A CRITICAL AUTOBIOGRAPHICAL NARRATIVE INQUIRY OF COMING TO TERMS WITH THE NCLEX-RN

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Abstract

In 2015, despite pedagogical concerns from Canadian nurse educators, the National Council Licensure Exam Registered Nurse (NCLEX-RN), an American nursing licensure exam, was adopted by Canadian nurse regulators for use in Canada. Initial pass rates for the NCLEX-RN were much lower than traditional pass rates had been on the former Canadian Registered Nurse Exam. As a nurse educator, I found the news of the decline in pass rates very distressing. This dissertation is about how, as a nurse educator, I came to terms with the adoption of the NCLEX-RN. I use an autobiographical narrative inquiry approach to explore the meaning of the adoption of the NCLEX-RN for my educational practice. I reflect on my own experiences of writing the NCLEX-RN and how the adoption of the NCLEX-RN has impacted my pedagogy. Miller's (2007) theory of a holistic curriculum guides the study. As well, Dewey's theory about *miseducation* and the critical perspectives of Paulo Freire and bell hooks inform my study. Via narrative analysis and a holistic lens, I identified how the adoption of the NCLEX-RN impacted my body, mind, and soul. The following seven narrative themes were identified: a) a high price to pay; b) constraining forces; c) awakening to the biases of computerized testing; d) contradictions and consequences; e) finding my pedagogical peace; f) searching for an antidote; and g) reaffirming my teaching self. I raise concerns about the erosion of holistic nursing pedagogies if NCLEX-RN pass rates become the dominant curricular driver. More studies are needed to fully explore the impact of the adoption of the NCLEX-RN on Canadian nurse educators, nursing curricula and nursing care.

Key words: NCLEX-RN, narrative inquiry, nursing education

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CHAPTER 1: INTRODUCTION TO THE PROBLEM

In January 2015, the Canadian Council of Registered Nurse Regulators (CCRNR) replaced the nursing practice licensing exam, the Canadian Registered Nurse Exam (CRNE), with the National Council Licensure Exam Registered Nurse (NCLEX-RN) (Rowshan & Singh, 2014). The NCLEX-RN was developed in the United States and has been the American entry-to-practice exam since 1994 (Benefield, 2010). Before the NCLEX-RN adoption in Canada, it had not been used outside the U.S. (McGillis Hall et al., 2016). Before adopting the NCLEX-RN in Canada, the paper-based CRNE had been in place in all Canadian provinces except Quebec since 1970 (Villeneuve et al., 2019). Within the rationale for adopting the NCLEX-RN given by Canadian nurse regulators were that the NCLEX-RN met the needs for public safety, and it was a secure, psychometrically sound, computerized, and legally defensible exam that could be offered year-round (Rowshan & Singh, 2014). It remains unclear if or why the Canadian regulators did not consider that the CRNE could have been adapted to meet an NCLEX-RN-like format or why another Canadian exam could not have been developed to meet the regulators' criteria.

The NCLEX-RN was adopted in Canada despite concerns by nurse educators and other stakeholders regarding the exam's applicability to Canadian healthcare contexts, curriculum alignment, and translation into French (McGillis Hall et al., 2017). Regrettably, after the adoption of the NCLEX-RN, several Canadian stakeholders' fears have been realized. As a nurse educator, I find myself caught up in the ensuing fallout from the adoption of NCLEX-RN. My struggle to come to terms with what the adoption of the NCLEX-RN means to me and my practice is the subject of my research inquiry.

To provide a context to my study, I begin this chapter by describing several post-NCLEX-RN adoption concerns. Next, I describe the purpose of my research, my research questions, my research methodology, and how the educational theories posited by Dewey (1897,

1910, 1916, 1938), Freire (1970), and hooks (2003), along with Miller's (2007, 2014) vision of a holistic curriculum underpin my research inquiry. To be transparent and situate myself within my study, I describe how my beliefs about education and my educational experiences have shaped and continue to shape my personal development, career path, and dissertation. In the section, *My Voice,* I acknowledge how my dissertation reflects both my intellectual and emotional insights. Lastly, I provide an overview of how my study chapters are organized.

Post NCLEX-RN Adoption Concerns

Several concerns emerged after the adoption of the NCLEX-RN. These concerns are described in the following sections.

Decline in Pass Rates

A notable decline in pass rates after the adoption of the NCLEX-RN spurred and continues to spur much controversy and pedagogical debate. Initial, first-attempt pass rates in Ontario in 2015 were 67.7% (CCRNR 2017) compared to 84.7% on the former CRNE written in 2014 (CNO, 2015). The national first-attempt pass rate for the NCLEX-RN written in French was 26.8% (CCRNR, 2017). Lalonde (2019) noted that several schools have experienced a significant improvement in pass rates. Yet, francophone first attempt pass rates continue to remain low nationally, at 61.4% in 2018, compared to a pass rate of 85.6% for writers in English (CCRNR, 2019).

Test Plan Content

The post-adoption declines in pass rates reignited pre-adoption concerns about the NCLEX-RN test plan, reflecting differing American and Canadian cultural values, competencies, and content (Canadian Association of Schools of Nursing [CASN], 2015). Before the NCLEX-RN adoption, the CASN (2012) identified several issues when the NCLEX-RN was compared

with the CRNE test plan. Findings from the report indicated that there were 15% fewer questions on health and wellness in the NCLEX-RN test plan and that the NCLEX-RN focuses on individual health conditions. In contrast, the CRNE incorporated questions about population health, community and primary health care, and social determinants of health. Other findings were that the NCLEX-RN test plan does not include content regarding Canadian Aboriginal, Inuit, and First Nations people, which had previously been tested in the CRNE (Marshall-Henty & Bradshaw, 2011). Overall, the CASN (2012) concluded that the NCLEX-RN test plan reflected differing American and Canadian cultural values relating to private versus public healthcare delivery models, degree of emphasis on hospital-based medical care versus a community-based focus on health promotion and wellness, and ethnic and cultural differences.

French Language Translation

Post-adoption, the CASN (2015) claimed that both the adaptation and translation of the NCLEX-RN were flawed in design and process when reviewed against the International Test Commission guidelines. For example, the CASN identified issues relating to non-equivalence of entry-to-practice competencies and interpretation of practice analysis activities, inadequate cultural understanding, and failure to meet standards for translation services. The CASN concluded that these flaws had "consequences for the validity of the exam in the Canadian context for both Anglophones and Francophones, but especially for Francophone writers" (2015, p. 8). Subsequently, legal challenges relating to language rights guaranteed by the Canadian Charter of Rights and Freedom have emerged. In New Brunswick, which has a large Francophone population and had the lowest NCLEX pass rate across Canada, a lawsuit against the New Brunswick Nursing Association has been launched by the Société de l'Acadie du Nouveau-Brunswick and the student federation at the University of Moncton (Fahmy, 2018). A

report by the Commissioner of Official Languages for New Brunswick concluded Francophones were disadvantaged because preparatory materials in French were lacking, and some questions were translated by unqualified translators (Fahmy, 2018). More recent information from the NCSBN website indicates how changes to the French translation process have been made to address translation issues for test-takers writing the NCLEX-RN in French (NCSBN, n.d.). Francophone practicing nurses are now part of the translation review protocol (NCSBN, n.d.)

Cultural Differences

Salfi and Carbol (2017), in their review of the applicability of the NCLEX-RN to the Canadian context, argued that cultural differences between Canada and the U.S. are "subtle yet distinct" and should not have been overlooked when American and Canadian professional practice competency statements were compared as a basis for justifying the use of NCLEX-RN in Canada. They argued that the respective competencies reflect different ways of thinking as a nurse, which at some level can be attributed to different educational preparation and educational philosophies. In Ontario, a Bachelor of Science in Nursing has been the educational entry-to-practice standard since 2005, as well as in all provinces and territories apart from Quebec (Canadian Nurses Association [CNA], 2021.). Educational eligibility to write the NCLEX-RN in the U.S. varies according to each state board of nursing (NCSBN, 2021a). Salfi and Carbol (2017) concluded that "It does not make sense to adopt a high-stakes nursing licensure exam in Canada that does not acknowledge or accurately reflect the key competencies and core values that Canada has chosen to mandate and use to define their Registered Nurses" (Concluding remarks section, para. 2).

Test Format

Although both the CRNE and the NCLEX-RN are examples of standardized testing, the NCLEX-RN, unlike the CRNE, uses computerized adaptive technology (CAT) to predict nursing competency. CAT uses algorithms (Thompson & Weiss, 2011) to establish a pass standard. In the context of NCLEX-RN, algorithms are used to predict competency. A detailed explanation of how CAT works and how the passing standard is established can be found on the NCSBN website. The NCSBN (2021c) defines the passing standard as "A cut point along an ability range that marks the minimum ability level requirement. For the NCLEX, it is the minimum ability required to safely and effectively practice nursing at the entry-level" (NCSBN, 2021c). Information regarding how CAT works is described in the following passage as described by NCSBN: (Note that the term *item* refers to a test question in the following passage.)

> Items are administered following the principles of CAT. Candidates are NOT randomly selected to receive a designated number of examination items. As a candidate takes the examination, items are selected based on the candidate's response to previous items. The exam ends when it can be determined with 95% confidence that a candidate's performance is either above or below the passing standard, regardless of the number of items answered or the amount of testing time elapsed (five-hour maximum time period for the NCLEX-RN and NCLEX-PN. (NCSBN, 2021d)

Thus, test-takers who answer more difficult questions correctly will have fewer questions to answer to pass the NCLEX-RN (Rowshan & Singh, 2014). The NCSBN (2021c) described success or failure on the NCLEX-RN as determined by the computer via one of the following three rules: a) the 95% confidence interval rule, b) the maximum-length exam rule, and c) the run-out-of-time rule. Regarding the 95% confidence rule, the computer will stop generating

questions when it is 95% sure a test-taker's ability is above or below the passing standard. The maximum-length exam rule is applied when a test-taker's ability is deemed to be very close to the passing standard, whereby the computer continues to generate questions until the maximum number of questions is reached, which pre-pandemic was 265, but was changed to 145 as of October 1, 2020. After the maximum number of questions has been reached, the computer disregards the 95% confidence rule and applies a "final ability estimate" to decide if a test-taker passes or fails (NCSBN, 2021c). If the final ability estimate is above the standard, then the test-taker passes; if the final ability estimate is at or below the standard, then the test-taker fails. In the third scenario, if a test-taker runs out of time before reaching the maximum number of questions and the computer cannot establish if the test-taker has passed or failed with 95% certainty, then an alternate rule is applied (NCSBN, 2021c). If the test-taker has not answered the minimum of 75 questions, then a failure will result. If the test-taker has answered the minimum number of questions, then the computer scores the exam by using the final ability estimate, which is computed from the responses to all questions answered (NCSBN, 2021c). Thus, if the final estimate is deemed to be above the passing standard, then the test-taker passes; if it is deemed below the passing standard, the test-taker fails.

As CAT was not used within the CRNE, this technology presented an additional learning component for registrants. In contrast to the NCLEX-RN, the pass standard for the CRNE was set by a group of Canadian nurse experts, and test-takers were required to answer all paper and pencil-based questions (Marshal-Henty & Bradshaw, 2011). In general, 65% was the set pass standard for CRNE test-takers (Marshall-Henty & Bradshaw, 2011). The national CRNE first attempt pass rates have been historically high, hovering around 90-95% (Marshal-Henty & Bradshaw, 2011).

Rewrite Attempts and Revisions

The higher-than-expected NCLEX-RN failure rate sparked debates about the number of attempts a test-taker should be allowed. Rewrite policies associated with the former CRNE were restricted to three attempts, and this same regulation was initially applied to the NCLEX-RN. However, in January of 2017, the Ontario government removed the three attempts-to-pass limit and amended nursing regulations to allow nursing graduates unlimited attempts to pass the NCLEX-RN (CNO, 2016a). NCLEX-RN test-takers in both Canada and the U.S. are allowed to retake the exam up to eight times per year as long as there is a forty-five-day break between attempts unless there is a jurisdictional restriction imposed by nursing regulators (NCSBN, 2021f). If a test-taker fails the NCLEX-RN, they will receive a *Candidate Performance Report* from the NCSBN that provides an overview of the content areas indicating where the test-taker scored below or above the passing standard (NCSBN, 2021b). Individuals who re-write the NCLEX-RN do not begin their new exam at the same difficulty/ability level as established in their previous NCLEX-RN exam (NCSBN, 2021d). Instead, CAT will administer to everyone writing the NCLEX-RN, regardless of whether they have written previously, a question with a "relatively low difficulty level, and his/her progression on the exam from that point depends on their performance" (NCSBN, 2021d). Notably, because the CAT software selects the first question randomly for each test-taker from a common test bank that covers content related to providing nursing care across the lifespan, exam content can vary from test-taker to test-taker. Thus, a test-taker who is rewriting may need to answer questions relating to subject content areas that they did not answer on their previous attempt to pass the NCELX-RN, or the computer may generate similar questions and content that they had answered in their prior exam attempt.

The NCLEX-RN was revised in 2016. Revisions which were particularly relevant for Canadian candidates were that medications were referred to by their generic name instead of their trade name, and lab value measurements included both imperial and metric values (CNO, 2016b). As well, the CNO was to work with the government and educators to address low francophone pass rates (CNO, 2016c). Another minor content revision was completed in 2019 relating to four new activity statements (NCSBN, 2019b).

The NCSBN plans to launch a major revision to the NCLEX-RN, the *Next Generation NCLEX-RN,* after 2023 (NCSBN, 2020b). The *New Generation NCLEX-RN* will continue to use CAT, but it will also include a clinical decision-making model, which according to the NCSBN, will better assess safe practice (NCSBN, 2019a). The proposed revisions continue to equate safe practice with NCLEX-RN pass rates. Thus, the assertion that the NCLEX-RN is a method for ensuring public accountability and safety is forcefully made, enshrining the idea that not using standardized testing would be unsafe or unethical. The contention that passing the NCLEX-RN equates to safe practice is further reinforced by changes to the nursing program approval process introduced by the CNO in January 2019 (CNO, 2018). As part of the new program approval process, first-time NCLEX-RN pass rates account for 17% of the total nursing program evaluation score and will be scrutinized as part of the annual review status (CNO, 2019).

Significance

Although the use of entry-to-practice nursing exams in Canada dates as far back as 1910 (Villeneuve et al., 2019), the recent adoption of the NCLEX-RN has generated several wide-ranging implications. These concerns include the potential erosion of Canadian cultural content and curricular processes; reputational loss for academic institutions or the nursing profession at large when pass rates are low (McGillis Hall et al., 2016); the incursion of student expenses to

prepare and rewrite the exam if failed (McGillis Hall et al., 2016); delayed entry-to-practice for graduates, which may exacerbate the shortage of nurses (Fahmy, 2018); increased personal stress for stakeholders such as students, faculty and administrators; legal challenges relating to the infringement of language rights as guaranteed by the Canadian Charter of Rights and Freedom (Fahmy, 2018); and concerns about compliance with Canadian privacy legislation when personal and NCLEX-RN data are subjected to the U.S. Patriot Act (Grinspun & McNeil, 2011).

Despite the concerns and implications described in the previous paragraph and throughout this chapter, the NCLEX-RN remains in place. However, the CASN announced in the fall of 2018 that they had created a made-in-Canada exam (CASN, 2018). According to the CASN (2018), the Canadian Examination for Baccalaureate Nursing is a voluntary, not-for-profit, computerized, bilingual exam that measures essential components of baccalaureate education and prepares graduates for entry to practice and for future graduate education. It does not utilize CAT, which is used in the NCLEX-RN to establish a passing standard (Baker, 2019). Pilot testing of the exam was completed in 2019 (CASN, 2018), and the exam was launched in 2020 (Baker, 2019). It is unclear whether this new exam will be used as an alternative to or a replacement of the NCLEX-RN at some future date (Baker, 2019). What is certain is that standardized entry-to-practice testing in the Canadian nursing context continues to be complex and confusing, generating multiple implications for educators and nursing students.

Prior to the NCLEX-RN adoption, I assumed that, based on historical CRNE pass rate data, and my own successful experience of writing the NCLEX-RN as a Canadian nurse working in the U.S., the NCLEX-RN pass rates would be similar to historical CRNE pass rates. However, given the lower-than-expected NCLEX-RN pass rates, I have become increasingly concerned that more innovative, progressive educational practices may be stifled if first attempt pass rates

are overly emphasized. I am also concerned about the impact of unintended cultural biases in the NCLEX-RN and the use of CAT to predict competence, hence safe practice. For me, adopting the NCLEX-RN feels philosophically unsettling, pedagogically perplexing, and ethically questionable. Collectively, my feelings generated a sense of urgency within me such that I began to feel compelled to understand how the NCLEX-RN might impact my practice. Hence, I decided to explore the phenomenon of coming to terms with the NCLEX-RN as my dissertation topic. Although the significance of my research is personally meaningful to me, I am also hopeful that other nurse educators will find my insights thought-provoking for their practice.

Purpose of the Study and Research Questions

The purpose of my research is to explore the phenomenon of the recent adoption of the NCLEX-RN and my personal and professional journey of coming to terms with its adoption as the new entry-to-practice licensing exam for Canadian nursing graduates. My specific aim is to understand of how the adoption of NCLEX-RN impacts my teaching practices and to identify the meaning of this for my practice. In my study, I ask the following two research questions:

1. How does the adoption of NCLEX-RN impact my teaching practices?
2. What is the meaning of the NCLEX-RN adoption for my teaching practices?

Clearly, the two research questions are intertwined. By asking Question 1, I can identify the pedagogical decisions and teaching practices I made as a result of the adoption of the NCLEX-RN. By asking Question two, I can reflect on the meaning of the teaching practices I adopted as a result of the adoption of the NCLEX-RN.

Research Methodology

To address my research query, I use a critical, autobiographical, narrative method. Narrative inquiry falls within the constructivist research paradigm. Constructivists believe that

reality and how a person understands his or her world depends on his or her perceptions (LoBiondo-Wood et al., 2018). As the aim of research from a constructivist perspective is to understand people and their life experiences from their point of view (LoBiondo-Wood et al., 2018), an autobiographical and narrative approach to my research query aligns with a constructivist research aim. An autobiographical approach enables me to give a first-hand, authentic, critical account of the narratives I live out and tell related to the adoption of the NCLEX-RN. This approach also aligns with the theoretical perspectives of Miller's (2007) holism, Dewey's theory of education (1897, 1910, 1916, 1938), and critical theories of Freire (1970) and hooks (2003), which are described in the next section of this chapter. Chapter 8 describes the components of a narrative inquiry methodological approach to research and discusses my justifications for selecting it as an appropriate methodology for my study.

Theoretical Framework

In this chapter, I provide a brief overview of the theoretical perspectives of Miller (2007), Dewey (1897, 1910, 1916, 1938), Freire (1970), and hooks (2003). I discuss each of these theoretical perspectives in more detail in Chapters 2, 3, and 4.

Holism

I chose Miller's (2007) *The Holistic Curriculum* as an overarching theoretical framework for my inquiry. The holistic principles described by Miller align with my personal and professional beliefs about life and education and guide my inquiry. In Chapter 2, I outline and discuss how Miller's holistic principles of balance, inclusiveness, and connections guide my exploration of the impact and meaning of the adoption of the NCLEX-RN on my practice.

Dewey's Theory of Education

In Chapter 3, I outline and discuss the core concepts of Dewey's theory of education (1897, 1910, 1916, 1938). His core beliefs that education should be viewed as a continuous restructuring of experience and reflection is the key to an educative experience directly apply to my research query. By applying these views of education and reflection within my inquiry, I can reflect on how the adoption of the NCLEX-RN impacts my pedagogical practices. I also explore Dewey's insights regarding the purpose of education, the social environment of education, the role of the educator in nurturing thought, "mis-educative" (Dewey, 1938, p. 25) experiences and vocational learning in the context of a holistic pedagogy.

Freire and hooks: Critical Educational Theorists

To further uncover the impact and meaning of the adoption of the NCLEX-RN on my practice and myself, I draw on the insights of critical theorists Paulo Freire (1970) and bell hooks (2003). Critical theorists focus on context and the power dynamics of contexts (Merriam & Tisdell, 2016). In an educational context, critical researchers seek to identify issues of inequity and injustice to replace these oppressions with empowerment (Walker, 2017). Thus, in my study, I consider the context and dynamics of adopting the NCLEX-RN to uncover the impact and meaning of these unfolding realities for my practice.

In Chapter 4, I outline and discuss what Freire (1970) labels as the oppressive nature of the banking model of education. Central to the promotion of a liberating education was his belief that adopting a problem-posing approach was the educational method to bring consciousness to one's conditions of oppression. Freire's key concepts regarding the use of dialectical theory, dialogue, praxis, and critical reflections as components of a liberating education are also discussed and applied to the context of my research query. Additionally, I apply Freire's

identification of antidialogical practices, such as myth, manipulation, divide and rule, and cultural invasion practices to the context of the NCLEX-RN adoption to further consider both the impact and meaning these tactics hold for my research query.

I conclude Chapter 4 by turning to bell hook's vision of an emancipatory classroom. bell hooks (2003) builds on Freire's concept of a dialogical approach to education and believes that an emancipatory classroom is viable despite the prevalence of antidialogical practices. Within this chapter, I discuss her educational strategy of "radical openness" as a way to promote an emancipatory, socially just classroom. I also discuss the spiritual aspects of teaching and explore her ideas about engendering a pedagogy of hope and possibility. In my study, I consider how the adoption of the NCLEX-RN impacts my ability to support an emancipatory classroom.

A critical pedagogy aligns with Miller's (1970) vision that a holistic curriculum includes a transformative approach to education. I hope that by applying a critical lens in my study, I will develop a heightened consciousness of the impact and meaning that the adoption of the NCLEX-RN holds for my pedagogical practices as well as for my humanity. Ultimately, I hope that the insights I gain from my study will be a springboard for both personal and pedagogical change.

Reflexivity

"Reflexivity refers to the systematic process of self-examination" (DePoy & Gotlin, 2011, p. 229). In the qualitative research context, it is important that researchers demonstrate reflexivity by examining how their own beliefs and perspectives influence their thinking, hence their data analysis and their interpretative processes (DePoy & Gotlin, 2011). Ultimately, by being transparent, I wish to enhance the credibility and overall rigour of my study findings. As an autobiographical study, my dissertation is obviously a study about self-examination and reflects my beliefs, perspectives and thinking. In the previous section of this chapter, I have

described the theoretical perspectives that shape my inquiry. In the following section, I offer the reader autobiographical information and personal insights which have undoubtedly shaped my dissertation.

The Long, Winding Journey to my Inquiry – My Story Behind the Stories

The Importance of Education in my Life

I was born into a Caucasian, middle-class family during the 1950s. My mother was a registered nurse, and my father was a farmer and, later in life, a businessman. My parents instilled in me the value of education early on, and the idea of not pursuing post-secondary education was never entertained by them or me. Learning, whether through formal or informal means, was always celebrated. Undoubtedly, these values have shaped and continue to shape my life and my nursing career of over forty years.

My professional educational background runs the gamut from community college to graduate studies at universities in Canada and the U.S. I began my nursing career in 1975, having graduated with a Diploma of Nursing from a School of Nursing affiliated with a community college in downtown Toronto. My engagement in continuing clinical education began early on in my career. As a new graduate caring for patients with neurological disorders, I sought out a continuing education course in neurological nursing to better care for my patients. As I gained confidence in my clinical knowledge and nursing role, my interest turned to furthering my education to deepen my professional knowledge and as an avenue for self-development. Although I had gained acceptance to enter a post-basic-RN, BScN program, I decided what I needed more was an educational focus that offered a wider lens about my nursing role and health care, so I enrolled as a part-time student in a Bachelor of Arts program to study political science. I felt very much at home with my studies. Courses in philosophy, social and political thought,

medical anthropology, and feminism enriched my thinking and invigorated my soul so much so that at one point, I considered leaving nursing altogether to pursue graduate studies or law. Ultimately, I chose not to. My studies left me hopeful that I might somehow, or in some way, be able to contribute positively to the nursing profession.

After graduation in 1983, I was hired into a clinical leader position, which was short-lived due to cutbacks and downsizing. Shortly thereafter, I was overjoyed to accept a teaching position at a community college outside the greater Toronto area. I was thrilled to join what I considered to be a progressive curriculum in which students achieved learning objectives independently, and class was a place where the teacher acted primarily as a facilitator for clarifying questions and developing learning activities that related to knowledge application. Although the learning objectives were highly content-driven and technical, the small class size of ten students often provided learning opportunities for moving beyond the learning outcomes into opportunities for the instructor to understand each student's learning needs. Importantly, because I taught the same students in the clinical application as I did in the classroom, the theory-practice gap was minimized, as real clinical situations could be discussed both in the clinic and back in the classroom. It was a very satisfying teaching role. I became inspired to begin part-time studies in education and subsequently started a master's program to improve my teaching and further my development. In retrospect, two education courses in my master's studies were particularly impactful in shaping my nursing pedagogy. As I note in Chapter 2, I consider my introduction to Miller's (1988/2007) concepts about holistic curriculum as pivotal to shaping my nursing pedagogy throughout my teaching career. As well, my introduction to Michael Fullan's (1982) theories about educational change encouraged me to think about change theories as they applied to my educational and nursing practice. My research project for my master's program focused on

student perceptions of how the curriculum supported or did not support their transitional role change from student to new graduate. My interest in change theories remains. In this dissertation, I contemplate how, over four years, from 2015-2019, the adoption of the NCLEX-RN impacts and changes my pedagogical practices.

I completed my Master of Education in 1990, one year after I married and celebrated the birth of our son. I continued to teach at the community college until 1999, when our family decided to pursue opportunities in Florida. After much family deliberation, I accepted a job as a nurse educator at a large, university-affiliated, public, not-for-profit hospital in Miami, Florida. At that time, I did not need to write the NCLEX-RN to obtain a Florida state nursing license. Instead, my Canadian educational preparation and nurse licence were deemed to meet the licensure requirements under what was called reciprocity. However, as time progressed, regulations changed. Eventually, writing the NCLEX-RN became a requirement to pursue green card status. With this new regulation, I was thrust into the awkward position of writing the NCLEX-RN despite already having a nursing license to practice nursing in Florida. My experiences related to my preparation to write the NCLEX-RN and my experience of writing the NCLEX-RN are described in my narrative, *Gambling with my Future,* in Chapter 9 of this dissertation.

Practicing nursing education in Florida brought many opportunities. Although I was initially hired to develop nursing continuing education courses to help nurses develop their critical thinking abilities, I was soon put in charge of a new graduate internship program to help nurses successfully transition to their new roles. During this time, I was introduced to some of the nuances of the NCLEX-RN. I discuss some of this in my narrative, *Gambling with my Future,* in Chapter 9. Subsequently, as the hospital embraced a quality improvement initiative to

improve nursing practice, my role changed again. Implementation of evidence-based nursing practices was identified as part of a quality improvement initiative. Since I was aware of an evidence-based practice initiative via implementing nursing best practice guidelines in Canada, I volunteered to take on this aspect of quality improvement in 2005. Additionally, as part of the quality improvement initiative, the hospital offered to support nurse educators to attain a Master of Nursing Science (MSN) degree to enhance professional development. Thus, I enrolled in the MSN degree program. I was back at school and loving it. Once again, my research interest arose from my teaching context. This time, my focus was directed towards assessing the effectiveness of the educational program developed to implement a nursing best practice guideline related to pressure ulcer prevention and management. By 2008, many best practices had been implemented, and several staff nurses had celebrated their efforts at professional conferences and nurse week activities. In Chapter 9, in my narrative, *Gambling with my Future*, I describe my insights about my leadership role and experiences related to implementing best practice guidelines and my beginning awareness of the narrowness of competencies addressed by the NCLEX-RN.

I completed my MSN in 2009 and took on a part-time position as an adjunct professor with an American university that offered a post-basic-RN to BScN program. Although my educational roles remained satisfying, our family decided to return to Canada. Upon my return to Canada in 2011, I did not initially secure a teaching role but rather a clinical leadership role. My next educational role was as an Assistant Professor of Nursing in 2013, first as a sessional faculty and then as a full-time faculty in 2014 for a northern Ontario university school of nursing offering a BScN. I began my new teaching position as I learned of my acceptance into a PhD program in Education.

Situating myself within my dissertation

I entered the PhD program in 2014 with great gratitude and enthusiasm at the prospect of being granted the opportunity to explore an educational topic in depth. Although I entered my PhD program with several ideas for my research, my interest for my thesis developed while I was enrolled in a curriculum course as part of my graduate work in my PhD studies in the spring of 2015. At the time of the curriculum course, as a newly hired but experienced nursing faculty member, I was preparing to teach a fourth-year medical-surgical course for senior nursing students. The NCLEX-RN had just been adopted in Canada, and the students that I would be teaching would be some of the first Canadian students to write the NCLEX-RN in 2016. I enthusiastically approached the curriculum course I was enrolled in as an opportunity to reacquaint myself with educational theorists that I had studied in a Master of Education program twenty-five years earlier and to explore other theorists I was not well acquainted with. I wanted to consider how the course readings might be helpful to the planning of the medical-surgical course I was preparing to teach. Concomitantly, as an experienced Canadian nurse who had practiced and taught nursing in both the U.S. and Canada and who had previously written the NCLEX-RN while working in the U.S., I was hopeful that by reflecting on these experiences, my insights might inform the planning of the medical-surgical course to help position students for NCLEX-RN success. Some course readings, such as Slattery's (1993) metaphoric vision of curriculum as akin to a kaleidoscope and Doll's (2012) thoughts about the relevance of the tenets of complexity theory to curriculum, were particularly impactful for my course planning. Ultimately, for one of my graduate course assignments, I reflected on how Slattery's and Doll's visions for curriculum could be applied to the planning of the medical-surgical course I would be

teaching. My narrative*, Preparing to Teach in an NCLEX World: Hope and Possibilities,* found in Chapter 9, reflects my graduate term assignment.

My voice. Collectively, my nursing practice experiences reflect the importance education has played in both my personal and professional development. From a Deweyan (1916) perspective, I understand my experiences as reflecting the idea that life is education, where continuous growth is enabled by reflection on the intertwining of personal and professional experiences. From a Freirian (1970) perspective, my experiences and my dissertation can be viewed through the lens of social justice. As such, I acknowledge that many of my experiences and the opportunities I enjoyed may not have been possible for or remain inaccessible to racialized individuals or persons with poorer economic means or otherwise disadvantaged. Indeed, being able to complete a dissertation, especially one that allows one the luxury of examining one's practice in an autobiographical manner, is both rare and precious. I discuss my theoretical approaches and my rationale and justification for their adoption in Chapters 2 and 8. Later, in Chapter 11, I reflect on the meaning and insights of my findings in relation to the theorists which underpin my study.

Additionally, my narratives in this dissertation and my discussion throughout the various chapters of this dissertation often reflect an emotional quality. Although this tone injects a bias, for me, it reflects the inextricable fusion between thinking and feeling and offers me and the reader some insight into the meaning of events or content I am describing or analyzing. This approach is consistent with Miller's (2007) holistic approach to learning, where learning includes both cognitive and emotional components. As well, it is consistent with the relational nature of a narrative inquiry approach to research (Clandinin, 2013; Clandinin & Connelly, 2000), where the researcher inquires within the spaces of person, place, and social contexts.

Organization of the Study

My study is organized into twelve chapters. This chapter (Chapter 1) introduced my study by providing an overview of its context, significance, purpose, research questions, research methodology, my autobiographical context, and the theoretical framework and theories that underpin my study. Chapter 2 discusses the major tenets of Miller's (1970) holistic curriculum that underpin my study. Chapter 3 presents how Dewey's theory of education (1897, 1916, 1938) applies to my study. Chapter 4 explores how Freire's (1970) and hooks' (2003) beliefs about critical pedagogy resonate with a holistic approach to teaching and my study.

To more fully understand the NCLEX-RN testing, which represents a form of standardized testing, Chapter 5 provides a brief overview of the pros and cons of standardized testing. Chapter 6 constitutes my review of the educational and nursing literature related to standardized testing and the NCLEX-RN in particular. In Chapter 7, I conclude my literature review by exploring nurse educators' responses and perspectives relating to the adoption of the NCLEX-RN.

Chapter 8 describes my research methodology, including data collection, and analytical and interpretive methods, ethical considerations, and the limitations of my study. In Chapter 9, I recount my stories related to my experiences of writing the NCLEX-RN, preparing to teach for the adoption of the NCLEX-RN, and my teaching experiences after the adoption of NCLEX-RN from 2015-2019. Chapter 10 describes my narrative analysis and interpretative processes and identify the major narrative themes which emerge from my study. In Chapter 11, I discuss the meaning and insights that my findings hold for me in the context of the theoretical constructs which underpin my study. Chapter 12, the final chapter of my study, presents the implications of

my findings in the broader context of the nursing and education literature and identifies the study limitations.

Overall, my dissertation is my story of coping with the erosion of holistic pedagogical practices, of awakening to the limitations of standardized testing and of revaluing and reclaiming the importance of a holistic curriculum to my practice, despite the challenges the NCLEX-RN has engendered. It is my hope that my inquiry of coming to terms with the adoption of the NCLEX-RN will uncover personal narratives and insights that will result in improvements to my teaching practices and will evoke self-reflection by other nurse educators who are also trying to come to terms with the adoption of the NCLEX-RN.

CHAPTER 2: A HOLISTIC CURRICULUM FRAMEWORK

In this chapter, I describe the tenets of Miller's *The holistic curriculum* (2007) and how Miller's theory provides an overarching theoretical framework for my research query. I also describe my holistic stance and consider the perspectives of other contemporary educational theorists in relation to upholding a holistic pedagogy.

Holism

Miller (2007) identified that the root of the word *holistic* is derived from the Greek word *holon,* which "refers to a universe made up of integrated wholes that cannot simply be reduced to the sum of its parts" (p. 6). He distinguished *holistic* from the term *wholistic* by explaining that for him, *holistic* encompasses a spiritual or "sense of sacred" (2007, p. 6) quality, whereas the term wholistic "is more material and biological with an emphasis on physical and social interconnectedness" (2007, p. 6). Thus, for him, a holistic education supports and values an integrated approach to learning, including not just the cognitive aspects of learning but also the social and spiritual components of teaching and learning.

I was first introduced to Miller's concept of a holistic education as a Master of Education student enrolled in a curriculum course during the late 1980s in Toronto. At that time, I was teaching nursing at a community college in Ontario, Canada, and the nursing profession was advocating for the BScN degree to become the entry-to-practice standard. For me, Miller's concept of a holistic education resonated with the nursing profession's push to move from a largely technical approach to education within the college setting to a broader educational focus within a university setting, which would enable the development of leadership, research, and change agent capacities. Even though the BScN entry-to-practice was not implemented until 2005 in Ontario, I viewed Miller's holistic approach to education as something that could be

implemented in my pedagogical practice in the college setting. Looking back, I believe my introduction to Miller's (1988/2007) theories about the principles and values of a holistic curriculum was a pivotal moment in my teaching career that continues to shape my current teaching practices. Thus, the principles and dimensions of a holistic education described in the following paragraphs align with my personal and professional beliefs about life and education and guide my query about the meaning and impact of adopting the NCLEX-RN on my practice.

Balance

Miller's (2007) concepts of balance build on the philosophical concepts of yin and yang. He argued that the attributes of yin (associated with females) and the attributes of yang (associated with males) need each other for health, believing that when one is unbalanced, sickness can result. He expressed (2007, p. 7) his view of the classroom in terms of yin and yang as follows:

Yin	**Yang**
Group	Individual
Process	Content
Imagination	Knowledge
Intuitive	Rational
Qualitative assessment	Quantitative assessment
Instruction/learning	Assessment/evaluation
Program	Technology
Vision	Techniques/strategies

Although I consider Miller's use of yin and yang with their associated linking to gender binaries as, ironically, an example of dichotomous thinking, I agree with Miller's (2007) assertion that the attributes that he listed under yang have dominated Western culture and education. He offered the following examples of how the attributes listed under yang have resulted in an unbalanced approach to education: a) the educational system emphasizes individual competition, not group collaboration and supports a system where individuals

compete against each other via standardized tests to progress through the educational system; b) curriculum content is often championed over learning processes; c) content that does not require imagination is emphasized over knowledge; d) rational and linear approaches to learning have been championed over a more holistic approach; e) quantitative assessments like standardized tests dominate forms of evaluation and assessment; and f) a computerized, technology-driven curriculum narrows the curriculum. Within the context of my inquiry, I explore how these dialectical relationships impact my pedagogical practices in the context of adopting the NCLEX-RN and reflect on the meaning this engenders.

