and to facilitate reflection on how as individuals and as a group the educators needed to operationalize the standards. **Limitations:** -data analysis not clearly described

Journal for Nurses in Staff Development (JNSD), 24(3), 119-123. doi:10.1097/01.NND.0000300880.41178.99	standards) **Objectives:** -examine the current nurse educator role and the responsiveness of nursing education services to the needs of nurses within the hospital -develop a philosophy of nursing education and develop professional role standards. **Sample population:** -not discussed **Setting:** -The Hospital for Sick Children (SickKids), a tertiary - quaternary pediatric academic health sciences center	-listed activities and expectations of the role; a grid was created to cross- reference the ANA's standards and the educator's perceived role activities. -reflection upon what related to their current role responsibilities, partnerships within and outside the hospital community, and accountabilities to nurses and as a nurse educator -Delphi technique - an electronic survey format that individuals could access anytime within a 2-week period (95% participation rate from the nurse educator group). -five rounds of surveys at which point the predetermined 80% level of agreement had been obtained for clarity, content, and achievability. **Data Analysis:** -none described specific to this study (speaks to data analysis of reviewed studies)	role at the hospital. -three standards, professional, leadership, and clinical development, interlaced with these themes: research, scholarly activities, evidence-based practice, health policy, systematic inquiry, leadership, quality improvement, consultation, models, theories and frameworks, and program planning	-size of sample in retreat not discussed
Conway & Elwin, 2007 Mistaken, misshapen and mythical images of nurse education: Creating a shared identity for clinical	**Study Design:** -2-day structured workshop -designed conceptual model for nursing approach to education **Objective:** -facilitate identification of CNE roles, responsibilities,	**Data Collection:** -not discussed **Data Analysis:** -not discussed	-little to guide their practice -unrealistic expectations -ongoing challenge was ensuring that other staff did not have mistaken expectations of their role/ associated responsibilities	**Strengths:** -a thorough and involved discussion over a 2-day period resulting in the group coming up with own recommendations to take away to their workplace **Limitations:**

nurse educator practice. *Nurse Education in Practice*, 7(3), 187-194. doi:10.1016/j.nepr.2006.08.005	and related professional development needs **Sample population:** -18 CNEs (27 invited) **Setting:** -New South Wales			-the CNEs involved may have been only the disgruntled ones as skewing the results -data collection and analysis not discussed -overall poorly described study with limited validity and generalizability

Table 2. Matrix of themes and concepts from primary literature sources

Authors and Date	Role of CNE	Role Challenges	Role Facilitators	Recommendations
Milner, Estabrooks, & Myrick, 2006	-promote/facilitate the professional development of practicing nurses -CNEs facilitate research utilization by conducting literature searches and providing relevant research articles to staff nurses	-administrators often 'tack on' research utilization tasks to CNE role with little regard for the level of education or training.	-understanding CNEs' research utilization behaviors is an important early step in evaluating the effectiveness of this to foster evidence-based practice -positive attitudes toward research, higher levels of education, and the reading of professional journals may be important precursors to effective facilitation. -facilitators, such as research knowledge and skills, information seeking behaviors, attitude, role attributes, education, and participation in research	-CNEs ought to be supported through mentorship programs and professional development/social networks in order to enhance their role as facilitators of research utilization
Sayers, DiGiacomo, & Davidson, 2011	-nurse educators have an intrinsic role to play in the development of nursing, education and health research and are well placed to initiate/ collaborate in research focusing on clinical practice/education -nurse educators are responsible for creating engaging learning environments and experiences to support the development of nursing.	-within literature the term "nurse educator role" was used generally making it difficult to differentiate between roles in the university and health care sector -limited discussion (it is inconsistent and sporadic) regarding CNE role within literature -not clearly defined -unclear role compounded by increasing scrutiny of positions not directly responsible for patient care -current variations in the nurse educator role, clinical competence and	-blurring nursing roles regarding responsibility for educational interventions may cause conflict rather than collegiality/ collaboration	-sustaining/developing a sufficient nurse educator workforce is essential to continue the development of a competent, well educated workforce -need to be well supported to develop as lifelong learners -a defined career pathway may enhance nurse educator recruitment, job satisfaction, sustainable educator workforce -clarification of role boundaries and role description is required

