# THE EXPERIENCES OF NURSING CLINICAL INSTRUCTORS SUPPORTING UNDERGRADUATE NURSING STUDENTS' DEVELOPMENT OF RESILIENCE: A QUALITATIVE DESCRIPTIVE STUDY

By: Carmen Fang, RN, Hon.B Sc, BScN

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AUTHOR: Carmen Fang, RN, H.BSc, BScN

SUPERVISOR: Dr. Maria Pratt, RN, Ph.D.

COMMITTEE MEMBERS: Dr. Nancy Carter, RN, Ph.D.; Dr. Lynn Martin, RN, Ed.D.

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## Lay Abstract

Nursing students are known to be stressed when learning in clinical practice settings. Developing resilience improves their handling of stress, which can affect their grades and well-being. There is little research on undergraduate nursing clinical instructors' (NCIs) experiences helping students improve their resilience. It is important to know more about this topic as NCIs strongly influence nursing students' clinical learning experiences. This research was completed to fill this knowledge gap. NCIs' views on resilience, experiences helping students improve their resilience, and NCIs' perceived factors that make it easier and harder to do so can inform future research, NCI professional development training, and nursing education-related policies to better help students improve their resilience.

## Abstract

Undergraduate nursing students identified their clinical practice education as a significant stressor. Students who cannot cope with stress experience poorer academic performance and well-being. Resilience is a personal quality and/or process that enables one to cope successfully after facing difficulties. Although nursing clinical instructors (NCIs) have a major influence on students' clinical learning, there is minimal research on NCIs' experiences fostering student resilience.

This study aimed to describe and understand undergraduate NCIs' experiences supporting nursing student resilience development during their clinical practice education. A qualitative descriptive design was adopted, and semi-structured interviews were used with nine undergraduate NCIs from a Southwestern Ontario university. Conventional content data analysis was used to analyze the findings.

Two themes emerged about participants' perceptions of resilience: (a) resilience is a process of moving forward from challenges, and (b) the indicators of student resilience development include having the ability to cope, feelings of self-confidence, and being self-directed to learn. Three themes were also generated concerning participants' experiences of supporting student resilience-building. Participants described (a) providing active guidance to students, (b) building supportive teaching environments to foster student resilience, and (c) having uncertainties about resilience development strategies. Participants identified various factors related to NCIs, students, environment, and curriculum that influence student resilience-building.

This study highlighted NCIs' experiences supporting student resilience development during their clinical practice education. The findings can inform NCI professional development education strategies, nursing education-related policies, and future nursing research about fostering student resilience-building.

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**Table of Contents**

# CHAPTER 1: INTRODUCTION

Nurses are valued healthcare professionals. They play vital roles in various activities that impact an individual's and community's health. The World Health Organization (2020) estimates a global deficit of 5.9 million nurses, and the present high nursing occupational turnover has amplified this shortage (Brown et al., 2018). Evidence has shown that work-related stress and burnout significantly influence nursing turnover (Hayes et al., 2006; Kelly et al., 2021; Lee & Kim, 2020), and the COVID-19 pandemic worsened both issues (Statistics Canada, 2022). Unfortunately, nurses' experiences of work-related stress are expected to rise (Jennings, 2008). Hence, there is a pressing need to educate undergraduate nursing students on stress management, as this skill is crucial for nurses to cope with work-related challenges and is positively associated with work satisfaction and personal well-being (Alzayyat & Al-Gamal, 2014; Jang et al., 2019; Karpaviciute & Macijauskiene, 2016; Khamisa et al., 2015; Lopez et al., 2018). The COVID-19 pandemic also elevated nursing students' stress, and they struggled to practice healthy coping strategies (Hamadi et al., 2021; Masha'al et al., 2022). Increased stress is associated with lower academic achievement and the adoption of maladaptive coping behaviours (Chan et al., 2022; DeBerard et al., 2004; Holahan et al., 2011). Consequently, supporting nursing student resilience development is paramount, as it aids their ability to manage stress via healthy coping methods.