Inclusiveness

Miller (2007) posited that a holistic curriculum must include the three educational orientations: transmission, transaction, and transformation (Miller & Seller, 1985). Miller (2007) described a transmission orientation as reflecting a behaviourist approach to learning where the emphasis is on a teacher-led lecture. The curriculum in the transmission orientation is represented as a one-way direction from curriculum to student. Miller (2007) described the transaction position as a more interactive approach, where the scientific method, or problem or inquiry-based learning approaches can be utilized. However, Miller (2007) noted that while this transactional curriculum orientation is more interactive and engaging for students, dialogue tends to stress cognitive interaction. According to Miller (2007), the transformation orientation acknowledges the wholeness of the learner, so the curriculum is not separate from the learner. Thus, he contended that the goal of transformational curriculum is the development of the whole person. Furthermore, he (2007) asserted that teachers working from the transformational orientation adopt creative learning strategies that support cooperative learning, learning from the arts, and overall encourage learners to make connections, which ultimately makes learning

personally and socially meaningful. Importantly, Miller (2007) noted that a holistic approach to learning does not exclude linkages with the other forms of learning or curriculum orientations as long as it does not "discriminate or diminish the individual in any way" (p. 12).

Thinking back to a graduate education course that introduced me to the concept of a holistic curriculum, I vividly recall that a group course assignment was to illustrate Miller's (2007) curriculum orientations. Our group decided we would address the topic of the peanut plant as a way to illustrate the various curriculum orientations. To illustrate the transmission mode, we pretended we were illustrating how young learners could make a nutritional peanut butter sandwich. Thus, we set up our graduate classroom in a factory-like manner where our fellow graduate classmates, posing as our students, were shown how to make a peanut butter sandwich. Classmates had no choice of bread or condiments. They had to proceed down a factory-like line to the various stations where our group members (teachers) instructed them how to assemble the sandwich components. Some members of our group acted as monitors/supervisors in order to keep the line moving and to keep the focus on the technical aspect of making the sandwich, not on other aspects of learning. I remember that some of our fellow classmates seemed to rebel at this factory-mode approach and complained about not having any input into the process. At one point, I recall that in protest of our factory approach to learning, someone threw the bread around the classroom.

To represent the transaction orientation, we set up another graduate classroom scenario. In this classroom, different breads, types of jams and peanut butter were set up at a variety of tables. Our fellow students were invited to participate, not told to get in line or to passively observe. They were able to choose if and how they wished to make a peanut butter sandwich. The attitude change of participants was remarkable. Conversation was encouraged not shut

down. Our fellow students seemed happier and did not engage in any disruptive behaviours, and the activity seemed more social.

In our final scenario, to represent the transformational approach, students were free to explore the classroom, which had various learning stations related to the growing of peanuts and the nutritional aspects of peanuts and peanut butter. Music, poetry, and meditation were offered as part of the learning experience. Fragrant incense was burning, and the lights were lowered in the classroom. Desks were pushed to the back of the room so people could walk around freely. One of our group members sat cross-legged on the floor and led a meditative session for anyone interested.

Obviously, all three of these curriculum orientation depictions were extreme, ridiculous, and over-simplistic. However, I think they did graphically illustrate some of the limitations and possibilities that each orientation offers, which was the major point our group was trying to illustrate.

Holistic Stance

To identify one's holistic stance, Miller (2007) asked teachers to consider the relationships of the three curriculum orientations and how these orientations might be represented within their curriculum or pedagogical practices. He (2007) encouraged teachers to visualize their holistic stance diagrammatically. As described previously, I embraced a holistic stance early in my teaching career. In the context of my current study, as I approached teaching in the context of adopting the NCLEX-RN, I thought about these relationships in the following way. Although I recognized that highlighting medical-surgical nursing content via a transmission orientation needed to be a focus for the medical-surgical health challenges course I was teaching, I also believed that transactional and transformational approaches,

which emphasized insights into thinking processes and broader social and political aspects of care, were also important. I have pictorially represented my holistic stance in Figure 1.

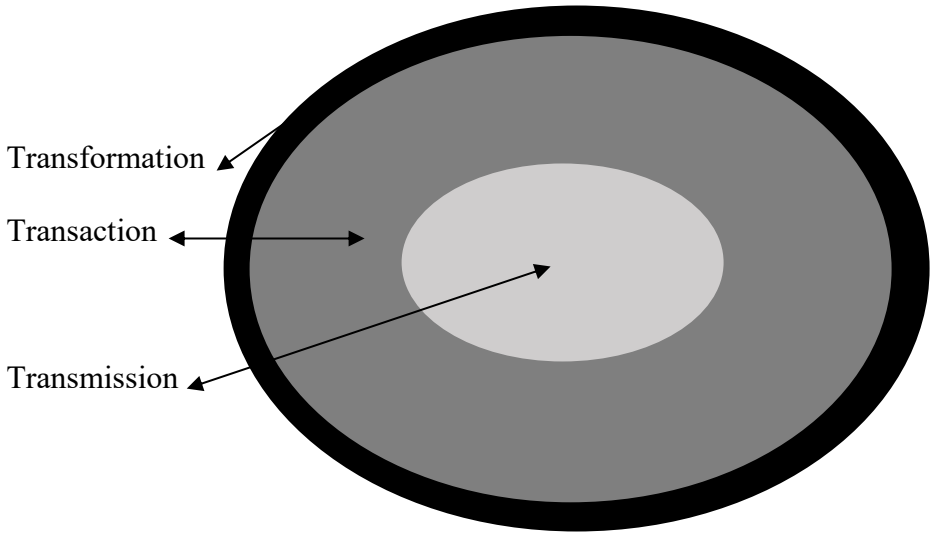
As illustrated in Figure 1, page 28, I view the transmission orientation as the smallest portion of my holistic stance. Although I believe safe nursing care needs to be grounded in sound evidence, I do not believe that passive transmission of information ultimately promotes safe care. I consider the transactional orientation as almost equal to the transmission orientation. For me, the transactional orientation promotes problem-solving and awareness of thinking processes. However, as Miller (2007) described, problem-solving reflects mainly a rational-technical approach to learning or the attributes of yang. Although this approach is helpful for understanding medical-surgical concepts, it does not necessarily support contextual-based thinking, which considers individual patient and nurse circumstances. I consider Miller's (2007) theoretical construct of the transformational orientation as the most inclusive approach to learning, which facilitates the development of critical awareness and context-based learning. For me, in the context of health care, moving beyond recitation and memorization of information to application and contextualization is critical for providing safe care and for ultimately understanding the structures and processes that support safe care. Thus, in the context of my research inquiry, I reflect on how adopting the NCLEX-RN impacts my holistic stance, and I explore the associated meanings for my practice.

Connections

Miller (2007) propounded that a holistic education attempts to move from fragmentation to connectedness. He explained that this process involves exploring the relationships between linear thinking and intuition, mind, and body, among domains of knowledge, between self and community and our relationship to the earth and our soul. I provide a brief description of these

relationships in the following paragraphs and describe how these relationships relate to the context of my study.

Figure 1: My Holistic Stance



Linear thinking and intuition

Miller (2007) contended that a holistic curriculum endeavours to connect linear thinking and intuition. He defined linear cognitive thinking as involving a "sequential, observable process" (p. 91), whereas intuition is "direct knowing" (p. 90). He described intuition by drawing on Vaughan's (1979) four levels of intuition: physical, emotional, mental, and spiritual. Miller (2007) recommended that to restore a balance between linear thinking and intuitive thinking, techniques such as visualization and metaphor can be integrated into thinking approaches.

In the nursing world, Benner's (1982, 1984) novice to expert approach to clinical decision making is theorized as a process whereby novice nurses first begin to make clinical decisions based on rules and gradually, with experience, are able to take on more holistic

approaches to decision-making. An expert is considered to have an intuitive grasp of a clinical situation, which guides clinical decision-making. However, Hams' (2000) literature review of intuition and critical care nursing found a "general lack of recognition of the legitimacy of intuition regardless of its apparent continued use amongst large numbers of nurses in critical care settings" (p. 317). Interestingly, Hams (2000) also noted evidence that many nurses did not believe they should be using intuitive processes to make clinical decisions. Again (as cited in Hams, 2000), a barrier to drawing on intuition in clinical decision making was that nurses are made to feel guilty for using intuition instead of more objective, factual data and that documentation of the intuitive process was hindered by lack of time in the clinical setting. Hams pointed to the pressure nurses face to adhere to the utilization of objective data via "checklists, guidelines and standardized documentation" (2000, p. 317). Hams (2000), referring to Young (1987), concluded that "As long as intuition continues to be devalued, it appears likely that nurses will use their intuitive process covertly while following the linear nursing process in practice" (p. 317). Hams (2000) noted that nursing education has made much progress related to teaching concepts related to rational decision-making; however, he urged nurse educators to also teach skills that support recognition of subjective data and to create environments that will foster open discussion of intuitive experiences.

Similarly, Benner et al. (2010) are critical of learning approaches that rely heavily on linear thinking approaches that model traditional and technical approaches to curriculum. They (2010) called on educators to transform their practice by implementing various teaching modalities that support nurses to develop their *clinical imagination* and ultimately a *sense of salience* in their clinical practice.

My study provides an opportunity for me to explore and understand how my practices related to linear thinking, intuition, and clinical imagination may be impacted by adopting the NCLEX-RN.

Relationship between the mind and body

Miller (2007) contended that in the context of a holistic curriculum, movement, dance, and drama are ways to explore the relationship between the mind and body. At first glance, these modes of exploring the connection of mind and body may seem unrealistic or out of place in the context of a university classroom. Certainly, I have found that the traditional scheduling of a three-hour lecture session in a lecture theatre confines physical movement, and it is difficult to support a mind-body connection for either students or teachers. However, at times in my teaching career, instead of lecturing, I have utilized class time for patient narrative panels as a dramatic but reality-based way to inform learners of the impact of their care on patients' lives. For example, I have invited patients who had undergone an organ transplant to discuss their care experiences with learners. Patients often spoke of the technical expertise nurses had and the impact this had on their physical recovery (body). However, patients also spoke about other aspects of care that were meaningful to their emotional well-being (mind and soul) and their overall recovery. I have often found that patient narratives can illustrate the impact of holistic care in ways no lecture could ever accomplish. My study offers me the opportunity to explore how adopting the NCLEX-RN affects my teaching practices in relation to the mind-body-soul connections which support the provision of holistic nursing care.

Relationships among the domains of knowledge

Miller (2007) suggested that there are various ways of connecting academic disciplines and school subjects, including the arts. Like what I described in the previous paragraph, I have

used patient narratives and learning narratives as ways to bridge the divide between the domains of clinical learning and classroom (theoretical) learning and between theory courses. I have also tried to link the application of content between courses that I teach or from previous courses students have completed. Understanding how adopting the NCLEX-RN impacts my ability to support learning and connections from a variety of knowledge domains both within and between the courses I teach is a meaningful approach for my study.

Relationship between self and community

Within Miller's holistic curriculum (2007), a student is viewed in relationship to the community. For Miller (2007), a community exists within the classroom, the school community, the local town or city, the nation, and the globe. In my study, I will consider how adopting the NCLEX-RN impacts my classroom community and ponder the implications and meaning these effects have for my practice.

Relationship to the earth

Miller (2007) claimed a holistic curriculum is one within which individuals view themselves as part of the web of life rather than separate from it. In my study, I will reflect on how adopting the NCLEX-RN impacts my pedagogical practices directed towards helping students see the connections between environmental health and nursing practice.

Relationship to the soul

Miller (2007) maintained that a holistic curriculum allows us to "realize our deeper sense of self, our soul" (p. 17). For me, throughout my teaching career, I have found great pleasure in teaching. Teaching has been a sustaining source for my soul and a source of identity. In my study, I will explore the impact of adopting the NCLEX-RN on my sense of self as a teacher and, overall, my soul.

Contemporary Perspectives of a Holistic Curriculum

Thus far in this chapter, I have discussed how balance, inclusiveness, and connections, as the hallmarks of Miller's (2007) holistic curriculum, are relevant for my inquiry. As I consider this approach, it is also instructive for me to note the perspectives of other contemporary educators regarding the implementation of a holistic curriculum.

Drake and Reid (2018) discussed how Miller's holistic curriculum aligns with an integrated approach to curriculum. They suggested that a transdisciplinary approach is a holistic approach to curriculum "where the student moves beyond the cognitive to connect to others, and to feelings, intuition, and ways of being" (p. 120). Notably, Drake and Reid (2018) also said a holistic approach to curriculum allows teachers to care holistically about a learner. To make this point, they referred to the following quote from Miller (2007):

> We want to let students see how subjects relate to one another and to the students themselves… We care about students' being. We realize that the final contribution they make to this planet will be from the deepest part of their being, not just from the skills we teach them. (pp. 198-199)

Drake and Reid (2018) considered that a holistic approach to curriculum is particularly relevant for Canadian educators as we are called to respond to the curricular recommendations of the Truth and Reconciliation Commission Calls to Action (2015) regarding Indigenous peoples. As a nurse educator, I am beginning to make curricular changes in response to these calls to action recommendations despite knowing that, unlike the former CRNE, the NCLEX-RN does not test knowledge related to cultural beliefs and practices of Indigenous people. In my study, understanding how adopting the NCLEX-RN affects my ability to include cultural competencies as an essential component of competent nursing practice is an important consideration.

Stern (2018) noted that it is important that educators reflect on their pedagogical assessment practices in the context of providing a holistic education. Referring to Buber's (2002) definition of "genuine dialogue" (p. 133), Stern stated that learning assessments need to engage both students and teachers in genuine dialogue, which entails moving assessments of learning beyond technical assessments and technically focused dialogue. Stern, however, did not dismiss the value of technical approaches to assessment, but rather he supported a more balanced and inclusive approach to assessment. Stern's approach to balancing learning assessment choices aligns with Miller's (2007) insight that Western education emphasizes quantitative assessments at the expense of other forms of assessment. Stern also asserted that assessments could become more balanced and inclusive by adopting peer evaluations and self-evaluation as components of learning assessment. In my study, I consider the impact of adopting the NCLEX-RN as an example of a high-stakes form of technical assessment in relation to my commitment to uphold a holistic educational practice.

Like Miller (2007), Moore (2018) said holistic educators need to consider "taking care of the health of their students' souls even as they focus on learning and knowledge" (p. 56). Moore encouraged teachers to acknowledge that they have the power to exert either an abusive force or a healing force on students' souls. He also acknowledged that the way educators practice affects not only the souls of their students but also their own soul as a teacher. He invited educators to practice holistically by choosing teaching practices that are collaborative, supportive, and demonstrate the value of life-long learning. Ultimately, Moore (2018) noted that "Holistic education does not merely dispense knowledge. It does it in a way that both teachers' and students' souls are engaged and benefit" (p. 56). In the context of my study, I consider how

adopting the NCLEX-RN impacts my ability to teach holistically and ultimately how this impacts my soul and the students I teach.

Summary

In this chapter, I have explored the relevance of Miller's holistic curriculum for my research query as well as some other contemporary educator perspectives about upholding a holistic educational practice. Miller and Irwin (2014) contended that two overall dimensions underpin the development of a holistic approach to education. They described these dimensions as focusing on the following: a) growth of the whole person, which includes the body, mind, and soul, and b) the interconnectedness between experience and the environment. In the next chapter, I explore how John Dewey's concepts of education as growth and experience relate to my research query and Miller's (2007) holistic curriculum.

CHAPTER 3: JOHN DEWEY'S THEORY OF EDUCATION

In this chapter, I explore several central concepts of Dewey's theory of education (1897, 1910, 1916, 1938) and apply them to the context of my research query. Dewey's beliefs about the experiential nature of education, the role of reflection and thinking in education, the purpose of education, and the educator's role, particularly in the context of vocational learning, are helpful guideposts to consider as I reflect on Miller's (2007) principles of holistic practice and my own pedagogical practices throughout this study. Similarly, Dewey's insights about what constitutes *mis-education* are equally informative to my study.

Central concepts of Dewey's Theory of Education

Education as the Restructuring of Experience

A central tenet of Dewey's theory of education is that education should be viewed as a continuous restructuring of experience (1897). Moreover, Dewey (1916) viewed experience as active in the sense that one is engaged in trying or experimenting and passive in the sense that one undergoes or suffers the consequences of experience. For Dewey, this active-passive process of experience was a lifelong, continuous process and was reciprocal in nature. Because he believed one is not only affected by continuous experiences, but that one may also influence the context of one's experiences, experiences offer the capacity for intellectual growth/transformation. Ultimately, for Dewey, reflection on experiences is the educational instrument for promoting understanding (growth) and for dealing with or acting on future situations.

Reflection, Thinking, and Experience

Dewey described reflection as "turning a topic over in various aspects and in various lights so that nothing significant about it shall be overlooked" (1910, p. 41). He defined thinking

as an "intentional endeavor to discover specific connections between something which we do and the consequences which result, so that the two become continuous" (p. 85). For Dewey (1916), "thinking is the educative experience" (p. 94). He believed that when thinking helps one to identify the details of the experience, it is a "reflective par excellence experience" (1916, p. 85). Dewey (1916) viewed the method for promoting what he terms "good habits of thinking" (p. 94) as "identical with the essentials of reflection" (p. 94). Dewey (1916) described the essentials of reflection in the following passage:

> They are first that the pupil have a genuine situation of experience—that there be a continuous activity in which he is interested for its own sake; secondly, that a genuine problem develop within the situation as a stimulus to thought; third, that he possess the information and make the observations needed to deal with it; fourth, that suggested solutions occur to him which he shall be responsible for developing in an orderly way; fifth, that he have opportunity and occasion to test his ideas by application, to make their meaning clear and to discover for himself their validity. (p. 94)

Moreover, Dewey (1910) described the five steps of reflection: "(i) a felt difficulty; (ii) its location and definition; (iii) suggestion of possible solution; (iv) development by reasoning of the bearings of the suggestion; (v) further observation and experiment leading to its acceptance or rejection; that is, the conclusion of belief or disbelief" (p. 53). Dewey (1916) noted, however, that this method of reflection may vary from one person to another because personal traits and experiences vary.

In the context of my research query, uncovering details and making connections about how NCLEX-RN adoption affects my teaching practices requires me to engage in "reflection par excellence." Thus, in my study, I reflect on my experiences of writing the NCLEX-RN as well as

how the adoption of the NCELX-RN impacts my educational practice (experiences) to foster student reflection/thinking.

Mis-educative Experiences

Dewey (1938) did not consider all experiences as equally educative. He cautioned that some experiences were "mis-educative." He defined a mis-educative experience as any experience that had "the effect of arresting or distorting the growth of further experiences" (1938, p. 25). He (1938) believed traditional education was mis-educative insofar as it was narrowly focused on technical skill acquisition and occurred in isolation from the wider social context. The following passage illustrates Dewey's (1938) concerns about mis-educative consequences when learning is restricted to the acquisition of technical skills and when experiences are disconnected.

> How many students, for example, were callous to ideas, and how many lost the impetus to learn because of the way in which learning was experienced by them? How many acquired special skills by means of automatic drill so that their power of judgment and capacity to act intelligently in new situations was limited? How many found what they did learn is so foreign to the situations of life outside the school as to give them no power of control over the latter? How many came to associate books with dull drudgery, so that they were "conditioned" to all but flashy reading matter? (pp. 26-27)

In the context of my research, I ponder these same questions as noted by Dewey in the previous passage to consider the impact of adopting the NCLEX-RN on my teaching practices.

Purpose of Education

Dewey (1916) believed that the purpose of school education is to ensure continued growth by organizing conditions that support growth. For him, a "proper education" was one that

promoted “the best realization of humanity as humanity” (1916, p. 58). He noted that unlike traditional educationalists, who thought of education as a means to an end, he viewed education as having “no end beyond itself” (Dewey, 1916, p. 33). For Dewey, the strength of a progressive education is that it includes a focus on the nurturing of thinking, unlike traditional approaches, which primarily focused on the acquisition of information. However, he (1938) warned that taking an *either-or* philosophical position is not helpful insofar as a philosophy of education would be reduced to some kind of *ism* about education. Dewey was concerned that when thinking or acting about education was reduced to an either-or philosophical position of traditionalism or progressivism, thinking and actions become focused on reacting against each ism and not on a “constructive survey of actual needs, problems and possibilities” (1938, p. 6). Dewey’s insights about the dangers of adopting an either-or mentality are instructive for my research query as I consider the impact of the NCLEX-RN on my teaching practices. In my study, I try to embrace Dewey’s caveat about isms. As I consider the impact and meaning of the adoption of the NCLEX-RN on my practice, I try to be mindful of considering student needs, problems, and possibilities that the adoption of the NCLEX-RN engenders so as to avoid resorting to an either-or philosophical position.

Social Environment and Function of Education

Dewey (1916) viewed school as a special social environment. He (1916) believed the school was the “chief agency” (p. 15) for promoting a better society, but he also acknowledged the influence of other environments on personal and societal development. He believed the school environment should strive to balance the varied environmental influences so that “each individual gets an opportunity to escape from the limitations of the societal group in which he was born, and to come into living contact with a broader environment” (1916, p. 16). From this

perspective, Dewey (1916) viewed the school environment, hence education, as having an emancipatory and democratizing capacity. In my inquiry, I explore how the adoption of the NCLEX-RN affects the emancipatory and democratizing capacity of my educational practices, so ideally, all students could be supported to reach their potential in their roles as future nurses and as citizens at large.

Balancing Modes of Education

Dewey considered that finding a balance between formal and informal education methods and between intentional and incidental modes of education was one of the "weightiest problems" (1916, p. 8) of a philosophy of education. He (1916) believed that as society became more complex, the need for more formal and intentional learning increased. However, he worried that this growing complexity could result in an "undesirable split between the experience gained in more direct associations and what is acquired in school" (1916, p. 9). In the context of my research inquiry, understanding how the adoption of the NCLEX-RN potentially impacts the balance between formal and informal learning and intentional and incidental is an important consideration for my teaching practices. More specifically, exploring how the adoption of the NCLEX-RN affects the gap between nursing theory and clinical nursing practice is an important consideration for my pedagogical practice.

Vocational Learning

Dewey's beliefs (1916) about vocational learning are predicated on his belief that the goal of education is not to prepare for some future life but that education is life itself. Although Dewey maintained that training for occupations should be through occupations, he warned about the pitfalls of paying too much attention to skills or technical methods at the expense of meaning. He (1916) cautioned that if vocational learning were only technical in nature, it would

become an instrument for sustaining the industrial order of society instead of a means for transformation. The following passage illustrates Dewey's vision for vocational learning.

> But an education which acknowledges the full intellectual and social meaning of a vocation would include instruction in the historic background of present conditions; training in science to give intelligence and initiative in dealing with material and agencies of production; and study of economics, civics, and politics, to bring the future worker into touch with the problems of the day and the various methods proposed for its improvement. Above all, it would train the power of readaptation to changing conditions so future workers would not become blindly subject to fate imposed upon them. (Dewey, 1916, p. 174)

In my study, I reflect on how the adoption of the NCLEX-RN affects my capacity to adopt pedagogical practices that reach beyond the technical approach and offer learning opportunities to support students as future change agents.

Role of the Educator

Nurturing Thought. Because Dewey (1916) believed "thinking is the method of educative experience" (p. 94), an educator's role was largely to nurture thought. Thus, he believed a primary responsibility of educators was to know how to provide "environing conditions" or contexts that would optimize the learning experience (1938, p. 40). Dewey (1938) used the term "experiential continuum" (p. 28) to describe his idea that educators need to select experiences that promote growth. For Dewey, educative experiences

> must lead out into an expanding world of subject-matter, a subject-matter of facts or information and ideas. The condition is satisfied only as the educator views teaching and learning as a continuous process of reconstruction of experience. This

> condition in turn can be satisfied only as the educator has a long look ahead and views every present experience as a moving force influencing what future experiences will be. (Dewey, 1938, p. 87)

In my study, I reflect on how the adoption of the NCLEX-RN impacts my ability to support the nurturing of thought with students in the classroom. I also speculate about possible longer-term consequences the adoption of the NCLEX-RN may hold for developing or suppressing the development of a critically reflective nursing graduate.

Adapting the Scientific Method. Dewey (1938) regarded the scientific method as "the only authentic means at our command for getting at the significance of our everyday experiences of the world in which we live" (p. 88). He (1938) believed it was the educator's role to adapt the scientific method to the individual needs of the student. In essence, he proposed that educators need to engage the individual student in the scientific method by identifying learning strategies that build on an individual's level of experience. For my study, I consider how the adoption of the NCLEX-RN impacts my ability to individualize learning to meet the diverse needs of the students I teach.

Cultivating Attitudes. Dewey (1916) also emphasized that educators have a responsibility to cultivate attitudes conducive to intellectual growth. As discussed in the following sections, Dewey (1916) urged educators to foster confidence, open-mindedness, single-mindedness, responsibility, and curiosity.

Building Confidence. Dewey differentiated between confidence and self-confidence. For Dewey (1916), confidence referred to the "straightforwardness with which one goes at what one has to do" (p. 100). Dewey further clarified that confidence is not about trusting in one's intellectual powers but rather denotes an "unconscious faith in the possibilities of the situation"

(1916, p. 100) and "signifies rising to the needs of the situation" (1916, p. 100). He (1916) discouraged teachers from making students explicitly aware that they are learners and students because he believed that this consciousness results in a dependence and reliance on others for suggestions and direction and replaces the "sureness with which children and adults who have not been sophisticated by "education" confront the situations of life" (p. 100). In the context of my study, Dewey's insights about building confidence are relevant to me as a faculty member who is trying to adjust to the realities of the adoption of the NCLEX-RN. Additionally, understanding how the adoption of the NCLEX-RN presents new challenges or opportunities for fostering student confidence is an important consideration for my practice.

Supporting Open-Mindedness. In the following passage, Dewey defined open-mindedness as

> accessibility of the mind to any and every consideration that will throw light upon the situation that needs to be cleared up, and that will help determine the consequences of acting this way or that…. The worst thing about stubbornness of mind, about prejudices, is that they arrest development; they shut the mind off from new stimuli. Open-mindedness means the retention of the child-like attitude. (1916, pp.100-101)

Throughout my dissertation, I endeavour to keep an open mind as I review the literature relating to the adoption of the NCLEX-RN. I also reflect on how the adoption of the NCLEX-RN facilitates or compromises my ability to impart the value of open-mindedness in the learning context.

Fostering Single-Mindedness. Dewey used the term single-mindedness to convey the idea of "unity of purpose," which he equated to mental integrity. He elaborated that single-mindedness is nurtured by "absorption, engrossment, full concern with the subject matter for its own sake"

(1916, p. 101). He (1916) further noted that "divided interest and evasion destroy it" (p. 101). He (1916) noted the difficulty of being single-minded and that double-mindedness is fostered by schools when they do not engage learners in their own learning desires and purposes. According to Dewey, this duplicity puts the student in conflict with two masters at once—doing what one is socially expected to do at the expense of suppressing one's own desires. Dewey (1916) described that this double standard of reality—one for private concealed interests and another for more public and acknowledged concerns, as demoralizing. He cautioned teachers that "What is native, spontaneous, and vital in mental reaction goes unused and untested, and the habits formed are such that these qualities become less and less available for public and avowed ends" (1916, p. 102).

In the context of my study, I view my engagement in my dissertation as an example of what Dewey (1916) might have considered single-mindedness, in so far as I am able to study the impact of the NCLEX-RN on my practice in detail as a matter of personal and professional interest and choice. As well, I consider the possible impact that NCLEX-RN pass rates might have on my curricular practices and how spontaneous or emergent learning could be curtailed if NCELX-RN pass rates become a predominate curricular force.

Promoting Responsibility. Dewey defined intellectual responsibility as "the disposition to consider in advance the probable consequences of any projected step and deliberately to accept them; to take them in the sense of taking them into account, acknowledging them in action, not yielding a mere verbal assent" (1916, p. 102). He (1916) explained that intellectual thoroughness or seeing a thing through are expressions of an attitude of intellectual responsibility. Throughout my dissertation, I consider the impact of adopting NCLEX-RN on promoting students to take responsibility for their learning. I am hopeful that via the process of this dissertation, I exemplify

an attitude of intellectual responsibility by utilizing insights that I uncover throughout the dissertation process to better my teaching practices and further my personal development.

Fostering Curiosity. Dewey (1910) believed that curiosity was an organic expression of energy and was a vital and significant resource for the training of thought. For Dewey (1910), curiosity can be seen as social when it spurs one to explore other's experiences and intellectual when questions remain. For Dewey (1910), the teacher's task is to "keep alive the sacred spark of wonder and to fan the flame that already glows" (p. 27). In the context of my study, I consider how adopting the NCLEX-RN impacts my passion for learning and, subsequently, my pedagogical choices.

Teaching for Wisdom. Dewey (1910) was concerned that schools tended to stress knowledge acquisition instead of the ideal of wisdom. He (1910) cautioned that teaching practices such as teaching abstract concepts that are disconnected from ordinary life, overemphasize mechanical skill acquisition and information acquisition, restrict intellectual power, and make the nurturing of the mind "a bad second" (p. 40). While he acknowledged that thinking cannot occur in a vacuum, he stated that "there is all the difference in the world whether the acquisition of information is treated as an end in itself or is made an integral portion of the training of thought" (Dewey, 1910, p. 40). I apply Dewey's insights about teaching for wisdom in my dissertation by considering how the adoption of NCLEX-RN impacts my ability to teach for wisdom not just for the acquisition of knowledge required to pass the NCELX-RN.

My study offers me an opportunity to reflect on my own experiences and the meaning of my experiences relating to writing the NCLEX-RN and on my capacity as a nurse educator to implement teaching practices that nurture thought, support student confidence, open-mindedness, single-mindedness, responsibility, curiosity, and wisdom.

Summary

In this chapter, I reviewed the central tenets of Dewey's educational theory and discussed their relevance for my research inquiry. Dewey's belief that the primary roles of an educator are to nurture thought and cultivate attitudes conducive to intellectual growth aligns with my personal beliefs and pedagogical practices. In the context of my study, I explore how the adoption of the NCLEX-RN impacts my ability to nurture thought and foster attitudes that support intellectual growth (research question 1) and consider the personal and professional meaning of trying to uphold these values in the context of the adoption of the NCLEX-RN (research question 2).

Overall, although Dewey did not use the word holistic to describe his beliefs about education, his approach reflects the tenets of balance, growth and connectedness that align with Miller's view of the fundamental dimensions of a holistic curriculum. Similarly, Dewey's critique of the limitations of traditional education as primarily information transfer aligns with Miller's critique of what he labels as a transmission orientation to curriculum. For my study, I reflect on how the principles of balance, growth, and connectedness are supported or disrupted by the adoption of the NCLEX-RN (research question 1) and consider the meaning of my ability or inability to support the principles of balance, growth, and connectedness within my practice (research question 2).

In the next chapter, I explore how the tenets of critical pedagogy as espoused by Freire (1970) and hooks (1983) provide a lens to further explore the impact and meaning the adoption of the NCLEX-RN holds for upholding a holistic pedagogical practice.

CHAPTER 4: CRITICAL PEDAGOGY

Although there are many critical theorist perspectives within the qualitative research paradigm, all critical theorists focus on context and the power dynamics of contexts (Merriam & Tisdell, 2016). Thus, critical educational researchers ask questions about the context of learning, including the historical, social, and cultural structures and conditions that shape educational practice (Merriam & Tisdell, 2016). Walker (2017) advised critical researchers to seek to identify issues of inequity and injustice to replace these oppressions with empowerment.

In this chapter, I explore the major theoretical tenets of critical theorists Paulo Freire and bell hooks and discuss the relevance of their perspectives for my study. By taking a critical autobiographical approach in my inquiry, I draw on both Freire's (1970) and hook's (2003) insights to uncover the impact and meaning of the adoption of NCLEX-RN on my teaching practices and my personal and professional commitment to promoting a learning environment that upholds principles of social justice and democracy.

Paulo Freire

Central Tenets of Freire's Pedagogy

Education as an Oppressive or Liberating Force

Freire (1970) believed that a person's ontological vocation is humanization. For Freire (1970), education is either a liberating force allowing a person to fully engage in his/her humanity or an oppressive force that constrains individuals and diminishes the capacity of humanity. Thus, as Richard Shaull noted in his foreword to Freire's book, *Pedagogy of the Oppressed* (1970), "There is no such thing as a neutral educational process" (p. 15). Freire (1970) believed that oppressive forces predominate in society and that educational processes reflected and sustained this oppression.

The Banking Model of Education

Freire (1970) criticized the traditional, behaviourist view of education as suffering from "narrative sickness" (p. 57), whereby teachers narrate content, values, and their reality and deposit them into students as though they are empty vessels. He described this as the "banking concept of education" (1970, p. 58). Freire (1970) described the teacher's role in banking education in the following passage:

> (a) the teacher teaches and the students are taught;
> (b) the teacher knows everything and the students know nothing;
> (c) the teacher thinks and the students are thought about;
> (d) the teacher talks and the students listen—meekly;
> (e) the teacher disciplines and the students are disciplined;
> (f) the teacher chooses and enforces his choice, and the students comply
> (g) the teacher acts and the students have the illusion of acting through the action of the teacher;
> (h) the teacher chooses the program content, and the students (who are not consulted) adapt to it;
> (i) the teacher confuses the authority of knowledge with his own professional authority, which he sets in opposition to the freedom of the students;
> (j) the teacher is the Subject of the learning process, while the pupils are mere objects. (p. 59)

Like Dewey, Freire (1970) believed that a liberating education consists "in the acts of cognition not transferals of information" (p. 67). He (1970) argued that the banking model of education with its focus on informational transfer leaves little energy for thinking and critical reflection. Freire viewed banking education as an oppressive force that ultimately constrains thought, action, and the capacity of humanity for creating a better, more just society. Moreover, he contended that the ideological intent of this type of education, which is often not recognized by educators, is to adapt to the world, not to change it. Thus, Freire called on educators to

wholeheartedly reject the banking concept of education and adopt a problem-posing method of educating.

Posing of Problems

For Freire (1970), a liberating education emphasizes the "posing of the problems of men in their relations with the world" (p. 66). Foundational to this problem-posing approach is Freire's belief in humans as "conscious beings, and consciousness as consciousness intent upon the world" (1970, p. 66). Importantly, for Freire, problem-posing education fosters the development of one's "power to perceive critically the way one exists in the world "*with which and in which"* they find themselves (1970, p. 71). Unlike banking education, which he viewed as emphasizing the past, he viewed a problem-posing education as offering a way of looking to the past to understand it, to create a better future. Thus, within a problem-posing approach to education, history offers a starting point for critical reflection by which an individual can uncover possibilities for changing the future. A problem-posing education emphasizes the hope of transcending problems, of realizing one's potential as a human being. From a Freirian perspective, my study of my coming to terms with the adoption of NCLEX-RN can be framed as an example of problem posing, in so far as I am exploring the potential problems or possibilities that the adoption of the NCLEX-RN poses for my pedagogical practice and my humanity. In a pedagogical sense, understanding how the adoption of the NCLEX-RN impacts my ability to adopt problem-posing-based pedagogies that emphasize critical reflection is also an important consideration for my study.

Dialectical Theory

Dialectical theory is a method used for uncovering contradictory facts or ideas in order to resolve or reconcile issues or problems. Freire advocated for the use of dialectical theory to

uncover the "connections between objective knowledge and the cultural norms, values and the standards of society at large" (as cited in Darder et al., 2009, p. 11). For Freire (1970), inherent within the banking concept of education is a contradiction or dichotomous relationship between the teacher and student. He believed that by adopting a problem-posing educational approach, the dichotomous teacher-student relationship is reconciled via a problem-solving approach, which enables dialogue between students and teachers. Thus, for Freire, a problem-posing approach to education is collaborative, where teachers and students learn from each other. The teacher is not the gatekeeper or owner of knowledge. Students become "co-investigators in dialogue with the teacher" (Freire, 1970, p. 68). Understanding my ability to promote a collaborative teacher-student learning environment within the context of the adoption of the NCLEX-RN is an important consideration for my study. Additionally, it is important that I use dialectical theory to discover connections between the cultural norms and values of the adoption of the NCLEX-RN and my pedagogical practices to consider how I might reconcile my pedagogical practices. Ultimately, by applying Freire's (1970) dialectical view of knowledge, where knowledge production is seen to both shape human activity and to be shaped by human activity, I aspire to understand how my pedagogical actions in light of the adoption of the NCLEX-RN shape knowledge as either a liberating or an oppressive force.

