

Thinking Outside the Box: Exploring Educators' Perspectives Regarding the Development of Critical Thinking in Nursing Students

**by
Harjinder Sohi**

Bachelor of Science (Nursing), Vancouver Community College, 2020
Provincial Instructor Diploma, Vancouver Community College, 2009
Practical Nursing Diploma, Vancouver Career College, 2007

Project Submitted in Partial Fulfillment of the
Requirements for the Degree of
Master of Education

in the
Educational Leadership Program
Faculty of Education

©Harjinder Sohi 2024
SIMON FRASER UNIVERSITY
Summer 2024

The author holds copyright in this work. Please ensure that any reproduction or re-use is done in accordance with the relevant national copyright legislation.

Declaration of Committee

Name: Harjinder Sohi

Degree: Master of Education

Title: Thinking Outside the Box: Exploring Educators' Perspectives Regarding the Development of Critical Thinking in Nursing Students

Committee: Chair **Meaghan Dougherty**
Adjunct Professor, Education

Rebecca Cox
Supervisor
Associate Professor, Education

Gillian Judson
Committee Member
Assistant Professor, Education

Michelle Pidgeon
Examiner
Professor, Education

Ethics Statement

The author, whose name appears on the title page of this work, has obtained, for the research described in this work, either:

- a. human research ethics approval from the Simon Fraser University Office of Research Ethics

or

- b. advance approval of the animal care protocol from the University Animal Care Committee of Simon Fraser University

or has conducted the research

- c. as a co-investigator, collaborator, or research assistant in a research project approved in advance.

A copy of the approval letter has been filed with the Theses Office of the University Library at the time of submission of this thesis or project.

The original application for approval and letter of approval are filed with the relevant offices. Inquiries may be directed to those authorities.

Simon Fraser University Library
Burnaby, British Columbia, Canada

Update Spring 2016

Abstract

Developing critical thinking in nursing students is a vital yet challenging goal in nursing education. This research investigates nursing educators' perspectives on critical thinking development and includes qualitative interviews where four nursing educators reveal key challenges, including curriculum limitations, resource constraints, and a task-focused approach. The findings underscore the necessity of critical thinking for patient safety and effective care, with educators using strategies such as simulations, real-life scenarios, interactive methods, and mentorship. The study calls for curriculum reforms to include more hands-on practice and critical thinking opportunities. Recommendations involve enhanced mentorship, better admission screening, and increased access to and training for interactive learning tools. Future research should compare teaching strategies, develop assessment tools, and explore the impact of emerging technologies. Addressing these areas can better equip nursing students for the complexities of clinical practice, ensuring safer and more effective patient care.

Keywords: Critical thinking; Nursing Education; Curriculum Reform; Patient Safety; Interactive Learning; Mentorship Programs; Clinical Decision-making

Dedication

This paper is dedicated to my father, Capt. Jarnail Singh Kang, my role model, and constant source of inspiration. Your unwavering support and encouragement to pursue further studies and personal growth have been invaluable.

Thank you for always believing in me and motivating me to reach higher. This accomplishment is a testament to your guidance and love.

Acknowledgements

I would like to express my sincere gratitude to Dr. Rebecca Cox and Dr. Gillian Judson for their invaluable guidance and mentorship throughout this research project. Their expertise and encouragement were instrumental in shaping the direction of this work.

I am also deeply thankful to peer editors Jennifer Nadon and Chelsea Hunter for their insightful feedback and thorough discussions, which greatly enriched the quality of this study.

Special thanks to Sarah, Lisa, Emily, and Rachel for sharing their experiences and perspectives (names identified in this report are pseudonyms).

Lastly, I extend my appreciation especially to my husband, daughters, son, and friends for their unwavering support and understanding during the challenge of academic pursuits.

Thank you all for being a part of this journey with me.

Table of Contents

Declaration of Committee	ii
Ethics Statement	iii
Abstract	iv
Dedication	v
Acknowledgements	vi
Table of Contents	vii
Glossary	ix
Introduction	1
Literature Review	4
Importance of Critical Thinking in Nursing	4
Student-Centered Development of Critical Thinking	5
Methods to Enhance Critical Thinking	6
Barriers to Critical Thinking in Nursing Education	6
Impact of Learning Environment on Critical Thinking	7
Gaps in Research	8
The Research Questions	8
Methodology	9
Research Participants	9
Data Collection	10
Data Analysis	11
Validity, Reliability and Reflexivity	11
Findings	12
Passion and Motivation for Developing Critical Thinking in Nursing Students	12
Importance of Developing Critical Thinking	13
Barriers to Developing Critical Thinking	14
Restrictive Nature of Current Nursing Curricula	15
Inadequate Resources for Critical Thinking Development	15
Impact on Educator Motivation and Engagement	16
Inefficient Screening Processes	16
Task-Focused Care Model	17
Assessment of Critical Thinking	17
Need for Curriculum Enhancement	18
Discussion	20
Limitations	21
Conclusion	22
References	23

Appendix A.	Interview Consent Form.....	26
Appendix B.	Interview Questions	29
Appendix C.	Recruitment Email	30

Glossary

Clinical reasoning	Clinical reasoning is a complex cognitive process that is essential to evaluate and manage a patient's medical problem. It includes diagnosing the patient's problem, making a therapeutic decision, and estimating the prognosis for the patient (Yazdani & Hoseini, 2019).
Concept mapping	A concept map can be thought of as a scheme representing visual knowledge in the form of a hierarchical graphic network composed of nodes and links (Hsu & Hsieh, 2005).
Critical thinking	Critical thinking is defined as the mental process of active and skillful perception, analysis, synthesis, and evaluation of collected information through observation, experience and communication that leads to a decision for action (Papathanasiou et al., 2014).

Introduction

As an experienced educator, it is incumbent on me to reflect on my journey of teaching critical thinking to students, the challenges and triumphs, the moments of doubt, and the breakthroughs that have shaped my approach. The definition of critical thinking remains unclear and vague throughout the literature, so, for this research project, I define critical thinking in nursing as identifying a problem, determining the best solution, and implementing an effective method to resolve the issue using clinical decision-making skills (ANA, 2024). Teaching at Spratt Shaw Community College for the past five years, I have often reflected on the challenges in fostering critical thinking among nursing students in classrooms and clinical settings. I started my educator journey as a clinical instructor and soon identified a lack of critical thinking skills, background knowledge, and confidence in decision-making in students. In my endeavors to fill this knowledge gap, my challenges encouraged me to focus more on in-class instruction in the hope of developing critical thinking in students before they go to work environments. I have tried different methods, including concept mapping, case scenarios, simulation, and the Socratic approach to enhance these skills. However, there remains a gap between theory and application in critical thinking from classroom to clinical. I have observed that while some educators focus on thinking outside the box and invest time in creating activities to facilitate critical thinking, other instructors adhere strictly to existing mandated curricula with few opportunities to enhance these skills. I remain curious about the experiences of other educators, on developing critical thinking in nursing students with existing curriculum lacking these opportunities, and other barriers they might be facing for fostering these skills.