		qualifications may complicate nurse educator preparation and subsequent role development -changes to educator role over time has led to decrease in the influence that nurse educators have - non-standardized educational requirements of the nurse educator role are not helpful in fostering the identity/credibility of the nurse educator -blurring across nursing roles providing education in clinical practice and the absence of a national standardized approach to role description and scope of practice may adversely impact role enactment -constant change impacts nurse educator role causing role erosion -need to be clinically competent but this is insufficient to perform successfully		to advance nurse educator practice -further research to elucidate the nurse educator role
McCormack & Slater, 2006	-role of clinical education facilitator (CEF) developed to coordinate nurse education/training and to maintain competence (*this is one of the responsibilities of a CNE as well)* -CEFs are responsible for selection/organization of training, possibly contributing to cultural change within organizations -CEF role transcends specialties, operates as a generic role across the	-little work has been undertaken to evaluate effectiveness of these practice-based education roles. -appeared to be understanding as to why the role was established, such clarity did not exist in regard to how the role operates -practicing nurses, nurse leaders and CEFs had varying expectations of the role which could contribute to ambiguity about the nature and specific function of the role. -despite CEFs' primary focus on lower staff (not felt by this population), resulting in a lack of focus on	-CEFs help to orientate new staff to their new roles and enable the development of their competence played a significant role in the hospital's retention strategy. -their role was respected and valued by key stakeholders thus placing them in a prime position to influence work-based learning developments	

	healthcare organization with primary focus on learning needs of nurses -CEFs had more than 16 -21 different tasks as part of their roles. -core responsibilities: identification/ arrangement/ monitoring/recording/ evaluation of training days in the hospital; induction and mentorship of new staff; collaboration with outside institutions (e.g. universities) to act as staff advocate.	supporting higher level staff taking on new roles -while there was some commonality across individual CEF roles, little agreement about the core elements of the role. -issues such as a perceived lack of control over practice, lack of involvement in decision-making and lack of recognition for work done were examples of indicators that have serious consequences for the retention of nurses		
Fairbrother, Rafferty, Woods, Tyler, & Howell, 2015	-facilitating orientation, learning and practice development of a range of nursing and other health professionals in clinical settings. - Australian Nursing Education Roles (NERs) are regularly positioned as key to the integration of theory and practice. -developing/assessing competency guidelines, in-services/training, educational initiatives, staff completion of mandatory training, quality improvement, evaluation, staff training	-no agreed formal qualification required for an Australian CNE role. -the unpredictable nature and level of relief for nurses was hard to sustain while maintaining their planned activities. -responsible for tracking, organizing and clinically relieving staff to attend or run, mandatory training; which was an area of dissatisfaction. -poor job descriptions -lack of formal theory with regards to their varying experiences of preparation for their roles. -intellectual isolation on a day-to-day basis - subject to constant organizationally driven changes in role demands.		-focus group discussion yielded a consensus regarding the potential benefits of a more centralized structure for the NERs.
Malik, McKenna &	- In the clinical setting, nurse educators (NEs), clinical	-entire group showed the least confidence with critical appraisal skills	-study participants who had highest qualifications, and	-individual strategies need to be aimed at instilling appreciation,

Plummer, 2015	coaches (CCs) and clinical nurse specialists (CNS) are considered key people in promoting and facilitating evidence-based care. -responsible for delivering clinical education programs and promoting staff development through a variety of activities.	-lack of critical appraisal skills and insufficient time prevented appraising literature on a regular basis. -not enough time to keep up with evidence -not easily transferable to practice -difficult to implement changes -staff in the clinical setting were resistant to change, very busy and not interested in bringing about change	self- rated their knowledge as excellent, were more likely to use and value best evidence for practice, -positive attitudes towards benefits in changing their practice based on research, and wanted to access evidence more often	increasing knowledge, developing skills and changing behaviors. -continued support from the organization as education is not effective without such support. -mentorship programs that create linkages between EBP mentors and educators limit the effects of theory-practice gaps
Lamont, Brunero, Lyons, Foster & Perry, 2015	-responsible for implementation, coordination and evaluation of education -collaboration is a complex and dynamic process which goes beyond merely working in proximity with others; influenced by: clarity and transparency of individual roles, intra and inter-professional functioning within roles and of organizational infrastructure	-role clarity and role functioning important in understanding aspects of roles in relation to shared values, purpose of activities, and responsibilities -aspects of role clarity and job description, inter-group transparency and awareness of each role, and their commonalities and differences in respect of priorities and overlap -personal qualities and personalities of individuals with respect to the extent that individuals collaborated with others; role modelling, valuing others, being respectful, and being supportive and approachable were regarded as qualities that enhanced collaboration	-collaborative relationships (transparent, based upon shared governance, mutuality, knowledge and respect of the differing roles, while utilizing the respective experience and skill sets of individuals) can support provision of care -nurses who work collaboratively are more likely to achieve beneficial workforce outcomes for organizations (particularly senior nursing leadership teams, who have substantial influence over health care decision-making. -transparency is important	-understanding one's own identity and the role of others is essential to collaboration with each professional subgroup. -detailing role responsibilities and accountabilities, openly communicated and understood within teams as well as to individuals -successful collaboration may contribute to efficient use of nursing resources, improve nurse satisfaction, productivity as well as nurse retention -clear job descriptions for each group
Strickland & O'Leary-Kelley, 2009	-role diverse and multifaceted. -critical to the application of Research Uptake (RU) and Evidence Based Practice (EBP); however, little research exists on the educators'	-areas affecting RU: escalating healthcare costs, the healthcare system, and a focus on the organization and/or the healthcare provider rather than the patient -not enough authority to change	-educators with advanced degrees perceived the setting as less of a barrier -knowledge and skill in using EBP were key facilitators; are a resource to staff and	-inclusion of relevant research education into all levels of nursing curriculum is critical. -educators' awareness of the barriers and facilitators to RU may fuel the drive to promote