Dialogue, Praxis, and Critical Reflection

Freire (1970) believed "dialogical theory requires that the world be unveiled" (p. 169). For Freire (1970), the method to unveil the world is via critical dialogue to bring consciousness to oppression and domination. The following passage illustrates Freire's (1970) concept of dialogue:

> Dialogue is the encounter between men, mediated by the world, in order to name the world… If it is in speaking their word that men, by naming the world, transform it, dialogue imposes itself as the way by which men achieve significance as men. Dialogue is an existential necessity. And since dialogue is the encounter in which the united reflection and action of the dialoguers are addressed to the world which is to be transformed and humanized, this dialogue cannot be reduced to the act of one person's "depositing" ideas in another, nor can it become a simple idea exchange of ideas to be "consumed" by the discussants. Nor yet is it a hostile, polemical argument between men who are committed neither to the naming of the world, nor to the search for truth, but rather to the imposition of their own truth. Because dialogue is an encounter among men who name the world, it must not be a situation where some men name on behalf of others. It is an act of creation; it must not serve as a crafty instrument for the domination of one man by another. The domination implicit in dialogue is that of the world by the dialoguers; it is conquest of the world for the liberation of men. (pp. 76-77)

Freire (1970) expressed that the requisites for dialogue are love, humility, faith, hope, and critical thinking. He believed that dialogue cannot exist without a love for humanity and the world. He believed love is an act of courage and a commitment to the cause of liberation of others. Referring to the necessity of humility for dialogue, Freire (1970) asked, "How can I dialogue if I always project ignorance onto others and never perceive my own?" (p. 78). Referring to faith as requisite for dialogue, Freire (1970) spoke of the necessity of having faith in man's power "to make and remake to create and re-create, faith in his vocation to be more fully human (which is not the privilege of an elite, but the birthright of all men)" (p. 79). According to Freire, hope is a driving life force that enables the pursuit of our full humanity within the context

of injustices. He noted, “If dialoguers expect nothing to come of their efforts, their encounter will be empty and sterile, bureaucratic and tedious” (Freire,1970, p. 80). Lastly, he contended that critical thinking is essential for the existence of “true dialogue” (Freire, 1970, p. 80). He (1970) distinguished critical thinking from naïve thinking by contending that the critical thinker acknowledges the impact of history on experience but perceives reality as an ongoing process, not as a static occurrence. From this perspective, critical thinking enables critical reflection, which holds the possibility for change.

Freire (1970) defined praxis as reflection and action and viewed it as a vital and liberating process for the development of critical consciousness, which could ultimately lead to transformational thinking or action. He considered critical reflection as an action in and of itself and recognized that acting on reflections is not always feasible in a particular situation or at a particular time. Thus, Freire (1970) considered the development of a critical consciousness as intellectually and socially valuable.

For Freire (1970), a dialogic educator who is preparing for class should first ask himself/herself what he/she should *dialogue about with* students. However, he believed that a focus on dialogue content should be more than a focus on program content. Thus, like Dewey, Freire viewed an educator’s role as facilitating dialogue and reflection. Importantly, in reference to the unveiling of the world, Freire (1970) cautioned that “No one can, however, unveil it *for* another” (p. 169). Understanding cannot be imposed.

In the context of my study, it is my belief that by pursuing an autobiographical approach, I will be engaging in critical reflection about the impact of the adoption of the NCLEX-RN on my pedagogical practice so that my world will be more fully unveiled. Ultimately, it is my hope that as my critical consciousness develops, my pedagogical practices will become more

emancipatory. It is my sincere hope that the insights that I unveil are thought-provoking for other nurse educators, nurse leaders, or nursing students, who may also be struggling with coming to terms with the adoption of the NCLEX-RN.

Antidialogical Education

Freire (1970) contended that there are several antidialogical educational practices that suppress the development of critical consciousness. He (1970) considered all antidialogical practices as acts of conquest. Freire (1970) labelled the following practices as antidialogical: a) the use of myth as a way to maintain the status quo, b) a reliance on manipulation to suppress critical thinking, c) utilization of divide and rule tactics to prevent unity, and d) cultural invasion as a form of economic and cultural domination. In my study, I explore the use of antidialogical tactics in the context of the adoption of the NCLEX-RN to consider the meaning these practices may hold. In the next section of this chapter, I discuss how critical theorist bell hooks envisions how educators might counter the threats of antidialogical practices that Freire (1970) described.

bell hooks

Creating a Democratic Classroom

As a critical theorist, hooks (2003) asserted that despite the existence of antidialogical practices, a democratic (emancipatory) education is possible. Indeed, she stated that the classroom "may be the only location where individuals can experience support for acquiring a critical consciousness, for any commitment to end domination" (p. 21). Building on Freire's (1970) concepts of a dialogic approach to education, she (2003) called on educators to teach in ways that do not inadvertently reinforce structures of domination, such as those of race, gender, class, religious hierarchies, and institutionalized ways of learning. Thus, hooks (2003) encouraged educators to embrace and model democratic principles of diversity, inclusion, and

social justice within the classroom. hooks (2003) recounted that when students from diverse cultures and backgrounds experience poor grades or failure, many drop out or view themselves as victims in a closed educational system.

For my study, it is important that I understand how students from diverse cultural backgrounds may be at a higher risk of failure on the NCLEX-RN and question how my pedagogical practices either support democratic values or how they may unintentionally support oppressive practices that reinforce social injustices. To address issues of social justice, hooks (2003) called on educators to embrace the concept of "radical openness" (p. 48) so that learning reflects a plurality of perspectives.

Embracing Radical Openness--Creating a Sense of Community

Like Freire and Dewey, hooks (2003) envisioned educators supporting the thinking processes of students. hooks (2003) explained how the use of authority differs in classrooms when radical openness is embraced. Like Freire, she (2003) advocated using a problem-posing approach in which the teacher learns from the students, while the students learn from the teacher and from each other. Thus, the classroom becomes a place where ideas are exchanged, and the teacher is but one learner. She asserted that because the teacher respects freedom, students feel respected. hooks described her practice and her expectation of classroom learning in the following passage:

> I entered the classroom with the conviction that it was crucial for me and every other student to be an active participant, not a passive consumer...education as the practice of freedom.... education that connects the will to know with the will to become. Learning is a place where paradise can be created. (2013, p. 197)

Importantly, hooks (2003) noted that adopting a radical openness to teaching is not easy, as it requires a tolerance for uncertainty, ambiguity, and tentativeness, so as new information is presented, one is free to change one's mind. hooks (2003) further suggested that relating learning to meaningful life events and knowledge helps students experience learning as a whole process that is connected to, not alienated, from an individual's world.

My study offers me an opportunity to explore how the principles of radical openness affect my teaching practices in the context where high NCLEX-RN pass rates are valued. Because I place a high value on being able to embrace a classroom that supports radical openness, my study also provides an opportunity for me to explore the consequences and meanings this pedagogy holds for me spiritually. As I engage in my inquiry, I reflect on my capacity to provide a culture of communal learning when the NCLEX-RN is viewed as a primary source of authoritative knowledge.

Engendering a Pedagogy of Hope and Possibility

As Freire (1970) noted, a democratic classroom is a classroom that engenders hope and possibility. hooks (2003), like Freire, stated that hope is what enables the continuous struggle for social justice. She described the importance of hope to her pedagogy in the following passage:

> My hope emerges from the places of struggle where I witness individuals positively transforming their lives and the world around them. Educating is a vocation rooted in hopefulness. As teachers, we believe that learning is possible, that nothing can keep an open mind from seeking after knowledge and finding a way to know. (hooks, 2003, p. xiv)

Like hooks (2003), I believe it is ethically and morally important that educational processes reflect hopefulness and possibilities of change. In the nursing context, I believe

that if students graduate with a sense of their own intellectual capacity and the necessity of hope for achieving change, they will be able to champion changes that improve nursing care throughout their careers. In my study, I explore how my pedagogical choices to create and sustain a sense of hope and possibility in the classroom are impacted by NCLEX-RN pass rates. By reflecting on the impact of pedagogical choices on student success or failure on the NCLEX-RN, I also wrestle with the ethical dilemma of teaching or not teaching to the NCLEX-RN exam.

Acknowledging the Spirituality of Teaching and Learning

hooks (2003) contended that "It is essential that we build into our teaching vision a place where the spirit matters, a place where our spirits can be renewed, and our souls restored" (p.183). When we acknowledge, as Miller (2007) contended, the existence of the spiritual aspects of teaching and learning, we are acknowledging them as important to our pedagogical practice and our well-being. We begin to treat both ourselves as teachers and our learners more holistically. Teaching holistically amidst the adoption of NCLEX-RN is a tension at the heart of my inquiry. In my study, I attempt to understand the impact and the meaning the adoption of the NCLEX-RN holds for my passion for teaching.

Summary

In this chapter, I have outlined the central tenets of critical pedagogy as espoused by Paulo Freire (1970) and bell hooks (2003) and applied them to the context of my study. Critical pedagogy offers me a lens to critically reflect, uncover, and address the social and cultural structures that shape my practice and my being in the context of the adoption of the NCLEX-RN and a holistic practice.

Freire's (1970) theoretical constructs relating to the antidialogical nature of the banking model of education versus the nature of a problem-posing education, which encourages critical reflection and self-actualization, are helpful constructs as I consider the impact of the NCLEX-RN on my practice and humanity. Likewise, hook's (2003) theoretical constructs for countering antidialogical education by encouraging radical openness to create a sense of community, where hope and possibilities live, and the spirituality of learning is celebrated, offer me potential strategies for coping with the impact of the NCLEX-RN adoption.

In the next chapter, to better understand NCLEX-RN testing as a form of standardized testing, I provide an overview of the pros and cons of standardized testing and explore teacher responses to standardized testing within the education literature.

CHAPTER 5: LITERATURE REVIEW OF STANDARDIZED TESTING

The focus of this chapter is on providing a brief overview of the pros and cons of standardized testing from the K-12 education literature to orient myself to key findings and teacher perspectives within the education literature. In this chapter, to contextualize the use and impact of standardized testing in Ontario that many of the students whom I teach will have experienced, I also describe the K-12 testing context in Ontario, Canada. Importantly, I identify and reflect on the impact that standardized testing has had on Ontario teachers in the K-12 context. Before I begin to describe and discuss the education literature, I describe the process I used to identify relevant K-12 education and nursing education literature.

Details of the Literature Search

The following databases were utilized for this literature search. The Education Resource Information Center (ERIC) via the EBSCO host and the Omni academic search platform were utilized to search the education literature. Keyword search terms included "standardized testing"; "computer adaptive testing/adaptive quizzing"; "teachers and standardized testing"; and "Canadian teachers and standardized testing." The following databases were accessed for the nursing literature review: MEDLINE, which provides comprehensive access to citations and abstracts from nursing, medicine, and the health care system; OVID Journals, which provides access to nursing journals; the Evidence-Based Medicine Reviews, which includes Cochrane System Reviews, Cochrane Central Registry of Controlled Trials, American College of Physicians Journal Club, and the Database Abstracts of Reviews of Effects (DARE). The following search terms were used: "standardized testing AND nursing"; "standardized testing AND nursing curriculum"; "computer adaptive testing AND nursing education"; "attitudes of faculty AND NCLEX"; "faculty perceptions AND computer adaptive testing /adaptive

quizzing"; "faculty, perceptions or attitudes or opinions to NCLEX"; and "NCLEX pass rates AND nursing." The search dates for MEDLINE were initially broadly set from 1990-2020 in order to capture responses to the initial U.S. adoption of computer adaptive testing as the testing method for NCLEX-RN that began in 1994. Some searches were also re-run to capture the most recent nursing literature more easily from 2014-2020.

Other sources of literature included literature from ancestral searches from journals and books. Canadian government and professional education and nursing websites, such as the College of Nurses of Ontario, National State Council Boards of Nursing (NSCBN), Education Quality and Accountability Office (EQAO), and teacher federation websites were also consulted.

Article and book abstracts from the searched databases were reviewed for relevancy. Duplicate abstracts were removed. If abstracts were deemed relevant to my research query, I read the literature and appraised it for content relevancy and strengths and limitations. To facilitate discussion of the reviewed literature, I grouped the literature thematically.

Brief Overview of Standardized Testing in Education

The use of standardized testing in the education literature reflects a longstanding history of divisive viewpoints. Linn (2001) stated that early in the 20th century, as student populations rapidly grew, testing became a way to manage and improve efficiency. He (2001) noted that during this time, tests were used to sort students into various educational tracks, for grade-to-grade promotion, to compare schools, and as a gateway to higher education. Linn (2001) recounted that Odell (1928), an author and proponent of multiple choice and objective format testing, faced criticisms for his views about standardized testing. Odell (as cited in Linn, 2001, p. 30) was forced to confront the following criticisms of standardized testing as listed below:

1. Examinations are injurious to the health of those taking them.

2. The content covered by examination questions does not agree with the recognized objectives of education.

3. Examinations too often become objectives in themselves.

4. Examinations encourage bluffing and cheating.

5. Examinations develop habits of careless use of English and poor handwriting.

6. The time devoted to examinations can be more profitably used otherwise.

7. The results of instruction in the field of education are intangible and cannot be measured as can production in industry or agriculture, physical growth, heat, light and many other products of human or other activity.

8. Examinations are unnecessary.

Although some of these criticisms were written long ago, many of the concerns and controversies which confronted Odell in 1928 remain current. Campbell (2014) concluded that there is no consensus on the effectiveness of large-scale standardized tests despite a large body of literature about them. She acknowledges that while there is some research that supports the use of standardized testing for improving educational outcomes for students, she asserts that "overwhelmingly the research suggests that it does not lead to improved educational outcomes for students" (Campbell, 2014, para. 2). Campbell (2014) summarizes the contemporary debate regarding the use of standardized testing in her following account:

Arguments against standardized testing include:

- There is a tendency to "teach to the test," which results in narrowing the curriculum.
- The tests do not allow for linguistic or other cultural differences among students.
- There is the potential for subgroups of students to become lost within the overall numbers.

- Standardized testing leads to student disengagement.
- The tests do not adequately assess 21st-century skills, such as creativity, technology ability, problem-solving, or critical thinking.

Arguments in favour of standardized testing include:

- They provide an opportunity for comparison of educational outcomes across the schools, provinces, or countries.
- Results of standardized tests provide an opportunity to assess the strengths and weaknesses of the system.
- They offer a means to assess accountability
- Provincial assessments provide a way to evaluate curricula and determine which schools/districts/regions are meeting goals. (Campbell, 2014)

Educators and administrators may view standardized testing differently. Etsy (1997) completed a review of the literature to understand both teacher and administrator perspectives about standardized achievement tests in the U.S. His review of the educational literature was extensive and spanned 1965–1996. Thirty-eight studies were included. He noted that a limitation of his review was that due to time constraints, he was unable to include literature from the Psychological Abstracts database. However, his findings underscore how standardized tests are viewed differently by teachers and educators. He found that classroom teachers' attitudes toward standardized achievement tests appeared to be negative, and the tests were used to supplement or confirm teacher knowledge about their students. On the other hand, administrators appeared to hold positive attitudes towards standardized achievement tests and utilized them to evaluate curriculum and as a tool for communication with parents. He also noted that there seemed to be a shift occurring from the use of low stakes standardized achievement test results, traditionally

used for primarily instructional purposes, to the use of high stakes tests for accountability purposes.

Despite the controversies and concerns, standardized testing is a mainstay of the educational context from K-12 in both the U.S. and Canada. Kempf (2016) estimated that U.S. and Canadian teachers both spend approximately 10-20% of their classroom teaching directed to testing in the years that standardized testing occurs and, in the most extreme cases, up to 40% in the U.S. context.

The K-12 Testing Context in Ontario

Education Quality and Accountability (EQAO) Testing

In Ontario, standardized testing, known as the Education Quality and Accountability (EQAO) testing, has been in place for grades 3, 6, 9, and 10 since 1996 (Després et al., 2012). The EQAO website described the EQAO role as follows:

> EQAO is an arm's-length agency of the Government of Ontario that creates and administers large-scale assessments to measure Ontario students' achievement in reading, writing and math at key stages of their education. All EQAO assessments are developed by Ontario educators to align with *The Ontario Curriculum*. The assessments evaluate student achievement objectively and in relation to a common provincial standard. EQAO is currently focused on a multi-year modernization initiative. (2020a, About EQAO)

The government of Ontario plans to introduce online adaptive testing for the grade 9 math assessment test (EQAO 2020b), presumably as part of the modernization initiative. As well, in 2020, in response to declining provincial mathematic scores, the Ontario provincial government mandated that EQAO create a *Math Proficiency Test* that teacher candidates will need to pass as a teaching certification requirement (EQAO, 2020c). Interestingly, in 2006 the

ETFO and the OSSTF successfully convinced the provincial government to discontinue the *Ontario Teacher Qualifying Test* (OTQT), which the government had imposed in 2001 (Portelli et al., 2003) as part of its teacher certification program. Like the adoption of the NCLEX-RN, the adoption of the OTQT raised concerns relating to the test validity and teacher responsibilities relating to test preparation and alignment of teacher education curriculum (Childs et al., 2002). It is unclear if the *Math Proficiency Test* will also be abolished or replaced as a component of teacher certification at a future date.

Regarding the assessment of literacy skills, all Ontario secondary students must pass the *Ontario Secondary School Literacy Test* (OSSLT) to receive an Ontario Secondary School Diploma (EQAO, 2020c). The test is intended to measure minimal literacy standards across all subjects to the end of Grade 9 (EQAO, 2020c). Scores on the OSSLT do not count towards a final course grade.

Given the context described above, most of the students whom I teach, if they have completed their elementary and secondary education in Ontario, will have experienced EQAO standardized testing at least four times and perhaps more frequently if they were unsuccessful with the OSSLT on their first attempt (EQAO, 2020c). As well, from a pedagogical and faculty perspective, it is important to note that the creation and implementation of the *Math Proficiency Test* signify that the current provincial government is comfortable linking student performance to teacher knowledge and accountability.

Teacher Perspectives

Portelli et al. (2003) conducted a mixed-method study of 603 Ontario teacher candidates to understand teacher candidates' beliefs about the potential impact of the OTQT on teacher education, knowledge, and professional development. An advantage of a mixed-method study is

that the researcher can utilize more than one research method to study phenomena (LoBiondo-Wood et al., 2018). Part 1 of the Portelli et al. (2003) study consisted of a survey. An often-cited criticism of the survey method of research is that findings cannot be generalized (LoBiondo-Wood et al., 2018). However, a strength of the Portelli et al. (2003) study is that the researchers also conducted focus groups as a qualitative method for Part 2 of their study, thereby potentially making the analysis of the study findings more robust. Amongst the findings from the survey portion of their study were a) that 91% of teacher candidates did not believe that the OTQT would predict teacher competence, b) 89% disagreed there was a positive correlation between test performance and teaching performance, c) 78% of the study participants disagreed that the OTQT tested the critical knowledge required for the teaching-learning process, and d) 65% of the survey participants were concerned that the OTQT would eliminate the autonomy and uniqueness of teacher education programs (Portelli et al., 2003). An important finding from the qualitative component of the study was that study participants believed that pass/fail rates on the OTQT would influence teacher candidates' choices of teacher programs, not the quality or other features of the program (Portelli et al., 2003). Finally, Portelli et al. (2003) concluded that teacher candidates' perceptions about the OTQT reflect similar concerns found within the teacher testing literature. In the context of my study, the Portelli et al. study (2003) provides important insights into teacher candidates' beliefs about their entry-to-practice OTQT, which may have relevance for the nursing students I teach, who will be writing their entry-to-practice exam, the NCLEX-RN. I believe it is important that I understand the beliefs of my students regarding the NCLEX-RN as part of my coming to terms with the impact of the NCLEX-RN on my practice. The Portelli et al. (2003) study also raises important questions about the validity of standardized testing as an appropriate method for evaluating entry-to-practice competencies and

the potential impact of pass rates on curriculum. In my study, I reflect on how these findings parallel similar concerns which have come to light because of the adoption of the NCLEX-RN in Canada.

Teacher federations have not wholeheartedly supported EQAO. In 2010, the Elementary Teachers Federation of Ontario (ETFO) released a video entitled *Is EQAO Failing Our Children?* which outlined the ETFO's concerns to parents about the use of EQAO. The ETFO (2010) argued that EQAO did not assess the whole child or the entire curriculum and that classroom assessments made by teachers are the best source for assessing student learning, not EQAO. At that time, the ETFO recommended either eliminating EQAO testing or adopting random test sampling rather than maintaining census testing that required every grade 3 and grade 6 student to be tested province-wide. Their publication of *Building Better Schools* in 2018 contained the recommendations to cancel EQAO testing for both grades three and six and to "Respect teacher professional judgement and place more emphasis on the role of ongoing teacher assessment of student progress" (p.10). Similarly, earlier, in 2011, the Ontario Teachers' Federation (OTF) released their publication*, A New Vision for Large Scale Testing in Ontario,* and referred to EQAO testing as redundant and regressive. It recommended that alternatives to large-scale testing be explored and a change to random testing from census testing be implemented. In 2017, the OTF updated their recommendation with their publication entitled, *More than Dots on a Chart*. In this report, the OTF and its affiliates made the following recommendations to the Ministry of Education:

- emphasize the value of teachers' professional judgement in all its work by leveraging teachers' ongoing assessments to inform policymaking decisions;

- eliminate the reliance on high stakes, large-scale, census-based testing as a policy driver, starting with the immediate elimination of EQAO testing in Grade 3; and
- reallocate funding, currently used to design and administer large-scale tests, to a model of sustained professional learning opportunities, which are offered during the instructional day and which support the effective implementation of classroom-based assessment practices. (p. 5)

In addition to the teachers' voices articulated via the various teacher federations, findings from Kempf's (2016), three-year, mixed-methods study, the *Teachers and Test Study* examining Ontario and U.S. teachers' perspectives on the impact of standardized testing provide several valuable insights for my research query. Key findings from the survey are summarized under the following sub-headings as identified by Kempf:

- **Narrowing of the curriculum.** Almost 60% of the Ontario English teacher respondents and nearly 73% of Ontario French teachers respondents agreed or strongly agreed they narrowed the range of topics taught as a result of standardized testing.
- **Effectiveness of the use of standardized testing results.** Eighty-four **(**84%) percent of Ontario English teacher respondents and 71% of Ontario French teacher respondents disagreed or strongly disagreed that the results of standardized testing are used effectively to improve teacher practice.
- **Impact of standardized testing on assessment and instruction.** Seventy-one percent (71%) of English teacher respondents and 65% of French teacher respondents agreed or strongly agreed standardized testing made it more difficult to use diverse assessment and instructional approaches.

- **Standardized testing and meeting the academic needs of students.** Eighty-one percent (81%) of English teacher respondents and 76% of French teacher respondents disagreed or strongly disagreed standardized testing enabled schools to better need the academic needs of students and improve student learning.
- **Use of standardized test results to evaluate teachers and teaching ability.** More than 90% of both English and French teacher respondents disagreed or strongly disagreed that standardized test results should be used to evaluate teachers. Similarly, 90.7 % of English teacher respondents and 80% of French respondents disagreed or strongly disagreed that standardized test results reflect a teacher's ability.
- **Impact of standardized testing on student learning.** Beliefs about whether students learn more because of standardized testing were consistent with both English and French respondents. Less than 8% of both English and French respondents believed that as a result of standardized testing, students learn more or much more than they would otherwise. As well, when teachers were asked if they believed that standardized testing controls for race and income bias, 12.6% of English teacher respondents agreed or strongly agreed race bias was controlled, and 19.6% of French teacher respondents agreed or strongly agreed. Concerning income bias, 11.2% of English teacher respondents agreed or strongly agreed, and 17.8% of French teacher respondents agreed or strongly agreed.
- **Impact of standardized testing on the teaching profession and professional judgement.** Seventy-eight percent (78%) of English teacher respondents and 53.4% of French teacher respondents agreed or strongly agreed that standardized testing diminished the teaching profession. Approximately a third (32–33%) of both English

and French respondents believed that standardized testing often prevented their use of professional judgement and pedagogical and content knowledge gained in teacher's college and other learning contexts.

- **Standardized testing and public understanding.** Eighty-eight percent (88%) of English teacher respondents and 85.6% of French teacher respondents disagreed or strongly disagreed that standardized testing allowed the public to better understand the strengths and weaknesses of the school's program.

The qualitative components of Kempf's study (2014; 2016) included the use of six case studies and six focus groups with a total of 101 participants from both the U.S. and Canada. I consider several findings from Kempf's study (2016) as points to ponder within my research query. These findings are as follows: a) student achievement, in general, is not associated with increased standardized testing; b) instead of levelling the educational playing field, standardized testing exacerbates gender, class and or race inequities; c) the use of critical pedagogical approaches can be more difficult to implement when standardized testing is emphasized and overall, d) increasingly, even within the Canadian context (although to a lesser degree than our American neighbours), high stakes standardized testing is becoming the new lens for understanding student, teacher, and school performance (Kempf, 2016).

Summary

In this chapter, I highlighted the pros and cons of standardized testing. I described the context of standardized testing in Ontario, Canada, to provide a context of the testing culture at large and locally. I also reviewed Ontario teacher candidate perspectives' (Portelli et al., 2003) about the entry-to-practice OTQT, Ontario teacher perspectives about standardized testing

(Kempf, 2016), as well as the Ontario elementary and secondary teachers' unions perspectives about standardized testing.

In the context of my study, it is important that as an educator who teaches nursing students who will be writing the entry-to-practice NCLEX-RN test, that I consider nursing student perceptions about the NCLEX-RN as I consider the meaning that the adoption of the NCLEX-RN has for my practice. As well, it is important that I also consider the relevance of the literature findings regarding teachers' perspectives about standardized testing. Kempf's (2016) concerns that standardized testing narrows the curriculum, negatively impacts assessment and instruction, reduces the ability to meet student's academic learning needs and negatively impacts the teaching profession and use of professional judgement are instructive for me as I explore standardized testing in the nursing education literature in the next chapter.

Chapter 6: Review of Standardized Testing, the NCLEX-RN, in the Nursing Education Literature

To better understand the nursing educational literature relating to standardized testing and nurse educators' responses to the adoption of the NCLEX-RN, I begin this chapter by relating the use of standardized testing to the predominant American and Canadian nursing education paradigms. In the remainder of this chapter, I review the U.S. nursing education literature related to the adoption of the NCLEX-RN.

Nursing Education Paradigms and Standardized Testing

Nursing curricula in both the U.S. and Canada reflect elements of both behaviourism and constructivism. A behaviouristic approach to curriculum promotes a technocratic vision of education and competence. Tomlinson (1997) argued that a technocratic vision of education could be linked to the influential learning theories of educational psychologist and behaviourist Edward Lee Thorndike. Behaviourist theoretical constructs of measurement, predictability, and objectification of knowledge are predicated on the contention that science depends upon the quantification of phenomena (Thorndike, as cited in Tomlinson, 1997). According to Tomlinson (1997), Thorndike's views of learning were shaped by combining hereditarianism and behavioural psychology with techniques of statistical analysis.

The behaviourist belief that standardized testing is an objective measure of competence underpins both the former Canadian Registered Nurse Exam (CRNE) and the NCLEX-RN. The use of Bloom's learning taxonomy (1956), which was used to measure nursing knowledge competencies in the CRNE (Marshall-Henty and Bradshaw, 2011) and is currently used in the NCLEX-RN, derives from behaviourist approaches to education. Importantly, Tomlinson (1997) noted that Thorndike's behaviourist views sever the relationship between fact and value and

present technology as a neutral instrument for achieving externally determined goals. This technocratic view of competence is exemplified by nursing regulators, who claim that the NCLEX-RN does not test American or Canadian content about healthcare systems or legislation (CNO, 2017a). Although this statement may be technically true, the CASN (2012, 2015) and Salfi and Carbol (2017) reported that the NCLEX-RN reflects differing American and Canadian values, culture, and content that should not have been ignored.

In contrast to behaviourists, constructivists view learning and knowledge as shaped by social and cultural contexts (Bruner, 1996). Constructivists, therefore, view competence as socially constructed. From this viewpoint, standardized tests that are designed to test competencies are products of social and cultural contexts. Thus, standardized tests can never be context-free. Drawing on the work of Karmiloff-Smith (1992) and Crutchfield and Mitchell (1995), Bruner (1996) took aim at the behaviourist computational model of learning and offered the following critique of CAT.

> All complex "adaptive" computational programs involve redescribing the output of prior operations in order to both reduce their complexity and to improve their "fit" to an adaptation criterion. That is what "adaptive" means: reducing prior complexities to achieve greater fitness to a criterion. (p. 10)

I believe a key component of my teaching role is helping students to navigate complexities, not ignore them. The assumption that nursing competencies are not, at some level, culturally determined is troubling. Embedding this assumption within a standardized test that uses CAT, enabling competence to be predicted, is very troubling.

Although both U.S. and Canadian nursing curricula reflect both behaviourism and constructivism, there are differences that should be considered in the context of the adoption of

the NCLEX-RN in the Canadian context. In the Canadian context, since 2005, the nursing entry-to-practice educational standard for all provinces except Quebec has been a Bachelor of Science in Nursing (BScN/BSN) (CNA, 2021). The adoption of the BScN was based on the argument that nurses needed a university curriculum that reached beyond a technical behaviouristic approach to prepare nurses for more diverse roles within a context of a changing healthcare system (Baker et al., 2012). The U.S. does not require a Baccalaureate nursing degree as an entry-to-practice standard (American Nurses Association [ANA], n.d.). However, the following quote from the Institute of Medicine's (IOM) report, *The Future of Nursing* (2011), acknowledges the need for more undergraduate BSN education in the U.S.

> Setting a goal of increasing the percentage to 80 percent by 2020 is, however, bold, achievable, and necessary to move the nursing workforce to an expanded set of competencies, especially in the domains of community and public health, leadership, systems improvement and change, research, and health policy. (IOM, 2011, para. 1)

By 2019, only 41% of U.S. nurses had baccalaureate degrees in nursing (Campbell et al., 2019). It is important to note that this statistic includes graduates that entered directly into an undergraduate BSN program and also those who graduated from a post-basic-BSN degree program, such as an associate nursing degree program.

Giddens (2009) noted that, in the U.S., while educational research has prompted changes in the teaching of nursing and curriculum design, these efforts have been curtailed by concerns that curriculum reform will result in a decrease in first attempt NCLEX-RN pass rates. She argued that first attempt NCLEX pass rates continue to be tied to program accreditation, despite widespread faculty agreement that educational preparation should extend well beyond NCLEX-

RN readiness and success. She also claimed that "faculty generally feels compelled to align with the NCLEX-RN as the standard to evaluate students in didactic courses" (2009, p. 123).

In 2010, Benner et al. published a review of nursing education in the U.S. They raised concerns about too much emphasis being placed on technical skills and test-taking and called on educators to "shift from attention to mastery of technical skills to exercising flexible judgement and taking context-dependent action in an undetermined situation" (p. 177). They also recommended varying the means of assessment and indicated that "there is too much focus on strategies to answer multiple choice questions such as those on the NCLEX-RN" (p. 22).

In the U.S., the National League for Nursing (NLN), an American accreditation body, argued that there is a need to protect the public through standardized evaluation measures of nursing competence. However, the NLN (2012) expressed its concern by stating, "It is the prevalent use of standardized tests to block graduation or in some other way deny eligibility to take the licensing exam that is most concerning to the NLN" (Introduction section, para. 1). It is surprising to me that ineligibility to practice because of failure on the NCLEX-RN is not viewed in the same way by the NLN. In my inquiry, I explore how my pedagogical practices are impacted by the argument that standardized testing is a necessity for ensuring public safety.

Strategies to Improve NCLEX-RN Success

Use of standardized testing in nursing curricula to improve NCLEX-RN success

There is a large body of nursing literature related to NCLEX-RN. A simple keyword search of the term "NCLEX-RN" generated 1197 articles from the CINAHL database. Since the U.S. adopted the NCLEX-RN (with its accompanying computer-adaptive technology) in 1994 (NSCBN, 2014b), and Canada did not adopt it until 2015, most of the NCLEX-RN literature reflects the U.S. context; however, there is a growing body of Canadian literature relating to

NCLEX-RN. Although the educational contexts and health care systems vary between the U.S. and Canada, and these differences should not be underestimated, reflecting on how American nurse educators have experienced the impact of NCLEX-RN is valuable to my research query and may be instructive for Canadian nurse educators at large.

Coons (2014), in her review of the U.S. nursing and education literature, concluded that there were limited research publications regarding the use of standardized tests within nursing programs. She further noted that where systematic reviews exist, they addressed issues of the predictability of program exit exams or interventions used to promote NCLEX-RN success, whereas evidence related to curricular changes in response to NCLEX-RN pass rates tended to be anecdotal. Most importantly, she noted that several findings from the K-12 literature are pertinent to nurse educators. Her findings include the following factors about standardized testing use: a) remediation may be needed; b) non-academic factors may impact test performance; c) standardized tests are anxiety-producing; d) there is the potential for narrowing of the curriculum; e) there is no literature support for using standardized test scores to judge the quality of instruction or teaching methods, and f) standardized testing represents only one piece of data, at a particular time.

Coon's study (2014) examined the use of standardized testing in U.S. nursing education programs to assess how and why standardized tests were used. She used a descriptive correlational research design for her study. Qualtrics was used to administer her online survey, which consisted of a previously established and validated instrument, the *Nursing Competencies Survey*. She also created additional questions as part of the survey. Her research sample consisted of 199 persons who oversaw or managed pre-licensure nursing programs within the western one-third of the U.S. A limitation in this study is that she did not include educators as part of her

sample population, so findings need to be contextualized with that in mind. As well, although the study did include BSN nursing programs, almost 60% of the programs in the study were at the associate degree level. In Canada, except for Quebec, the entry-to-practice standard is a BScN. Despite these caveats, several findings from her study provide valuable information about the use of standardized testing in the U.S. nursing education context and as a strategy for improving NCLEX-RN success.

Pertinent findings from Coon's (2014) study include the following points: a) 92% (n = 183) of study participants used commercially constructed standardized tests; b) the most common brand of a standardized exam was the ATI (Assessment Technologies Institute) predictor test; c) 84.9% (n = 169) indicated that standardized tests were incorporated into one or more nursing courses; d) 82.4% (n = 164) reported using standardized tests to assess NCLEX-RN readiness prior to graduation; e)16.1% used standardized testing for other purposes such as remediation, curriculum evaluation, benchmarking, content mastery, identification of students' weaknesses, preparation for the NCLEX-RN, practice with computerized testing, substitutes for course exams, and as selection criteria; and e) the majority of nursing programs 55.8% (n = 111) had a policy that stipulated how much a standardized test score could count toward a final course grade, while 35.2% (n = 70) of the nursing programs did not have that policy. Despite these findings, Coons concluded that no narrowing of the curriculum was found. This finding may not be surprising, given that the majority of the programs in her study were at the associate degree level. Associate degree programs may not have offered the breadth of non-NCLEX content as would a BScN curriculum. There appears to be a research gap in the Canadian literature, as I did not find any Canadian nursing studies that examined the use of standardized testing or its impact within Canadian nursing education programs in my review. However, I did find one Canadian

study by (Cobbett et al., 2016) that examined the relationship between the American, NCLEX-RN preparatory product, the Health Education Systems Incorporated (HESI) RN Exit Exam, and grade point average, lag time of writing the NCLEX-RN, and NCLEX-RN outcomes. I revisit this study in Chapter 7 as part of my discussion about strategies Canadian nurse educators are using to support NCLEX-RN success.