Drawing from my twenty years of experience as a practicing nurse, I recognize the essential role of critical thinking in providing safe patient care. Safe, effective, and ethical decision-making in nursing depends on critical thinking (Hundial, 2020). Discussing the importance of critical thinking in nursing education, Papathanasiou and colleagues (2014) mention that critical thinking is an essential process for safe, efficient, and skillful nursing practice. Despite my dedication and various teaching approaches, I still witness gaps in students' critical thinking abilities during clinical placements, which weighs heavily on me ethically. I remain curious about how other educators approach this issue and the importance they place on cultivating critical thinking in nursing

students. Are we effectively preparing safe nurses if we fail to nurture these skills during their training? How does this deficiency impact patient care? Besides educators, who else shares responsibility for bridging this gap? What changes can we implement to achieve success in this area? These questions motivated my pursuit of a Master of Education in the Leadership at Simon Fraser University and my investigation of how other educators develop critical thinking skills among nursing students

Even with faculty efforts, employers observe that new graduates often struggle to apply critical thinking effectively, which is crucial for enhancing patient outcomes (Cooke et al., 2019). Despite its recognized importance, the definition of critical thinking continues to be ambiguous, lacking clear boundaries a (2008) suggest that the unclear definition of critical thinking itself is a factor in the difficulty of developing it: Due to the ambiguity, teaching and assessing critical thinking skills in nursing students remains a challenge for educators. Mundy and Denham assert that educators struggle with inconsistent definitions of critical thinking, uncertainties in teaching effective critical thought processes, and a dearth of reliable nursing-specific assessment tools to evaluate student reasoning accurately. The definition and teaching methods of critical thinking lack consensus, and there is no widely accepted evaluation method that adequately measures critical thinking skills. This challenge complicates understanding the factors influencing nurses' use of critical thinking in their practice environments (Raterink, 2008) and hinders the development of these skills in nursing students.

Educators are pivotal in fostering critical thinking competencies among students and guiding them to rationalize decisions and critically assess complex clinical scenarios (Raymond et al., 2018). Educators may adopt different models or approaches to cultivate these skills. For example, in her study of the conceptions of critical thinking of twelve nurse educators from a large nursing school in New Zealand, Walthrew et al., (2004) examined critical thinking through both traditional and feminist lenses, highlighting aspects such as rational analysis, subjective knowing, intuition, contextual understanding, and emotion.

There are a few models that can be executed when teaching critical thinking skills. For instance, some educators diligently follow the five-step model proposed by Duron et al. (2006). This model suggests establishing clear learning objectives, stimulating discussions through strategic questioning, providing practice opportunities

with guidance, offering customized learning activities, and giving constructive feedback (Duron, as cited in Boso, et al., 2021). A structured approach, complemented by a nurturing and collaborative learning environment, is crucial for fostering the effective development of critical thinking skills. Westerdahl et al. (2022) also agree with this idea in their findings on nursing students' and educators' experiences during the process of developing critical thinking. They confirm that strategies used in the facilitation of critical thinking need to incorporate collaboration and student-centeredness, creating a relaxed climate where educators can assist through guidance and support (Westerdahl et al., 2022).

Critical thinking is not just an academic exercise; it directly impacts patient outcomes and safety. Glynn and colleagues (2017) conducted a qualitative study at a dedicated educational unit engaged in an academic practice partnership with an academic institution. During the study, eight clinical educators were interviewed regarding their perception of the roles and learning needs of students. This partnership model was a trial to provide opportunities for students to think critically and assess its impact on patients. Glynn et al. found that nurses who effectively employ critical thinking in practice make safer, more informed decisions, leading to better patient care. The ability to think critically is foundational to clinical reasoning and decision-making, and pivotal for successful patient outcomes.

In undertaking this research, my objective was to provide a more in-depth understanding of the different perspectives of educators on developing critical thinking in nursing students.

Literature Review

In this literature review, I explore various strategies and barriers to developing critical thinking skills in nursing students, highlighting the importance of a supportive learning environment and the integration of theory and practice. Patient care has grown increasingly intricate, necessitating clear interprofessional communication and collaboration to enhance patient care, with bedside nurses assuming pivotal leadership roles. Critical thinking, therefore, is a vital skill in nursing education and practice, directly influencing patient outcomes and safety. For instance, when a patient admitted to a medical-surgical unit with a fracture displays signs of systemic infection, the nurse relies on critical thinking skills to thoroughly assess the situation. This involves analyzing recent vital signs, laboratory results, medications, and the patient's overall condition. Prompt action is then taken, including communicating findings to the physician and facilitating timely interventions, thereby improving patient safety. Conversely, a failure to apply critical thinking may result in the nurse overlooking crucial indicators of patient deterioration, potentially leading to harm.

Below, I discuss a few main themes that emerged through my literature review, specifically, how important critical thinking is in nursing, methods to enhance these skills in nursing, barriers faced by educators and student-centered approaches to cultivate these skills.

Through an examination of student-centered approaches, teaching methods, and the impact of the educational environment, this review aims to provide an understanding of how critical thinking can be nurtured and enhanced in nursing education. After analyzing the literature related to nursing inquiries, I have found that a qualitative approach has been used repeatedly to explore the perspectives and experiences of people involved in the study.