	perceptions of RU. - often assume diverse/varied roles	procedures, insufficient time to implement new ideas, not enough time to read research, not capable of evaluating the quality of research, and unaware of the research -lack education and/or research knowledge; motivation, interest, and/or incentive; support, resources, funding, and technology; and time.	recognized as role models/ mentors. -educational background/ experience of the educator provide a foundation of knowledge and skills necessary to act as a role model, mentor, and courier of research information.	change to bridge the gap from research to practice, driving the movement toward EBP. -active participation in organizational infrastructures strategically places the educator in the role of change agent
Milner, Estabrooks& Humphrey, 2005	"knowledge brokering" roles between staffs RNs and administrators and between researchers and clinicians -to facilitate professional development of RNs -promoting best practice by mentoring others -information source -development of policies and procedures			-need more clear articulation of role -urgent need to conduct research that examines the knowledge, skills and resources needed by clinical nurse educators to use research effectively in practice -examine position description of clinical nurse educators and clearly articulate responsibility and accountability for research utilization activities -enhancing social networks of CNEs with researchers, professional associations, interest groups and other practice communities may facilitate travel of knowledge within organizations -assess actual ability of participants to use research rather than those that self report -reconfiguring the clinical nurse educator role and providing education and support to enhance their research knowledge and skill

Davies, Laschinger & Andrusyszyn, 2006	-responsible for staff development in the practice setting -vital role in the professional development of staff members which is multifaceted, going beyond planning formal educational opportunities to include teaching, coaching, counseling, facilitating, and research	-broad expectations from nursing staff, administrators, and educators often experience confusion about role expectations -role ambiguity, job stress, decreased job satisfaction, and perceptions of disempowerment among CNEs threaten both their quality of work life and their health -become frustrated because they hold positions of authority and are responsible for outcomes, yet do not have access to resources or networking opportunities to facilitate their work, resulting in lots of responsibilities but little power -spreading educators thin diminishes their visibility and credibility	-access to work empowerment structures can increase motivation, decrease levels of burnout, increase commitment to the organization, and increase job satisfaction -empowerment leads to increased work effectiveness, evidenced by achievements, respect, and cooperation -ought to position and empower themselves to enhance their abilities to model exemplary nursing practice and promote a positive nursing image. -formal power leads to increased visibility of CNEs to staff -informal power results from a formal socialization process through mentorship with senior CNEs (also increase their understanding of the roles and responsibilities)	-administrators to continue their efforts to create empowering work conditions for their staff -to enhance the formal power, administrators must ensure that there is a current and clear job definition for CNEs, consistent across the organization and clearly articulated to everyone, defining the relevance of the role and diminishing the possibility of role ambiguity -need an adequate number of CNEs to meet the needs of programs -enhancing work empowerment and alleviating CNEs' job tension will improve their job satisfaction. -access to information, resources, and support to carry out job activities effectively is essential.
Danque, Serefica, Lane, & Hodge, 2014		-demanding jobs with heavy workload -themes were feeling overwhelmed, sensing rudeness, fearing failure (related to multiple duties, time constraints, workload responsibilities, and meeting hospital requirements), valuing support, and meriting responsibility. -Subthemes: feelings of guilt (knowledge that taking courses added to the nurses' workload; multiple courses	-increased collaboration within peer group	-nurse leaders must promote civility to create a healthy work environment -nurse educators ought to develop skills to manage incivility for themselves and other nurses -mentorship programs specifically for nurse educators as part of their professional development might decrease the