Predictor Exams for Improving NCLEX-RN Success

Harding (2010) completed a literature review on the accuracy of commercial examinations for predicting first attempt NCLEX-RN success to determine whether there were significant differences in scores for those graduates who successfully passed NCLEX-RN on their first attempt and those that did not. She found that the Health Education Systems Incorporated (HESI) exam is the most use standardized test to report relationships between test scores and NCLEX-RN success. Harding included sixteen studies in her review from 1999-2008. Harding (2010) concluded that the HESI Exit Exam was the only exam found to have a predictive rate of 96.4%-98.3% for NCLEX-RN success. However, Spurlock and Hanks (2004) found that while the HESI Exit Exam accurately predicts who will pass the NCLEX-RN, it does not accurately predict who will fail. This is an important point because approximately one-third of nursing schools in the U.S. required pre-licensure RN students to obtain a minimum score on a standardized predictive test to progress in the nursing program, and 12% required a minimum test score to graduate (NLN, 2012).

Zweighaft (2013) utilized an ex-post-facto, non-experimental research design to re-examine the predictive value of the HESI exit exam (E-2) within 63 U.S. nursing programs. Twenty-six of the programs participating in the study were baccalaureate programs, 31 were associate degree programs, and six were diploma nursing programs. She concluded that the HESI

E-2 was found to be highly accurate (96.61%) in predicting NCLEX-RN outcomes. She also concluded that when HESI specialized exams were included in the nursing curriculum, when students took the E-2 exit exam, their E-2 scores were significantly higher than those who did not take specialty exams in their nursing curriculum. Moreover, she found that Critical Care, Paediatrics, and Medical Surgical HESI specialty exams were most predictive of higher mean E-2 scores. The meaning of this finding is not clear. However, given that the NCLEX-RN test plan content emphasizes medical-surgical concepts, many of which may also be foundational to critical care and paediatric specialities, then it may not be surprising that by completing more tests that address medical-surgical principles, candidates may be better prepared to answer related NCLEX-RN content.

Barton et al. (2014) conducted an ex post facto non-experimental study design to describe educational policies related to the use of HESI Exit Exams to determine which policies were associated with higher HESI Exit Exam scores in the U.S. Ninety-nine schools of nursing participated in the study. Both baccalaureate and associate degree programs were part of the study. Five thousand, four hundred and forty-three individual student NCLEX outcomes and HESI Exit Exam scores were obtained. The study used the Licensure Outcomes Questionnaire and an investigator-designed instrument, the Testing Policy and Practices Questionnaire. Findings from their study were that nursing school programs are designing and implementing testing policies, and a majority of these program policies included preparation plans, remediation components, consequences, and re-testing plans. They also reported that a self-guided review was the most frequently used preparation and remediation plan. Components of a self-guided plan included the use of case studies, a study guide, and re-testing plans. Four policy components that were reported as having better student outcomes were achievement of mandatory benchmark

score, required participation in the preparation plan, required re-testing, and mandatory remediation after failing to meet the benchmark.

Decisions about minimum scores, also known as cut scores, can be made arbitrarily by nursing schools since there is little evidence to turn to for guidance (NLN, 2012). Definitions of what constitutes a minimum cut score vary. Randolph (2017) contended that the use of standardized tests as a predictor of NCLEX performance is a routine practice in U.S. nursing programs. As part of her study examining the standardized testing practices' effect on graduation and NCLEX pass rates, she examined the difference in first-time NCLEX-RN pass rates for 2014 between nursing programs who had an exit test (e.g., HESI E-2) cut score and those that did not. In her study, which included 34 nursing programs in one U.S. southwest state, Randolph concluded that there were no significant differences in NCLEX pass rates related to a cut score. It should be noted that beyond the limitations of the small sample from only one U.S. state, further limitations are that this study included four Licensed Practical Nurse programs, twenty-two RN associate programs, and only eight RN baccalaureate programs. Regardless of the type of nursing program, her study raises important legal and ethical questions for educators if cut scores are established and used as part of progression or graduation policies.

Adaptive Quizzing to Improve End of Program (Exit) Examinations

Presti and Sanko (2019**)** reported that the use of adaptive quizzing to improve performance on exit examinations within the pre-licensure nursing education literature is limited. Similarly, my literature search generated only three relevant articles. Presti and Sanko (2019) utilized a quasi-experimental, retrospective, pre-test-post-test design to compare end-of-program exit examination scores in a pre-intervention cohort of nursing students and a post-intervention cohort who were assigned individualized adaptive quizzing. They reported statistically

significant increases in the end-of-program exit examination scores for students who completed the customized adaptive quizzing. Limitations to generalization of their study findings included that the control group (n= 58) was smaller than the intervention group (n= 196), and the study was site-specific and restricted to students enrolled in the accelerated nursing program (a compressed two-year nursing degree offered to applicants already having a degree but not in nursing). A strength of this study is that the demographics of the study sample were racially diverse, with 37% identifying as Hispanic/Latino, 32% White, and 14% Black. The remainder of the participants were described as other. As well, although participants are not randomized when a quasi-experimental design is used, a quasi-experimental design is considered to be an appropriate research design when randomization is not feasible (LoBiondo-Wood et al., 2018). For me, the bigger issue is that when high-stakes exit exams and accompanying progression policies are adopted as part of the curriculum, educators might feel pressure to include more standardized tests in their curriculum to promote success on exit exams.

While it is commendable to want to support student success via the inclusion of adaptive quizzing within the curriculum, it does beg the question about what is lost when the curriculum focus becomes increasingly on testing for NCLEX-RN success. Overall, what seems blatantly obvious is that both nurse researchers and nurse educators are dedicating a lot of time and resources to finding and implementing an exam within the curriculum that will improve the NCLEX-RN scores. How that impacts other nursing research and curricular priorities is not clear.

Teaching Pedagogies and Curricula as Predictors to Improve NCLEX-RN Success

As part of their systematic review of the U.S. NCLEX-RN literature, Sears et al. (2015) examined nursing program courses as predictors for NCLEX-RN success. They concluded that

"Collectively, the literature suggests that some nursing program courses have significant predictive value for success in writing the NCLEX-RN" (2015, p. 12). Examples of significant predictors of NCLEX-RN success were course grades for theoretical nursing foundations, anatomy, and pathophysiology (Daley et al., 2003 as cited in Sears, 2015), and course content related to knowledge about circulation and oxygenation throughout the lifespan (Sayles et al., 2003 as cited in Sears, 2015). More recently, Shatto et al. (2018) reported in their integrated review of the literature that when more active learning methods were used versus more traditional lecture learning methods, NCLEX-RN and predictor examination scores were higher.

The NLN (2012) described the pressures on nurse faculty and programs to graduate students with high first-time NCLEX pass rates as greater than any other health care discipline. In 2012, the NLN published fair testing guidelines and recommendations to address these legal and ethical issues engendered by the adoption of high-stakes testing and associated progression policies in nursing education. Their recommendations for nursing faculty regarding high stakes testing included the following points:

- In making decisions about using standardized tests, require written comprehensive information about the test, including evidence that the tests under consideration have been developed to minimize cultural bias. Information about norms and norming procedures, reliability, and validity should also be reviewed by faculty before deciding to use any standardized test.
- In developing a policy based on test results, include the core principle that multiple sources of evidence are fundamental to evaluate basic nursing competence. This is especially true when high-stakes decisions are based on the assessment.

- Teach students about the purpose of the tests, the student factors that can affect the results, and the testing methods used within a program. Ensure that students receive information about precautions to take when potential employers request their standardized test results. (NLN, 2012, Recommendations for faculty)

Although the NLN (2012) testing guidelines speak to several concerns about standardized testing, NCLEX-RN first attempt pass rates continue to be an important factor in accreditation processes for nursing programs in the U.S.

Cognitive and Individual Factors as Predictors of NCLEX-RN Success

Sears et al. (2015) examined the relationship of critical thinking skills, grade point average (GPA), learning styles and test-taking capabilities, and language and ethnicity for their predictive value of NCLEX-RN success in the U.S. context. They reported that the evidence relating to critical thinking skills and NCLEX-RN is mixed; however, they noted some studies (Giddens & Gloeckner, 2005) indicate that it is a significant predictor of NCLEX-RN success while others (Romeo, 2013) did not. Regarding GPA predictability, Sears et al. (2015) concluded that "Despite some contradictory studies, entry to program and program GPAs appear to be significant factors in prediction for NCLEX-RN success" (p. 12). Their conclusions regarding learning styles and test-taking capabilities as significant predictors of NCLEX-RN success also indicated there was a mix of contradictory evidence. Similarly, studies about gender and age as predictors for NCLEX-RN success were found to be variable and contradictory. One uncontested finding that Sears et al. (2015) found in their review was that NCLEX-RN success was highly correlated to speaking English as a first language. They also concluded that most studies found ethnicity to be a significant predictor factor for NCLEX-RN success.

Remedial Educational Strategies for NCLEX-RN Success

Pennington and Spurlock (2010) completed a systematic review related to remediation interventions and their effect on NCLEX-RN pass rates. They found no experimental or non-experimental studies. Conclusions from their review were that most remediation studies were descriptive program evaluation reports and overall were of low quality. However, an interesting finding was that all studies used bundled interventions, not a discrete, single, intervention to address improving NCLEX-RN scores. They describe that bundled interventions usually consisted of "combinations of teaching study skills, stress management techniques, taking practice tests, undergoing faculty mentoring, or developing individual plans of study" (2010, p. 489). They concluded that the effectiveness of these strategies is not clearly addressed in the literature. Another discussion point the authors offered was the insight that although nurse educators may claim to be making evidence-based practice decisions, a U.S. national survey of 1,573 nursing faculty found that the NCLEX-RN pass rate was the most important driver of faculty decision making, and only 50% of respondents considered research evidence to be very important for academic decision making (Oermann et al., 2009). An important insight that the authors discussed is that educators may feel pressured to make pedagogical changes that may have their program interests at the centre of their decisions, but these decisions are not necessarily evidence-based.

Utilization of the NCLEX-RN test plan – teaching to the test

The NCSBN makes the NCLEX-RN test plans available to both educators and students via their website. When the search terms NCLEX-RN AND curriculum were used, research results were mainly about strategies or predictors for improving NCLEX-RN. Curiously, I did not find any specific studies relating to how the test plan might be or is being used by educators

to improve NCLEX-RN success. However, given that NCLEX-RN first attempt pass rates are viewed as a quality measure for accreditation of U.S nursing programs and that there is a large amount of research directed toward identifying factors for improving NCLEX-RN success, it seems reasonable to presume the NCLEX-RN test plan can be viewed as a driving curricular force for nursing programs in the U.S. context. As well, the increasing utilization of commercial NCLEX-RN preparation exam software such as HESI further suggests that what is tested by the NCLEX-RN as delineated within NCLEX-RN test plans is central to the curriculum of many U.S. nursing programs.

The NCLEX-RN has undergone several revisions over the course of its adoption of computer adaptive testing in 1994. The exam is reviewed every three years by the NCSBN so adjustments can be made to question formats, question content, and passing standards (Wendt & Kenny, 2007). Over the years, passing standards have been made more difficult. Benefiel (2010) noted that from 1994-2009, NCLEX-RN pass rates declined the first year after passing standards were increased. In the Canadian context, the exam has been revised twice since it was adopted. For students who were among the first to write the NCLEX-RN in 2015, the test plan in effect at that time was the NCLEX-RN Test Plan for 2013. Subsequent revisions to the NCLEX-RN test plans occurred in 2016 and 2019. No content percentage changes were made to the 2016 plan (Williams, 2016). Changes to the 2019 NCLEX-RN test plan included editorial changes, one terminology change, four additional activity statements, and transferring of two activity statements into a differing content category (NCSBN, 2019b). Examples of test formats include the following: multiple response items, fill-in-the-blank calculations, chart/exhibit items, ordered response items and graphic items (NCSBN, 2020c). A recent modification to the exam due to the

impact of COVID19 is that the exam length has been reduced to a maximum of 145 questions (NCSBN, 2020a).

The next revision to the NCLEX-RN test plan, known as *The Next Generation NCLEX*, was scheduled to be launched on April 1, 2022; however, due to the impact of COVID 19, the NCSNB website states that the revised NCLEX-RN will not be implemented until 2023 (NSCBN, 2020b). The NSCBN (2019b) has developed and adopted a Clinical Judgement Measurement Model (CJMM) within the new NCLEX-RN. Citing research that 65% of nursing errors result from poor clinical decision making and that 50% of new graduates are involved in those errors resulting from poor clinical decisions, the NCSBN (2019a) asserted that CJMM addresses complex decision making and critical thinking. The NCSBN (2019a) avowed that the CJMM would better measure the interaction between the nurses and clients, client needs, and expected outcomes. Moreover, the NCSBN stated that the CJMM would complement the nursing process, which is currently the decision-making model used within the NCLEX-RN. The question formats in the proposed new NCLEX-RN have been upgraded and are labelled as extended multiple response, extended drag and drop, extended cloze or drop-down, and enhanced hot spots (NCSBN, 2019a). Unfolding case studies will be used with the new NCLEX-RN. The revised format of the NCLEX-RN may require nurse educators to adopt the use of unfolding case studies as part of their pedagogies if it is not already part of their pedagogy. This change may require educators to put more of an emphasis on thinking processes versus memorization of content. I concur that unfolding case studies offers a way to help students improve their clinical thinking. I currently use unfolding case studies related to NCLEX-RN content in my practice. However, it should be acknowledged that clinical judgement is not context-free and remains affected by a student's educational, cultural and health care practice context.

Summary

My review of the U.S. nursing education literature related to standardized testing aligns with Coon's (2014) finding that systematic reviews mainly focused on identifying predictor factors for NCLEX-RN success. Additionally, I found one U.S. systematic review that was related to NCLEX-RN remediation strategies and one U.S. quasi-experimental study that was related to the use of adaptive testing in an undergraduate BSN curriculum. Much of the U.S. literature reflects that nurse educators are strongly focused on exploring factors that predict NCLEX-RN success. However, some literature also reflects growing pedagogical concerns about the implementation of progression policies in relation to the use of exit exams and, more recently, questions about the validity of the belief that success on the NCLEX-RN equates to the provision of safe care.

In the next chapter, I review Canadian nursing education literature relating to the adoption of the NCLEX-RN.

CHAPTER 7: CANADIAN EDUCATOR PERSPECTIVES AND RESPONSES TO THE NCLEX-RN

Although the Canadian literature relating to the adoption of the NCLEX-RN is limited, there is sufficient interest to contribute to a growing body of literature. However, I did not find any large-scale studies specifically exploring how Canadian educators are coping with or responding to the adoption of the NCELX-RN. Unlike our American counterparts, much of the Canadian literature focuses on concerns about the validity of the exam, but like our American colleagues, there is also a focus on identifying predictors of NCLEX-RN success. My literature search findings will be discussed within the following thematic categories: Validity concerns about NCLEX-RN in the Canadian context, Strategies to supporting NCLEX-RN success in the Canadian context, and Alternatives to NCLEX-RN.

Validity Concerns About NCLEX-RN

Several concerns about the validity of the NCLEX-RN for the Canadian context have been raised. These validity issues relate to concerns about its adoption despite evidence of non-analogous educational and health care practice settings, varying entry-to-practice competencies, and lack of recognition of differing cultural and language contexts from the U.S.

The CASN (2015) expressed several concerns about the appropriateness of the NCLEX-RN for the Canadian context. Amongst their concerns were that the 2013 and 2014 practice analyses (NCSBN, 2014a) comparing the Canadian new graduate nurses to new nursing graduates in the U.S. was flawed. Furthermore, their criticisms of the practice analyses included that less than a fifth of Canadian new graduates responded to the survey, the scope and range of activities assessed were restricted to activities decided by NCSBN, possibly leaving out Canadian activities; almost two-thirds of Canadian entry-to-practice competencies were either not addressed or only partially addressed in the NCLEX-RN test plan, and overall the NCSBN failed

to consider the impact of the Canadian cultural context on the interpretation and meaning of the practice analysis of activities. Other criticisms cited by the CASN (2015) included failures to adhere to international testing standards related to test adaptation guidelines for addressing linguistic and cultural populations and Canadian federal standards relating to translation services. Overall, the CASN (2015) concluded that the design and process for adapting the NCLEX-RN to the Canadian context were flawed, resulting in questionable validity for anglophone but especially for francophone writers in the Canadian context.

Salfi and Carbol (2017) echoed many of the concerns about validity that the CASN raised in 2015. They concurred with the CASN's analysis that the practice analysis and competency comparisons were flawed. To highlight their concerns, they provided the following example of two practice competencies which were deemed equivalent.

> Some statements were matched up as being similar, and we were unable to determine why, for example, the Canadian competency "*Engaging in nursing or health research by reading and critiquing research reports and identifying research opportunities"* was cited as similar to the American statement *"Ensure proper identification of client when providing care"* (2017, Results, para. 7)

Salfi and Carbol (2017) also claimed that, based on their review of the background of the NCSBN comparison of nursing competencies, the practice analysis studies appeared to have been used to justify the decision to adopt the NCLEX-RN in Canada after it had already been made. As well, they pointed out that studies should have been done by an independent party, not the test developer, and should have included such stakeholders as nursing schools, unions, nursing associations and regulatory bodies. Finally, like the CASN (2015), they pointed out that pilot testing should have been done.

Lalonde (2019) noted that few studies have been conducted to explore the impact of the adoption of the NCLEX-RN on francophone nurses. My literature review found only three relevant articles. Lalonde (2019) noted that the first-time pass rate for francophone writers across Canada was 26.9% in 2015 and, although this pass rate rose to 61.4 % in 2018, compared to the 85.6% pass rates for writers in English in 2018, the francophone pass rate remains low (CCRN, 2019). Although Lalonde recognized that a multitude of factors could result in lower pass rates for francophone students, she pointed to findings from McGillis Hall et al.'s (2016) study that indicated francophone NCLEX-RN writers had the perception that the NCLEX-RN exam translation was done by Google Translate. As well, she pointed out that francophone educators have noted that since the NCLEX-RN was adopted in Canada, the number of French writers has steadily been decreasing. Additionally, she noted that NCLEX-RN resources were not initially available in French and that there is a continued lack of resources in French. Lalonde voiced concern that if increasing numbers of francophone students continue to choose to write the NCLEX-RN in English, it may be more difficult to secure these francophone resources. Lalonde concluded that ultimately this process could become circular, eventually ending with no students choosing to write in French. These realities have implications relating to our legal and ethical responsibility to uphold Canadian bilingual statutes. Beyond the direct and dramatic impacts on the francophone writers who may feel compelled to write the NCLEX-RN in English, Lalonde noted that exploring the potential impacts on quality of care for francophone patients should also be considered.

Guerrette-Diagle et al. (2019) described in detail how faculty at the Universite de Moncton (UdeM) struggled to create resources for francophone students beyond the translated NCSBN NCLEX-RN test plan. The authors noted that despite their tremendous efforts of

creating a test bank of 900 questions with a referenced rationale for answers and their partnerships with two other francophone university schools of nursing to create NCLEX-RN preparation modules, francophone students often preferred to choose NCLEX-RN resources from an array of commercial English products. The authors noted that the NCSBN has made an effort to have a mock NCLEX-RN exam translated. However, the authors stated that the francophone students remain disadvantaged, as the francophone exam version does not include rationales for correct or incorrect answers like the anglophone exam version. The authors further noted that low pass rates have engendered many student issues such as student debt, anxiety, loss of confidence, and altered career paths. In terms of the effects of the adoption of the NCLEX-RN on faculty, they identify that nursing faculty felt they suffered a reputational loss.

Guerrette-Diagle et al. (2019) related that in 2016, an advocacy group alleged that francophone nursing graduates' linguistic rights guaranteed by the Official Language Act, section 41.1, had been violated by the New Brunswick provincial nursing regulatory association (NANB) with the adoption of the NCLEX-RN. Subsequently, the advocacy group made a complaint to the Commissioner of Official Languages in New Brunswick. In 2018, the Office of the Commissioner of Official Languages for New Brunswick issued its report and agreed with the allegation. The NANB responded that the report issued by the Office of the Commissioner of Official Languages for New Brunswick contained inaccuracies and justified its decisions and actions (Guerrette-Diagle et al., 2019). The authors noted that it remains unclear how this matter is being resolved. What is clear is that linguistic and cultural factors affect the validity of the NCLEX-RN and that the implications of this have been far-reaching and serious.

Petrovic et al. (2019) pointed out many of the same concerns about the validity of the NCLEX-RN for the Canadian context as have others (Salfi & Carbol, 2017; CASN, 2015;

McGillis-Hall et al., 2016; Lalonde, 2019; and Guerrette-Diagle et al., 2019). Of particular note is their discussion about the importance of acknowledging how the differences between American and Canadian healthcare systems impact assessments such as NCLEX-RN testing. They emphasize that underlying values and assumptions of the healthcare systems within each system influence practice and should not be disregarded. Thus, they assert that "Any assessment of graduates should be based on practice within the specific country, acknowledging the variances unique to education and healthcare systems of practice" (p. 4).

Strategies to Support NCLEX-RN Success.

Rowshan and Singh (2014) recognized that the adoption of the NCLEX-RN in Canada brought with it many opportunities for future research. They identified a need for studies to examine factors affecting Canadian pass rates as well as how standardized testing or curriculum changes might affect first-attempt Canadian NCLEX-RN pass rates. In the following paragraphs, I discuss the literature that describes how Canadian nurse educators are implementing strategies to improve NCLEX-RN success.

Petrovic et al. (2019) used an institutional ethnographic lens to describe how they facilitated student transition to the NCLEX-RN. Petrovic candidly revealed that her initial assumption was that the NCLEX-RN would provide more rigour in assessing fundamental technical skills. However, Petrovic reported that as she became aware that one-third of the Canadian entry-to-practice competencies are not addressed in the NCLEX-RN, she questioned the validity of the exam. As well, Petrovic et al. (2019) pointed out that nurse educators do not have access to the NCLEX-RN test bank, which makes it difficult to identify learning strategies. In light of this, Petrovic et al. (2019) queried how educators will be able to navigate meeting the

needs of Canadian entry-to-practice competencies and baccalaureate program outcomes in contrast to NCLEX-RN success.

Petrovic et al. (2019) described that a key strategy for supporting the transition to NCLEX-RN was the creation of an NCLEX-RN faculty working group. The NCLEX-RN faculty group reviewed the literature about the NCLEX-RN exam, explored NCLEX-RN preparatory resources and brainstormed NCLEX-RN support strategies. Outcomes from this group included mapping the provincial entry-to-practice competencies to the NCLEX-RN Test Plan. The authors noted that this activity highlighted that the NCLEX-RN Test Plan focused more on acute care physiological needs of individual clients, which was confirmatory to the analysis done by the CASN (2015). They reported that the competency analysis was used as a rationale for making changes to their nursing program. Other strategies for supporting NCLEX-RN success included updating clinical faculty and clinical orientations to include NCLEX-RN information; creation of online discussion forums and videos for students relating to NCLEX-RN; compilation of preparatory student NCLEX-RN resources and facilitation of a preparatory NCLEX-RN workshop. Several of the NCLEX-RN success strategies described by Petrovic et al. (2019) echo my own experiences.

Other Canadian educators, like our American counterparts, have begun research to identify factors that might predict improvements to success on the NCLEX-RN. Cobbett et al. (2016) acknowledged that not much is known about effective strategies for NCLEX-RN preparation, remediation, and testing in the Canadian context. As such, they conducted an ex-post-facto, two-phase, correlational study in an eastern Canadian province that included three university nursing degree programs to investigate the integration of student learning resources in preparation for NCLEX-RN success. Phase one of the study explored the relationships between

HESI RN Exit Exam and HESI CAT exam scores, grade point average, lag times to writing the NCLEX-RN, and NCLEX-RN outcomes. Phase one of the study was a convenience sample of 117 nurses who graduated in 2015. The response rate of their study was reported as 35%. The authors reported that findings from their study supported setting a score of 850 on the HESI RN Exit Exam as the benchmark for optimal student success on the NCLEX-RN. However, unlike several U.S. studies, GPA was not correlated with NCLEX-RN success. They also concluded that longer lag times from graduation to the writing of the NCLEX-RN were associated with less success on the NCLEX-RN and that this finding was consistent with findings from Woo et al. (2009). Phase two of the study will repeat the study objectives of phase one and investigate relationships between HESI Specialty Exams, NCLEX review sessions, and NCLEX success.

Sears et al. (2017) conducted an exploratory cross-sectional study to examine the relationship of undergraduate BScN academic performance to NCLEX-RN success or failure. A total of 215 nursing graduates from St. Lawrence College, a collaborative BScN program with Laurentian University in Ontario, Canada, participated in the study. Study participants had written the NCLEX-RN between 2015-2016. Key findings from their study were as follows: 141 of 215 (66%) graduates passed NCLEX-RN, and 74 (34%) failed, with no significant difference found between the two years. However, the time to complete the program was found to be significantly lower ($p = .002$), and graduating GPA was found to be significantly higher ($p < .001$) among those who passed the NCLEX-RN compared to those who failed. Unlike the findings of Cobbett et al. (2016), the authors reported that GPA was found to be a critical predictor of NCLEX-RN success, as the odds of passing increased by 10.0 for each one-point increase in GPA, and no failures were associated with a GPA of 4.0. The authors called for more multi-centred, large Canadian studies to be done. While more studies in the Canadian context

may shed more light on the relationship of GPA to NCLEX-RN success, it seems to me that the findings from this study or like findings from future studies could entice nurse educators to include a stronger emphasis on evaluation methods such as testing in their theory courses, to assess NCLEX-RN readiness.

McCloskey et al. (2019) conducted a retrospective study of a convenience sample of an anglophone cohort of nursing graduates from one Canadian university who applied to write the NCLEX-RN in 2015 and in 2016. The purpose of the study was to identify predictors of success on the NCLEX-RN. The sample size was 195 graduates. Data analysis was completed via the use of descriptive statistics, chi-square tests of association, and a logistic regression model. Findings from their study showed that the strongest predictors of success were a grade point average of greater than 3.5 and an unexpected finding of a course grade in the fourth year community development course. Since the NCLEX-RN does not focus on community care, the authors of the study speculated that acute care knowledge might not play as heavy a role in the outcome of the NCLEX-RN as originally thought. Alternatively, they wondered if students' cognitive abilities such as application, analysis and synthesis of nursing knowledge played a larger role in the exam success than content-specific knowledge.

A strength of McCloskey et al.'s (2019) study is that the data collection tool was deemed to have both content and face validity by a panel of experts from both the regulatory body and the nursing programs. As well, the tool was pilot tested and refined before it was used in the study. Data analysis collection and data analysis processes were described well in detail. Additionally, limitations of the study were well noted. For example, the authors acknowledged that non-academic factors might have affected NCLEX-RN exam performance. Importantly, they also acknowledged that exemption of clinical course grades from GPA calculations—because

clinical grades are reported as pass or fail—may have overinflated the impact of theoretical courses on NCLEX-RN outcomes or that different teaching and evaluation strategies could also have affected the GPA calculation, and subsequently, predictor status. However, I do take issue with their claim that because every graduate in their study who was unsuccessful on their first attempt at NCLEX-RN also scored below the NCLEX-RN passing standard in the category of Safety and Infection Control is evidence that supports the contention by regulators that the NCLEX-RN serves to protect the public from unsafe practice.

Pike et al. (2019) were also interested in identifying personal and academic predictors of success on the NCLEX-RN. Their correlational study included a total of 259 graduates from any of the nursing program sites in Newfoundland and Labrador who wrote the NCLEX-RN from 2015-2017. Their findings indicated that fewer questions answered on the NCLEX-RN and higher grades in some courses such as Introduction to Nursing and Statistics predicted higher odds of passing the NCLEX-RN. Other findings from their study were that for the NCLEX-RN category of Basic Care and Comfort, being male predicted a 31% lower score than being female, and that nursing students enrolled in the two-year accelerated nursing program option had a 47.9% higher score than students enrolled in the traditional four-year program.

While, undoubtedly, educators need to support students to be successful on the NCLEX-RN by utilizing research findings in this effort, it seems to me that when we look at over 20 years of research from our American nursing colleagues and literature on standardized education, we will need to acknowledge that numerous factors can affect success on standardized testing. If we follow the path of the American nurse researchers and continue to focus research efforts on exploring factors which are likely to improve NCLEX-RN success, I have no doubt factors relevant to the Canadian context will be found. But is this the right path to follow? The Canadian

Nurses Association contended that the NCLEX-RN serves business interests more than nurse educators, students, or the Canadian public (Campbell et al., 2019). For me, it is more important to ask is the *Next Generation NCLEX-RN,* even with its proposed new Clinical Judgment Measurement Model, the pedagogically appropriate way to evaluate new graduate decision-making thinking processes and safe nursing practice? Clearly, the NCSBN believes it is. It is marketing the *Next Generation NCLEX-RN* as a better way to ensure safe care because it "asks better questions to help nurses think critically when providing care and make the right decisions" (NCSBN, 2020b, The right decisions come from the right questions).

Alternatives to NCLEX-RN

MacMillan (2019) argued that a national comprehensive exit exam requirement for students at the end of their nursing program might be a way to replace an entry-to-practice examination. She noted that it would eliminate the current situation where graduates may be simultaneously studying for their entry-to-practice exam and possibly working under a temporary nursing license. If graduates fail the entry-to-practice exam when they hold a temporary nursing license, they will lose their employment. She also noted that employers might also hire with more certainty if graduates entered the workforce licensed. Additionally, she pointed out that multiple jurisdictions outside of Canada, including the United Kingdom, Australia, New Zealand, and many European and African nations, use exit exams instead of entry-to-practice exams.

In response to the adoption of the NCLEX-RN, the CASN developed and launched in 2020, a made-in-Canada, bilingual exit exam, known as the Examination for Baccalaureate Nurses/l'examen Canadien du baccalaureate en sciences infirmières (CEBN/ECBSI). The aim of this voluntary exit exam was to identify, assess, and evaluate learning that "is contextually relevant for graduates of baccalaureate programs of nursing in Canada" (Baker, 2019, pp. 82-83).

The exam is a computerized exam but does not use computer adaptive testing. In contrast to Bloom's learning taxonomy, which is used in the NCLEX-RN, CEBN/ECBSI utilizes Miller's (1990) pyramid of knowledge and skills. These levels are articulated as *Knows, Knows how, Shows how, and Does,* with Does being the highest level (Baker, 2019). Application questions and clinical reasoning and clinical judgement questions each constitute 40-50% of the questions, and 10% of the questions test knowledge (Baker, 2019). The exam test plan is based on the CASN National Framework for Baccalaureate Education (CASN, 2018) and addresses the following six domains of learning: knowledge, research, entry-to-practice, communication and collaboration, leadership, and professionalism. Domains were collapsed into four roles consisting of the following: evidence-informed knowledge worker, entry-level clinician, communicator and collaborator, and health professional change agent. Baker (2019) noted that because the CASN is not a nursing regulatory body, it does not have regulatory authority and cannot determine whether or what examination can be used for registration or licensing purposes. Baker (2019) explained that in 2017, in response to a specific request from the University of New Brunswick, the CASN adopted a motion to make the CEBN/ECBSI a registration exam and to work collaboratively with regulatory bodies wishing to use the exam as a registration exam. According to Baker (2019), the exam development methodology meets registration requirements and information about the CEBN/ECBSI exam was "formally provided to regulatory bodies in all jurisdictions through the Canadian Council of Registered Nurse Regulators" (p. 86). Although this exam could be offered as an alternative to the current NCLEX-RN, and although, according to Baker (2019), some regulatory bodies have expressed an interest in adopting the CEBN/ECBSI, none have committed to adopting it. The NCSBN contract for the NCLEX-RN is reportedly set to expire soon (Mildon, 2019). However, in Ontario, in 2019, the CNO

implemented a new school of nursing program approval process that includes NCLEX-RN pass rates as part of the program approval process, so adoption of the CEBN/ECBSI in the current context seems presently unlikely in Ontario.

Clearly, the adoption of the CEBN/ECBSI exam could be an alternative to the NCLEX-RN to mitigate the pressing issues experienced by francophone nurses, whether implemented as an entry-to-practice exam or as an exit exam. However, it should be recognized that although a Canadian exit exam may address some of the issues associated with the NCLEX-RN, an exit exam remains a high-stakes exam and could engender similar progression policy issues that have been encountered in the U.S.

Research Themes and Gaps

The Canadian literature often described, particularly in the francophone context, educator concerns and experiences in response to low NCLEX-RN pass rates. However, based on my review of the literature, there have been no large-scale or pan-Canadian studies directed at understanding faculty responses to the adoption of the NCLEX-RN or how undergraduate nursing curriculum may be or is being impacted by the adoption of NCLEX-RN in Canada.

Common U.S and Canadian literature themes

NCLEX-RN success strategies

As noted in the previous chapter, much of the U.S. literature reflects a strong research focus on identifying factors that predict NCLEX-RN success. Although most of the Canadian literature is focused on challenging the validity of the NCLEX-RN for the Canadian context, like the U.S literature, the Canadian literature reflects that Canadian nurse educators are also interested in identifying predictors of NCLEX-RN success for the Canadian context and some,

like their U.S. colleagues, are concerned about the pedagogical implications of the adoption of the NCLEX-RN.

Influence of accreditation and program approval on curriculum development

In the U.S., there are growing concerns about the over-reliance on the use of standardized testing in nursing curricula directed at supporting NCLEX-RN success versus alternative assessment strategies that promote contextualized thinking beyond NCLEX-RN content (Benner et al., 2010; NLN, 2012; Spurlock, 2005). Moreover, Giddens (2009) reported that efforts to implement progressive curricula have been stifled due to fears that NCLEX-RN scores would drop, resulting in jeopardizing accreditation status. Given that the new CNO school of nursing program approval process includes NCLEX-RN pass rates as part of the approval process, Canadian educators may begin to experience these same pressures as their American colleagues and increasingly adopt pedagogies that support NCELX-RN content to the exclusion of other pedagogical content and other evaluative processes. If NCLEX-RN continues to be used as the entry-to-practice exam for Canadians, it will be important to examine how commercial U.S. NCLEX-RN preparatory products are being used, their impact on nurse educators and their pedagogical practice, and the curriculum at large.

The NCLEX-RN and Safe Nursing Care

There is a growing body of research that challenges the claim that NCLEX-RN success is credible evidence of the ability to practice safely. Kavanagh and Szweda (2017) utilized a Performance-Based Development System to assess entry-level nurse competency and practice readiness of newly-graduated nurses. Competency assessments were conducted post-hire and pre-start of employment and included more than 5000 newly graduated licensed RNs from more than 140 nursing programs spanning twenty-one states from 2010-2015. Kavanagh and Szweda

(2017) reported that only 23% of new nursing graduates demonstrated beginning-level competencies. The authors reported that the data remained consistent but noted a limitation of the study was that it was conducted in only one academic centre. Smith and Crawford (2003) conducted a survey of 1000 newly licensed RNs to assess involvement in errors. They reported that of the 49% of the newly licensed RNs who reported involvement in errors, 75% reported involvement with medication errors. The NCSBN (2019a) has acknowledged that new graduates are involved in 50% of the nursing errors that result from poor clinical decision-making. As such, the NCSBN is utilizing this statistic as a rationale for including a clinical decision-making model in the next version of the NCLEX-RN, known as the *Next Generation NCLEX-RN* (NCSBN, 2019a).

Clearly, the assumption that passing the current NCLEX-RN equates to safe practice is being revisited by the NCSBN. However, given that the new NCLEX-RN will continue to use computer adaptive testing, it should be acknowledged that it remains an assumption that including a clinical judgement measurement model within the NCLEX-RN will be the defining factor that improves patient safety. Clinical judgement (safety) will continue to be assessed by an algorithm. For Canadians, it appears that the inclusion of the new clinical judgement model in the *Next Generation NCLEX-RN* will continue to reflect cultural biases and norms similar to the ones the current NCLEX-RN contains. As well, given that some research has demonstrated that patient safety and improved patient outcomes are associated with nurses who are prepared at the baccalaureate level (Aiken et al., 2003; O'Brien-Pallas et al., 2001; Blegen et al., 2013), continuing to equate safety primarily with NCLEX-RN pass results may further accentuate concerns about the appropriateness of the NCLEX-RN for use in Canada.