Importance of Critical Thinking in Nursing

Critical thinking in nursing can profoundly impact patient outcomes and is fundamental to patient safety. Nurses who use their critical thinking skills while caring for patients can make safer decisions, leading to better outcomes for clients. Glyn et al. (2017) highlight clinical reasoning and critical thinking in nursing students as pivotal for

successful patient outcomes. The American Association of Nursing (2005) mentions that critical thinking is a key component of nursing and must be incorporated into nursing education (Kaddoura, 2010). Student nurses can be prepared in the classroom using various critical thinking development tools, including case scenarios, simulations, and concept mapping. Regardless of the method used, organized thinking and evidence-based decision-making skills promote patient safety and improve patient outcomes (Saltsman, 2023). Benner et al. emphasize that clinical educators must connect classroom knowledge with clinical experiences and situational learning in the units (as cited in Glynn et al., 2017). Critical thinking in nurses and nursing students helps them assess situations from all aspects and achieve safer and holistic care goals (Hundial, 2020). Hundial's safe care framework, aimed at fostering critical thinking and embracing an integrated approach, proposes that this model could help nursing educators guide the way toward deeper learning and stronger human connections. This understanding of the complete patient is essential for providing safe, comprehensive care (Hundial, 2020). Nursing educators agree that education must provide opportunities to become critical thinkers so that students are prepared to work in complex environments (Kaddoura, 2010).

Student-Centered Development of Critical Thinking

Research shows that the development of critical thinking skills needs to be student-centered, involving cooperation between learners and educators. This should take place in a nurturing and supportive environment (Westerdahl et al., 2022). Nursing students' critical thinking skills can be enhanced if educators employ democratic and participatory measures (Boso et al., 2021). Safe supportive environments create student-educator relationships that nurture communication and permit students to take risks and apply knowledge with supervision (Boso et al., 2021). The study conducted by Boso and colleagues (2021) explored the perspectives of students and educators on the impact of instructional techniques on the development of critical thinking. The analysis revealed that educators' attitudes significantly influence the cultivation of these skills in students. Students reported that autocratic educators, who discourage open questioning and diverse perspectives, hinder the development of critical thinking. Conversely, students felt that teachers who foster active engagement play a crucial role in nurturing these skills.

Methods to Enhance Critical Thinking

There are many methods identified in the literature that educators can use to help develop critical thinking, including Peyton's four-step approach (Awad & Mohamed, 2018), mind mapping, debriefing, objective learning methods (Pivac et al., 2021), concept maps, case studies, simulations, a Socratic approach, vignettes (Westerdahl et al., 2022), and contextual learning interventions (Forneris & McAlpine, 2007). Reflective learning intervention can also be used to enhance critical thinking in nursing students (Forneris & McAlpine, 2007). All these methods have their strengths and limitations and may be employed according to the preferences of educators or students. For instance, case studies are highly effective in connecting students to real-world scenarios, yet creating them can be quite time-consuming. Similarly, concept maps are excellent for promoting higher-level thinking, enabling learners to grasp and analyze intricate situations. However, developing a concept map can also be laborious and time-intensive. The Socratic approach is excellent for stimulating the questioning mind; however, it can be intimidating for students, who may feel pressured when put on the spot. By carefully selecting and integrating these various methods, educators can effectively foster critical thinking among nursing students while accommodating different learning preferences and needs. ok, to what extent have these researchers identified the "effectiveness" of using these strategies? Is there research on their effectiveness?

Barriers to Critical Thinking in Nursing Education

Nursing education is not always designed or employed to equip students with critical thinking skills that can be transferred to clinical settings (Westerdahl et al., 2022). Students' and educators' perceptions, motivations, and conservative approaches can hinder the fostering of critical thinking in students (Boso et al., 2021). Additionally, contextual factors such as a scarcity of resources, time, and support from management, and a lack of curriculum focus on developing critical thinking can leave students lacking these skills and unprepared for the workplace (Raymond et al., 2018). The critical thinking level of educators themselves also plays a vital role. Educators who exhibit negativity and resistance to change can negatively impact the process (Raymond et al., 2018).

Impact of Learning Environment on Critical Thinking

Learning and teaching environments significantly impact students' learning. In his systemic review of nursing education, Chan (2013) discussed how a non-threatening, safe environment that encourages the expression of thoughts and questions can enhance critical thinking abilities. Conversely, negative environments can hinder this learning. The theoretical basis of critical thinking starts in the classroom, while application happens in clinical settings (Paul, 2014). Nursing students need to utilize critical thinking skills in acute care settings and will learn more of these skills with utilization and exposure. However, theory-based critical thinking should be developed in classrooms. In the absence of a real patient population, case studies, simulation on mannequins and concept maps can stimulate critical thinking in theory. Zygmunt & Moore discuss how most nursing educators possess greater abilities in clinical settings but have difficulties bringing critical thinking into the classrooms (as cited in Mundy & Denham, 2008). Banner et al. (2010) advocate for integrating clinical and theoretical components and shifting from lecture-based to active learning strategies to develop organized and rationalized thinking skills in nursing students (as cited in Paul, 2014).

I have noticed a deficiency in critical thinking among nursing students at my campus. During their lab testing sessions prior to clinical placements, there is a noticeable gap between theoretical knowledge, laboratory practice, and the application of critical thinking. Moreover, their limited decision-making abilities and inability to deliver safe care independently in healthcare settings highlight the insufficient integration of critical thinking skills across various levels of their education. The insights gained from this study can inform changes in teaching practices. This research aims not only to explore educators' perspectives on critical thinking skills but also to identify barriers to developing these skills and to find ways to overcome those barriers to ensure patient safety.

Gaps in Research

Despite the extensive research on critical thinking in nursing including various tools, assessments, and the relationship between critical thinking and patient safety there is a notable gap in understanding the challenges educators face in developing these skills and their suggestions for overcoming these challenges. In my research project, I have thoroughly explored educators' perceptions and experiences to address this gap.

The Research Questions

The development of critical thinking skills among nursing students is pivotal for ensuring patient safety and effective healthcare delivery. Despite its recognized importance, integrating critical thinking into nursing education remains a challenge due to ambiguities in its definition and practical implementation. This study aims to explore the perspectives of nursing educators on the methods, challenges, and strategies involved in fostering critical thinking among nursing students. In addition, this study makes recommendations to enhance critical thinking to prepare nursing students for navigating the complexities of clinical practice and providing high-quality patient care.

Methodology

I investigated the experiences and opinions of nursing educators, using a qualitative approach. According to Creswell (2009), a qualitative approach allows one to explore participants' experiences and opinions by providing the opportunity for them to lead the conversation and share their perspectives on the issue.

Research Participants

In this study, I chose a purposive sampling method and selected four nursing educators with whom I have worked. They are passionate about developing critical thinking in nursing students. Their extensive clinical and educator experience is invaluable to this research. The rationale for selecting these four educators was based on their varied backgrounds and teaching contexts. This diversity enhances the study by capturing a comprehensive picture of the challenges and strategies related to developing critical thinking skills in nursing students across different educational settings.