Currently, there is no universal definition for resilience. It is often conceptualized as a personal trait or a process (Cooper et al., 2020; Richardson, 2002; Windle, 2011). Resilience as a trait refers to the stable personal characteristics and qualities that facilitate an individual’s ability to endure and overcome adversity regardless of context and time (Richardson, 2002; Windle, 2011). Resilience as a process refers to a person’s dynamic and context-specific process of successful adaptation to and management of adversity and stressors (Aburn et al., 2016; Windle, 2011). Irrespective, resiliency indicates an increased capacity to manage stress, sustain or recover positive mental health, and reduce the experience of negative emotions when confronted with adversity (Cooper et al., 2020; Herrman et al., 2011; Windle, 2011). It is also affected by personal, social, and environmental factors and resources that impede or facilitate an individual’s ability to overcome adversity (Herrman et al., 2011; Rutter, 2012).

Since resilience is known to mitigate the negative effects of stress, there is a rising call to educate nursing students on resilience (Jackson et al., 2007; McAllister & McKinnon, 2009; Stubin, 2023). However, there is a lack of research on nursing clinical instructors’ (NCIs) experiences teaching and supporting undergraduate nursing student resilience development. NCIs are instructors who directly teach and supervise nursing students assigned to care for patients in clinical settings (Dahlke et al., 2012; Wiens et al., 2014). They have fundamental roles in helping students become registered nurses (RNs). Their key responsibilities include supporting students to bridge their theoretical knowledge to clinical practice, enhancing their critical thinking and clinical skills, and serving as role models of the roles, responsibilities, identities, and values of RNs (Asher-Slimak et al., 2023).

Nursing students face many stressors that may cause distress and affect their learning and well-being during their clinical practice education. Therefore, gaining insight into NCIs' experiences of fostering student resilience is imperative, as they are witnesses to student encounters with adversity (Huang et al., 2010), seen as sources of support by students (Ching et al., 2020; Lopez et al., 2018), and are direct facilitators in building student resilience (Low et al., 2019). Given NCIs' importance in influencing student resilience, developing and implementing strategies to support student resilience-building must be informed by NCIs' experiences to maximize their usability and effectiveness. Additionally, nursing education organizations and institutions must effectuate learning and teaching strategies to foster student resilience. This approach may facilitate students' future capabilities to manage complex challenges as practicing nurses and potentially contribute to their sustainability in their future nursing roles.

# CHAPTER TWO: BACKGROUND

To comprehend the need to improve nursing student resilience, a deeper understanding of their experiences of stress and how resiliency is promoted is required. In this chapter, a brief description of Lazarus and Folkman’s theory (1984) illustrating the theoretical relationship between stress and coping and its relation to resilience is provided. This is followed by a summary of evidence-based nursing strategies to build resilience and an analysis of nursing students’ stressors, experiences of stress, and their adverse impacts on well-being.

## Resilience as an Adaptation to Confront Stress

The stress and coping transactional theory by Lazarus and Folkman (1984) has profoundly influenced how the concepts of stress and coping are understood (Biggs et al., 2017). According to this theory, stress arises when one perceives an environmental stimulus as harmful to one's well-being, and it surpasses their ability to cope, which, in turn, evokes distress and negative emotions (Biggs et al., 2017; Lazarus & Folkman, 1984). Coping strategies are used by an individual to contend with the stimulus and stress, which can result in further distress or positive emotions depending on the outcomes of applying the strategies (Berjot & Gillet, 2011; Biggs et al., 2017). However, stress is not always a maladaptive experience (Kemeny, 2003; Lazarus & Folkman, 1984). It is only a concern when one fails to cope positively, resulting in adverse outcomes that impact their well-being (Chu et al., 2021; Kemeny, 2003). Resilience is a positive outcome conceptualized as one’s successful adaptation to adversity (Rutter, 2012). It emphasizes coping strategies as core attributes that help individuals avoid harm to their well-being (Cooper, 2020; Earvolino-Ramirez, 2007; Windle, 2011).