In the U.S., it appears that concerns about the NCLEX-RN as the appropriate evaluation mechanism for ensuring entry-to-practice nurse competencies and public safety are currently being addressed by the NCSBN by revising the NCLEX-RN. In the Canadian context, adopting a made-in-Canada entry-to-practice examination has been offered as an alternative to the NCLEX-RN. MacMillan (2019), however, challenged Canadian nurse educators and regulators to examine the impact that mental models have on our thinking as it relates to NCLEX-RN alternatives. She cautioned that we, as educators, "should not engage in premature closure in our thinking based on history, but explore the full range of available options in our current context and only then choose what works best for Canada and Canadians" (2019, p. 16). She suggested that one alternative may be to abolish an entry-to-practice exam like other countries have already done. It is interesting to note that in the United Kingdom, there is no national standardized exam required for licensure for nurses who are educated in the United Kingdom. Instead, nursing students can apply for graduate registration (licensure) with the Nursing and Midwifery Council once they have met nursing program standards (Nursing & Midwifery Council, 2020).

Research Gaps

It remains unclear from the literature to what degree or how Canadian educators are utilizing U.S. NCLEX-RN preparatory products within the curriculum. Reflecting on my own experience of attendance at a conference with provincial educators in 2015, which was sponsored by a U.S. NCLEX-RN commercial vendor, there seems to have been substantial interest in these preparatory products. Campbell et al. (2019) also reflected that their personal experience is that faculty have been "inundated by publishers and exam preparation companies offering texts and practice exams" (p. 52) since the NCLEX-RN was adopted in Canada. In my own practice, I have offered and coordinated opportunities for students to write one of the commercial U.S.

practice-ready tests if they were interested. Beyond these anecdotal accounts, I did not locate any provincial or national studies which identify if or how Canadian nursing programs are utilizing NCLEX-RN preparatory products.

I did not find any large-scale U.S. or Canadian studies which focused on nurse educators' perceptions, responses or meaning of the adoption of NCLEX-RN for their practice. However, in the Canadian context, in 2019, the *Nursing Leadership* journal featured ten articles describing reflections on the adoption of NCLEX-RN. These articles, several of which were reviewed in this chapter, described some of the challenges and experiences Canadian educators have faced since the adoption of the NCLEX-RN in Canada and highlighted the continued concerns about the appropriateness of the exam for Canadians. Mildon (2019), the guest editor of the featured publications, concluded most poignantly that, "Collectively, their submissions illuminate the NCLEX as a defining problem for the profession in Canada" (p. 1). I agree.

Summary

In this chapter, I reviewed the Canadian nursing education literature relating to the adoption of the NCLEX-RN to understand how nurse educators have responded and how it has impacted their practice. My review of the Canadian nursing literature suggests that the validity of the NCLEX-RN for the Canadian context has been and continues to be a prime concern for nurse educators. The Canadian literature reflects a variety of views regarding how nurses are coping with the adoption of the NCLEX-RN. Some educators called for more research studies to learn about predictors of NCLEX-RN success in the Canadian context, some indicated we should introduce computerized testing or adaptive quizzing into the curriculum, some indicated we should replace the NCLEX-RN with a made-in-Canada exam, and others challenged educators to ask if an entry-to-practice exam is a necessity. Although several articles described that the

adoption of the NCLEX-RN in the Canadian context was stressful for nurse educators, I did not find any studies which focused on this topic.

I also revisited the U.S. literature that I reviewed in the previous chapter to identify common concerns and trends. In both the U.S. and in Canada, the literature reflects that nurse educators are very engaged in identifying teaching and learning strategies that promote NCLEX-RN success. I suggested that the new CNO school of nursing approval process presents a worrying obstacle to maintaining curriculum content and processes unrelated to NCLEX-RN and for curriculum reform for Ontario schools of nursing, much like the accreditation process for nursing programs in the U.S. has engendered.

In the next chapter, I discuss the methodology I used for my study to explore how I coped with the adoption of the NCLEX-RN.

CHAPTER 8: METHODOLOGY

In this chapter, I describe my rationale for choosing narrative inquiry as the methodology for my study. I outline the data collection methods and analytic and interpretative processes, and I discuss the methodological and ethical issues associated with narrative inquiry in the context of my study. Also discussed is my rationale for utilizing an autobiographical approach to narrative inquiry. As the theoretical framework and educational theories underpinning my study were discussed in detail in Chapters 2, 3, and 4, I provide only a synopsis of their relevance and fit for my study in this chapter. I begin this chapter by restating the purpose of my study and my research questions.

Purpose of the Study

As stated in Chapter 1, the purpose of my research is to explore my personal and professional journey of coming to terms with the recent adoption of the NCLEX-RN as the new nursing entry-to-practice licensing exam in Canada. Specifically, my aim is to gain an understanding of how the adoption of the NCLEX-RN impacts my teaching practices and to identify the meaning of this for my practice.

Research Questions

In this study, I asked the following two separate yet intertwining research questions:

1. How does the adoption of the NCLEX-RN impact my teaching practices?
2. What is the meaning of the NCLEX-RN adoption for my teaching practices?

Narrative Inquiry

I chose to explore my research questions by utilizing a narrative inquiry methodology. Researchers use qualitative studies to answer research questions related to understanding the meaning of human experience (LoBiondo-Wood et al., 2018). Narrative inquiry researchers

Clandinin and Connelly (2000) noted that for them, "narrative is the best way of representing and understanding experience" (p.18). For me, the adoption of the NCLEX-RN was turning my world upside down, and narrative inquiry offered me a way to begin to understand the complexities, perplexities, and meanings that the adoption of NCLEX-RN was having on my practice. Although definitions of narrative inquiry vary, the following definition of narrative inquiry offered by Clandinin and Connelly (2000) guides my study.

> Narrative inquiry is a way of understanding experience. It is a collaboration between researcher and participant, over time, in a place or series of places, and in social interaction with milieus. An inquirer enters this matrix in the midst and progresses in the same spirit, concluding the inquiry still in the midst of living and telling, reliving and retelling, the stories of experiences that make up people's lives, both individual and social…. Simply stated, narrative inquiry is stories lived and told. (p. 20)

As noted from the above quote, experience is viewed as a storied phenomenon and is associated with the terms of *living, telling, retelling* and *reliving*. Clandinin and Connelly (1998) explained that these terms have particular meanings within narrative inquiry. Thus, as researchers inquire into lived and told stories, stories are retold and relived. In the context of my inquiry, an autobiographical approach enables me to give a first-hand, authentic account of how I lived out, told, retold, and relived my stories related to the adoption of NCLEX-RN.

The narrative inquiry method requires consideration of what Clandinin (2013) referred to as the commonplaces of temporality, sociality, and place. It also employs a relational approach. A relational approach allowed me as the researcher to think about the adoption of the NCLEX-RN over time and in changing contexts. Furthermore, this approach facilitated my understanding, as Clandinin (2013) suggested, of how social, cultural, and institutional narratives or other

narratives may have shaped my experiences and how my experiences may have shaped and continue to shape my narratives. In addition, I reflect on my current and past personal, social, and professional contexts related to NCLEX-RN adoption, current research, and the changing Canadian contexts in which the adoption of NCLEX-RN continues to unfold. Another advantage of this method (Johnson & Christensen, 2014) is that it allowed me to be open to where my stories of experience took me rather than be restricted to one aspect of the phenomenon under study or to a set of procedures or steps associated with other research methods. As such, this approach is well suited to my research query.

Clandinin (2013) explained that researchers need to be able to justify their personal, practical, and social reasons for choosing narrative inquiry as a research method. My personal justifications for selecting an autobiographical narrative inquiry approach relate to my current teaching role and past personal experience with writing the NCLEX-RN. As a nurse educator, I felt a sense of urgency to reflect on and understand how NCLEX-RN impacts my practice. My sense of urgency stemmed, in large part, from a heightened sense of responsibility because the courses I teach are some of the final courses that students take before they write the NCLEX-RN. I view the timing, the content, and the method of teaching these courses as a final opportunity to impact student performance and knowledge before the students graduate. Despite being in the midst of this pedagogical quagmire, I remain committed to upholding my ethical responsibilities to teach in ways that I think prepare students to be safe practitioners, socially responsible citizens, and successful on the NCLEX-RN.

Practical justifications for utilizing an autobiographical approach relate to my belief that by understanding in more depth my own experience of writing the NCLEX-RN and my pedagogical practices pre- and post-NCLEX-RN adoption, I will better understand the

pedagogical choices I make, the implications of these choices, and the personal meanings they hold. As a nurse educator, I make multiple pedagogical decisions every day of my practice. Understanding how the adoption of the NCLEX-RN impacts my daily practice is an important, practical consideration. Uncovering meaning is both practical and personal in nature.

Social justifications relate to my need to understand how the adoption of the NCLEX-RN may impose social and cultural biases that not only disadvantage Canadian candidates' success on the NCLEX-RN but also his or her ability to practice safely. As a faculty member, I have input into institutional curriculum decisions that relate to NCLEX-RN. It is important to explore and understand the social impact and implications of first attempt pass rates in driving pedagogical processes in the Canadian context. An in-depth understanding of the use of CAT and explorations of its social implications is equally important to my practice. Because the NCLEX-RN adoption is new to Canada, exploring and gaining an understanding of its adoption within the Canadian educational context may provide new insights and add to the growing body of Canadian literature on this topic. It is my hope that my inquiry will provide reflections and understandings that will be engaging and evocative for other nurse educators, leaders, and researchers who are struggling with the impact of NCLEX-RN in the Canadian context.

Three-Dimensional Inquiry Spaces

Clandinin and Connelly (2000) described narrative inquiry as occurring within a three-dimensional space of temporality, personal and social dimensions, and place. Within this dimensional space, they call on inquirers to focus on four directions of inquiry. They termed these four directions as "*inward* and *outward, backward* and *forward"* (p. 50). They explained that by inquiring inward, a researcher explores the internal conditions of the experience. An inward direction also requires the researcher to examine feelings or hopes. By inquiring outward,

a researcher enquires about the environment. To inquire backward and forward means to inquire within the dimensions of temporality, namely, past, present, and future. The relational aspects of narrative inquiry mean that researchers enter into their research "in the midst" of their lives (Johnson & Christensen, 2014), immersed within the complexities of the three dimensions of inquiry.

Gaining a deeper understanding of my experiences required me to include inquiries into the three-dimensional space of narrative inquiry as well as the four directions of inquiry. For example, my narrative *Gambling with My Future* illustrates how I applied the temporal, personal, and place dimensions of the three-dimensional inquiry space to my research query. Within these dimensions of inquiry, I explored my past experiences of writing the NCLEX-RN while I was a nurse educator in the U.S. By utilizing backward and forward directional inquiries within this three-dimensional space, I was able to explore and reflect on my past experience of writing the NCLEX-RN while also considering the potential future consequences should I be unsuccessful passing the NCLEX-RN. By inquiring inward, I was able to explore personal and emotional aspects of my experiences preparing for and writing the NCLEX-RN. By inquiring outward, I was able to explore external factors that impacted my experience of preparing for and writing the NCLEX-RN. The title of my narrative, *Gambling with My Future,* was developed as I read and re-read this narrative, which described the high-stakes emotional, economic, and social consequences I was confronting should I fail the NCLEX-RN. This narrative also marks the beginning of my journey of consciousness about concerns regarding the use of standardized testing in general and the NCLEX-RN in particular. Thus, I offer *Gambling with My Future* as the first narrative of my journey of coming to terms with the adoption of the NCLEX-RN.

My narrative entitled *Preparing to Teach in an NCLEX World: Hope and Possibilities* describes my reflections regarding how I approached and implemented teaching strategies within a medical-surgical course for students who would become some of the first Canadian graduates to write the NCLEX-RN. This narrative, developed from a graduate curriculum course assignment as part of my PhD coursework, reflects both the cognitive and emotional aspects of my preparation for teaching some of the first Canadian students who would be writing the NCELX-RN.

Within my next narrative, entitled *My Growing Discomfort*, I describe how I began to question my pedagogical decisions and my increasing discomfort as the impending implementation of the NCLEX-RN drew closer. Within this section, I reconsider the ethics of not including testing as part of an evaluation component of the medical-surgical course I was teaching as I become more aware of concerns about the adoption of the NCLEX-RN in the Canadian context.

My narrative entitled *A Gut-Wrenching Reality* describes both my emotional and cognitive responses when the poor NCLEX-RN pass rates were published. I use a forward directional approach by reviewing the U.S. and Canadian nursing and education testing literature to consider the future and longer-term implications of the adoption of NCLEX-RN in Canada. During my review of the literature, as I read about the impact of exit exams and their accompanying progression policies, my thoughts turned back to my experience as a young girl who was held back a year in school because of grade progression policies in place during the early 1960s. My experience was a potent reminder of the authority that testing and related progression policies often command. In the context of my study, I wondered about the possibility

for increased use of exit exams in Canadian nursing curricula as a way to foster improved NCELX-RN success and worried about the consequences these might hold.

My final narrative, entitled *Teaching in an NCLEX-RN World,* describes my reflections regarding how my teaching pedagogy changed to support NCLEX-RN pass rates. I also describe the emotional toll of making these pedagogical changes in what I perceived as a particularly confusing teaching context. I also begin to question the value of the NCLEX-RN as a meaningful indicator of safe practice.

Josselson (2011) mused that what may be considered unique about narrative research is that it tries to take a holistic approach by understanding how parts of life "are integrated to create a whole--which is meaning" (p. 226). As such, she noted the messiness and challenge of narrative inquiry: "accounts will likely be multivocal and dialogical in that aspects of self will appear in conversation with or juxtaposed against other aspects. There is never a single self-representation" (p. 226). Moreover, she noted that epistemologically, narrative research "respects the relativity of multiplicity of truth" (p. 225). Citing Spence's (1982) differentiation between narrative truth and historical truth, she described narrative truth as being a constructed account of experience, not a factual, historical truth, of what actually occurred. Turning to my study, I think about my research in the following way. My study draws from actual events that I experienced, so in this sense, they are historical truths; how I interpreted these experiences and talked about them, and in this sense constructed them, my findings could be considered narrative truths. Although all qualitative researchers interpret their study findings, verification of researcher analysis can be done by having study participants review the researchers' interpretation. Autobiographical narrative research presents an added challenge insofar as researcher interpretations are solely those of the narrator, who is also the researcher. While this reality can

be viewed as advantageous in that it can provide a more authentic interpretation, it also leaves the door open to criticism.

Autobiographical Approaches to Narrative Inquiry

Clandinin and Connelly (2000) contended that the task of narrative inquirers is "not so much to say that people, places, and things are this way or that way but that they have a narrative history and are moving forward" (p. 145). As described in the previous section, I utilize the three-dimensional inquiry space and the four directional inquiry approach as described by Clandinin and Connelly (2000) to understand the complexities that the adoption of the NCLEX-RN has on my practice as well as to explore how I can move forward post-adoption of the NCLEX-RN. However, my study also reflects other approaches to autobiographical narrative inquiry. I discuss these approaches in the following paragraphs.

Freeman (2007) argued that "autobiography is itself a fundamental form of narrative inquiry" (p. 2). Drawing extensively on Gusdorf's essays on autobiography (1956, 1980), he ascribed the value of autobiographical understanding as providing one with a valuable "aerial view" of the past, which allows for new insights and understanding "after the dust has settled" (Freeman, 2007, p. 9). He elaborated that by reviewing past events, autobiographical understanding offers a tool for reflecting on ethical and moral aspects of our recollections which we may not have been able to see or were unknown at the time. In this regard, according to Freeman (2007), autobiographical understanding is a way for increasing sympathy and compassion. Additionally, Freeman (2007) viewed the autobiographical process as having a dialectical dimension. He posited that an autobiographical process encompasses not only a dialectical relationship between past and present but also between past, present, and future; thus, he also said that by engaging in the autobiographical process, one is moving towards the future,

informing, and shaping the future self. In this sense, autobiographical understanding provides a springboard for the possibility of change. This dialectical dimension seems to align with Clandinin and Connelly's (2000) description of moving inward, outward, backward, and forward within the three-dimensional space, which I described previously.

Beyond these aforementioned attributes, Freeman (2007) noted that "narratives often seem to give us understandings of people in a way more 'objective' methodologies cannot" (p. 11). He asserted that this is because there is fidelity to the whole person and their life, not only to what can be objectified and measured, resulting in a more authentic scientific process. Thus, overall, he argued that a prime value of an autobiographical approach is that it "might lessen the distance between science and art and thereby open the way toward a more integrated, adequate, and humane vision for studying the human realm" (2007, p. 2). I appreciate Freeman's lofty goal but believe that even if autobiographical research only offers individuals a way of constructing meaning within their lives, it remains a valuable endeavour.

Bruner (2004) related that the relationship between life and narrative is twofold. He posited that "Narrative imitates life, life imitates narrative" (p. 692). He explained that when someone tells someone about their life, it is an "interpretive feat" (2004, p. 693), which is shaped by culture. Furthermore, Bruner (2004) held that culturally shaped cognitive and linguistic processes guide the autobiographer and ultimately "achieve the power to structure perceptual experience, to organize memory, to segment and purpose-build the very 'events' of life. In the end, we *become* the autobiographical narratives by which we 'tell about' our lives" (p. 694).

DeGloma (2010) utilized what he termed as a "sociocognitive" approach to narrative research. He (2010) maintained that "autobiographical stories can reflect and reproduce cultural contests over the cognitive authority to define ongoing and past issues of significant moral and

political concerns" (p. 520). In particular, he asserted that autobiographical stories about awakening to false beliefs— "narrative awakenings" as he termed it—follow a common organizational structure or formula, which he described as primarily based in the sociology of knowledge and cognition. He utilized two contrasting metaphors of an express elevator and a staircase as ways to explain the mental duration of an awakening episode. He (2010) described the express elevator as representing a more direct and expedited ascent to a new consciousness, while the staircase represents a more incremental, step-by-step ascent, representing what he termed as a more deliberate and intentional reflection of the awakener. Whichever the path to a new consciousness, he maintained that awakeners make a "subjective epistemic distinction between preawakening and postawakening life that is much more significant than any measure of chronometric of biological time" (2010, p. 532). He (2010) referred to this process as "cognitive migration." He held that this experience gives rise to a sense of self-assurance because old beliefs have been rejected. Hence, he postulated that awakening accounts could provide cognitive authority to counter competing ideas. Although I did not consciously or intentionally follow any organizational formula for the telling of my stories, in Chapter 10, I relate that a valued outcome of my study was a new understanding and an awakening to the pedagogical myths of standardized testing. I think DeGloma's metaphor of a staircase is the best metaphor to describe my "awakening."

Overall, DeGloma (2010) contended that a sociological approach to autobiographical stories should include the following five principles: a) "autobiography is a form of social memory" (p. 534), b) "autobiography is a form of social time" (p. 535), c) "autobiography is a form of social epistemology" (p. 535), d) "autobiography is a form of social drama" (p. 535), and

e) “autobiographical stories are communicative acts” (p. 535). I believe all of these principles are reflected in my autobiographical accounts.

In summary, I believe that all of the aforementioned approaches to autobiographical research were helpful to my research query. By inquiring within Clandinin and Connelly’s (2000) three-dimensional inquiry space, I was able to begin to identify and understand the complexity of factors related to the adoption of the NCLEX-RN that have impacted and continue to impact my educational practice. Adoption of an “aerial view” (Freeman, 2007) allowed me to reflect on the overall impacts that the adoption of the NCLEX-RN has had on me and my teaching practices by allowing me to reconsider the meaning of individual life events in the broader context of my life. This approach is consistent with both Josselson’s (2011) and Clandinin and Connelly’s (2000) holistic approach to narrative research. An aerial view, as described by Freeman (2007), also aligns with Miller’s (2007) view of holistic education, which underpins my study. Miller (2007) asserted that individuals (learners) are part of the web of life, not separate from it, and a holistic education is one in which learners engage and experience life holistically via their mind, body, and soul. Importantly, Freeman’s (2007) approach also facilitated consideration of the moral and ethical implications of the adoption of the NCLEX-RN in my practice. As well, Bruner’s (2004) and DeGloma’s (2010) insights relating to the social and cultural constructs of cognition were important insights as I considered my personal and cultural beliefs and awakenings as they related to the adoption of the high stakes, NCLEX-RN, exam.

Theoretical Framework

Constructivism

Narrative inquiry falls within the constructivist research paradigm. Constructivists believe that reality and the way that a person understands his or her world is dependent on his or her perceptions (LoBiondo-Wood et al., 2018). The aim of research from a constructivist perspective is to gain an understanding of people and their life experiences from their point of view (LoBiondo-Wood et al., 2018). In my study, I applied Dewey's (1897) constructivist view of education as a continuous and reciprocal restructuring of experience, which requires reflection. For constructivists, such as Dewey, personal or subjective knowledge is valued over objective or quantified knowing. By taking a constructivist approach to my study, I reflected on how the adoption of NCLEX-RN impacted my teaching experiences and personal knowledge. Dewey's theory of education and its application to my study is discussed in detail in Chapter 3.

Critical Theory

Throughout my study, I applied the tenets of critical theory espoused by Freire (1970) and hooks (2003). Critical theorists explore issues of power and social justice (Denzin & Lincoln, 2018). As the adoption of NCLEX-RN was imposed with much dissent, it was important to explore issues about knowledge production, power, and social justice. By applying a critical lens, I aspire to understand these power relationships and associated issues of social justice as they relate to the adoption of NCLEX-RN and subsequently to my practice. Since social change and empowerment of oppressed groups is a purpose of critical theory (Depoy & Gitlin, 2011), a critical perspective enabled me to identify oppressive pedagogical practices and to understand how I might support social change or empowerment as part of my coming to terms

with the adoption of the NCLEX-RN. I discuss how the theoretical tenets of critical theorists Freire (1970) and hooks (2003) apply to my study in Chapter 4.

Holism

I used Miller's (2007, 2014) concepts of a holistic curriculum as an overarching lens to guide my inquiry. Miller (2014) described a holistic education as having two dimensions. The first dimension is described as a focus on the growth of the whole person, which includes the body, mind, and soul. This dimension closely aligns with Dewey's concept of life as education. The second dimension is described as a focus on the interconnectedness between experience and the environment. This dimension aligns with both Dewey's view of education as a continuous restructuring of experience and critical theorist views of education as being a product of the social and historical context.

Miller (2014) explained that holistic education "attempts to be congruent with nature by developing a pedagogy that is interconnected and dynamic" (p. 3). He identified balance, inclusion, and connection as three foundational principles of a holistic curriculum. Furthermore, he stated that a holistic curriculum is one that seeks the "right relationships between the part and the whole where both are acknowledged and nourished" (p. 9). These ideas mirror the concepts and values of holistic nursing practice and Canadian nursing practice standards (CNO, 2002). They also align with my educational philosophical stances and valued pedagogical practices. In my study, I explored the impact of the NCLEX-RN on my ability to implement holistic curricular practices. A detailed discussion of the impact of the NCLEX-RN on my ability to implement holistic curricular practices is found in Chapter 10.

Narrative Inquiry and Validity

Polkinghorne (2007) noted that "narrative researchers undertake their inquiries to have something to say to their readers about the human condition" (p. 476). Furthermore, he noted that knowledge claims produced by narrative researchers are meant to be taken seriously. As such, he cautioned that narrative researchers, like all researchers, must be able to sufficiently justify their knowledge claims to their readers. Polkinghorne (2007) asserted that readers should be able to make validity judgements about knowledge claims on the basis of "whether or not the evidence and argument convinces them at the level of plausibility, credibleness, or trustworthiness of the claim" (p. 477). In light of this statement, he offered several insights. He (2007) noted that while all researchers need to be concerned about the validity of the evidence they acquire, narrative researchers need to explicitly describe how their narrative texts were used and their intended representation. Turning to my study, I take the threats to validity, which Polkinghorne described, seriously. It is equally important to me that my research findings be taken seriously. Since the focus of my research was on how my teaching practice has been impacted by the adoption of the NCLEX-RN, much of my data collection is from autobiographical sources, such as personal journal writing and previous graduate coursework, which are obviously subjective. However, I also drew on and paid close attention to other documents such as the various course syllabi I used as a teacher. The tracking of course syllabi allowed me to document, monitor, and reflect on both the pedagogical content and process changes that I made across a five-year time span in response to the adoption of the NCLEX-RN. As well, in an effort to be transparent and promote trustworthiness, I have declared what theoretical perspectives have informed my narrative analysis.

In Chapter 10, I detail how my narrative analysis is performed to subsequently identify my findings, which are expressed as narrative themes. I have also tried to be mindful of considering disconfirming evidence that calls into question my own analysis and findings as ways to improve my own clarity of thinking and analysis and to offer disconfirming evidence as a possible interpretation. Similarly, Clandinin and Connelly (2000) discuss the necessity of ongoing reflection as narrative research texts are written. They describe this action as requiring "wakefulness" (2000, p. 184).

Secondly, Polkinghorne (2007) cited a validity issue that may arise when there is a disconnection between a person's actual experienced meaning and the description of the story. He (2007) elaborated that this type of threat may be due to the limitations of language to effectively capture the meanings of the described experiences, that reflective awareness may be limited or that descriptions of stories may be limited by their degree of social desirability. In the context of my research study, although I have the advantage of recalling and interpreting my first-hand experiences, communicating and interpreting my experiences in an effective way to promote understanding by others is challenging. Additionally, I utilize a critical stance, which is directed towards uncovering and challenging status quo understandings (Iannacci, 2007). I consciously try to follow this stance and describe how my analysis reflects this stance. By doing so, I am also conscious of how some aspects of my stories might evoke uncomfortable truths both for me and others. I consider the ethical and moral implications of telling or not telling and, if they are to be told, how I can tell them respectfully.

Data Collection Methods

Within the narrative inquiry context, the term "field text" is used to describe data (Johnston & Christensen, 2014). Depoy and Gitlin (2011) noted that methods to gather narrative

data are diverse, and the selection of methods of data collection should be both "purposive and practical" (pp. 132-3). Clandinin and Connelly (2000) cited several examples of narrative sources of field texts. In my study, I use the following field texts: autobiographical writing, journal writing, and documents. I believe the selection of these sources of data was purposive and practical in the context of my research query. Insofar as these sources of data are relevant and diverse, they can be seen as a form of triangulation, which supports the trustworthiness or credibility of the data selection (Depoy & Gitlin, 2011).

No specialized equipment was required for my study. All data sources as described below were securely stored on my personal computer, which is password protected.

Autobiographical Writing

Clandinin and Connelly (2000) noted that autobiographical writing is recognized as a form of research text whereby a researcher is able to write about the whole context of his or her life. For me, previous autobiographical writings done in conjunction with my graduate PhD course completed during the winter and spring semesters of 2015 were pivotable to help me to affirm and reaffirm my philosophical beliefs about education. Both courses were taught online and required regular online postings and responses to my classmates' posts. One course focused on educational concepts related to mentoring. I saw this course as especially timely and relevant to my teaching role as I considered how I might mentor students to prepare for NCLEX-RN testing. Similarly, the other course focused on theoretical perspectives related to curriculum development strategies, and I was eager to apply my learnings from this course to the medical-surgical course I was teaching during that time. Both courses offered me time to reflect on educational philosophies and theoretical perspectives via online posts and course assignments. Autobiographical sources from these courses which I used in this study included personal online

learning posts related to course readings, creation and posting of a one-page autobiographical synopsis, and a term assignment paper relating to how I might support a postmodern curriculum in the context of the adoption of the NCLEX-RN.

Journal Writing

Clandinin and Connelly (2000) identified journal writing as a powerful method for inquirers to provide accounts of their experiences. I have always considered writing as helpful to my thinking, and at times my emotional wellbeing and my more recent experiences of writing reflective academic posts and assignments as part of my PhD studies served to highlight this value for me. My experience using personal journaling began in the spring of 2017 when I used journaling as a way to come to terms with a death of a close family member. Later, during the fall semester of 2017, I again turned to journaling as a way to deal with not only the conflict and chaos that the adoption of NCLEX had brought into my life and but also as a way to reflect on my teaching pedagogies for all the courses I was teaching. At that time, in addition to teaching the medical-surgical course related to NCLEX-RN, I was also teaching fourth-year students an introductory research course, and I was the faculty advisor for soon-to-graduate clinical preceptorship students. During this time, there was also a labour dispute with our collaborative nursing program partner, which resulted in a strike partway through the semester. It was a chaotic time both personally and professionally, and I again turned to journaling. I began weekly personal reflections about my teaching practice in the intersession between the summer and fall semester in 2017 and continued throughout the fall semester. My journal reflections included reflections related to the medical-surgical course but also on the introduction to evidence-based practice and research course and a clinical preceptorship course, which I was teaching concurrently. Importantly, reflections documented in my journal helped me to identify not only

my pedagogical practices but also the social, emotional, and personal contexts of my pedagogical practices.

Documents

Course syllabi, learning assessment methods, grading rubrics, and my previous graduate coursework were relevant data sources. These sources provide me with historical evidence of the changes I made to both content and pedagogical processes over a four-year period from 2015-2019.

Clandinin and Connelly (2000) described the process of moving from field texts to research texts as one of the most difficult processes for narrative inquirers. As a novice narrative inquirer, this difficulty was certainly true for me.

Analytic and Interpretative Processes

I followed the analytic and interpretative processes described by Clandinin and Connelly (2000) of moving from field texts to research texts. The first step of the analytic process in my study was the archiving of my data sources, followed by reading and re-reading field texts and sorting field texts. After I read and re-read the field texts several times, I composed a summary table, which identified the field text and, where feasible, the context of the field text. This summary table was helpful as I began to narratively code each field text. I followed the coding recommendations described by Clandinin and Connelly (2000) by noting the details and contexts of the data within the three-dimensional inquiry space described earlier. This included noting "characters that appear in field texts, places where actions and events occurred, storylines that interweave and interconnect identifying tensions, gaps or silences that become apparent, tensions that emerge, and continuities and discontinuities" (Clandinin & Connelly, 2000, p. 131). Subsequently I compared the field texts in relation to each other to look for "patterns, narrative

threads, tensions, and themes within or across an individual's experience [mine] and in the social setting" (Clandinin & Connelly, 2000, p. 132). Next, I applied Miller's (2007) holistic lens by sorting the narrative codes into the categories of body, mind, and soul. By reviewing the codes in each category, themes were identified.

Clandinin and Connelly (2000) explained that it is the researcher's responses to questions of meaning and social significance that shape the analytic and interpretive processes and, ultimately, the research text. My responses to questions of meaning and social significance were shaped by my application of the philosophical tenets of constructivism and the theoretical tenets of critical theory and holism.

Methodological Issues

Validity concerns of trustworthiness, credibility, and plausibility (Polkinghorne, 2007) in relation to the use of autobiography were discussed earlier in this chapter. Methodological issues related to narrative inquiry stem from differing theoretical perspectives and analytical approaches used by narrative researchers (Denzin & Lincoln, 2018). To address these concerns, Thomas (as cited in Denzin & Lincoln, 2018) contended that all narrative inquirers need to bring clarity to their research by stating the types of sociology or psychology that inform their narratives, the type of knowledge personal narratives yield, their ethical stance, and the type of analytic methods to be used to analyze or represent narrative data. To bring clarity to my inquiry, I acknowledged that my autobiographical inquiry is a critical narrative informed by critical theorists, Freire and hooks and Miller's holistic approach to education. My ethical stance thus reflects principles of social justice and holistic education.

Ethical Concerns

In preparation for my study, I completed the Tri-Council Policy Statement 2 Certificate as required. This study received ethical approval from the Nipissing University Research Ethics Board. Ethical concerns that applied most directly to my autobiographical study related to the principles of privacy and confidentiality, balancing harms and benefits and minimizing harms. An autobiographical approach, by definition, is a self-report of lived experiences. A potential harm for me as a researcher was fear of reprisal, as I am reporting on my practice where I am currently employed. As well, I am also accountable to the College of Nurses of Ontario (CNO). The CNO is the nursing regulatory body that supported the adoption of the NCLEX-RN in Ontario. Telling some stories requires courage. As well, although I explored my own practice, it was important to be cognizant of the possibility that aspects of my stories could unintentionally risk exposing the identity of others, which could lead to a breach of privacy or confidentiality and potentially generate a fear of reprisal for others or institutional reputational damage. Thus, the risk for harm and permission to tell these stories (or not) were especially important considerations. I was cognizant of my responsibility to seek, if necessary, written permission from relevant individuals to ensure that I was upholding ethical and confidential standards as consistent with the Nipissing University Research Ethics Board.

My study is primarily focused on the five years post-adoption of the NCLEX-RN. A longer or different study timeframe may have resulted in different findings. However, as consistent with the three-dimensional spaces of inquiry (Clandinin & Connelly, 2000), I also thought about how other professional and life experiences outside this timeframe impacted my inquiry. Because there is a strong reliance on memory and self-report with the autobiographical approach, the potential for distortion of data could be considered an ethical issue (Creswell,

2012) and could affect data interpretation processes. To assist with recall and to minimize memory distortion, I included several sources of data as previously described.

Summary

In this chapter, I described my research methodology and my rationale for using narrative inquiry to address my research query. I also discussed the caveats associated with this methodology and considered the ethical implications and limitations relating to my research study.

I applied Miller's (2007) concept of holistic education within my autobiographical inquiry to tease out and reconcile the tensions of my pedagogical practice in light of the adoption of the NCLEX-RN. I also utilized the theoretical tenets of Dewey's philosophy of education (1916) and the critical theories espoused by Freire (1970) and hooks (2003) to construct, deconstruct, and to re-envision my pedagogical practices. Undoubtedly, the application of critical theory helped me to question my assumptions and uncover the power of their influence on my thinking and pedagogical practices. Thus, over the course of my study, I became more aware of how and why I make pedagogical decisions and the impacts of these decisions. As well, I developed a deeper self-awareness of how the adoption of NCLEX-RN affects my mind, body, soul, and my pedagogical decision-making practices. However, this process was messy and, at times, revealed contradictory beliefs or tensions within my pedagogical practices. Despite these challenges, I am hopeful that other nurse educators might find my narratives described in my study as helpful as they too try to reconcile pedagogical tensions which they may be experiencing because of the adoption of the NCLEX-RN.

In the next chapter, I narrate my stories. In the context of narrative inquiry, my stories are my research texts.

CHAPTER 9: MY STORIES

In this chapter, I recount my experience of writing the NCLEX-RN and describe how the adoption of the NCLEX-RN affected and continues to affect my teaching practices. I begin telling my stories with my narrative, *Gambling with my Future.* In this narrative, I recall my experiences and reflect on preparing to write the NCLEX-RN as a Canadian nurse working as a nurse educator in the U.S., several years before the NCLEX-RN was to become the entry-to-practice exam for Canadian nurses. The title of this narrative represents the high-stakes nature of the exam. This narrative also provides glimpses of my growing consciousness about the appropriateness of standardized testing in assessing nursing competency. My next experience with NCLEX-RN occurred when I was hired as a nursing faculty member who would be teaching fourth-year nursing students who were to be some of the first Canadian students to write the newly adopted NCLEX-RN in 2016. My second narrative, *Preparing to Teach in an NCLEX World: Hope and Possibilities,* describes my initial optimism of the pedagogical strategies I put in place to address the NCLEX-RN. In my third narrative, *My Growing Discomfort,* I describe my growing discomfort about my pedagogical choices as I became more aware of concerns about the appropriateness of the NCLEX-RN in the Canadian context. My fourth narrative, *A Gut-Wrenching Reality*, describes my emotional shock in response to the markedly lower NCLEX-RN results when they became public in 2016. In my final narrative, *Teaching in an NCLEX-RN World,* I describe the impact of poor NCLEX-RN pass rates on my pedagogical choices as the reality of the NCLEX-RN adoption takes hold.

Gambling with My Future

The memory of my experience of writing the NCLEX-RN is fraught with mixed emotions. As an experienced nurse who had already acquired a Florida state nursing license via a

reciprocity process that had required a rigorous assessment of my Canadian credentials, I was shocked to learn that if I wished to apply for a U.S. green card, I would be required to write the NCLEX-RN. I immediately wondered what would happen if I failed. Would I lose my Florida nursing license? Would I be considered incompetent despite over twenty years of Canadian nursing practice and three years of working as a nurse educator in Florida? It was mind-boggling. To minimize these risks, I decided the safest thing to do was to write the NCLEX-RN but apply for a license in another state. My thought was that if the worst happened, presumably, my Florida license would remain intact. It seemed ludicrous to think that the sole indicator of my competency to practice would be the NCLEX-RN.