I started the recruitment process by sending a research invitation email to four nursing educators I know through my professional network (see Appendix C). These four instructors were chosen following a purposive sample approach, and they all share a passion for fostering critical thinking skills in nurses. The inclusion criteria stated participants must have more than three years of experience teaching nurses. Table of Participants Demographics:

Pseudonyms	Area of Practice	Number of years of Service
Sarah Mitchell	Private College (In-class Instruction)	6
Rachel Thompson	Private College (In-class Instruction)	5
Emily Johnson	Nursing Academy (Clinical Teaching)	8
Lisa Carter	Public College (In-class and Clinical)	10

I informed the participants that their involvement in the study was voluntary, and no financial incentives were offered for participation. However, as a gesture of gratitude, I emailed a \$10 gift card and a thank-you card within a week following their interview. I also encouraged them to raise any questions or concerns regarding the consent or interview process.

Prior to conducting each interview, I ensured that every participant received a consent document (see Appendix A) outlining the study's purpose and procedures for data collection, storage, and sharing. This document also clarified that anonymity would be strictly maintained using pseudonyms and the removal of any identifying information from transcripts. Participants were informed of their right to withdraw from the interview at any time and to decline to answer any questions they were uncomfortable with.

Data Collection

I used a semi-structured interview protocol (Appendix B), beginning each interview with a broad question regarding their interest in teaching and nursing. Based on their responses, I tailored subsequent questions to explore their challenges and experiences related to fostering critical thinking. While I had a structured framework of questions, I adapted them as necessary during the interviews to effectively fulfill the study's objectives. I initiated the interview with guiding questions to gather more details and clarification, following Weiss (1995), who notes that qualitative interviewing requires respondents to provide a density of details that would not be provided in ordinary conversation. I audio-recorded all the interviews. In addition to recording, I also wrote some notes as a backup plan, as one must have a secondary resource in case there are technical issues with the recording (Creswell, 2009).

Each interview was scheduled to last for thirty to forty-five minutes to accommodate the participants' time constraints and ensure focused discussions. This structured approach to obtaining informed consent, maintaining confidentiality, and offering opportunities for participant input enhanced the study's credibility and ethical rigor. Ensuring participants' voluntary engagement in research and clearly establishing the study's purpose, procedures, risks, and benefits means researchers form transparent relationships. This transparency helped build trust, which Creswell (2009)

suggests reinforces the study's credibility, and safeguards the integrity of research findings.

Data Analysis

During the analysis phase, I adopted a rigorous inductive approach to thoroughly review all four interviews to find themes while working my way up from the bottom. The purpose of an inductive approach is to condense extensive and varied raw text data into succinct summaries and establish direct links between the research objectives and the summarized findings derived from the raw data (Thomas, 2006).

I have employed the same approach for my research, examining each interview in multiple ways and undergoing multiple stages of examination, including listening to audio recordings, reading transcripts generated by zoom recording transcription, and reviewing supplementary notes. I color-coded responses with similar content to facilitate the identification of emerging themes, then refined these themes by identifying recurring patterns, significant data points, and noteworthy statements across the interviews. As themes crystallized, I systematically identified and categorized underlying concepts accordingly.

To ensure methodological rigor, I employed reflective practices such as journaling and maintaining memos, following Creswell's belief that journaling and memos can be used to acknowledge and mitigate potential biases or assumptions (Creswell, 2009). After collecting and organizing the data, I meticulously categorized the information under the identified themes, revisiting interviews as necessary to elaborate on and support these themes with direct quotes and examples from the participants.

Validity, Reliability and Reflexivity

To ensure the validity of this study, I carefully selected nursing instructors from diverse roles encompassing classroom and lab practice, clinical instruction, and roles facilitating the transition of new nurses into healthcare settings. This deliberate selection strategy allowed for a comprehensive exploration of the research problem from multiple perspectives within nursing education.

Following Creswell's suggestion, I reviewed the transcripts to ensure they were free from transcription errors, thereby upholding the research's reliability (Creswell, 2009).

Initially, I hypothesized that concept mapping would be the predominant method used by educators to foster complex thinking skills. However, I remained aware of this bias throughout my research and kept a running memo and journal to reflect on the interview analysis and data interpretation.

I have also employed the peer-review process to keep my biases aside. Peer reviewing, which involves an interpretation provided by someone other than the researcher, enhances the credibility of an account (Creswell, 2009). My peer reviewers critically reviewed my study, findings, and interpretations to ensure the true presentation of data.

Findings

In nursing education, fostering critical thinking skills is both a crucial goal and a challenging task. Through interviews with educators, several key themes emerged that highlight the obstacles they face in this area. Driven by their passion for teaching, educators often encounter significant barriers that hinder the development of these essential skills. Despite limitations imposed by current nursing curricula, insufficient resources, and the task-focused nature of care in healthcare settings, the critical importance of critical thinking for patient safety and effective care remains clear. Teaching and assessing these skills present ongoing challenges for educators. Examining their perspectives and experiences can provide valuable insights into the necessary changes. In this research project, I gathered four nursing educators' perspectives by interviewing and below, I outline some of the important themes that emerged from these interviews.

Passion and Motivation for Developing Critical Thinking in Nursing Students

All participating educators are driven by a passion for teaching and find satisfaction in sharing their knowledge and witnessing students achieve "aha" moments

when they grasp complex concepts. Lisa mentioned that helping students put theory into practice and seeing them grow is immensely rewarding. Similarly, Sarah is motivated to teach by observing her students' growth as they connect with the knowledge she shares and experience moments when everything starts to click into place.

Most participants expressed a deep passion for teaching that was driven by the desire to bridge the gap between theoretical knowledge and practical application, as well as a genuine interest in sharing their knowledge and skills.

Sharing her passion and joy for teaching complex nursing topics, one of the participants, Rachel, said, "I get the most contentment from the educator job when I see the "Aha" moments on my students' faces. It's like a switch was turned on and their faces light up." Lisa also shared that her satisfaction comes from her ability to support staff, stating, "I feel rewarded by sharing my knowledge, and my ability to provide support for my staff gives me contentment at my job."

Importance of Developing Critical Thinking

Critical thinking enables nurses to assess existing patient issues and anticipate potential complications, allowing for proactive interventions that can prevent adverse outcomes (Saltsman, 2023). All four participants discussed the relationship between patient safety and the ability to think critically. In addition, they all agreed that critical thinking skills are vital for patient safety and positive outcomes. When asked about their practice and how they develop critical thinking in their students, they all shared the tools they used.