Enhancing nursing students' resilience is crucial as their learning experiences are often stressful and arduous (Gibbon et al., 2010; Turner & McCarthy, 2017). They view their clinical practice education as particularly stress-provoking compared to their traditional classroom learning experiences (Jimenez et al., 2010; Labrague et al., 2017). Some indications of poor stress management include feelings of distress and the use of maladaptive coping strategies (Charlton & Wofford, 2022; McCarthy et al., 2018). Ultimately, the negative impacts of stress and poor coping strategies in students may negatively affect their academic outcomes, professional readiness, and patient safety (Gibbons et al., 2010; Reeves et al., 2013). This, in turn, can lead to students developing mental health concerns (Li et al., 2018), dropping out of the program (Turner & McCarthy, 2017), and having turnover intentions about the nursing profession overall (Kaihlanen et al., 2020).

**Supporting Personal Resilience Development**

Strong evidence indicates that targeted educational interventions can promote resilience (Joyce et al., 2018). Many of these interventions are designed to increase individuals' emotional self-awareness, develop specific coping skills, and enhance resiliency-promoting personal attributes that buffer against the harmful psychological effects of stress (Forbes & Fikretoglu, 2018; Scheuch et al., 2021). Frequently cited strategies to improve nurse resilience include mindfulness and reflective practice (Aburn et al., 2018; Horton et al., 2021; Zhai et al., 2021). Mindfulness mitigates stress by improving emotional regulation and cognitive flexibility (Teper et al., 2013), which are attributes linked to resilience (Genet & Siemer, 2011). Reflective practice promotes resiliency by prompting individuals to ascribe personal meaning to their negative experiences, transforming them into positive learning opportunities (Walsh et al., 2020).

Implementing strategies that address the work environment may also support resilience. Studies have shown that factors such as collegial relations, nursing leadership, and organizational support services are associated with nurse resilience (Badu et al., 2020; Cusack et al., 2016; Tabakakis et al., 2019). Studies that examine environment-related factors' impact on resilience suggest that one's resilience capacity is not solely an individual's responsibility. Therefore, to enhance student resilience, it is important to implement multi-level environmental supports, such as positive peer relationships and upholding clinical setting policies that protect positive learning environments. These measures can help mitigate students' stressful experiences and foster a learning culture that supports adaptability and growth.

**Undergraduate Nursing Students' Experiences of Stress**

To become an RN, students must meet their nursing program-specific academic and clinical practice requirements. Compared to the stress stemming from academic requisites, students perceive their clinical practicums as significantly stressful (Jimenez et al., 2010; Labrague et al., 2017; McCarthy et al., 2018). This may partially be attributed to their experiences of disparities between the theories learned in the classroom and nursing practice (Bam et al., 2014; Shaban et al., 2012). These experiences can elicit frustration and dissatisfaction with nursing practice and cause transition shock, where they perceive their education as meaningless and irrelevant (Flood & Robina, 2014; Safazadeh., 2018). Additionally, students at clinical practice are often placed in situations where they feel helpless due to their lack of clinical knowledge and skills (Gorostidi et al., 2007; Jimenez et al., 2010; Najafi Doulatabad et al., 2014; Sheu et al., 2002), and unfamiliarity with the clinical setting, staff, and NCIs (Gorostidi et al., 2007; Najafi Doulatabad et al., 2014; Shaban et al., 2012). Students also develop stress from having fears of making mistakes (Kim, 2003; Najafne Doulatabad et al., 2014) and observing patient death and suffering (Nolan & Ryan, 2008; Suresh et al., 2013; Timmins & Kaliszer, 2002). Furthermore, the COVID-19 pandemic amplified their clinical practice-related stress due to concerns about infection control, becoming ill, spreading the virus, and the lack of personal protective equipment (Fitzgerald & Konrad, 2021; Savitsky et al., 2020).