Taking nothing for granted, I set about studying for the NCLEX-RN. Although I considered myself competent with several years' experience teaching nursing and practicing bedside nursing, I knew that I did not have recent knowledge of obstetrical or pediatric nursing, which were content areas that could be tested on the NCLEX-RN. So, I began six months of preparation. This included buying review textbooks with NCLEX-like questions, writing an assessment exam to identify strengths and areas for improvement, and attending two weekend intensive courses. Preparing for the NCLEX was not cheap. By the time I had bought a textbook, paid for the NCLEX preparation workshop, and registered for the NCLEX test, I had spent close to $1500 U.S. Over the course of my NCLEX preparation activities, I completed approximately 1000 NCLEX-like practice questions to review content and understand the rationale for the selection of the correct answer. Most of my studying happened in the evening after I finished my workday as a hospital nurse educator and after I helped my eleven-year-old son with his homework. As an experienced nurse, I often found that I disagreed with the "correct" answer. I recall thinking that some of the correct answers did not consider contextual factors that I had

experienced as a practicing nurse. At one of the preparation courses, other participants voiced similar concerns. The instructor reminded the participants that the NCLEX-RN was written with the assumption that as a nurse, you would have access to all needed resources to implement care safely. In other words, for exam purposes, test-takers should assume they are practicing in a perfect world. My initial thought about the instructor's statement was that this discrepancy between the correct answer for exam purposes and the correct answer from a realistic practice perspective was a good example of the theory–practice gap and a strong contributing factor to the reality shock that I often witnessed when new nursing graduates began their practice as an RN.

Ironically, during my NCLEX preparation time, my nurse educator job was to prepare newly hired RN graduates and RNs returning to the workplace to transition into their new roles via a six-month employer-sponsored clinical internship. This job involved developing and reviewing some case studies to help nurses develop clinical decision-making skills, organizing orientation content and processes, and liaising with their clinical educator to supervise and evaluate their performance in their new RN roles. My fear of failing the NCLEX-RN took center stage as I pondered what would happen if their teacher (me) failed the NCLEX-RN. My fear of failure kept me from discussing my plans for writing the NCLEX-RN with anyone at the workplace. It was an isolating experience.

The new graduate nurses that I was supervising had considerable things to say about the NCLEX-RN, as they had recently written it. They emphasized that during the test, the computer could stop generating questions after 75 questions if you were deemed competent, or it would keep generating questions to try to establish competency. I remember that as I approached question 70, I became increasingly anxious, as I certainly wanted to only answer the minimum questions and to be deemed competent when I reached question 75. I read and reread the

questions several times and neurotically reviewed all the strategies I had learned in the preparation courses before I hit the enter button to seal my fate. Luckily, the computer did shut down on the 75th question. I left the exam room thoroughly exhausted but hopeful. The next day I received word I passed when I was able to verify this by phone. To obtain my results by phone, a fee of $25.00 was charged. It seemed like everything relating to NCLEX-RN had monetary implications. I received written confirmation that I had passed within the following week.

My preparation for the day I wrote the NCLEX-RN was extensive, expensive, and exhausting. The overall cost for preparation and writing was nearly $1500 U.S. As my husband was out of town, I arranged for my eleven-year-old son to stay over at a friend's house the night before I wrote so I would be able to focus on my own needs. I drove to the testing center the day before I wrote to make sure I knew the route and to assess the parking situation. I slept poorly the night before writing, but after caffeinating myself, I prepared myself to face the music. Upon arrival at the test center, I was "processed" by the staff supervising the writing. This included having an official picture taken and a review of the expected exam processes, including an orientation to the computer. I had expected much of this exam protocol. However, I was shocked to find that I was fingerprinted, which was very unnerving and seemed over the top. The woman doing my fingerprints kept telling me to relax my fingers, so she could get a good print. I felt like I was being treated as a criminal, which was hardly a comforting thought as I approached writing the exam. I remember thinking this was probably a violation of my privacy civil rights. I began to question if passing the exam was worth it. However, at that point, I did not feel I had much choice, so I proceeded. The security around the exam process seemed so out of control. I wondered who might have access to my fingerprints. Later, when I received my picture

identification with my NCLEX-RN pass result, I remember thinking how stressed out I looked, even much worse than my usual bad driver's license picture.

When I shared my news of passing the NCLEX with my work colleagues, they were all congratulatory, and one colleague started calling me "American RN." I guess in her eyes I had become a real nurse! I did not feel any more competent having passed the NCLEX, but I was relieved to have met the American standard, whatever that might mean. Ironically, within a few months of passing the NCLEX-RN, my educator role changed. I found myself initiating and leading a quality improvement initiative, which involved implementing nursing best practice guidelines, a Canadian innovation developed by the Registered Nurses Association of Ontario (RNAO). The initiative involved creating a partnership with Canada that lasted over three years. I knew of the RNAO's program because I had maintained my Canadian nursing license and membership in RNAO. The project was one of the most personally and professionally fulfilling roles I had experienced throughout my career. The skills and knowledge I utilized in this project had nothing to do with NCLEX-RN.

Overall, I did not believe that passing the NCLEX-RN made me a better nurse, but presumably, it seemed to legitimize my medical surgical knowledge base, at least in the minds of my U.S. peers.

Preparing to Teach in an NCLEX World: Hope and Possibilities

Over a decade after I passed the NCLEX-RN, I returned to Canada. I was excited to have acquired a teaching position in the fall of 2014 as an assistant nursing professor for a Bachelor of Science Nursing (BScN) program in Ontario. My teaching assignment was to teach in the *fast track* known as the externship. The externship allows nursing students who wish to graduate a semester earlier than usual to enroll in a summer semester, which runs from May to August.

Because the NCLEX-RN was on track to replace the former CRNE in January 2015, the students that I would be teaching would be some of the first students from our university to write the NCLEX-RN. Forty-five students were enrolled in both the medical-surgical course and the research course that I would be teaching. I felt my teaching assignment was a good fit for my experience and knowledge. I was happy to be teaching senior students on the verge of graduating and felt a strong responsibility for helping them manage their transition from student to new graduate. I viewed the medical-surgical course as an important steppingstone to helping students improve their critical thinking and clinical decision-making skills and their overall practice confidence. I was looking forward to helping students connect the dots. I was also hopeful that my experience preparing and writing the NCLEX-RN would add a personal and professional dimension that students would find helpful. I was equally excited to be able to teach research, as I had found great joy in helping staff nurses implement evidence-based practices in the U.S. while working there as a nurse educator.

My course preparation for the spring-summer semester in 2015 was facilitated by two main factors. First, as a new faculty member, I had the luxury of a reduced teaching load. Second, as a newly accepted PhD in education student, I was able to consult the educational literature relevant to my course development and to my personal and professional identity. During the time that I was preparing to teach the spring summer semester, I was reintroduced to Freire's (1970) work via my graduate course readings. His rejection of the banking metaphor of education, where teachers deposit knowledge and students are the receivers of knowledge, was very meaningful to my course planning. I wanted the courses that I would be teaching to be engaging and to spark dialogue. Although I was bringing my knowledge and experience to the courses, I recognized that in the medical-surgical course, the students would have more current

practical experiences and knowledge from which I could learn. Students often seemed surprised when I asked them about their experiences and asked them to share information that I might not know. I think it is important to model that learning never stops, and we can learn a lot from each other. Freire's (1970) ideas about posing problems as a way to bring the classroom alive and to promote critical reflection also resonated with me. As well, as part of my graduate studies, I was introduced to the postmodern educational works of Doll (1993), Palmer (1998), Rose (2013), Shields & Reid-Patton, (2009) and Slattery (1995). Slattery's metaphoric imagery of a postmodern curriculum as a kaleidoscope and Doll's (1993) four *r's* of curriculum (rich, recursive, relational, and rigorous) were particularly impactful. Throughout these graduate education courses, I became more aware of my own teaching strategies and their accompanying philosophical underpinnings. As a final course assignment for one of my graduate courses, I described how I was attempting to implement classroom strategies consistent with a postmodern perspective for the medical-surgical course I was teaching. Another important personal insight brought to light was the degree to which the holistic curriculum orientation framework (Miller & Sellers, 1985; Miller, 2007), which I had been introduced to almost twenty-five years earlier, had shaped and was continuing to shape my curricular practices. I found the graduate course readings and coursework to be a tonic for my soul.

Despite my belief that the research course I would be teaching was equally if not more important in some ways for developing safe nursing practice than the medical-surgical course, looking back, it is obvious that I spent much more of my preparation time on the medical-surgical course. The medical-surgical course that I was preparing to teach focused on understanding complex pathophysiology and nursing care for patients experiencing a variety of medical and surgical disorders. This course was the last theory course of this type that my

students would have before they entered their final clinical internship, immediately prior to graduation. In my mind, the content and concepts in the course were fundamental for safe practice and for NCLEX-RN success. Perhaps, knowing that the NCLEX-RN does not test research knowledge, I directed more of my energy for course preparation towards the medical-surgical course.

Comforted by a postmodern perspective, bolstered by my own success on NCLEX-RN, and committed to a holistic curriculum (Miller, 2007), I chose, although with some measure of trepidation, not to include mid-term testing or a final exam as learning evaluation strategies for the medical-surgical course. The following reflection excerpted from my graduate course paper describes how I approached evaluating student learning for the medical-surgical course.

> Faced with the dilemma of wanting to move beyond a traditional lecture content-focused class but at the same time not wanting to disadvantage students by not helping them to successfully prepare for the upcoming NCLEX, I looked for compromise—as Doll (1993) might put it—to negotiate this passage. I decided I would use case studies as a medium for learning. I acknowledged that this would still support a medical surgical content-focus curriculum, but I felt that it offered a more engaging format than lecture and would hopefully encourage dialogue and, from there, emergent and contextual learning could occur. I had the good fortune to locate a nursing course text that was case-based, addressed complex health issues and linked content to NCLEX topic areas. The text had not been used in our program, so although I believed it was a good fit for trying to simultaneously address the realities of the NCLEX and move students beyond structured curricular outcomes, I felt there was risk involved in taking this approach. Being a new faculty member, I felt (even if this was a self-imposed view) that I needed to

"prove my worth," and certainly if this course was not well received by my students, they will feel they have missed an opportunity for learning, my faculty evaluations may suffer, and I may be viewed by my colleagues as an ineffective teacher.

In concert with Slattery's belief that a postmodern curriculum was, at some level, self-organizing, I encourage students to identify their own study/learning partners and learning contexts and resources. As an adjunct to their learning, I do post related resources on my institution's online learning platform and general course repository, Blackboard Learn, a week before class and encourage students to review these resources as a starting point for their in-class participation for answering the case studies. While the students are working on their cases, I visit each group to try to support their thinking and to suggest possible learning strategies. I see my role as very much a facilitator or, as Palmer (1998) refers to it, a link to learning, not the sole possessor of knowledge.

When students reconvene to discuss each case, initially, they are most interested in finding out the "correct answer." Although we do discuss the correct answer, I have used this time to redirect students to think about why it might be the correct answer for the context and to think about how the answer might change as the context or complexity changes. I have introduced the concepts of social determinants of health, co-morbidities, and vulnerable populations as key examples of complexities. For example, when the students were discussing a case of caring for a person with HIV, I asked students about what Canadian populations would be considered most vulnerable for this disease and how the social determinants of health may put specific populations at risk. Coincidentally, the Truth and Reconciliation Commission had just tabled their recommendations the same day as the class, so this provided an excellent backdrop for this type of emergent learning.

Students discussed and began to understand how the legacy of residential schools may have contributed to higher HIV prevalence in Aboriginal populations. We also discussed how we might, as individuals, and nurses provide respectful, culturally safe care and reconciliation. This example highlights Slattery's contention that emergent curriculum and hermeneutic processes can facilitate efforts to support learning that has a broader or more global reach and offers the potential for change.

In terms of evaluation, I do give participation marks each week if students participate in the case studies. They are allowed to miss one class without losing a participation mark. Otherwise, if they miss more than one class, they can complete the case study on their own and receive a participation mark. So far, class engagement and attendance have been excellent. In addition to class participation, they are required to present a case study as a group. To facilitate this, I created a grading rubric that I hope addresses elements consistent with a postmodern curriculum. They need to not only address each question associated with the case, but they also need to have fellow students engaged in the case and address what they think are the elements of complexity in the case. They are encouraged to utilize a variety of learning methods to engage students in a discussion of the case. I understand one group is incorporating the creation of an avatar as a way of engagement. Some students are considering using role-play to evoke discussion and engagement. The final component of my evaluation is a student reflection on a complex health issue. Students can reflect on the meaning of the issue from the context as a nurse, patient, or observer of care. In addition to this written component of this assignment, I also ask that students verbally share with the class some aspect of the issue that was either personally or professionally meaningful. I have called this learning

activity Nursing Rounds, and I hope that this is another opportunity for emergent learning. (Ewers, 2015, pp. 5-7)

As noted earlier, I deliberately chose not to include tests or exams as strategies for evaluating learning. I knew that the decision not to include an exam could spur controversy with both peers and students. However, I was hopeful that by not including an exam in this course, students would be free to concentrate on a more personalized approach to learning, whether that be focusing on NCLEX content, improving clinical decision-making skills, or developing personal insights into broader health care issues or life in general. I had confidence that these teaching, learning, and evaluation strategies would not only help to prepare students for success on the NCLEX-RN but would also prepare them for professional practice. As well, without having an exam in the course, I felt free to address emergent learning opportunities, such as those described in the passage above without, worrying about taking time from content that was deemed testable. Moreover, I was hopeful that I was living my value that learning should not only be a means to an end but an end in itself (hooks, 2003).

As the semester progressed, limitations of the course textbook, which contained the NCLEX-RN related case studies, became obvious. Laboratory findings in the cases were listed in the imperial system, not the metric system. Health care roles and nursing scopes of practice reflected the American healthcare context. My experience working in the U.S. allowed me to bring some clarity to these issues, but at times I felt like I was teaching two curriculums--one American and one Canadian. Much to my dismay, much of the time that I had wanted to spend discussing issues beyond what was in the case studies was sublimated to dealing with these content issues, which exacerbated student frustration and anxiety about selecting the right answer. In some ways, I was not surprised by the student frustration and focus on knowing the

right answer, especially since they would be writing the newly adopted NCLEX-RN. As well, since this was their last theory course before graduation, I believed that the students, like myself, viewed the course as an important component of helping them acquire new nursing knowledge that they would use in their upcoming clinical preceptorship and as soon-to-be new graduates. Nurse scholar Patricia Benner (1982) theorized that novice nurse competency is characterized by a focus on task completion and reliance on rules for decision-making because novice nurses have little experience to guide their thinking. My students, in the context of Benner's theory, were novice nurses, and it was challenging to push their thinking beyond content, especially when many case studies reflected an American context, which differed from our Canadian practice context. Despite these issues, the student group case presentations, participation in weekly case study discussions, and sharing of personal reflections via nursing rounds demonstrated that students were applying nursing knowledge, developing clinical decision-making skills and becoming reflective learners. I was not sure that the students were aware or valued how far their thinking had progressed.

Student grades for the course were high, yet some students expressed disappointment that there had not been an exam. Initially, this reaction caught me off guard, but the more I thought about it, the more it made sense and the more uncomfortable it made me feel. I began to rethink my rationale. Given the upcoming NCLEX-RN, maybe if I truly wanted to be student-centered, including an exam would have been the right thing to do. Clearly, for some students, not having an exam as part of this course was uncomfortable and, given the high stakes of the upcoming NCLEX-RN, totally understandable. As well, I began to rethink how I had structured the class. I had thought that if students were able to engage with their classmates about their answers to the cases during class times, students would find this helpful to their thinking and, ultimately, their

learning. However, it became increasingly obvious that from a student perspective, getting the right answer was the learning priority.

Although I did not include an exam in the course, during the semester, I had been approached by an American company which offered students a chance to write a mock computerized NCLEX-RN-like exam. Thinking that this might provide students with individualized feedback regarding their learning and NCLEX exam preparation without the burden of their results being linked to a term grade, I offered to coordinate this experience if there was student interest. A small group of students indicated an interest, so I facilitated this event after the end of the course. While this may have been helpful for individual student learning, it proved to raise ethical and pedagogical questions and concerns about issues of privacy, student costs, and the outsourcing of evaluation of learning to external software companies. Some examples of these issues that were encountered were that some testing software companies wanted a minimum number of students to participate in order to run the test. Students had to register online and pay upfront, so if the test was cancelled, they needed to wait on a refund. Some students wanted to participate in the testing but were unable to afford the fee of approximately $100. Faculty needed to proctor the three-hour exam and deal remotely with testing representatives if there was a technical glitch during the exam. As well, because faculty were proctoring the exam, they were in the uncomfortable position of being able to see the exam results of participants as part of their proctoring role.

By semester's end, I was comforted by the learning that I believed had been fostered throughout the semester, but I felt disheartened that as the course proceeded throughout the semester, to meet student learning needs, there was less discussion about the case answers and more of a focus on the right answer. Curiously, in over twenty years of teaching nursing, this was

the first time I had so painstakingly and with great intentionality planned curricular content and processes to address a licensing exam, yet I found myself worrying about students' success on the NCLEX-RN.

My Growing Discomfort

During the month between the end of the summer semester and the start of the fall semester, I began to prepare to teach the same course and reflect on my experiences from the summer semester. Although I was convinced that my pedagogical choices had been sound for learning and safe practice, I began to feel obliged to include some form of testing in the course to help students prepare for the NCLEX-RN exam. I cannot pinpoint a specific event that brought me to this conclusion. However, I do believe that the flurry of NCLEX-RN-related activities, such as the tracking of NCLEX-RN competencies to curriculum content, curricular conversations regarding which textbooks and NCLEX testing software products would best support student success on NCLEX-RN, and the student anxiety that I had witnessed in the prior semester greatly influenced my decision. I also recalled thinking about how at the beginning of the spring-summer semester, I had enthusiastically shared with my peers at a curriculum revision meeting Miller's (2007) holistic curriculum framework and my thoughts about making curriculum revisions that would support a more transformational approach. Regrettably, by the semester's end, it seemed like the NCLEX-RN was derailing my attempts to move from what I perceived as a predominately technical approach to curriculum to a more transformative holistic approach as espoused by Miller (2007). And so, it was. I had succumbed. I spent the remainder of the summer preparing for the fall semester, which entailed extensive course revisions, including the development of case-specific PowerPoint preparation slides, case answer slides, development of a mid-term and final exam similar to the NCLEX-RN, and regrettably, the relinquishing of the

term assignment, Nursing Rounds. Nursing Rounds was a learning activity where students shared in small groups or with the class at large (while not disclosing confidential information) a complex care situation that they believed illustrated exemplary nursing care or one in which they believed care should have been better. The activity was meant to help students think critically and holistically about the impact of nursing care from both a patient and nurse perspective. From my perspective, it was a very valuable learning activity, as it fostered discussion and underscored the complexities of clinical judgment and the nursing role. I found some of the stories to be quite inspirational, and the activity offered a welcome reprieve from more formal and technical ways of learning. I hoped students also found this valuable to their learning, but it seemed to me that student learning interests remained mainly focused on case study answers.

The fall class was a larger class than the summer semester. I found it more difficult to establish a connection with the students. Instead of having students complete the cases in class as I had done in the summer, I asked students to come prepared to discuss and take up the cases. Unlike the summer semester, I reviewed and highlighted several of the preparation PowerPoints in the first part of the class and then reviewed and discussed the case answers in the second half of the class. Although not yet privy to the first Canadian NCLEX-RN pass rates, I felt increasing pressure to cover content that was specific to NCLEX content. As well, since I had introduced a mid-term test and a final exam, I felt my choices of how I spent classroom time were curtailed by my decision to include mid-term testing and a final exam. I acknowledged that this limited learning opportunities for student engagement in emergent topics. However, as I became more aware of nursing stakeholders' increasing concerns over the adoption of the NCLEX-RN in the Canadian context, I began to feel ethically obliged to include NCLEX-like testing in my course. I

would not know the full impact of the NCLEX-RN on my teaching until the next year, when the first Canadian NCLEX-RN pass rates were to be released.

A Gut-Wrenching Reality

The news that the NCLEX-RN pass rate for our school of nursing was significantly lower than the former CRNE pass rate was devastating. We were not alone. National and provincial pass rates were also much lower than the former CRNE pass rates had been. When the results of pass rates were made public, it felt like there was a collective gasp of shock and anger reverberating across the country. Although I had thought that NCLEX-RN pass rates would be somewhat lower than previous CRNE pass rates, I had not thought they would be significantly lower. I was wrong. The higher-than-expected failure rates received much attention from the Canadian media. As well, another aspect that generated much controversy and media attention was that nurses who wrote the NCLEX-RN in Canada had only three attempts to pass the exam. The three attempts to pass rule was a legacy from the CRNE days. Unlike Canada, many American states allowed unlimited attempts to pass. It was a complete mess. It was a time of chaos, stress, and self-doubt. During this time, I became a member of our school of nursing NCLEX committee that would make recommendations about curricular resources aimed at improving NCLEX pass rates. I attended presentations and conferences sponsored by NCLEX related software sales representatives, and I mapped our curriculum to NCLEX content. I longed for the days when I did not feel like I had to, if only to myself, defend my teaching or worry about pass rates on the registration exam.

Amidst the chaos, Canadian nurse researchers McGillis Hall et al. (2016) published a research article relating to Canadian students' experience writing the NCLEX-RN. Their publication entitled *"People are failing! Something needs to be done"* aptly represented my

reality. I was struggling to move beyond my emotional reaction to the poor pass results and felt highly obliged to do something, but I was unsure how to proceed. I felt I had already revised my course to make it much more NCLEX-RN-focused at the expense of what I considered to be more transformative and holistic pedagogical approaches. What more could I do? How should I proceed with teaching the same course I had taught in the previous summer and fall semesters before NCLEX-RN results were available? Increasingly, I found it hard to believe that the low NCLEX-RN scores meant that Canadian nursing graduates were any less prepared for practice than they had been when the former CRNE was in place six months earlier and passing rates had been high.

Teaching in an NCLEX-RN World

At wits' end and hoping for the best, I decided to maintain the curricular changes I had already put in place. Over the next three years, I kept the same NCLEX case-based textbook and my evaluation choices of mid-term test, group case study presentation, and final exam. I updated PowerPoint slides and my lectures to align with updates in the most current medical-surgical resource textbooks, and I varied the selection of some of the case studies. Whenever I changed a case or updated some content, it necessitated updating the mid-term test and final exam. These processes were very tedious and time-consuming. I remember a time when I had just finished creating a new mid-term test and joyfully sent an electronic copy for printing. Shortly thereafter, I checked my email, and much to my dismay, I had inadvertently sent the test to a student who was registered in the medical-surgical course. I spent the remainder of my weekend creating a whole new test. As time went on, I developed and shared some test-taking strategies that I hoped students would find helpful. The following passage from my personal journal describes how I approached testing.

> Next week is the mid-term quiz; the following week, student presentations start. I made a point of asking if those who were presenting had any questions. Questions were mainly about whether they would need to do a review prior to their case presentation and what content would be on the test. I posted an overview of content and some learning strategies which I hope they will find helpful. I reviewed the quiz content and changed a few questions. I provided a content overview related to the number of questions per topic. In some ways it feels like spoon feeding but I see it as a way for students to help organize their thoughts and study patterns. (K. Ewers, journal entry, 2017, October 23)

While my intent of making pedagogical changes was to improve NCLEX-RN pass scores, I worried that the emphasis on teaching to NCLEX-RN content meant students might be less prepared to deal with nursing practice issues not on the test. I believed the learning activities associated with class discussion of the case studies and the Nursing Rounds, which I had initially implemented, provided better opportunities for student learning beyond NCLEX-RN content; however, I grudgingly decided to relinquish these activities and focus on strategies that I felt would increase NCLEX-RN pass scores. With this increased focus on testing, I found myself considering the meaning of a grade. Student grade point averages have been consistently high in the medical-surgical course since I have been teaching it. To me, if the prevailing view is that grades are synonymous with learning, then high grade point averages should be celebrated. However, I am aware that this is not always the case, as high grade point averages may be viewed by some as exemplifying a phenomenon referred to as grade inflation. Yet, curiously, this same logic does not seem to apply when high NCLEX-RN pass rates are celebrated. Moreover, I was aware that grade point average is a controversial subject in the context of NCLEX-RN pass rates, as some research indicates that success on standardized tests within specific nursing

courses such as medical-surgical courses and pharmacology have been linked to predicting success on the NCLEX-RN (Yeom, 2013). With this knowledge, I began to feel even more pressure. I found it all very confusing and overwhelming. Increasingly, I began to feel like I was in a high-stakes, no-win situation.

The pressure to teach in ways that promoted NCLEX-RN success became my new normal. As such, over the next two years (2017-2019), I continued to keep NCLEX-RN-like testing as a component of my teaching pedagogy. However, I also looked for ways of recovering a more holistic practice. Although I continued to include testing as a mainstay of evaluation for the medical-surgical course, I tried to free up class time for more emergent topics by not lecturing before the case studies were discussed. I also introduced best practice guidelines into the medical-surgical course to stimulate self-reflection and discussion. However, more often than not, most discussion remained on the technical aspects of case study answers. Content ruled. Increasingly, I found more joy in teaching courses and engaging in professional activities with students that did not relate to the NCLEX-RN. In the research course I was teaching, the student poster session where students presented their research findings on a topic of importance to them was an especially joyful experience. As they presented their poster, the students seemed genuinely excited about their findings and their learning. I encouraged the students to submit their posters to the undergraduate research conference. It has been gratifying that a few students have followed up on this experience and successfully submitted posters for conference presentations. I also enjoyed working collaboratively with a small group of students who enthusiastically volunteered for planning professional events related to the implementation of best practice guidelines. For me, these experiences were personally and professionally gratifying,

as I believed they showcased important student nursing competencies that reached beyond those tested on the NCLEX-RN.

Summary

The stories described in this chapter reflect my experiences of both writing the NCLEX-RN and teaching students who would soon be writing the NCLEX-RN. In the next chapter, I describe how I analyzed these stories (research texts) to uncover the meaning these stories hold for me.

CHAPTER 10: NARRATIVE ANALYSIS

In this chapter, I describe the analytical and interpretative processes I used to answer my two research questions. My two research questions are the following:

1. How does the adoption of NCLEX-RN impact my teaching practices?

2. What is the meaning of the NCLEX-RN adoption for my teaching practices?

Data Analysis and Interpretative Processes

To facilitate analysis and interpretation, I organized and contextualized my data sources by creating an organizational chart. Components of the chart included the following: type of field text, field text component, text elements, context (time, place, social, and emotional), and narrative code. The chart components were chosen to facilitate what Ollerenshaw and Creswell (2002) considered the three-dimensional space and the narrative analysis approach of Clandinin and Connelly (2002). By doing so, I was better able to look for patterns within the elements of time, place, emotion, and social political contexts for each data source separately as well as all data sources collectively.

My first step towards data analysis and interpretation was to read and reread, several times, each data source by date, chronologically. As I read and re-read each data source, I underlined words and phrases that stood out to me and wrote notations in the margins of each data source. These notations were helpful in identifying common responses, patterns, and content pertinent to my research questions and to the coding of my data.

I followed the recommendations for coding educational research as described by Bogdan and Biklen (2007). Bogdan and Biklen (2007) noted that coding involves identifying words or phrases from data sources while being mindful of regularities of content topics, content, and

patterns from the data. The authors also note that narrative codes describe the structure of talk, so it is important to note beliefs, contradictions, and how the stories are structured.

Utilizing Bogdan and Biklen's (2007) coding approach, I developed codes from each data source. I identified a total of 96 codes in the first cycle of coding. Bogdan and Biklen (2007) noted that it is important to identify the influences on coding and analysis. For me, a major influence affecting the identification and sorting of my codes was Miller's (2007) theoretical tenets of holistic curriculum, which underpin my study. As such, I utilized the holistic components of body, mind, and soul as categories for sorting the 96 narrative codes. After this step, I completed a second cycle of coding, which allowed me to identify several common and overlapping codes within each category. In total, the 96 initial codes were reduced to 24 major codes at the end of my second cycle of coding. Within these 24 codes, I identified five codes as fitting into the category of body, 13 codes as fitting into the category of the mind, and six codes as fitting into the category of soul. After this, I reviewed and reflected on each code listed within each category of body, mind, and soul while being mindful of my two research questions, to identify overarching narrative themes within each category. Overall, I identified seven narrative themes from my analysis. Although I analyzed and interpreted the impact that the adoption of NCLEX-RN had on my body, mind, and soul separately, it is important to note that the focus of holistic curriculum (Miller, 2007) is on the relationships amongst the body, mind, and soul. Thus, from a holistic point of view, some themes could be interpreted to fall within more than one holistic component. Table 1 provides a summary of the narrative codes, themes, and corresponding holistic component.

Narrative Themes

Seven themes were identified. One narrative theme, entitled *a high price to pay,* emerged under the category of body. The following four themes emerged under the category of the mind: a) *constraining forces,* b) *awakening to the biases of computer assisted testing (CAT)*, c) *contradictions and consequences,* and d) *finding my pedagogical peace.* Lastly, the following two narrative themes emerged under the category of the soul: a) *searching for an antidote* and b) *reaffirming my teaching self.* These themes are discussed in the section following Table 1.

Table 1

Narrative Codes, Corresponding Narrative Themes, and Relationship to Research Questions

Holistic Component	**Narrative Code**	**Narrative Theme**	**Research Question**
Body	Physical and mental exhaustion Fear of failure Stress of preparing students for NCLEX-RN success Diminished sense of Revitalization	A high price to pay	1
Mind	Technical mentoring and competency focused Focus on NCLEX content Change (learning requires time) Caring requires a holistic approach Teaching two curricula Implementing NCLEX-RN success strategies	Constraining forces	1

Holistic Component	**Narrative Code**	**Narrative Theme**	**Research Question**
Mind	Questioning the ethics of NCLEX-RN Recognizing societal value of exams as competence	Awakening to biases of CAT	2
Mind	Considering the consequences of failure Questioning the value, meaning of testing, grades	Contradictions and consequences	1 and 2
Mind	Valuing learning as an end in itself Supporting contextualized learning Celebrating the joy of learning Trying to negotiate a balance	Finding my pedagogical peace	2
Soul	Testing as the devaluing of holistic, eclectic teaching Finding alternatives to testing Espousing to be a mentor of hope	Searching for an antidote	2
	Believing in the restorative power of kindness and support Empowering student learning Recognizing the long-term impact of teaching may not be known	Reaffirming my teaching self	2

Body

A High Price to Pay. This theme relates to both of my research questions. My experience preparing to write the NCLEX-RN, which was described in the narrative, *Gambling with my future,* in Chapter 9, illustrates the emotional, physical, and social toll that the high-stakes exam created. To address my fears of failing the exam, I described how my preparation

for writing the NCLEX-RN was extensive, exhaustive, and expensive. Years later, when I took on an academic teaching role, I experienced stress related to preparing students for NCLEX-RN success. Since I continue to teach the same medical-surgical course, NCLEX-RN pass rates continue to weigh heavily on my mind. Exploring and implementing pedagogical strategies to address the poor pass rates remains exhausting, both physically and mentally. While I understand that all teaching is intensive and can be exhausting, I believe a significant part of my exhaustion relates to my belief that much of my efforts to help students succeed on the NCLEX-RN feels misplaced, as I am not convinced that high NCLEX pass rates signify safe nursing practice (competency). The following quote from my narrative *Preparing to teach in an NCLEX-RN World: Hope and Possibilities* exemplifies this sentiment.

> Curiously, in over twenty years of teaching nursing, this was the first time I had so painstakingly and with great intentionality planned curricular content and processes to address a licensing exam, yet I found myself worrying about students' success on the NCLEX-RN. (p. 114)

For me, the joy of teaching and learning became diminished as NCLEX-RN content and testing have become the overriding norm for the medical-surgical course. I do not experience the same sense of revitalization and enjoyment that I have often felt when a course is less prescriptive. Whether studying for passing the NCLEX-RN or devising ways of helping students to become successful on the NCLEX-RN, I have experienced this new NCLEX-RN reality as both mentally draining and physically exhausting.

Mind

Constraining Forces. This theme relates strongly to my research question number one regarding the impact of the adoption of NCLEX-RN on my practice. Although I preferred

teaching, learning, and evaluation approaches that did not include an emphasis on test-taking, due to the unanticipated low pass rates on the NCLEX-RN, I felt obliged to focus my pedagogical choices on content and processes geared to helping students be successful with NCLEX-RN. The time and opportunity for discussing emergent nursing issues were greatly reduced within the medical-surgical course. When I taught the medical-surgical course the first time, because there was no exam, I felt freer to discuss emergent nursing issues. Regrettably, the elimination of the nursing rounds term assignment activity, to allow for more time for reviewing the medical-surgical cases, greatly reduced student engagement and dialogue about complex health issues beyond case content. As illustrated by the following quote from my narrative relating to *Preparing to teach in an NCLEX-RN World: Hope and Possibilities,* most class discussion focused on case answers:

> Much to my dismay, much of the time that I had wanted to spend discussing issues beyond what was in the case studies was sublimated to dealing with these content issues, which exacerbated student frustration and anxiety about selecting the right answer. (p. 134)

I began to feel a major component of my teaching time had become focused on the technical aspects of the case studies and on creating and revising test questions. I felt compelled to meet the student learning needs by addressing their need to focus on answers to the case studies, especially in the Canadian context. However, in doing so, emergent topics and discussions relating to the case studies did not happen often or in the depth I would have preferred.

Awakening to the Biases of Computer Adaptive Testing (CAT). This theme relates to both of my research questions. Undoubtedly, the low pass rates on the NCLEX-RN and the

controversy it sparked prompted me to explore the research related to NCLEX-RN testing and standardized testing in general. Had pass rates been similar to the former CRNE pass rates, I do not think I would have felt compelled to learn more about the use and inherent biases of standardized testing. When I taught nursing earlier in my career, when the CRNE was the licensing exam for nursing, CRNE pass rates had not been concerning, and subsequently, I did not consider how standardized testing might be inherently biased at that time. It was the adoption of the NCLEX-RN in Canada that served to raise my consciousness about the inherent biases of standardized testing. The American case-based textbook that I chose to address NCLEX-RN content and my own reflections on preparing to write the NCLEX-RN served to highlight how subtle cultural differences impact care decisions and answer selection in the context of standardized testing. The following passage from my narrative *Gambling with my Future* illustrates how my experience of attending an NCLEX-RN preparation course prompted a growing awareness of this point:

> As an experienced nurse, I often found that I disagreed with the "correct" answer. I recall thinking that some of the correct answers did not consider contextual factors that I had experienced as a practicing nurse. At one of the preparation courses, other participants voiced similar concerns. The instructor reminded the participants that NCLEX-RN was written with the assumption that as a nurse, you would have access to all needed resources to implement care safely. In other words, for exam purposes, test-takers should assume they are practicing in a perfect world. (p. 104)

This insight led me to be more upfront with students about cultural nuances and biases affecting NCLEX-RN testing. Despite this awareness, I believe I initially underestimated the important impact of over 25 years of accumulated nursing knowledge and my nursing

experiences of working in the U.S. healthcare context had played in my success of passing the NCLEX-RN. By becoming more knowledgeable about CAT and by reflecting on my experience of writing the NCLEX-RN, I became more aware of biases inherent in standardized testing, in general, and the NCLEX-RN, in particular. I have begun to share these insights with students and faculty.

Contradictions and Consequences. This theme addresses both of my research questions. The adoption of the NCLEX-RN was heralded by Canadian regulators as an efficient way to measure competence to ensure safe practice. Two primary examples of contradictions became obvious. My narrative *Gambling with my Future,* which describes my experience writing the NCLEX-RN, highlighted the absurdity of this assertion as I pondered how I was deemed competent to be leading nursing projects and supervising RNs, yet, simultaneously, I could potentially be deemed as incompetent by the Florida Board of Nursing, my employer, and my peers, if I failed the NCLEX-RN. The second example relates to my teaching pedagogy in an academic context. Although I have spent an entire teaching career encouraging students to be mindful to address individual and often complex contextual issues related to caring for individuals, it became increasingly clear to me that the NCLEX-RN and its accompanying CAT assessment method champion efficacy over complexity and context. As I learned more about the CAT evaluation method, I became increasingly outraged that the evaluation of thinking processes, which promote safe care, was now being predicted by a computer algorithm. Despite this and my growing awareness of the various issues with the adoption of the NCLEX-RN as the sole measure of nursing competence, I felt ethically obliged to implement teaching strategies that would support student success on the NCLEX-RN. This obligation meant that time that I would have normally spent on helping students to think beyond NCLEX-RN content was compromised.