All four instructors have used real-life scenarios and simulations to implement practices in real-world scenarios. Three of the four educators stated that using interactive methods to engage students in fostering critical thinking has been successful in their practice. They have used games, role plays, and concept mapping as interactive educational tools. Three of the four educators noted their appreciation of mentorship programs, mentioning that they believe they cultivate critical thinking in nursing students. In their integrative review of best practices of formal new graduate transition programs, Rush et al. (2019) also emphasized the importance of mentorship programs. They suggest that the most compelling evidence consistently demonstrated that new graduate

nurse programs (mentors are assigned) improve critical thinking, competency, and retention.

Research underscores the crucial role of critical thinking in nursing, particularly in identifying early signs of patient deterioration. For instance, Subbe et al. (2020) suggested that nurses with robust critical thinking skills are more adept at recognizing subtle clinical changes that could indicate patient decline, thus enabling timely interventions and improving patient outcomes.

Lisa emphasized the importance of recognizing cues promptly, noting that a patient's condition can deteriorate significantly within 24 to 48 hours (about two days). Sarah also shared a similar insight, mentioning the relationship between patient safety and critical thinking skills, stating, "Nurses who can think critically can predict a problem from arising. They know when it is important for them to jump in, and when it is important to step back."

Furthermore, Emily underscores the correlation between critical thinking and patient safety, stating, "They [patients] are vulnerable populations and rely on the caretakers' decision-making for safe care. Critical thinking is fitting the pieces of the puzzle together, not only treating present problems, but also thinking about potential problems." According to Tanner (2015), critical thinking in nursing involves piecing together various clinical data to form a comprehensive understanding of a patient's condition. This approach addresses current health issues and considers potential complications that could arise. Emily also highlights those patients who rely heavily on nurses' decision-making skills for safe and effective care. By engaging in critical thinking, nurses can anticipate challenges, mitigate risks, and provide optimal care that is tailored to the needs of each patient. The ability to think critically is indispensable for nurses. It empowers them to effectively assess, anticipate, and address both existing and potential health concerns. This proactive approach enhances patient safety and improves overall healthcare outcomes.

Barriers to Developing Critical Thinking

Below are some examples of the barriers the participating nursing educators face when developing critical thinking skills.

Restrictive Nature of Current Nursing Curricula

Participant educators frequently cited the current nursing curricula as being overly prescriptive and focused on meeting accreditation standards and clinical competencies. These curricula often prioritize technical skills and procedural knowledge over the development of critical thinking abilities. The challenges shared by the interviews overlap between participants. Three out of four educators indicated a lack of hands-on opportunities in the curriculum and resource constraints including time, staffing, and equipment. Research also indicates that many nursing programs prioritize clinical skills and theoretical knowledge over critical thinking development (Safari et al., 2024). One of the participants, Rachel, pointed out that the existing curriculum framework does not adequately integrate opportunities that challenge students to think critically, problem-solve independently, or engage in reflective practices. Discussing the lack of emphasis on critical thinking in nursing education, she states, “I don’t want to point fingers or blame, but I feel like a lot of it is in our curriculum.” Sarah also shared similar insights, stating, “With the education the way it’s laid out, there isn’t a lot of room for much more critical thinking.” Three out of four instructors advocated for curriculum reform and called for changes in the curriculum to include more practical experiences and critical thinking development opportunities.

Inadequate Resources for Critical Thinking Development

Linked closely to the restrictive nature of curricula is the issue of inadequate resources allocated for fostering critical thinking skills. Limited funding for simulation technologies, educational workshops, and specialized training further restricts educators' ability to design and implement effective critical thinking-focused teaching strategies (Tanner, 2015). Educators often have limited access to specialized training, workshops, or educational materials that are essential for designing and implementing critical thinking-focused learning experiences. Emily emphasized that the lack of staff on the medical units and intense workload all but eliminates the opportunity to develop critical thinking in students on their clinical placements. This scarcity compels educators, as noted by Rachel, to invest their personal time and effort into developing supplementary tools and activities independently. Rachel stated, “I am finding that instructors need to dedicate hours and hours of their own time when developing a scenario for a real-life simulation.” However, the lack of institutional support and compensation for these

additional efforts can contribute to educator burnout and diminish their motivation to innovate within the curriculum.

Impact on Educator Motivation and Engagement

The absence of sufficient support and recognition for critical thinking development within nursing education can profoundly affect educator morale and engagement. Educators who are passionate about enhancing critical thinking among students may feel discouraged by the constant need to navigate around curriculum constraints and resource shortages. Rachel mentions that instructors do not typically get compensation for spending extra time and effort, and she feels this demotivates instructors. She believes the frustration stemming from these challenges can erode enthusiasm and creativity, thereby hindering educators' ability to effectively cultivate critical thinking skills in their students.

Inefficient Screening Processes

Participants also identified the inefficient screening processes used in nursing program admissions as another major barrier. Research indicates that some students may enter nursing programs without the sufficient foundational skills or academic preparation necessary for engaging in critical thinking activities (Facione, 2011). This lack of preparedness hinders students' engagement and challenges the ability of educators to raise them to the desired level of competency. Sarah stated, "I think the greatest challenge I had as an educator is that students don't know what the nursing profession is about at all, and come to us unprepared, they are excited to be a nurse because someone in the family was a nurse." She discusses the importance of an efficient screening process, mentioning the necessity of getting the message across to potential students during the screening process that nursing is not all about making good money, and it's nothing like *Gray's Anatomy* (Medical Drama Show). It's essential to convey to students that this profession entails a lot of hard work, compassion, professionalism, and critical thinking that requires attention to detail. Educators face the uphill task of bridging these knowledge gaps, which can detract from focusing on critical thinking development.

Task-Focused Care Model

The prevalent task-focused care model within healthcare settings also poses a significant impediment to the cultivation of critical thinking skills among nursing students. Studies indicate that nurses often prioritize completing tasks efficiently over engaging in critical reflection and decision-making processes (Bourgault, 2023). Lisa and Emily both highlighted this issue, noting that in environments where nurses are primarily focused on completing tasks rather than engaging in holistic, patient-centered care, there is limited opportunity for students to develop critical thinking abilities. This narrow focus can constrain students' ability to think innovatively, problem-solve effectively, and anticipate patient needs beyond immediate tasks. Two of the four educators noted their beliefs that a task-focused approach to nursing impedes the development of critical thinking.