		to be completed during short periods of time) and insecurity - overall sense of disconnection observed by the educators of the nurses who displayed rude behaviors during courses		magnitude of incivility in the workplace -inter-professional meetings to promote role transparency
Dury, Hall, Danan, Mondoux, Aguiar Barbieri-Figueiredo, Costa, & Debout, 2014	-accountability, planning, therapeutic communication, leadership, delegation, enhancement of profession, quality improvement, continuing education, implementation and evaluation of various aspects of their role	-education programs and titles awarded to Specialist Nurses (SNs) around Europe vary greatly between countries -lack of clarity in their education, regulation, scope of practice and competency requirements. -sometimes regulation was assured by employers, other times from professional associations or national boards, hindering the visibility of the roles		-educational requirements for the SN need regulations to promote lifelong learning, mobility and support role development -clarify the role and improve standards to facilitate the identification and comparison of SN roles and role outcomes internationally -improve standards for education, certification and regulation for SNs -increased visibility through better use of strategic positions and use of their professionalism to show the public what their work entails
Manning & Neville, 2009	-clinical policy development, quality assurance activities, leadership, communication, counseling and education, ensuring clinical competence	-people within organizations have different ideas about what the role holder should do resulting in increased workload due receiving tasks not in the person's job description -high level of role confusion causing stress in early stages of new role -lack of clear job descriptions, titles or direction -feel isolated -numerous extra responsibilities that they had not expected or considered	-having opportunities to spend time with their predecessors -networking opportunities	-role clarity -find a mentor and develop networks that provide needed support to help support transition into CNE role -implementation of a formal transitional process

		-lots of stress, long hours, taking work home to establish their credibility -lack of understanding/preparation for the change in role/status due to suboptimal orientation leading to more sick leave and decreased productivity -counselling or pastoral duties, and intra-team conflicts often extra responsibilities -lack of information about the CNE role both prior to and following the application process		
Wall, 2006	-continuing education -shaped by staff and patient needs in a given care area -basic skill maintenance and dealing with daily practice issues	-involvement of the Advanced Nurse Practitioner (ANP) within the domain traditionally belonging to the nurse educator confuses the roles. -emphasis on theory development and research in nursing has alienated many bedside nurses. -barriers: lack of communication regarding role descriptions and role differentiation within the job descriptions; unrealistic role expectations; budgetary constraints and the associated shortage of nursing personnel is a fundamental barrier to the creation, clarification, and use of various nursing roles.	-due to its importance, visibility became a key factor in how role responsibilities were established -successful role relationships were associated with clear leadership and vision -leaders who dealt with role issues proactively or who were able to respond to role-related questions enabled role clarity and cooperation	-call for greater clarity and enhanced organizational support for role implementation, such as visionary leadership, adequate resources, organizational stability and strengthened policy frameworks
Rogan, Crooks & Durrant, 2008	-7 domains: staff development, education management, program development, practice, consultation, and networking, nursing informatics and technology and professional development and scholarship -standards developed in the	-role domains of the nurse educator overlapped significantly with advanced practice expectations	-standards were developed to delineate the scope of advanced nursing practice educator role and articulate an expected level of performance needed to transform nursing education -distribution of new standards	-make new standards for role, distribute them, creation of dialogue around them

	following categories: education, consultation, leadership, research, resource management, communication, and professional development		to all educators to frame or place in their offices -dialogue with the hospital management about the standards, initiation of profiling work done by nurse educators in relation to the standards -set goals for nurse educators' professional development needs and distribution of the nurse educator report outlining the standards to the hospital at large	
Conway & Elwin, 2007	-the CNE "dedicated solely to the purpose of the continuing clinical education of nursing staff" -to support both experienced and inexperienced nurses to apply formal learning to clinical practice	-despite being expected to lead, the role and boundaries are unclear in relation to nursing education (also vary between different institutions, wards and units) -blurred roles, turf wars, gate keeping and one-upmanship -ongoing challenge was ensuring that other staff did not have mistaken expectations of their role/ associated responsibilities -little to guide their practice -unrealistic expectations	-promote constancy of clinical education within the unit -assist in retention of staff through providing unit specific clinical support that is based on the sound knowledge base and clinical expertise of the CNE	-need a well-defined identity to validate their roles