The common outcomes of poor resiliency and stress management in nursing students are poor mental health and negative emotional experiences, such as depression and anxiety (Devi et al., 2021; Jimenez et al., 2010). Students with elevated stress are also known to suffer from gastrointestinal and neurological discomforts (Freeburn & Sinclair, 2009; Jimenez et al., 2010). These poor physiological and mental outcomes can negatively affect their well-being (Freeburn & Sinclair, 2009; Jimenez et al., 2010). Without appropriate guidance to develop resilience to help students cope, they may resort to maladaptive coping behaviours that harm their well-being (Freeburn & Sinclair, 2009; Timmins et al., 2011). This is a crucial concern related to unfitness to practice behaviours as it may endanger patient safety, such as dependence on illicit drugs that impair clinical judgement (College of Nurses of Ontario [CNO], 2020; College of Registered Nurses of British Colombia, n.d.). Promoting student resilience positively influences their general well-being, academic success and retention within the nursing program (Altharman et al., 2023; Mcdermott et al., 2020; Van Hoek et al., 2019). However, to develop and implement strategies to foster student resilience, gaining further knowledge of NCIs' experiences supporting student resilience development during their clinical practice is paramount.

## Purpose Statement and Research Question

The purpose of this qualitative study is to describe NCIs' experiences of supporting undergraduate nursing student resilience development. Exploring this knowledge gap is vital to understanding how resiliency is promoted within undergraduate nursing clinical practice education. This knowledge can inform the development and implementation of teaching and learning strategies designed to foster student resilience in undergraduate nursing curricula.

The qualitative research question guiding the study is: What are the experiences of NCIs in supporting undergraduate nursing students' development of resilience during their clinical practice nursing education?

Sub-questions include:

1. What are NCIs' perceptions of resilience?
2. What are NCIs' perceived barriers and facilitators to support undergraduate nursing students' development of resilience during their clinical practice nursing education?

# CHAPTER THREE: LITERATURE REVIEW

This literature review was conducted following Templier and Paré's (2015) framework for guiding and evaluating literature reviews. As per this framework (Templier & Paré, 2015), there are six sequential steps to conducting a literature review, and they are: formulating the problem, searching the literature, screening for inclusion, assessing the quality, extracting data, and analyzing and synthesizing data. The guiding questions for this literature review, which informed its purpose, were: (a) How is resiliency described in the context of undergraduate nursing clinical practice education? And (b) how do healthcare professional clinical practice instructors (HCPI) describe their experiences supporting student resilience?

## Search Strategy

The databases used to find relevant publications that had information informing the literature review guiding questions were Web of Science, PsycINFO, The Cumulative Index of Nursing and Allied Health Literature (CINAHL), and the Education Resources Information Center (ERIC). The first two databases were selected as they are known sources of multidisciplinary science literature (American Psychological Association, 2022; Clarivate, 2022). CINAHL was selected as a recognized resource for nursing and allied health research (EBSCO, 2022a). ERIC was chosen for education-related resources (EBSCO, 2022b). The reference lists of key articles were examined for relevant publications, and those that met the inclusion criteria were reviewed.

For a publication to be included in this literature review, it must have met the following criteria: (a) published between January 2012 and July 2024; (b) written in

English; (c) a primary or review article or a published dissertation; (d) about resilience in the context of undergraduate nursing education. The primary researcher screened all retrieved records' titles and abstracts to determine their relevance and fulfillment of the inclusion criteria. For the last guiding question, the inclusion criterion of nursing education focus was removed, as it yielded no results. Therefore, the search was expanded to include HCPIs. See Appendix A for search terms used in this literature review.