Educator Insights:

Lisa: "Task-focused nursing plays a role as a hindrance to critical thinking."

Emily: "When nurses provide task-focused care rather than patient-focused care, it proves to be another barrier to critical thinking."

Assessment of Critical Thinking

Assessing critical thinking skills in nursing is challenging due to the absence of specific critical thinking tools and guidelines tailored for this purpose. Educators rely on practical assessments, reflective feedback, peer evaluations, and self-reflection to evaluate these skills. These approaches gauge the ability of nursing students to think critically and assess their application of critical thinking in ensuring patient safety, which is paramount in healthcare practice.

Although the assessment of critical thinking seems to be a vague concept and lacks concrete guidance, all the interviewers agreed that practical assessment and reflective feedback are the most used tools. Two of the four educators also used peer feedback and self-reflection to assess critical thinking in their students.

Research underscores the complexity of assessing critical thinking in nursing. For example, according to Facione (2011), practical assessments involve observing how students apply critical thinking to real-life scenarios. This method allows educators to

assess the cognitive aspects of critical thinking and its practical application in clinical settings. Sarah emphasizes the importance of practical assessment and reflective feedback in evaluating students' critical thinking abilities. By understanding the rationale behind their actions and actively seeking information, it is possible to better assess students' capacity for critical thinking, akin to detectives gathering evidence to make informed decisions.

Additionally, Rachel aligns critical thinking assessment with patient safety. Effective critical thinkers in nursing can make safe and informed decisions for patients based on available resources and knowledge. This corresponds with the notion that critical thinking is not merely about problem-solving, but also about ensuring the best possible outcomes for patients under various circumstances.

In the interview associating critical thinking assessment with patient safety, Rachel provided the example of a patient whose chest tube has been dislodged. A student's ability to think critically can have a profound impact on the patient. A student with developed critical thinking skills will worry about the site of the chest tube, not the equipment, as the equipment can be replaced later. However, if the site is not covered instantly, air can get trapped in the lungs and cause damage. So, a student or nurse who keeps their patient safe in unforeseen situations highlights their ability to think critically. Lisa also confirmed the close relationship between critical thinking assessment and patient safety. Lisa observes that a student's ability to work safely, recognize changes, connect the pieces together, and take actions to keep the patient safe shows that they can think critically.

Need for Curriculum Enhancement

There is a strong need for curriculum reform to include more hands-on practice, real-life scenarios, and opportunities for developing questioning minds from an early stage. Lisa suggested that more hands-on practice and exposure to real-life scenarios be built into the curriculum to increase opportunities for critical thinking in nursing education. She states, "Of the four years of a nursing program, one year should be just like, basically kind of residency." Three out of four participants agreed that there is a need to reform the nursing curriculum to provide more opportunities for fostering critical thinking.

The educators were calling for ongoing reflection and awareness among both students and educators to continuously improve the teaching and learning of critical thinking skills.

Discussion

The insights gleaned from interviews with nursing educators underscore the importance of developing robust critical thinking skills among nursing students. Across the interviews, educators consistently highlighted how these skills are not just desirable, but essential for ensuring patient safety and delivering effective nursing care. They emphasized that critical thinking enables nurses to anticipate and address complex healthcare challenges proactively, contributing directly to improved clinical outcomes.

Despite recognizing its significance, educators face numerous challenges in fostering critical thinking. These challenges include limited opportunities for hands-on experience, constraints in resources such as time and staffing, and an educational focus that often leans towards task completion rather than deep analytical reasoning. These barriers collectively impede students' ability to engage deeply with content and develop the nuanced critical thinking abilities needed in clinical settings.

In response to these challenges, the participating educators provided several concrete recommendations. They advocated for curriculum reforms that integrate more practical experiences earlier in nursing education and critical thinking skills in curriculum and teaching practices. This approach aims to expose students to real-world scenarios and decision-making processes, thereby cultivating their critical thinking skills from the outset of their academic journey. Additionally, mentorship programs were highlighted as pivotal in providing personalized guidance and support, helping students apply critical thinking in practical settings under the supervision of experienced professionals.

Furthermore, the participating educators expressed the importance of leveraging interactive learning tools and simulations to bridge the gap between theoretical knowledge and its application in clinical practice. These methods enhance student engagement and provide structured opportunities for reflection and debriefing, essential for reinforcing critical thinking processes.

Educators and researchers stressed the need for further empirical studies to compare and validate teaching strategies for developing critical thinking. They emphasized the importance of developing reliable assessment tools that accurately measure critical thinking skills across diverse educational contexts. Furthermore, I

identified exploring the potential of emerging technologies, such as virtual reality and artificial intelligence, to facilitate critical thinking education as a promising area for future investigation.

Addressing these challenges and implementing the recommended strategies is crucial for nursing education to effectively prepare students for the complexities of modern healthcare practice. By nurturing strong critical thinking skills early in their education and providing ongoing support through mentorship and innovative learning methods, educators can empower future nurses to deliver safe, effective, and compassionate care to patients.

Limitations

Every research study has its limitations, and this study is no exception. While the findings provide valuable insights into the development of critical thinking skills among nursing students, certain constraints must be acknowledged to contextualize the results appropriately. These limitations pertain to the sample size and potential researcher biases. Firstly, the sample size was small, consisting of only four nursing educators. While this allowed for the deep exploration of perspectives, smaller sample sizes may not capture the full range of diversity or perspectives that exist in the population of interest. Secondly, my involvement as a researcher in conducting interviews and analyzing data introduces the potential for bias. Although steps were taken to minimize bias through qualitative methods and transparent documentation, the researcher's perspectives and interpretations could influence the findings. Addressing these limitations in future research endeavors could enhance our understanding of effective strategies for cultivating critical thinking skills in nursing students.

Conclusion

Reflecting the insights of four experienced educators, this study highlights the barriers to fostering critical thinking skills and strategies for improvement. Key findings of this research emphasize the need for curriculum reform to integrate hands-on opportunities, address resource constraints, and use interactive and reflective learning methods. Educators agree that critical thinking is crucial for patient safety and effective nursing care. Recommendations to promote critical thinking include enhancing mentorship programs, fostering self-reflection, and improving admission screening processes. These steps can bridge the gap between classroom knowledge and clinical practice, ensuring future nurses are well-prepared critical thinkers. By implementing these strategies, nursing educators can better prepare students for the complexities of their profession, leading to safer and more effective patient care.