Consequences of this for me included increased personal and professional stress, as described earlier in this chapter.

Finding my Pedagogical Peace. This theme relates to both of my research questions. This theme emerged as I prepared to teach the medical-surgical course for the first time and has continued to the present time. Each time I taught the course, I pondered how I might better support students' success on NCLEX-RN while simultaneously trying to be true to my philosophical belief that the course should help students move beyond NCLEX-RN content. The first time I taught the medical-surgical course, I was optimistic that because I had chosen a textbook that addressed NCLEX-RN content via case studies, and because I did not include testing as part of student evaluation, I would have time to address issues beyond formal NCLEX-RN content. Unfortunately, as noted earlier in this chapter, this was not the case. Because of the cultural differences in the textbook cases, which I later understood mirrored issues with the NCLEX-RN, and the angst students seemed to be experiencing about writing the looming NCLEX-RN, I reluctantly compromised and included testing and review of NCLEX-RN content as a focus for the medical-surgical course, the next time I taught it. News of the poor pass rate results served to reinforce this decision. As NCLEX-RN pass rates continued to be a constant pressure, my pedagogical strategies remained basically unchanged over the next four years. In my fifth year of teaching this course, I made more changes to my teaching methods for the medical-surgical course. In 2018, as noted earlier in this chapter, I stopped reviewing NCLEX - RN content via a lecture before the case is discussed. Rather, I expected students to have reviewed the slides before coming to class, so we could focus on reviewing the cases. This change has allowed me some time to address both NCLEX-RN content in the cases, and to, at least to some degree, plan learning activities that are beyond NCLEX-RN content. I am not sure

why this decision took so long for me to implement. However, I believe that, like the students I teach, I also needed time, emotionally, not just pedagogically, to cope with the new normal that NCLEX-RN testing brought.

Soul

Searching for an Antidote. This theme relates most to my second research question. As the reality that the NCLEX-RN exam was not going to be replaced anytime soon began to sink into my consciousness, I began to look for ways to make my pedagogical peace. Some of these curricular compromises, which were described earlier within the theme of *finding pedagogical peace,* allowed me to maintain some measure of pedagogical pleasure within the medical-surgical course. However, as time went on, I increasingly found the joy of teaching and learning to be celebrated outside of the medical-surgical course. The student poster presentations in the research course I teach and the work that I do with students outside the classroom that is related to implementing best practice guidelines have been sources of joy that have mediated some of the stress associated with the medical-surgical course. In this sense, these experiences have been like an antidote to teaching in an NCLEX-RN world and are restorative to my soul.

Reaffirming my Teaching Self. This theme relates strongly to research question two. The adoption of the NCLEX-RN forced me to continuously re-examine my teaching practices and the philosophical beliefs underpinning my practices. It became clear that the lower-than-expected NCLEX-RN pass rates meant that if I wanted to uphold a student-centered approach to learning, pedagogical strategies geared to passing the NCLEX-RN, regardless of my pedagogical concerns, would need to be implemented. As my knowledge about the issues with the NCLEX-RN grew, I consoled myself with the thought that I was able to remain true to the value of being student-centered by being forthright with students about the NCLEX-RN test plan, the CAT methodology

and the inherent NCLEX-RN biases. Although I have not been able to implement transformative learning strategies to a large degree within the medical-surgical course, I have found some measure of pedagogical peace by implementing transformative learning strategies within other class venues or outside of formal classroom activities. These experiences sustain my belief that, in the end, kindness and support may be the most meaningful thing a teacher can impart to students, even if we are not privy to its longer-term impact. Moreover, these experiences have helped to reaffirm a belief that I have held all my teaching career, that learning is not merely a means to an end; it is also an end, in and of itself.

Summary

It is interesting to note that as my pedagogy became more reflective of what Miller (2007) referred to as a transmission orientation to teaching and what Freire (2007) referred to as the banking method of teaching, the more discomfort I experienced. When I was able to provide a more balanced approach to teaching by incorporating more transactional and transformative teaching orientations, I felt less discomfort. In this sense, *finding my pedagogical peace,* although discussed under the category of mind, can be interpreted as a common underlying narrative within my body, mind, and soul.

As well, I think it is worth noting that although only one theme emerged under the category of the body, physiological effects of stress can often have subtle but long-term ill effects. While there is a growing recognition that the clinical nursing practice environment is stressful and may hold both acute and long-term ill-health consequences, there does not seem to be the same consciousness about the impact of stress in the nursing academic context. For me, the adoption of the NCLEX-RN offers an opportunity for this issue to be more closely examined.

In the next chapter, I discuss the meaning and implications of my findings.

CHAPTER 11: DISCUSSION: MEANINGS AND INSIGHTS

In this chapter, I reflect on the meaning of my findings and the implications of my study by returning to the theoretical constructs of holism (Miller, 2007), Dewey's theory of education (1897, 1910, 1916, 1938), and critical theorists Freire (1970) and hooks (2003), which underpin my study.

The Erosion of Holistic Teaching Practices

As noted in chapter 1, Miller (2007) considered balance, inclusiveness, and connectedness as fundamental elements of a holistic curriculum. As the consequences of the adoption of the NCLEX-RN unfolded, it is apparent that my attempts to create and sustain these holistic teaching practices were compromised in all three of these elements. I describe how the narrative themes that emerged in my study reflect these elements relating to the erosion of a holistic curriculum in the following paragraphs.

Disruptions of Pedagogical Balance

The narrative themes of *constraining forces* and *finding my pedagogical peace* represent pedagogical disruptions of balance affecting my mind. As the pressure to respond to poor NCLEX-RN pass rates mounted, pedagogical strategies geared to improving NCLEX-RN success became a predominant force that ultimately shaped my thinking. A prime example of a pedagogical disruption of balance is illustrated by my decision to reluctantly eliminate the nursing rounds activity and the weekly in-class group case study approach and replace these pedagogical strategies with teacher-led lectures and testing. Over time, as I became frustrated with my intense focus on lecturing and the amount of time it took away from class discussion of non-NCLEX-RN-related topics, I reduced lecture time by assigning students the responsibility to review the lecture slides before class and to come prepared to discuss their case study answers. I

was conscious that these changes might negatively impact the mid-term and final exam grades or would be dissatisfying to students who preferred lectures. It is my experience that over the course of my teaching career, students have become increasingly grade conscious. Students understand that a high academic average opens career pathways. I am often asked by former students to write references for graduate studies. Sadly, grades have become the prime gatekeeper for career choices, so it is not surprising that grades are highly valued by students. Class averages for both the mid-term and final exams have remained similar to class averages when I was lecturing. I share this information with students at the beginning of the medical-surgical course to allay fears about my pedagogical choices. Not all students have been happy with the case study format. Some have indicated they prefer lectures. This is not surprising given that lecture may facilitate memorization or rote learning, which may be helpful for success on course exams and NCLEX-RN.

The reduction of lecture time, the preservation of the group case study term assignment, and my attempts to allay fears about course grades are examples of pedagogical strategies that are representative of the narrative theme *finding my pedagogical peace.* Although these pedagogical compromises were put in place to allow more time for discussion beyond NCLEX-RN content, regrettably, discussions remain primarily focused on case study answers and the rationale for answers from an NCLEX-RN perspective. This observation is important. While the use of case studies can undoubtedly increase student engagement and dialogue as compared to lecture, moving dialogue beyond the medical-surgical, NCLEX-RN content of the cases remains very challenging.

Disruptions of Balance Related to Bodily Health

The narrative theme *a high price* to pay is associated with disruptions of balance impacting the health of my body. This theme speaks to my personal stress as I prepared to write the NCLEX-RN as well as the ongoing pressure to support student success on NCLEX-RN that I continue to feel as an educator. Although I have not experienced an illness or disease as an example of a physical disruption of balance related to the stresses of preparing to write the NCLEX-RN or supporting student success on the NCLEX-RN, my "dis-ease" is manifested by feelings of being stressed, worried and, at times, disheartened. I use the term "dis-ease" because I believe it captures my emotional experiences better than the term *disease,* which isolates and medicalizes my experiences. I do not know the long-term bodily effects of the ongoing pressure to improve or sustain high NCLEX-RN pass rates. However, the emphasis on NCLEX-RN success and a more technical approach to teaching have made my teaching experience less fulfilling. I also feel discomfort that I am modelling to students a learning strategy that reinforces and values a technical versus holistic approach to learning and patient care.

Beyond my individual efforts to address the stressful impact of the NCLEX-RN, I also participate with my colleagues in the school of nursing NCLEX-RN committee. As in Petrovic et al.'s (2019) study, the NCLEX-RN committee on which I was a member was first established in response to poor NCLEX-RN pass scores. On the one hand, this committee has been a welcome refuge where I am able to discuss my concerns and frustrations about the NCLEX-RN, while on the other hand, it is very disconcerting to acknowledge that this committee needs to exist. Prior to the adoption of the NCLEX-RN, there was no curricular committee focusing on how CRNE pass rates could be maintained or improved. Educators are not able to see the scores of individual students who wrote the NCLEX-RN in their respective programs unless the student has given

permission for the school to access this information. NCLEX-RN pass rates for Schools of Nursing are posted on the CNO and NCSBN websites so schools can monitor their own progress over time. Schools of nursing programs may request an *NCLEX Program Report* to identify their program strengths and weaknesses. The annual fee for this report is $175.00 US (Mountain Measurement Inc., 2021). The report provides information relating to the following topics: "client needs, nursing process, categories of human functioning and health alterations, the wellness-illness continuum, the stages of maturity and stress-adaption" (NCSBN, 2021e, para. 1). Although the NCLEX committee is an important component to supporting student success on the NCLEX-RN, I wonder how students and the public might be better served if, instead, we as educators could consider more deeply how we might better address contemporaneous, emergent learning issues such as the truth and reconciliation calls to action, or narrative or relational competencies that are not NCLEX-RN related.

Lack of Inclusiveness

The narrative theme *constraining forces* also reflects how my teaching became more technically focused on NCLEX-RN content and processes and corresponds to what Miller (2007) refers to as a transmission teaching orientation. Reliance on a transmission teaching orientation champions information transfer, recitation, and testing, whereas the use of a transactional teaching orientation evokes problem-solving. A transformational orientation encourages students to make various connections beyond technical learning so that learning is personally and socially meaningful (Miller, 2007). While a high reliance on a transmission orientation to teaching might be useful for NCLEX-RN success, limiting transactional and particularly transformational teaching orientations raises questions about how the exam ensures safe nursing practices. I wonder to what degree the preoccupation with NCLEX-RN pass rates is constraining classroom

discussions of relevant emergent issues of concern to Canadian faculty and students. For me, considering how the adoption of the NCLEX-RN is eroding the role of the classroom as an inclusive place for "radical openness" (hooks, 2003) as a safe place for questioning and learning is a growing concern. Given that the healthcare safety literature (Murray, 2017) points to reflective thinking as one of the most important tools for providing safe health care, understanding how the adoption of the NCLEX-RN impacts opportunities for critical questioning and reflective thinking warrants further curricular consideration.

The narrative theme s*earching for an antidote* attests to how I tried to remain true to an inclusive teaching approach by trying to include transformational teaching practices within the medical-surgical course. Although I continue to address important social justice and emergent issues as best I can, I do not feel the same degree of freedom to address emergent issues within the medical-surgical course in the same depth as I did prior to the adoption of NCLEX-RN. I found the most powerful antidote to my "dis-ease" to be outside the medical-surgical course. Putting my energies into the research class where I was free to adopt more transformative approaches to teaching was restorative to my soul. Because I had the unique opportunity of teaching the same students in the research class as were enrolled in the medical-surgical course, and because I was free from the constraints of NCLEX-RN content, I felt joyous that I was better able to promote a more inclusive learning context where questioning and dialogue was encouraged and supported. Similarly, organizing and engaging with students at professional events beyond the classroom proved to be another potent antidote. These strategies helped me to better understand the values I hold as a teacher and were instrumental in helping me *to reaffirm my teaching self,* which I also identified as a narrative theme. Understanding how the adoption of the NCLEX-RN impacts the soulfulness of educators at large is an important consideration for

the health and well-being of nurse educators. Given the projected shortage of nurse faculty (CASN, 2016), it may also be an important consideration for human resource planning.

Disconnections

A holistic curriculum attempts to move from fragmentation to connectedness (Miller, 2007). At its most basic level, the adoption of NCLEX-RN in the Canadian context reinforces a more technical, medical model of care, which disconnects the relationship of care from its social and cultural contexts. As described previously in my narrative *Preparing to Teach in an NCLEX-RN World: Hope and possibilities,* "at times I felt like I was teaching two curriculums; one American, and one Canadian" (p. 133). My experiences as described within the theme *awakening to the biases of computer assisted testing* gradually informed my thinking of the importance of acknowledging that all standardized tests, including the U.S.-based tests like the NCLEX-RN, reflect social and cultural contexts whereby even subtle differences can result in significantly lower test scores. As my knowledge about standardized testing grew, I began to feel more confident about my holistic teaching values, as described by the narrative theme *reclaiming my teaching self.*

In summary, the adoption of the NCLEX-RN resulted in an erosion of my holistic educational practices and raises important questions about how the adoption of the NCLEX-RN is affecting curricular content and processes. In the next section of this chapter, I consider how the erosion of holistic educational practices contributes to a "mis-educative" pedagogy.

A "Mis-educative" Pedagogy

Dewey (1916) considered reflection as a necessity for spurring both personal growth and societal change. He applied the term "mis-educative" pedagogy to educational experiences that did not promote personal or societal growth. Clearly, from a Dewian perspective, the erosion of

holistic teaching and learning practices as described in the previous section can also be viewed as mis-educative. Beyond the constraining pedagogical consequences that a mis-educative education engendered, Dewey (1916) was fearful that if educators placed too much emphasis on the technical aspect of occupational education, education would become an instrument for sustaining societal order rather than a means for transformation.

The idea that a mis-educative education maintains the status quo is an important consideration in the context of my study. My experiences relating to the narrative theme *constraining forces* described earlier in this chapter illustrate how the adoption of the NCLEX-RN limited opportunities for student reflection. Despite my growing awareness of this limitation, I continue to find it difficult to ameliorate this reality. The following teaching scenario illustrates this point. Greta Thunberg had just finished addressing Canadians in Montreal at the Climate March. I considered how this event and Greta's inspiration could be a catalyst for conversations with students about the relationships amongst health, illness, and climate change. I had thought about the next week's cases and how I could seize this moment to begin to restore some semblance of the pedagogical balance between an emphasis on technical aspects of care and broader societal issues relating to health and environment. Ultimately, I hoped that ensuing conversations could stimulate student personal growth or, at the very least, raise consciousness about the relationship between health and environmental issues. Regrettably, this did not happen. The pressure to address the content of the case studies overpowered me, so I reverted to focusing on the assigned cases. As philosophically committed as I continue to be in promoting curricular practices that promote personal and societal growth, promoting such practices is very difficult to achieve when pedagogical pressures that promote success on NCLEX-RN take precedence. Mis-education became a prevailing force. Although I express the shortcomings of the NCLEX-RN

that I have come to understand with students and colleagues, the reality that much of my course preparation, teaching and evaluation time is geared to NCLEX-RN success subtlety yet powerfully reinforces that high NCLEX-RN pass rates has become a prevailing curricular force impacting my practice.

In my study, beyond the troubling impact a mis-educative education poses for student learning, it also imposed constraints on my personal and professional growth. The narrative theme *a high price to pay* exemplifies the physical exhaustion and emotional distress I encountered as I attempted to navigate the impact of the adoption of the NCLEX-RN. My pedagogical focus on identifying and implementing learning strategies that supported NCLEX-RN success and would also support curricular content and goals beyond NCLEX-RN left me with little energy to think beyond class or to engage in professional activities directed towards replacing the NCLEX-RN. At times, I felt like I was on a treadmill trying to keep up the pace but going nowhere. It is in this sense that my educational reality served to reinforce Dewey's (1916) fear that a technically focused education is mis-educative and ultimately maintains the status quo.

Antidialgocial Tactics

Freire (1970) described teaching and learning processes that focus on information transfer and leave little time or energy for critical reflection as the banking model of education. In this model, teachers deposit information and students passively receive information. For Freire, the banking model of education is the prevailing oppressive societal force which suppresses critical dialogue and critical reflection, ultimately suppressing one's development of critical consciousness which in turn constrains human and societal capacity. Clearly, in the context of my educational practice, as the narrative theme *constraining forces* connotes, the adoption of the

NCLEX-RN became an oppressive force engendering a banking model of education, which limited critical dialogue and reflection time for myself as a teacher and for my students.

Freire (1970) cited the use of myth, divide and rule, and cultural invasion as examples of antidialogical tactics that suppress consciousness and ultimately help to maintain the status quo. I found Freire's (1970) insights regarding antidialogical tactics to be one of the most valuable outcomes of my study, both personally and professionally. I discuss how these antidialogical tactics are represented within the narrative themes of my study in the following paragraphs.

The Use of Myth: NCLEX-RN Success Equals Safe Practice

Gradually, as I began to reflect on my own experience of writing the NCLEX-RN, the initial poor Canadian NCLEX-RN pass rates, and the emerging Canadian research, the regulators' assertion that the NCLEX-RN promoted patient safety began to unravel more fully. For me, a significant lack of knowledge about standardized testing in general and CAT in particular and my intense curricular focus on identifying how NCLEX-RN scores could be improved were significant barriers to countering this myth.

Coons (2014) noted in her review of the U.S. nursing literature that nurses would benefit from applying findings from the educational literature to their nursing educational practices. Coon's conclusion resonated with my own practice and may have relevance more broadly. It is also interesting to note that over the past twenty years, the evidence-based practice movement has been widely embraced by nurse regulators, clinical nurses, and nurse educators alike. In my own practice, I have championed and continue to champion evidence-based guidelines as a way to promote safe practice. Curiously, though, despite my knowledge and value for an evidence-informed practice and my graduate credentials in education, I was not fully aware of the educational literature outlining the caveats and controversies associated with standardized testing

in general or high stakes testing such as the NCLEX-RN. Perhaps this reality speaks to the tenacity of society's acceptance of testing as an appropriate measure of competence. For me, the adoption of the NCLEX-RN in Canada has been a catalyst for applying an evidence-based lens to my teaching practices.

Divide and Rule

The sense of urgency that the poor NCLEX-RN pass rates engendered reignited the national debate about the appropriateness of the exam. This process was divisive, pitting nurse regulators against nursing educational organizations such as the CASN and professional nursing organizations such as the Canadian Nursing Association, the RNAO, and the Ontario Nurses Association. Ultimately the regulators ruled.

Undoubtedly, in my own practice context, the NCLEX committee has been a unifying force and a necessary committee to identify strategies for supporting NCLEX-RN success. However, as I have become more aware of my values and beliefs about curriculum and testing, I am also increasingly aware of how my beliefs might differ from colleagues and how differing beliefs could result in curriculum changes that could stoke divisiveness.

Despite any ideological or pedagogical qualms educators may have about the appropriateness of the adoption of the NCLEX-RN, it is clear that in Ontario, educators will have the additional burden of meeting the demands of the newly implemented CNO program approval process, which reflects a highly technical approach to curriculum. Although NCLEX-RN scores are only part of the new program approval process, programs are expected to achieve and maintain an 80% first attempt pass rate (CNO, 2019). I worry that with this change to the program approval process, there is an increased risk of heading down the same road as our U.S. nurse colleagues, where curricular reform has been hampered by faculty fears that changes might

lower NCLEX-RN pass rates or jeopardize program accreditation (Giddens, 2009). As well, I am concerned that the new program approval process will spur further interest in integrating NCLEX-RN preparatory products and adaptive quizzing within Canadian nursing curricula.

Cultural Invasion

The adoption of the NCLEX-RN within the Canadian context can be viewed from a Freirian perspective as the imposition of a world view. Using this lens, the adoption of the NCLEX-RN for use in Canada can be viewed as the imposition of the worldview by nurse regulators that the American NCLEX-RN is an appropriate exam to promote safe practice within the Canadian context. Freire contended that "for cultural invasion to succeed, it is essential that those invaded become convinced of their intrinsic inferiority" (1970, p. 151). Although I cannot speak for nurse educators collectively, my initial opposition to the adoption of the NCLEX-RN in the Canadian context was muted by my false beliefs about the superiority of computerized adaptive testing and my belief that differences between the U.S. and Canadian nursing contexts would not significantly impact pass rates. As noted previously, I believe that my own success on the NCELX-RN was partially facilitated by having worked in the U.S. My U.S. work experience may have resulted in me minimizing cultural differences that were part of NCLEX-RN testing. Furthermore, the marketing of the NCLEX-RN by regulators as being a highly efficient and legally defensible exam because of its reliance on the psychometrically valid technology of CAT, irrespective of cultural differences, can also be viewed, whether intentional or not, as a cultural invasion tactic. My gradual awakening to this tactic is best described by the narrative themes of *contradictions and consequences* and *awakening to the biases of computer assisted testing (CAT)*. As I became more aware of the cultural biases and nuances, I began to address them in class by upgrading case study language and contexts and by encouraging students to use

Canadian resources such as Best Practice Guidelines when appropriate. More recently, as the COVID-19 pandemic took hold, the class moved to an online format. To provide opportunities for dialogue beyond NCLEX-RN content, I utilized an online discussion forum as a way for students to address emergent learning related to the social determinants of health and COVID-19 within the Canadian context. I believe this strategy has been useful to encourage student thinking beyond NCLEX-RN content and course test content.

Whether antidialogical tactics were intentionally employed by regulators to quell misgivings about the adoption of the NCLEX-RN in the Canadian context is debatable. What is not debatable is that these tactics have been damaging to my attempts to maintain a holistic educational practice. Reflecting on how these tactics have impacted my practice has been an important way for me to identify how I might mitigate the untoward effects that the adoption of the NCLEX-RN has had on my practice and being. I encourage other educators to consider how these tactics may be influencing their own practice and values.

Summary

The findings from my study resonate with the theoretical perspectives which underpin my study. My findings reflect the erosion of holistic practices and raise concerns about mis-educative practices. Understanding how the adoption of the NCLEX-RN may be jeopardizing holistic pedagogical practices and narrowing the curriculum at large should be explored more broadly. I found Freire's insights regarding antidialogical tactics of the use of myths, divide and rule, and cultural invasion particularly impactful in that they brought new or heightened awareness of the use and impact of these tactics on my pedagogical practices. For me, confronting and debunking the myth that a standardized exam, in this case, the NCLEX-RN, signifies safe practice is one of the most meaningful outcomes of my research query. I believe it

is an important myth that needs to be aggressively confronted by the profession at large, especially by nurse regulators and nurse educators. As long as nurse educators and nurse regulators believe this myth, finding alternative ways of ensuring schools of nursing prepare graduates for safe nursing practice will be constrained.

Chapter 12: Conclusions and Discussion in the Context of the Nursing and Education Literature

In this final chapter of my study, I discuss the meaning of my findings and their implications as they relate to the current nursing and education literature. I begin by returning to the themes I identified within my mind, body, and soul. Lastly, I conclude this chapter by considering the limitations and significance of my findings.

Mind

Constraining Forces

I experienced the adoption of the NCLEX-RN as a force which constrained my pedagogical decision-making relating to pedagogical content and processes. Consideration of NCLEX-RN pass rates became a driving force affecting my pedagogical decisions. Similarly, Petrovic et al. (2019) noted that faculty made program changes based on their mapping of the College and Association of the Registered Nurses of Alberta (CARNA) provincial practice entry-to-practice competencies (EPTC) to the NCLEX-RN Test Plan. They concluded that their analysis of the entry-to-practice competencies mirrored findings of the CASN's (2015) analysis of the entry-to-practice standards in Ontario. The CASN's (2015) analysis indicated that 33% of the entry-to-practice standards were not addressed by the NCLEX-RN test plan and that the NCLEX-RN test plan focused more on the physical care of individuals. Petrovic et al. recounted that part of their strategies for supporting NCLEX-RN success included integration of NCLEX-style questions via NCLEX resources throughout their program. Whether the program changes they made displaced, minimized, or maintained former Canadian curricular content or competencies is not clear. However, the following question by Petrovic et al. (2019) clearly resonates with my experiences as a core dilemma I struggled with: "How does an

educator determine what focus needs to be placed on the overall ETPC and BN program outcomes in contrast to nursing student success with the NCLEX-RN®?" (p.5). Struggling with these pedagogical tensions is a continuing source of frustration and stress for me as I consider not only the practical and logistical aspects of this reality but also the potentially longer-term implications it holds for the integrity of our nursing program.

Other Canadian nurse educators discussed the constraining forces that the adoption of the NCLEX-RN engendered for francophone educators and students. Unlike my experience of teaching in an anglophone university where I could easily access NCLEX-RN resources, initially, there were no commercially available NCLEX-RN francophone resources that francophone faculty or students could access. To address this reality and the initial shockingly low francophone pass rates, Guerrete-Diagle et al. (2019) reported that they collaborated with other francophone universities to create francophone NCLEX-RN resources. I can only imagine how intellectually and emotionally taxing the creation of these resources must have been. It not only raises questions about how the adoption of the NCLEX-RN impacts faculty's use of time for teaching and scholarly research activities, but it also raises questions about the impact on faculty members' emotional and physical health. Given that several U.S. nursing studies have identified that English as a first language is correlated with NCLEX-RN success (Sears et al., 2015), all nurse educators should be cognizant that any student whose first language is not English may be at an increased risk for failure on the NCLEX-RN. Importantly, this observation also delegitimizes the argument that standardized tests level the playing field for learning and achievement.

Although francophone NCLEX-RN pass rates have improved, they remain comparatively lower than rates for anglophone writers (CCRNR, 2019). LaLonde (2019) noted

a continued lack of resources and, consequently, an increasing number of francophone students who are choosing to write the NCLEX-RN in English; moreover, securing more francophone resources remains difficult. Guerrette-Diagle et al. (2019) reported that although the Commissioner of Official Languages for New Brunswick ruled that francophone graduates' linguistic rights were violated by the New Brunswick provincial nursing regulatory association with the adoption of the NCLEX-RN, the situation remains unresolved. Tragically the adoption of the NCLEX-RN has infringed on the provincial linguistic rights of francophone graduates, and educators are left scrambling to implement educational strategies that promote NCLEX-RN success despite the legal and ethical realities the situation poses.

Awakening to the Bias of CAT

Over time, I experienced a gradual awakening to the limitations of standardized testing and the NCLEX-RN, in particular. The low pass rates Canadians experienced with the initial writing of the NCLEX-RN was a wake-up call for me. Post-NCLEX-RN-adoption, a myriad of validity issues was revisited or newly identified. These included criticisms that the NCLEX-RN exam was developed without consideration of non-analogous educational and healthcare settings (McGillis Hall et al., 2016; CASN, 2015), differing entry-to-practice competencies (CASN, 2015; Salfi & Carbol, 2017), inattention to differing linguistic and cultural contexts, and non-adherence to international testing standards (CASN, 2015). Woodend (2019), who was president of the CASN in 2016, publicly countered the claim by regulators that the NCLEX was neither an American nor Canadian exam. She forthrightly stated, "It is fallacy to believe that something has not culture. Every test has a culture. You can't say that an exam primarily developed in the US has not American culture or content" (p. 26).

For me, as my knowledge about the inappropriateness of the NCLEX-RN for the Canadian context grew, so did my concerns about the use of CAT. I began to feel outraged that an algorithm utilized as a part of the CAT process was predicting the competence of graduates to practice, especially in the context of so many validity transgressions. Somewhat to my surprise, I did not find a similar sentiment widely discussed in the Canadian literature. Instead, outrage appeared to be more focused on overall validity issues of NCLEX-RN for the Canadian context, and concerns about the use of CAT appeared to be more focused on how to help students adapt to the use of CAT. It is interesting to note that when the CASN (2019) developed the CEBN exam as a possible alternative to the NCLEX-RN, although the exam is computer-based, it does not utilize CAT. I am not aware of their rationale for choosing not to use a CAT format, but I am glad that, in the interest of efficiency, an algorithm is not deciding the competence of our graduates.

Contradictions and Consequences

For me, this theme is intertwined with my growing awareness of the limitations of standardized testing, CAT, and the NCLEX-RN. As described in the above section, as my knowledge about the NCLEX-RN increased, so did my outrage. Petrovic et al. (2019) appear to have experienced something similar. In the section of their paper entitled *"The more you learn, the less you know,"* they described the work of their NCLEX-RN committee as a positive experience, as their intentions were to "do what needs to be done to support student success" (p. 6), yet they simultaneously acknowledged that they had several concerns about the appropriateness of the NCLEX-RN for the Canadian context.

Finding my Pedagogical Peace

This theme relates to the pedagogical choices and compromises I chose, such as the creation of NCLEX-like tests within the medical-surgical course to support NCLEX-RN success. The Canadian literature reflects a variety of strategies that educators are using to support NCLEX-RN success. While there is no national or provincial survey data describing how educators are finding their respective ways, strategies from the Canadian literature I reviewed indicated that some educators are creating their own NCLEX-like tests (Guerrette-Daigle et al., 2019), others are utilizing American, commercially available NCLEX-RN preparatory tests (Cobbett et al., 2016), and others are collating NCLEX-RN resources so students can choose their own resources (Petrovic et al., 2019). The formation of an NCLEX committee was also described by Petrovic et al. (2019) as an important mechanism to address curriculum changes in light of the adoption of the NCLEX-RN.

The CASN responded to the adoption of the NCLEX-RN by developing the CEBN/ECBSI as an alternative to the NCLEX-RN (Baker, 2019) or as an exit exam if there is a decision to eliminate an entry-to-practice exam (MacMillan, 2019). Other Canadian educators are conducting research studies to identify factors that predict NCLEX-RN success (Cobbett et al., 2016; Pike et al., 2019). If the NCLEX-RN remains the entry-to-practice exam in Canada, I think it behooves us as educators to review the experiences of our American colleagues where the use of commercially available preparatory NCLEX-RN software resources, including exit exams and associated progression policies, are becoming commonplace. Do we really want to mimic their experiences? U.S. nursing educational leaders such as Benner et al. (2010) in their landmark book *Educating Nurses: A call for Radical Transformation* advocate for less multiple-

choice testing, not more testing. They recommend that educators adopt what is termed as a "situated coaching approach" to support learning and clinical reasoning.

Body

A High Price to Pay

Like my own experience, the Canadian literature I reviewed reflects that deciding how to proceed pedagogically as a result of the adoption of the NCLEX-RN was distressing for educators. McGillis Hall et al.'s (2016) publication, *People are failing! Something needs to be done,* vividly expressed the collective sense of urgency and anxiety that confronted nurse educators. The angst that Alberta nurse educators felt when the first NCLEX-RN results were made public is described by Petrovic et al. (2019) in the following passage.

> Conversations would often focus on misgivings about the exam implementation and how not to implement strategies that would be viewed as teaching to the exam. Conversations also centered on defending the value of the exam change, the need to embrace change and to reflect on what teaching to the exam means. (p. 6)

As well, Petrovic et al. (2019) explained that their NCLEX-RN Work Group developed the motto of "don't be afraid, be familiar" (p. 6), presumably as a way to help faculty and students cope with the initial shock of the poor NCLEX-RN results. The motto illustrates the underlying anxiety the educators felt as they attempted to inform themselves about the NCLEX-RN exam. In the francophone community, New Brunswick nurse educators Guerrette-Daigle et al. (2019) described in emotional terms their efforts to improve the 32% drop-in pass rates experienced by francophone students when the NCLEX-RN was first introduced. They use words like "worrisome start," "tumultuous middle," and "uncertain end" to describe their journey of preparing francophone candidates for success on the NCLEX-RN.

Soul

Searching for an antidote

This theme primarily relates to how I turned my attention to restoring the joys of teaching by engaging in pedagogical approaches more reflective of my philosophical beliefs about teaching and learning. Although I implemented some learning approaches within the medical-surgical course that helped to ease my frustration with the largely technical approach to learning that I felt the NCLEX-RN had engendered, I found more joy in implementing learning activities in the research course I taught. Supporting individual students to explore a research topic of their own liking and the mentoring of students into their professional roles were welcome antidotes to teaching in an NCLEX-RN world. It is not clear from the Canadian literature how Canadian nurse educators are sustaining their emotional being or their soulfulness in response to the adoption of NCLEX-RN. Given the projected shortage of nursing faculty (CASN, 2016), exploring this topic as a component of promoting a healthy work environment seems like a worthwhile human resource endeavour.

Reaffirming my Teaching Self

In a very real sense, my thesis demonstrates the power of autobiography in education as a way to "understand teaching and learning as grounded in personal history" (Lyle, 2018, p. 257). Palmer (1998) reminded us that "good teaching cannot be reduced to techniques; good teaching comes from the identity and integrity of the teacher" (p. 10) and of the "power of inwardness to transform our work and our lives" (p. 20). More specifically, Palmer viewed the process of remembering as a restorative process, which "involves putting ourselves back together, recovering identity and integrity, reclaiming the wholeness of our lives" (1998, p. 20). My story of coming to terms with the adoption of the NCLEX is, in part, a story about reclaiming my

wholeness by reclaiming my identity and integrity as a teacher in a post-NCLEX world. Other nurse educators might also find autobiographical writing comforting and a way to reflect on their professional practice. The use of autobiography within our educational practices may also be a way to demonstrate to students the importance of understanding a person's autobiographical context, whether that be in an academic learning context or patient care context.

There are no national studies examining how the deployment of personal pedagogical practices has been altered by the adoption of the NCLEX-RN in Canada. As part of his study on the impact of standardized testing in Canada and the U.S., Kempf (2016) found that pedagogical changes were more significant for teachers who taught courses during years in which EQAO testing is mandated. Perhaps nurse educators who teach courses most related to NCLEX-RN content may feel the need to make pedagogical changes that are more directed at supporting NCLEX-RN success than faculty who do not see a direct relationship of their course to the NCLEX-RN. Regardless, understanding the impact on curriculum as a whole is an important consideration if educators wish to ensure that valued educational program processes and outcomes beyond those identified with the NCLEX-RN are being met.

Kempf (2016) described four themes relating to teacher practices of intentional resistance to standardized testing. He labels these themes as follows: a) Better get used to it; b) Superheroes-do it all; c) Consequences be damned; and d) Choose your battles. Reflecting on my practice, I think I started out as a "superhero" where I was trying to do it all. As time progressed, I think I gradually morphed into a "choose your battle" mode as a short-term strategy, where I resigned myself to teaching to the NCLEX-RN to support NCLEX-RN success, but I also became more engaged and forthright about discussing the caveats and implications of the adoption of the NCLEX-RN with students and faculty. I also found some pedagogical peace by

engaging with students in ways that I felt engendered transformative learning principles in the research class I taught and by encouraging and supporting student engagement in professional activities outside the classroom experience.

Study Implications

Nursing Education Implications

It is clear from the literature that nurse educators have a strong commitment to supporting student success and graduating practitioners who can practice safely in an increasingly complex context. However, the adoption of the NCLEX-RN in the Canadian context has meant that educators have needed to quickly develop and implement strategies to improve NCLEX-RN pass rates which have been distressing. In my view, this has been a necessary but exhausting response in a time of crisis, akin to an educational triage. To use a medical metaphor, we might have temporarily stopped the bleeding, but what are the long-term consequences? While it is comforting to know that the Canadian NCLEX-RN pass rates have improved significantly since the first writing in 2015, five years post-NCLEX-RN adoption, we must now ask ourselves at what cost? What compromises have been made? Whom has this disadvantaged? What is the effect on patient safety? What is the effect on nurse educators, individually and collectively as a profession? What can be done?

As a beginning step to addressing these questions, I am suggesting that we individually, collectively, and mindfully confront the myths about testing and safe practice. By doing so, we may be better able to understand how we utilize testing within our respective courses and the curriculum at large and query the necessity of having an entry-to-practice test.