For the first guiding question, 323 results were retrieved from all databases. After carefully analyzing the titles, abstracts, and reference lists of key articles, only 20 were included in this literature review. For the second guiding question, when the search was expanded to include HCPIs from medicine, social work, and paramedicine, 84 articles were retrieved. However, only one article was deemed relevant for inclusion in this literature review. These healthcare professional fields were chosen because their students experience high-stress and often observe traumatic events during their clinical practice education (Butler et al., 2017; Houpy et al., 2017; Warren-James et al., 2021). Also, many primary studies on educational resilience-building strategies were retrieved during the search. To synthesize the literature on this, three additional review articles addressing resilience-building strategies for undergraduate nursing students were included.

This literature review included 24 articles: six cross-sectional studies, 12 qualitative studies, three integrative reviews, one meta-synthesis, one systematic review, and one scoping review article. The majority were published in Asia (10) and Europe (6), with others from Australia (4), Canada (1), the United States (2), and South Africa (1).

See Appendix B for a list of the scholarly articles and their critical appraisal. Critical appraisal of publications included in this literature review was completed mainly by the primary researcher, with guidance and feedback from her thesis committee.

All qualitative studies were appraised using the Critical Appraisal Skills Programme (CASP) Tools (Oxford Center for Triple Value Healthcare, 2022). From the appraisal, a major issue identified for most studies was the need for more clarity on the qualitative design used. Without this, it was difficult to assess whether the research aim(s) and methods were appropriate (Merriam & Tisdell, 2016). Other identified issues included poor descriptions of the researchers' philosophical perspectives and applications, the absence of reflexivity statements, and poor rationales for the selected data collection methods and for stopping data collection and analysis.

Cross-sectional studies were evaluated using the AXIS appraisal tool, which assesses cross-sectional studies in healthcare science disciplines (Downes et al., 2016). This appraisal identified various issues for certain cross-sectional studies, such as the absence of sample size justification, poor clarity on sampling methods, and using non-validated instruments for data collection. Although all studies used surveys for data collection, two publications failed to address how privacy and confidentiality were maintained.

The systematic review was appraised using the systematic review CASP tool (Oxford Center for Triple Value Health Care, 2022), as it is a standard tool for systematic review appraisal non-specific to evaluating intervention effectiveness (Krainovich-Miller, 2009). Metasyntheses, integrative, and scoping reviews do not have standardized appraisal tools. Consequently, publications on how to conduct and report these studies were used as appraisal guidelines. The scholarly publications by Chrastina (2018), Tricco et al. (2018), and Dhollande et al. (2021) were chosen to appraise the metasynthesis, integrative and scoping review articles, respectively. Some of the critiques of the review articles were the inadequate examination of the instrument's psychometric properties used in primary studies and the insufficient descriptions of the thematic analysis processes when synthesizing findings.

**Results of the Literature Search**

In extracting, analyzing, and synthesizing the data from the articles about resilience in nursing clinical practice education, four main themes emerged: (a) resiliency is described as a personal attribute and/or process of positive adaptation, (b) resilience is vital to address adversities unique to clinical practice, (c) NCIs can be a promoting or impeding factor to student resilience development, and (d) there is limited research on HPCIs' perceptions of improving student resilience. These literature review findings were generated in collaboration between the primary researcher and her thesis committee.

***Resiliency as a Personal Attribute and/or Process of Positive Adaptation***

In the retrieved literature, resiliency is described as a personal attribute and/or process of positive adaptation that enables one to manage and overcome adversity through healthy and constructive behaviours (Cooper et al., 2020; Windle, 2011). Most studies refer to resilience as an attribute that can be developed through methods that foster resilient behaviours and traits, rather than as an innate characteristic (Bsharat, 2023; Ching et al., 2020; Cleary et al., 2018; Edo-Gual et al., 2015; Hurley et al., 2020; Hwang