References

- ANA Resources Nursing Hub (Feb. 09, 2024) Retrieved from:
<https://www.nursingworld.org/content-hub/resources/nursing-leadership/critical-thinking-nursing/>
- Awad, S. A., & Mohamed, M. H. (2018). Effectiveness of Peyton's four-step approach on nursing students' performance in skill-lab training. *Journal of Nursing Education and Practice*, 9(5), 1. <https://doi.org/10.5430/jnep.v9n5p1>
- Boso, C. M., van der Merwe, A. S., & Gross, J. (2021). Students' and educators' experiences with instructional activities towards critical thinking skills acquisition in a nursing school. *International Journal of Africa Nursing Sciences*, 14, 100293. <https://doi.org/10.1016/j.ijans.2021.100293>
- Chan, Z. C. Y. (2013). A systematic review of critical thinking in nursing education. *Nurse Education Today*, 33(3), 236–240. <https://doi.org/10.1016/j.nedt.2013.01.007>
- Cooke, L., Stroup, C., & Harrington, C. (2019). Operationalizing the concept of critical thinking for student learning outcome development. *Journal of Nursing Education*, 58(4), 214–220. <https://doi.org/10.3928/01484834-20190321-05>
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. SAGE Publications, Inc.
- Critical thinking in nursing: Tips to develop the skill*. ANA. (2024, February 20). <https://www.nursingworld.org/content-hub/resources/nursing-leadership/critical-thinking-nursing/>
- Facione, P. (2006). *Critical Thinking: What It Is and Why It Counts -- 2009 Update: What and Why Update*.
- Forneris, S. G., & Peden-McAlpine, C. (2007). Evaluation of a reflective learning intervention to improve Critical thinking in novice nurses. *Journal of Advanced Nursing*, 57(4), 410–421. <https://doi.org/10.1111/j.1365-2648.2007.04120.x>
- Glynn, D. M., McVey, C., Wendt, J., & Russell, B. (2017). Dedicated educational nursing unit: Clinical instructors role perceptions and learning needs. *Journal of Professional Nursing*, 33(2), 108112. <https://doi.org/10.1016/j.profnurs.2016.08.005>
- Hundial, H. (2020). The Safe Care Framework™: A practical tool for critical thinking. *Nurse Education in Practice*, 48, 102852. <https://doi.org/10.1016/j.nepr.2020.102852>

- Hsu, L., & Hsieh, S. I. (2005). Concept maps as an assessment tool in a nursing course. *Journal of Professional Nursing: Official Journal of the American Association of Colleges of Nursing*, 21(3), 141–149.
<https://doi.org/10.1016/j.prof Nurs.2005.04.006>
- Kaddoura, M. A. (2010). New graduate nurses' perceptions of the effects of clinical simulation on their critical thinking, learning, and confidence. *The Journal of Continuing Education in Nursing*, 41(11), 506–516.
<https://doi.org/10.3928/00220124-20100701-02>
- Mundy, K., & Denham, S. A. (2008). Nurse educators—Still challenged by critical thinking. *Teaching and Learning in Nursing*, 3(3), 94–99.
<https://doi.org/10.1016/j.teln.2008.02.007>
- Papathanasiou, I. V., Kleisariis, C. F., Fradelos, E. C., Kakou, K., & Kourkouta, L. (2014). Critical thinking: the development of an essential skill for nursing students. *Acta Informatica Medica: AIM: Journal of the Society for Medical Informatics of Bosnia & Herzegovina: Casopis Drustva za Medicinskuinformatiku BiH*, 22(4), 283–286. <https://doi.org/10.5455/aim.2014.22.283-286>
- Paul, S. A. (2014). Assessment of critical thinking: A Delphi study. *Nurse Education Today*, 34(11), 1357–1360. <https://doi.org/10.1016/j.nedt.2014.03.008>
- Pivač, S., Skela-Savič, B., Jović, D., Avdić, M., & Kalender-Smajlović, S. (2021). Implementation of active learning methods by nurse educators in undergraduate nursing students' programs –a group interview. *BMC Nursing*, 20(1), 1–173.
<https://doi.org/10.1186/s12912-021-00688y>
- Raterink, Ginger, D.N.Sc, A.N.P.-C. (2008/09//). A descriptive inquiry of the definitions of critical thinking and enhancers and barriers reported by nurses working in long-term care facilities. *The Journal of Continuing Education in Nursing*, 39(9), 407–12. Retrieved from
<http://proxy.lib.sfu.ca/login?url=https://www.proquest.com/scholarly-journals/descriptive-inquiry-definitions-critical-thinking/docview/223313778/se-2>
- Raymond, C., Profetto-McGrath, J., Myrick, F., & Strean, W. B. (2018). Nurse educators' critical thinking: A mixed methods' exploration. *Nurse Education Today*, 66, 117
<https://doi.org/10.1016/j.nedt.2018.04.011>
- Rush, K. L., Janke, R., Duchscher, J. E., Phillips, R., & Kaur, S. (2019). Best practices of formal new graduate transition programs: An integrative review. *International Journal of Nursing Studies*, 94, 139–158.
<https://doi.org/10.1016/j.ijnurstu.2019.02.010>
- Saltsman, J. (2023, October 5). *Evidence-based practice in nursing and patient outcomes*. Xavier University : Xavier Online. <https://online.xavier.edu/evidence-based-practice-in-nursing-and-patient-outcomes>.

- Subbe, C. P., Bannard-Smith, J., Bleetman, A., & Davis, S. F. (2020). The impact of critical thinking skills on early identification of patient deterioration. *BMC Medical Education*. <https://doi.org/10.1186/s12909-017-1093-3>
- Tanner C. A. (2006). Thinking like a nurse: A research-based model of clinical judgment in nursing. *The Journal of Nursing Education*, 45(6), 204–211. <https://doi.org/10.3928/01484834-20060601-04>
- Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation*, 27(2), 237–246. <https://doi.org/10.1177/1098214005283748>
- Walshaw, P. J. (2004). Conceptions of critical thinking held by nurse educators. *The Journal of Nursing Education*, 43(9), 408–411. <https://doi.org/10.3928/01484834-20040901-04>
- Westerdahl, F., Carlson, E., Wennick, A., & Borglin, G. (2022). Bachelor nursing students' and their educators' experiences of teaching strategies targeting critical thinking: A scoping review. *Nurse Education in Practice*, 63, 103409–103409. <https://doi.org/10.1016/j.nepr.2022.103409>
- Yazdani S, Hoseini Abardeh M. *Five decades of research and theorization on clinical reasoning: a critical review*. *Adv Med Educ Pract*. 2019 Aug 27;10:703-716. doi: 10.2147/AMEP.S213492. PMID: 31695548; PMCID: PMC6717718. <https://www.nursingworld.org/content-hub/resources/nursing-leadership/critical-thinking-nursing/>

Appendix A. Interview Consent Form

Exploring Educators' perspectives on developing critical thinking in nursing students

Study Number: 30002131

Thank you for contemplating joining an interview on how to cultivate critical thinking in nursing students. Before deciding to participate, kindly peruse the information provided. Feel free to inquire me if you have any questions or require further details. If, following the review, you remain interested in participating, we will proceed with signing the consent form and then, we will proceed with the interview.