Research Implications

The adoption of the NCLEX-RN brings opportunities for nursing education research. In my view, there is an urgent need to gain an understanding of how the adoption of the NCLEX-RN is impacting Canadian nurse educators' practices and BScN curricular goals and outcomes. Understanding these complexities will not only help established nursing programs make important curricular and pedagogical decisions, but new programs that are yet to be established would also benefit from this information. Since the provision of safe care is a common goal of both nurse educators and nurse regulators alike, reviewing existing research studies from the educational and the nursing literature, and engaging in future research studies which explore educational processes that promote safe care, seems prudent. If we view the adoption of the NCLEX-RN as a catalyst for reviewing our beliefs about curriculum content and pedagogical processes, it will also be important to include the voices of students, patients, and our clinical partners in our research.

Study Limitations

By definition, an autobiographical study is limited to one person's account and their philosophical perspective. Thus, the study findings may be meaningful to me but not necessarily to others. Although several data sources were used to promote the accuracy of recollections and memories and to uphold trustworthiness criteria, like all autobiographies, not every memory has a corresponding and confirmatory written source of data. As well, there is also the reality of deciding what life stories to include or exclude. Similarly, although a literature review was completed, there is always the possibility that disconformity literature exists but was not explored or was minimized. As a critical narrative study, my data analysis and interpretation reflect a critical approach. Thus, my findings are also shaped by a critical perspective. Because

this study spanned several years, the passage of time and context may have impacted how data was used and interpreted. As well, being a novice researcher and inexperienced in using a narrative inquiry approach may have been limiting factors affecting my research query.

Significance

I believe, like Mildon (2019), that the adoption of the NCLEX-RN is a defining problem for the Canadian nursing profession. The findings of my study represent personal and professional insights into the impact of the NCLEX-RN on my educational practice. It offers a glimpse of the realities that the adoption of the NCLEX-RN has engendered and adds to the growing body of Canadian literature on this topic. It is my hope that this study evokes self-reflection by other nurse educators and provides insights for further research studies and inspiration for reclaiming our educational practices.

Closing Thoughts

At the beginning of this study, I was introduced to the writings of bell hooks. I continue to be reminded of, and take solace in, hook's (2003) belief that despite the existence of antidialogical practices, the classroom can be a place of hope and possibility. While I find the classroom is a more challenging place since the adoption of NCLEX-RN, I continue to find the following passage both sustaining for the short-term and inspirational as a call to action to address the broader issues engendered by the adoption of the NCLEX-RN in Canada.

> The academy is not paradise. But learning is a place where paradise can be created. The classroom, with all its limitations, remains a location of possibility. In that field of possibility, we have the opportunity to labor for freedom, to demand of ourselves and our comrades an openness of mind and heart that allows us to face reality even as we begin to move beyond boundaries, to transgress. (hooks, 1994, p. 207)

REFERENCES

Agan, D. (1989). Intuitive knowing as a dimension of nursing. *Advances in Nursing Science*, *10*(1), 63–70. https://doi.org/10.1097/00012272-198710000-00011

Aiken, L. H., Clarke, S. P., Cheung, R. B., Sloane, D. M., & Silber, J. H. (2003). Educational levels of hospital nurses and surgical patient mortality. JAMA, 290(12), 1617–1623. https://doi.org/10.1097/00012272-198710000-00011

American Nurses Association. (n.d.). How to become a nurse. https://www.nursingworld.org/practice-policy/workforce/what-is-nursing/how-to-become-a-nurse/

Arathuzik, D., & Aber, C. (1998). Factors associated with National Council Licensure Examination–Registered Nurse success. *Journal of Professional Nursing*, *14*(2), 119–126. https://doi.org/10.1016/s8755-7223(98)80040-9

Baker, C. (2019). Promoting quality in nursing education in Canada through a Canadian examination for baccalaureate nurses. *Nursing Leadership*, *32(*4), 81–91. https://doi.org/10.12927/cjnl.2020.26098

Baker, C., Guest, E., Jorgenson, L., Crosby, K., & Boyd, J (2012). *Ties that bind: The evolution of education for professional nursing in Canada from the 17th to the 21st century*. Canadian Association of Schools of Nursing. https://www.casn.ca/wp-content/uploads/2016/12/History.pdf

Barton, L., Wilson, P., Langord, R., & Schreiner, B. (2014). Standardized predictive testing: Practices, policies, and outcomes. *Administrative Issues Journal*, *4*(2), Article 9. https://doi.org/10.5929/2014.4.2.2

Benefiel, D. (2010). The story of nurse licensure. *Nurse Educator*, *36*(1), 16–20. https://doi.org/10.1097/NNE.0b013e3182001e82

Benner, P. (1982). From novice to expert. *American Journal of Nursing*, *82*(3), 402–407.

Benner, P. (1984). *From novice to expert: Excellence and power in clinical nursing practice*. Addison-Wesley.

Benner, P., Stuphen, M., Leonard, V., & Day, L. (2010*). Educating nurses: A call for radical transformation*. Jossey-Bass.

Blegen, M. A., Goode, C., Park, S., Vaughn, T., & Spetz, J. (2013). Baccalaureate education in nursing and patient outcomes. *The Journal of Nursing Administration*, *43*(2), 89–94. https://doi.org/10.1097/nna.0b013e31827f2028

Bloom, B., Engelhart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1956). *Taxonomy of educational objectives: The classification of educational goals. Handbook 1: Cognitive domain.* David McKay.

Bogdan, R. C., & Biklen, S. K. (2007). *Qualitative research for education: An introduction to theory and methods* (5th ed.). Pearson.

Bruner, J. (1996). *The culture of education.* Harvard University Press.

Bruner, J. (2004). Life as narrative. *Social Research*, *71*(3), 691–708. https://ewasteschools.pbworks.com/f/Bruner_J_LifeAsNarrative.pdf

Buber, M. (2002). *Between man and man.* London: Routledge

Campbell, D. T., Penz, K., Vandenberg, H., & Campbell, M. (2019). A closer look at the introduction of the NCLEX-RN in Canada. *Nursing Leadership*, *32*(4), 46–56. https://doi.org/10.12927/cjnl.2020.26102

Campbell, V. (2014, February 10). What is the value of standardized testing? *The Facts on Education*. https://www.edcan.ca/wp-content/uploads/CEA-2014-FOE-standardized-testing.pdf

Canadian Association of Schools of Nursing. (2012). *Comparing the 2010–2015 CRNE and the 2013–2015 NCLEX-RN: Considerations for nurse educators in Canada*. https://casn.ca/wp-content/uploads/2014/12/2012Oct17CRNENCNCLEXcomparisonFINALCB-1.pdf

Canadian Association of Schools of Nursing. (2015). *Issues with adaption and translation of the NCLEX-RN for administration to graduates of Canadian baccalaureate programs of nursing.* https://www.casn.ca/wp-content/uploads/2016/01/CASN-Issues-with-Adaptation-Translation-NCLEX.pdf

Canadian Association of Schools of Nursing. (2016). *Who will educate the next generation of nurses?* [PowerPoint slides]. https://www.casn.ca/wp-content/uploads/2018/01/Who-Will-Educate.pdf

Canadian Association of Schools of Nursing. (2018). *Canadian examination for baccalaureate nursing.* https://www.casn.ca/2018/09/canadian-examination-for-baccalaureate-nursing/

Canadian Council of Registered Nurse Regulators. (2017, May 11). *NCLEX-RN 2016: Canadian results.* http://www.ccrnr.ca/assets/nclex-rn-2016-canadian-results.pdf

Canadian Council of Registered Nurse Regulators. (2018, May 10). *NCLEX-RN 2017: Canadian and international results.* http://www.ccrnr.ca/assets/2018-nclex-rn-2017-canadian-and-international-results-ccrnr-en.pdf

Canadian Council of Registered Nurse Regulators. (2019, July 15). *NCLEX-RN 2018: Canadian and international results.* http://www.ccrnr.ca/assets/2018-ccrnr-nclex-canadian-and-international-results-report-en.pdf

Canadian Nurses Association. (2021). *RN and baccalaureate education.* https://www.cna-aiic.ca/en/nursing-practice/the-practice-of-nursing/education/rn-baccalaureate-education

Childs, R. A., Ross, M., & Jaciw, A. P. (2002). Initial teacher certification testing: Preservice teachers' experiences and perceptions. *Canadian Journal of Education*, *27*(4), 455–475. https://journals.sfu.ca/cje/index.php/cje-rce/article/view/2840

Clandinin, D. J. (2013). *Engaging in narrative inquiry*. Left Coast Press.

Clandinin, D. J., & Connelly, F. M. (1998). Stories to live by: Narrative understandings of school reform. *Curriculum Inquiry*, *28*(2), 149–164. https://doi.org/10.1111/0362-6784.00082

Clandinin, D. J., & Connelly, F. M. (2000). *Narrative inquiry, experience and story in qualitative research*. Jossey-Bass.

Cobbett, S. L., Nemeth, W. I., & McDonald, J. (2016). Investigating the integration of student learning resources in preparation for the NCLEX-RN: Phase one of a Canadian two-phase multi-site study. *Quality Advancement in Nursing Education*, *2*(2), 6–10. https://doi.org/10.17483/2368-6669.1079

College of Nurses of Ontario. (2002). *Professional standards, revised 2002.* http://www.cno.org/globalassets/docs/prac/41006_profstds.pdf

College of Nurses of Ontario. (2015). *Nursing registration exams report 2014*. https://nanopdf.com/download/nursing-registration-exams-report-2014_pdf

College of Nurses of Ontario. (2016a). *Government approves registration regulation changes.* http://www.cno.org/en/news/2016/december-2016/government-approves-registration-regulation-changes/

College of Nurses of Ontario. (2016b). *Fact sheet. NCLEX: One step in ensuring safe care.* https://www.cno.org/globalassets/3-becomeanurse/nclex/nclex-factsheet-05.pdf

College of Nurses of Ontario. (2016c, July 28). *2016 Mid-year NCLEX-RN results: Ontario graduates applying to CNO.* https://www.cno.org/en/news/2016/july-2016/2016-mid-year-nclex-rn-results-ontario-graduates-applying-to-cno/

College of Nurses of Ontario. (2016d). *Working to improve French-language exam results.* https://www.cno.org/en/news/2016/august-2016/working-to-improve-french-language-exam-results/

College of Nurses of Ontario. (2017a). *The truth about NCLEX-RN for students*. http://www.cno.org/globalassets/3-becomeanurse/nclex/truth-about-nclex-rn.pdf

College of Nurses of Ontario. (2017b). *Nursing registration exams report 2016*. https://pdf4pro.com/cdn/2016-nursing-registration-exams-report-cno-43550d.pdf

College of Nurses of Ontario. (2018, October). *Program approval official launch*. https://www.cno.org/globalassets/3-becomeanurse/educators/pa-official-launch-presentation-website-oct-2018.pdf

College of Nurses of Ontario. (2019). *Nursing education program approval guide: Overview of the program approval process*. https://www.cno.org/globalassets/3-becomeanurse/educators/nursing-education-program-approval-guide-vfinal2.pdf

Coons, I. (2014). *Use of standardized tests within nursing education programs* [Doctoral dissertation, University of Nevada, Las Vegas]. Digital Scholarship@UNLV. http://digitalscholarship.unlv.edu/thesesdissertations/2071

Creswell, J. W. (2012). *Educational research, planning, conducting, and evaluating quantitative and qualitative research*. Pearson.

Crutchfield, J. P., & Mitchell, M. (1995). The evolution of emergent computation. *Proceedings of the National Academy of Science*, *92*(23), 10742–10746. https://doi.org/10.1073/pnas.92.23.10742

Daley, L. K., Kirkpatrick, B. L., Frazier S. K., Chung, M. L., & Moser, D. K. (2003). Predictors of NCLEX-RN success in baccalaureate nursing program as a foundation for remediation. *Journal of Nursing Education*, *42*(9), 390–398. https://doi.org/10.3928/0148-4834-20030901-05

Darder, A., Baltodano, M. P., & Torres, R. D. (2009). Critical pedagogy: An introduction. In A. Darder, M. P. Baltodano, & R. D. Torres (Eds.), *The critical pedagogy reader* (2nd ed., pp. 1–50). Routledge.

DeGloma, T., (2010). Awakenings: Autobiography, memory, and the social logic of personal discovery. *Sociological Forum*, *25*(3), 519–540. https://doi.org/10.1111/j.1573-7861.2010.01194.x

Denzin, N. K., & Lincoln, Y. S. (Eds). (2018). *The SAGE handbook of qualitative research.* SAGE.

DePoy, E., & Gitlin, L. (2011). *Introduction to research, understanding and applying multiple strategies*. Mosby.

Després, S., Kuhn, S., Ngirumpatse, P., & Parent, M-J. (2012). *Real accountability or an illusion of success? A call to review standardized testing in Ontario.* Action Canada. http://www.actioncanada.ca/wp-content/uploads/2014/04/TF3-Report_Standardized-Testing_EN.pdf

Dewey, J. (1897). My pedagogical creed. *The School Journal*, *54*(3), 77–80. http://infed.org/mobi/john-dewey-my-pedagogical-creed/

Dewey, J. (1910). *How we think*. D.C. Heath. https://www.gutenberg.org/files/37423/37423-h/37423-h.htm

Dewey, J. (1916). *Democracy and education: An introduction to the philosophy of education*. https://s3.amazonaws.com/arena-attachments/190319/2a5836b93124f200790476e08ecc4232.pdf

Dewey, J. (1938). *Experience and education.* Free Press. (Original work published 1938)

Doll, W. E., Jr. (1993). *A post-modern perspective on curriculum*. Teachers College Press.

Drake, S. M., & Reid, J. L. (2018). Integrated curriculum for the twenty-first century. In J. P. Miller, K. Nigh, M. J. Binder, B. Novak, & S. Crowell (Eds.), *International handbook of holistic education* (pp. 118–128). Routledge.

Education Quality and Accountability Office. (2020a). About EQAO. https://www.eqao.com/about-eqao/#mandate

Education Quality and Accountability Office. (2020b). *Grade 9 assessment of mathematics framework*. https://eqao.com/the-assessments/grade-9-math

Education Quality and Accountability Office. (2020c). *Math proficiency test.* https://www.eqao.com/the-assessments/math-proficiency-test/

Education Quality and Accountability Office. (2020d). *Ontario secondary school literacy test.* https://www.eqao.com/the-assessments/osslt/

Elementary Teachers' Federation of Ontario. (2010). Is EQAO failing our children? https://www.etfo.ca/defendingworkingconditions/issuesineducation/pages/eqao%20testing%20-%20advice%20to%20members.aspx

Elementary Teachers' Federation of Ontario. (2018). Building better schools-the ETFO education agenda. https://tinyurl.com/3ryvhzyu

Etsey, Y. K. (1997, March 24–28). Teachers and school administrators' perspectives and use of standardized achievement tests: A review of published research [Paper presentation]. Annual meeting of the American Educational Research Association, Chicago, IL. https://files.eric.ed.gov/fulltext/ED434943.pdf

Ewers, K. (2015). *Towards a post modern curriculum* [Unpublished manuscript]. School of Graduate Studies, Nipissing University.

Fahmy, G. (2018, May 14). *Nurses' association faces lawsuit over "atrocious failure" rate by francophones*. CBC News. https://www.cbc.ca/news/canada/new-brunswick/nursing-association-lawsuit-exam-francophones-1.4661749

Freeman, M. (2007). Autobiographical understanding and narrative inquiry. In D. J. Clandinin (Ed.), *Handbook of narrative inquiry: Mapping a methodology* (pp. 120–145). SAGE. https://doi.org/10.4135/9781452226552.n5

Freire, P. (1970). *Pedagogy of the oppressed.* Seabury Press.

Giddens, J., & Gloeckner, G. (2005). The relationship of critical thinking to performance on NCLEX-RN. *Journal of Nursing Education*, *44*(2), 85–89. https://doi.org/10.3928/01484834-20050201-08

Giddens J. F. (2009). Changing paradigms and challenging assumptions: Redefining quality and NCLEX-RN pass rates. *Journal of Nursing Education*, *48*(3), 123–124. https://doi.org/10.3928/01484834-20090301-04

Grinspun, D., & McNeil, D. (2011, December 13) *Letter from Doris Grinspun and David McNeil to Kris Voycey and Anne Coghlan, December 13, 2011*[Letter]. https://rnao.ca/sites/rnao-ca/files/RNAO_Letter_to_CNO_re-_RN_Exam.pdf

Guerrette-Diagle, L., Landry, V., Harrison, S., Duricher-Hendriks, S., Marquis, F. L., Auffrey, L., Maillet, R., Labrie, N., McGraw, M., & Wallace, I. (2019). The NCLEX-RN as an entry-to-practice exam in New Brunswick: The rocky road story of francophone candidates to the nursing profession. Nursing Leadership, 32(4), 74–80. https://doi.org/10.12927/cjnl.2020.26099

Gustdorf. G. (1980). Conditions and limits of autobiography. In J. Olney (Ed.), Autobiography: Essays theoretical and critical (pp. 28–48). Princeton University Press. https://doi.org/10.1515/9781400856312

Hams, S. (2000). A gut feeling? Intuition and critical care nursing. *Intensive and Critical Care Nursing*, *16*(5), 310–318. https://doi.org/10.1054/iccn.2000.1500

Harding, M. (2010). Predictability associated with exit examinations: A literature review. *Journal of Nursing Education*, *49*(9), 493–496. https://doi.org/10.3928/01484834-20100730-01

hooks, b. (1994). *Teaching to transgress: Education as the practice of freedom*. Routledge.

hooks, b. (2003). *Teaching community. A pedagogy of hope.* Routledge.

hooks, b. (2013). *Teaching critical thinking: Practical wisdom.* Routledge.

Iannacci, L. (2007). Critical narrative research: Conceptualizing and furthering the validity of an emerging methodology. *Vitae Scholasticae*, *24*. https://tinyurl.com/aw7ys9h7

Institute of Medicine. (2011). *The future of nursing: leading change, advancing health.* National Academies Press. https://doi.org/10.17226/12956

Johnston R. B., & Christensen, L. (2014). *Educational research: Quantitative, qualitative, and mixed approaches.* SAGE.

Josselson, R. (2011). Narrative research: Constructing, deconstructing, and reconstructing story. In F. J. Wertz, K. Charmaz, L. M. McMullen, R. Josselson, R. Anderson, & E. McSpadden (Eds.), *Five ways of doing qualitative analysis: Phenomenological psychology, grounded theory, discourse analysis, narrative research, and intuitive inquiry* (pp. 224–241). Guilford Press.

Karmiloff-Smith, A. (1992). *Beyond modularity: A developmental perspective on cognitive science.* MIT Press.

Kavanagh, J. M., & Szweda, C. (2017). A crisis in competency: The strategic and ethical imperative to assessing new graduate nurses' clinical reasoning. Nursing Education Perspectives, 38(2), 57–62. https://doi.org/10.1097/01.nep.0000000000000112

Kempf, A. (2014, November 19). *High-stakes: Standardized testing, teacher's work and urban schools in the US and Canada* [PowerPoint slides]. https://wordpress.oise.utoronto.ca/kempfarl/files/2014/12/Kempf-Slides-on-Standardized-Testing.pdf

Kempf, A. (2016). *The pedagogy of standardized testing: The radical impacts of educational standardization in the US and Canada.* Palgrave Macmillan.

Lalonde, M. (2019). The forgotten: The challenges faced by francophone nursing candidates following the introduction of the NCLEX-RN in Canada. *Nursing Leadership*, *32*(4), 66–73. https://doi.org/10.12927/cjnl.2020.26100

Linn, R. (2001). A century of standardized testing: Controversies and pendulum swings. *Educational Assessment*, *7*(1), 29–38. https://doi.org/10.1207/S15326977EA0701_4

LoBiondo-Wood, G., Haber, J., Cameron, C., & Singh, M. (2018). *Nursing research in Canada: Methods, critical appraisal, and utilization* (4th ed.). Elsevier.

Lyle, E. (2018). Possible selves: Restor(y)ing wholeness through autobiographical writing. *LEARNing Landscapes*, *11*(2), 255–267. https://doi.org/10.36510/learnland.v11i2.961

MacMillan, K. (2019). Perspectives on the need for a nursing entry-to-practice examination in Canada. *Nursing Leadership*, *32*(4), 12–16. https://doi.org/10.12927/cjnl.2020.26106

Marshall-Henty, J., & Bradshaw, J. (Eds.). (2011). *Mosby's prep guide for the Canadian RN exam: Practice questions for exam success* (2nd ed.). Elsevier.

McCloskey, R., Stewart, C., & Keeping Burke, L. (2019). Predictors of success in the NCLEX-RN for Canadian graduates. *Nursing Leadership*, *32*(4), 30–45. https://doi.org/10.12927/cjnl.2020.26103

McGillis Hall, L., LaLonde, M., & Kashin, J. (2016). People are failing! Something needs to be done: Canadian students' experience with the NCLEX-RN. *Nurse Education Today*, *46*, 43–49. https://doi.org/10.1016/j.nedt.2016.08.022

McGillis Hall, L., LaLonde, M., Kashin, J., Yoo C., & Moran J. (2017). Changing nurse licensing exams: Media analysis and implications of the Canadian experience. *International Nursing Review*, *65*(1), 13–23. https://doi.org/10.1111/inr.12367

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass.

Mildon, B. (2019). Voices raised: The NCLEX-RN experience in Canada. *Nursing Leadership*, *32*(4), 1–6. https://doi.org/10.12927/cjnl.2020.26107

Miller, G. (1990). The assessment of clinical skills/competence/performance. *Academic Medicine*, *65*(9 Suppl), S63–S67. https://doi.org/10.1097/00001888-199009000-00045

Miller, J. P. (2007). *The holistic curriculum* (2nd ed.). University of Toronto Press.

Miller, J. P., & Irwin, M. (Eds.). (2014). *Teaching from the thinking heart: The practice of holistic education.* Information Age.

Miller, J. P., Nigh, K., Binder, M. J., Novak, B., & Crowell, S. (Eds.). (2018). *International handbook of holistic education*. ProQuest Ebook Central https://ebookcentral-proquest-com.roxy.nipissingu.ca

Miller, J. P., & Seller, W. (1985). *Curriculum: Perspectives and practice*. Longman.

Mitchell, M. (1995, June 10). *What can complex systems approaches offer cognitive science?* [Paper presentation]. Society for Philosophy and Psychology Annual Meeting, Stony Brook, NY, United States.

Moore, T. (2018). Care of the soul. In J. P. Miller, K. Nigh, M. J. Binder, B. Novak, & S. Crowell (Eds.), *International handbook of holistic education* (pp. 52–56). Routledge.

Mountain Measurement Inc. (2021). *NCLEX program reports*. https://reports.mountainmeasurement.com/nclex/

Murray, E. (2017). *Nursing leadership and management for patient safety and quality.* E.A. Davis.

National Council of State Boards of Nursing. (n.d). *Translating the NCLEX*. https://www.ncsbn.org/Translating_the_NCLEX-Web_v4.pdf

National Council of State Boards of Nursing. (2010, July). Report of findings from the comparison of entry-level registered nurses in the U.S. and British Columbia, Canada. *NCSBN Research Brief*, *48*. https://www.ncsbn.org/10_BC_Vol48_web.pdf

National Council of State Boards of Nursing. (2014a, May). 2013 Canadian RN practice analysis: Applicability of the 2013 NCLEX-RN® Test Plan to the Canadian testing population. NCSBN Research Brief, 60. https://www.ncsbn.org/14_Canadian_Practice_Analysis_vol60.pdf

National Council of State Boards of Nursing. (2014b). Pencils down, booklets closed. *In Focus*, *1*(2). https://www.ncsbn.org/InFocus_Spring2014.pdf

National Council of State Boards of Nursing. (2015, January). 2014 RN practice analysis: Linking the NCLEX-RN examination to practice—U.S. and Canada. *NCSBN Research Brief*, *62*. https://www.ncsbn.org/15_RN_Practice_Analysis_Vol62_web.pdf

National Council of State Boards of Nursing. (2016). *NCLEX-RN® examination test plan for the National Council Licensure Examination for Registered Nurses*. https://www.ncsbn.org/RN_Test_Plan_2016_Final.pdf

National Council of State Boards of Nursing. (2019a, December 17). *The right decisions come from the right questions* [Video]. YouTube. https://www.youtube.com/watch?v=ZBXfkINlRF0

National Council of State Boards of Nursing. (2019b). *Updates to the 2019 NCLEX-RN test plan*. https://ncsbn.org/Updates_to_the_2019_NCLEX.pdf

National Council of State Boards of Nursing. (2020a). *COVID-19 impact to NCLEX candidates.* https://www.ncsbn.org/14428.htm

National Council of State Boards of Nursing. (2020b). *Next generation NCLEX project*. https://www.ncsbn.org/next-generation-nclex.htm

National Council of State Boards of Nursing. (2020c). *What the exam looks like*. https://www.ncsbn.org/9010.htm

National Council of State Boards of Nursing. (2021a). *Application & registration.* https://www.ncsbn.org/nclex-application-and-registration.htm

National Council of State Boards of Nursing. (2021b). *Candidate performance report.* https://www.ncsbn.org/1223.htm

National Council of State Boards of Nursing. (2021c). *Computer adaptive testing (CAT)*. https://www.ncsbn.org/1216.htm

National Council of State Boards of Nursing. (2021d). *How the NCLEX-RN works.* https://www.ncsbn.org/9009.htm

National Council of State Boards of Nursing. (2021e). *NCLEX program reports.* https://www.ncsbn.org/1234.htm

National Council of State Boards of Nursing. (2021f). *Retake policy.* https://www.ncsbn.org/1224.htm

National League for Nursing. (2012, February). *The fair testing imperative in nursing education: A living document from the National League for Nursing.* http://www.nln.org/docs/default-source/about/nln-vision-series-%28position-statements%29/nlnvision_4.pdf

Nursing & Midwifery Council. (2020, December 31). *Register as a nurse or midwife if you trained in the UK.*

https://www.nmc.org.uk/registration/joining-the-register/register-nurse-midwife/trained-in-the-uk/

O'Brien-Pallas, L., Doran, D. I., Murray, M., Cockerill, R., Sidani, S., Laurie-Shaw, B., & Lochhass-Gerlach, J. (2001). Evaluation of a client care delivery model, part 1: Variability in nursing utilization in community home nursing. Nursing Economic$, 19(6), 267–276.

O'Brien-Pallas, L., Doran, D. I., Murray, M., Cockerill, R., Sidani, S., Laurie-Shaw, B., & Lochhass-Gerlach, J. (2002). Evaluation of a client care delivery model, part 2: Variability in client outcomes in community home nursing. Nursing Economic$, 20(1), 13–21, 36.

Odell, C. W. (1928). Traditional examinations and new-type tests. Crown.

Oermann, M., Saewert, K., Charasika, M., & Yarbrough, S. (2009). Assessment and grading practices in schools of nursing: National survey findings part 1. Nursing Education Perspectives, 30, 274–278.

Ollerenshaw, J.A., & Cresswell, J.W. (2002). Narrative research: A comparison of two restorying data analysis approaches. *Qualitative Inquiry, 8*(3), 329-347.

Ontario Teachers' Federation. (2011). *A new vision for large-scale testing in Ontario*. https://www.otffeo.on.ca/en/wp-content/uploads/sites/2/2013/09/new_vision.pdf

Ontario Teachers' Federation. (2017). More than dots on a chart: Setting a new course for assessment in Ontario. https://www.otffeo.on.ca/en/wp-content/uploads/sites/2/2018/01/More-than-dots-on-a-chart-Setting-a-New-Course-for-Assessment-in-Ontario-1.pdf

Palmer, P. J. (1998). *The courage to teach. Exploring the inner landscape of a teacher's life.* Jossey-Bass.

Pennington, T. D., & Spurlock, D. (2010). A systematic review of the effectiveness of remediation interventions to improve NCLEX-RN pass rates. *Journal of Nursing Education*, *49*(9), 485–492. https://doi.org/10.3928/01484834-20100630-05

Petrovic, K., Doyle, E., Lane, A., & Cororan, L. (2019). The work of preparing Canadian nurses for a licensure exam originating from the USA: A nurse educator's journey into the institutional organization of the NCLEX-RN. International Journal of Nursing Education and Scholarship, 1(1), 1–9. https://doi.org/10.1515/ijnes-2018-0052

Pike, A. D., Luekwich, J., Wells, J., Kirkland, M., Manuel, M., & Watkins, K. (2019). Identifying indicators of National Council Licensure Examination for Registered Nurses (NCLEX-RN) success in nursing graduates in Newfoundland & Labrador. International Journal of Nursing Education Scholarship. https://doi.org/10.1515/ijnes-2018-0060

Polkinghorne, D.E. (2007). Validity issues in narrative research. *Qualitative Inquiry*, *13*(4), 471–486. https://doi.org/10.1177%2F1077800406297670

Portelli, J. P., Solomon, R. P., Mujawamariya, D., Dibos, A., Gathrnya, W., Manoukian, R., & Price, J. (2003). *A critical analysis of the Ontario teacher qualifying test: Teacher candidates' perspectives*. http://home.oise.utoronto.ca/~jportelli/OTQT_report.pdf

Presti, C. R., & Sanko, J. S. (2019). Adaptive quizzing improves end-of-program examination scores. *Nurse Educator*, *44*(3), 151–153. https://doi.org/10.1097/nne.0000000000000566

Randolph, P. K. (2017). Standardized testing practices: Effects on graduation and NCLEX pass rates. *Journal of Professional Nursing*, *33*(3), 224–228. https://doi.org/10.5430/jnep.v10n1p101

Romeo, E. M. (2013). The predictive ability of critical thinking, nursing GPA, and SAT scores on first-time NCLEX-RN performance. Nursing Education Perspectives, 34(4), 248–253. https://doi.org/10.5480/1536-5026-34.4.248

Rose, E. (2013). On reflection: An essay on technology, education, and the status of thought in the twenty-first century. Canadian Scholars' Press.

Rowshan, A., & Singh, M. (2014). A new era on the horizon—Challenges and implications of the NCLEX-RN exam in Canada. *International Journal of Nursing and Health Science*, *1*(6), 46–54. http://www.openscienceonline.com/journal/archive2?journalId=719&paperId=965

Salfi, J., & Carbol, B. (2017). The applicability of the NCLEX-RN to the Canadian testing population: A review of regulatory body evidence. *International Journal of Nursing Education Scholarship*, *14*(1). https://doi.org/10.1515/ijnes-2016-0078

Sauter, M. K., & Applegate, M. H. (2005). Educational program evaluation. In D. M. Billings & J. A. Halstead (Eds.), Teaching in nursing: A guide for faculty (2nd ed., pp. 543–599). Elsevier Saunders.

Sayles, S., Shelton, D., & Powell, H. (2003). Predictors of success in nursing education. ABNF Journal, 14(6), 116–120.

Sears, N. A., Othman, M., & Mahoney, K. (2015). Examining the relationship between NCLEX-RN performance and nursing student factors, including undergraduate performance: A systematic review. *Journal of Nursing Education and Practice*, *5*, 10–15. https://doi.org/10.5430/jnep.v5n11p10

Sears, N. A., Othman, M., O'Neil, L., & Hopman, W. M. (2017). Canadian NCLEX-RN outcomes: A two-year cross-sectional exploratory study in Ontario. *Journal of Nursing Education and Practice*, *7*(10), 36–45. https://doi.org/10.5430/jnep.v7n10p36

Shanto, B., Shagavah, A., Krieger, M., Lutz, L., Duncan, C. E., & Wagner, E. K. (2019). Active learning outcomes on NCLEX-RN or standardized predictor examinations: An integrative review. Journal of Nursing Education, 58(1), 42–46. https://doi.org/10.3928/01484834-20190103-07

Shaull, R. (1970). Foreword. In P. Freire, Pedagogy of the oppressed (pp.9-15). Seabury Press.

Shields, C., & Reid-Patton, V. (2009). A curriculum of kindness: (Re) creating and nurturing heart and mind through teaching and learning. Brock Education, 18(2), 4–15. https://doi.org/10.26522/brocked.v18i2.88

Slattery, P. (1995). Curriculum development in the postmodern era. Garland.

Smith, J., & Crawford, L. (2003). Medication errors and difficulty in first patient assignments of newly licensed nurses. *JONA'S Healthcare Law, Ethics, and Regulation*, *5*(3), 65–67. https://doi.org/10.1097/00128488-200309000-00006

Spence, D. (1982). *Narrative truth and historical truth*. Norton.

Spurlock, D., Jr. (2005). Do no harm: Progression policies and high stakes testing in nursing education. *Journal of Nursing Education*, *45*(8), 297–302. https://doi.org/10.3928/01484834-20060801-04

Spurlock, D. R., Jr., & Hanks, C. (2004). Establishing progression policies with the HESI Exit Examination: A review of the evidence. *Journal of Nursing Education*, *43*, 539–545. https://doi.org/10.3928/01484834-20041201-07

St.-Denis, V. (2017, September 5). The NCLEX-RN and the future of French-language health-care services. *Canadian Nurse*. https://www.canadian-nurse.com/en/articles/issues/2017/september-october-2017/the-nclex-rn-and-the-future-of-french-language-health-care-services

Stern, J. (2018). Holistic assessment: Assessing dialogically, personally, individually. In J. P. Miller, K. Nigh, M. J. Binder, B. Novak, & S. Crowell (Eds.), *International handbook of holistic education* (pp. 129–138). Routledge.

Thomas, C. (2010). Negotiating the contested terrain of narrative methods in illness contexts. *Sociology of Health and Illness*, *32*(4), 647–660. https://doi.org/10.1111/j.1467-9566.2010.01239.x

Thompson, N. A., & Weiss, D. A. (2011). A framework for the development of computerized adaptive tests. *Practical Assessment, Research & Evaluation*, *16*(1). https://doi.org/10.7275/wqzt-9427

Thorndike, E. L. (1990). *The human nature club: an introduction to the study of mental* life. Chautauqua Press.

Tomlinson, S. (1997). Edward Lee Thorndike and John Dewey on the science of education. *Oxford Review of Education*, *23*, 365–383. https://doi.org/10.1080/0305498970230307

Truth and Reconciliation Commission of Canada (2015). *Truth and Reconciliation Commission of Canada: Calls to action.* http://trc.ca/assets/pdf/Calls_to_Action_English2.pdf

Vaughan, F. (1979). *Awakening intuition*. Anchor Books.

Villeneuve, M.J., Betker, C., & Guest, T. (2019). The Canadian nurses association reflections on NCLEX-RN through the lens of nursing history and evolution. *Nursing Leadership*, *32(*4), 17-21.

Walker, A. (2017). Critical autobiography as research. *The Qualitative Report*, *22*(7), 1896–1908. https://doi.org/10.46743/2160-3715/2017.2804

Wendt, A., & Kenny, L. (2007). Setting the passing standard for the National Council Licensure Examination for Registered Nurses. *Nurse Educator*, *32*(3), 104–108. https://www.ncsbn.org/4808.htm

Wertz, J. F., Charmaz, K., McMullin, L. M., Josselson, R., Anderson, R., & McSpadden, E. (2011). *Five ways of doing qualitative analysis: Phenomenological, psychology, grounded theory, discourse analysis, narrative research and intuitive inquiry*. Guilford Press.

Williams, N. (2016). *NCLEX examinations webinar series: 2016 NCLEX test plan overview*. https://www.ncsbn.org/8507.htm

Woo, A., Wendt, A., & Liu, W. (2009). NCLEX-RN pass rates: An investigation into the effect of lag time and retake attempts. *JONA's Healthcare Law, Ethics & Regulation*, *11*, 23–26. https://www.ncsbn.org/4766.htm

Woodend, K. (2019). Transition to NCLEX-RN: Reflections from a CASN past president. *Nursing Leadership*, *32*(4), 22–29. https://doi.org/10.12927/cjnl.2020.26104

Yeom, Y.J. (2013). An investigation of predictors of NCLEX-RN outcomes among nursing content standardized tests. *Nurse Education Today*, *33*(12), 1523–1528. https://doi.org/10.1016/j.nedt.2013.04.004

Young, C. (1987). Intuition and the nursing process. *Holistic Nursing Practice, 1*(3), 52–62. https://doi.org/10.1097/00004650-198705000-00010

Zweighaft, E. L. (2013). Impact of HESI specialty exams: The ninth HESI Exit Exam validity study. *Journal of Professional Nursing*, *29*(2 Suppl. 1), S10–S16. https://doi.org/10.1016/j.profnurs.2012.06.011