I, Harjinder Sohi, am conducting this interview as part of a research project exploring educators' perspectives on developing critical thinking in nursing students. I am currently employed as a Patient Care Coordinator and Clinical Nurse Educator at Surrey Memorial Hospital. This project is a mandatory component of the Master's in Educational Leadership Program at Simon Fraser University (SFU). Dr. Rebecca Cox, Associate Professor in the Faculty of Education, is supervising this research. The outcomes will be documented in a research report and shared through a public presentation at SFU in the summer of 2024.

The purpose of this research is to explore your perspectives and ways to address challenges in developing critical thinking in nursing students. If you choose to participate, I will arrange a 30-to-45-minute interview. We have an option to conduct the interview in person at a meeting room at Simon Fraser University, Surrey campus, or we can arrange a Zoom meeting. If you choose the zoom method, this interview will be hosted by Zoom, a US company. Any data you provide may be transmitted and stored in countries outside Canada. It is important to remember that privacy laws vary in different countries and may not be same as in Canada. As a token of appreciation for your participation, you will receive coffee and a light snack with a thank you card.

In this interview, I will request your insights on the following focal points:

- Your understanding of the importance of critical thinking development in nursing students

- Approaches and resources used to cultivate critical thinking.
- Challenges experienced while working towards developing critical thinking in Nursing Students.
- Suggestion to enhance the development of critical thinking in Nursing Students.

You have the option to refrain from answering any of the questions, and you are free to conclude the interview at any moment within the allocated time. Whether you choose to participate or not will remain confidential and will not be disclosed to anyone. There are no adverse consequences associated with opting out of participation, and any information already gathered from you will be promptly erased or destroyed. However, if the report has already been made public, I may not be able to remove your contribution from the report. Participating in this research carries no expected risks or benefits for you.

The interview will be recorded, and any information shared will be kept confidential. You will be asked to choose a pseudonym for the research study, ensuring confidentiality. Participants names, titles and personal details will not be disclosed in data collection, analysis, or reporting. The interview transcriptions conducted by me using the chosen pseudonyms will exclude any traceable information. Audio recordings and transcripts will be securely stored on SFU One Drive, a password protected file hosting program, while written consent forms will be stored separately on SFU One Drive and destroyed upon project completion. The collected data will not be used for unspecified future research.

Your identity and participation will remain confidential in the project findings. I will utilize the interview data to compose a report for my MEd program, adhering to SFU Graduate General Regulation 1.9.1 for project evaluation. Findings will also be presented publicly at SFU in July. Upon the study's completion, participants will have access to the report, provided electronically or as a paper copy. Upon completing my MEd degree requirements, I will destroy audio recordings and anonymized transcripts will be retained for five years post-project completion. For inquiries or communication, I can be reached via email and phone. My phone number is ... or via email at..... If you wish to contact my faculty supervisor, ...,

If you have concerns about your rights or experiences as a research participant, please contact the Director, SFU Office of Research Ethics, at [email] or [phone].

By signing this consent form, you confirm:

- Your agreement to participate and have the interview audio recorded.
- Your understanding of the freedom to withdraw from research at any time.
- Your retention of legal recourse rights in case of research-related harm.

Signature of Participant

Date (MM/DD/YYYY)

Printed Name of Participant

Appendix B. Interview Questions

Study Number: 30002131

Exploring educators' perspectives regarding the development of critical thinking in nursing students

1. Tell me how you came to be a nurse educator here at Sprott Shaw or Fraser Health?
2. What draws you toward teaching nurses?
3. What do you find most energizing about teaching nurses? What do you find most challenging?
4. What part of nursing education do you find most challenging?
5. How important do you think teaching critical thinking skills is in nursing education?
6. What kind of activities or tools do you employ to develop critical thinking in nursing students? Do you prefer one tool over the other and why?
7. Can you share some barriers that you face while trying to develop critical thinking amongst new nurses or nursing students? What are some of the ways you tackle these barriers or challenges? How do you assess critical thinking in nursing students? Can you give some examples?
8. Do you think students or nurses who can think critically are safer and efficient in clinical settings? If yes, can you share some examples where you find this to be true?

Appendix C. Recruitment Email

Exploring educators' perspectives in developing critical thinking in nursing students

Study Number: 30002131

Subject Line: Revolutionizing critical thinking in nursing students.

Email Body Text: I hope this message finds you well. As you may know, as part of my MEd program at SFU, I am conducting research on the development of critical thinking. Your unique perspectives and insights as a nurse educator are highly valued, and I would like to invite you to participate in an interview for this research.

The primary aim of this study is to explore educators' perspectives on developing critical thinking in nursing students. Your experiences and opinions will contribute significantly to my understanding of current challenges towards developing critical thinking in nursing students.

If you decide to participate, I will coordinate a 30 to 45-minute interview at a time that is convenient for you. Your input is crucial to the success of this research, and your confidentiality will be strictly maintained throughout the process.

Your participation will involve discussing:

1. Your understanding of the importance of developing critical thinking skills in nursing students.
2. Methods used to develop critical thinking skills in nursing students.
3. Challenges you encounter while working with nursing students regarding developing critical thinking skills.
4. Your thoughts on how to enhance the development of critical thinking skills in nursing students.

Your valuable contributions will help advance our understanding of this subject and contribute to the development of more effective ways of developing critical thinking in nursing students.

If you are interested in participating or have any questions, please feel free to contact me at@sfu.ca or 604-..... Your willingness to share your insights is appreciated, and I look forward to the possibility of collaborating with you on this important research.

Best Regards,
Harjinder Sohi RN, BSN
Student No. ###