& Shin, 2018; Low et al., 2019; Wang et al., 2021; Zulu et al., 2021). For example, Zulu et al. (2021) described resilience as the courage to push through difficult situations. They noted that student resilience can be improved by building positive relationships between students and clinical staff and acquiring resilience-associated skills, such as cognitive reframing. Only Revell et al. (2022) and Henshall et al. (2023) framed resilience as a personal process of positive adaptation from adversity. Six studies reported resilience as an individual trait and process of overcoming adversity (Ayruwat et al., 2024; Huang et al., 2023; Liang et al., 2019; Lopez et al., 2018; Tian et al., 2019; Walsh et al., 2020). Three of those six articles referred to the resilience attribute as an innate and acquired trait (Liang et al., 2019; Lopez et al., 2018; Tian et al., 2019). Only Walsh et al. (2020) mentioned resilience as an attribute and process that can be gained from experiencing and overcoming difficulties. All studies described resilience as a multi-dimensional concept influenced by intrinsic and extrinsic factors that may facilitate or impede resilience capacity.

In the retrieved studies, many intrapersonal qualities associated with resilience are reported, such as having a positive outlook (Cleary et al., 2018; Hwang & Shin, 2018; Liang et al., 2019; Walsh et al., 2020; Wang et al., 2021), mindfulness (Ching et al., 2020; Henshall et al., 2023; Low et al., 2019; Wang et al., 2021), and self-confidence (Ching et al., 2020; Huang et al., 2023; Liang et al., 2019; Low et al., 2019; Revell et al., 2022; Roxburgh, 2014; Walsh et al., 2020; Wang et al., 2021; Zulu et al., 2021). A key trait frequently examined in-depth is emotional intelligence (Cleary et al., 2018; Edo-Gual et al., 2015; Hurley et al., 2020).

Emotional intelligence is the ability to process and understand emotions from oneself and others to guide cognitive thinking and behaviours (Edo-Gual et al., 2015; Hurley et al., 2020). It is a core element of many skills associated with resilience, including self-awareness and critical thinking (Cleary et al., 2018). In clinical settings, nurses are often confronted with negative emotions from providing patient care, witnessing patient or staff-related adverse events, and having negative interactions with others (Delgado et al., 2017). Without apt emotional regulation, they risk developing emotional exhaustion associated with burnout (Kovács et al., 2010; Maslach et al., 2001). In a qualitative study, Hurley et al. (2020) found that students who had received emotional intelligence training possessed greater resilience when facing emotionally exhaustive events in clinical practice. This was partially attributed to their enhanced self-awareness skills learned from the training (Hurley et al., 2020).

### *Resilience is Vital to Address Adversities Unique to Clinical Practice Education*

Nurses in clinical settings often face stressful circumstances that require emotional regulation to uphold a professional demeanour (Delgado et al., 2017; Jennings, 2008; Lim et al., 2010). Therefore, it is inevitable for nursing students to confront similar situations during their clinical practicums, as they are required to learn and partake in nursing roles and responsibilities (Lopez et al., 2018; Wang et al., 2021). Hence, developing and maintaining student resilience is vital to navigating and overcoming challenges inherent to the clinical context and the adversities associated with learning in such settings. For instance, resilience is correlated with reduced student distress when faced with stressful clinical situations, such as bullying (Courtney-Pratt et al., 2017; Tian et al., 2019), patient suffering and death (Edo-Gual et al., 2015; Hurley et al., 2020), and adapting to new clinical settings and staff (Roxburgh, 2014).

The improved mental health associated with resilience may stem from having positive coping strategies and social support (Ching et al., 2020; Henshall et al., 2023; Huang et al., 2023). Ching et al. (2020) showed students with high resilience and low burnout tended to apply problem-solving, conform to personal principles, seek others for support or advice, and use self-supporting strategies to manage stress. These behaviours were linked to success in managing adversity by limiting the scope of the issue, demonstrating mental flexibility, and maintaining coping strategies without intense "cognitive and psychological disturbance" (Ching et al., 2020). In contrast, students with low resilience and high burnout tended to be preoccupied with stressors and practiced self-blame when faced with adversity (Ching et al., 2020). They used coping strategies associated with avoidance and sought social support mainly to vent feelings, which may reinforce negative emotions and psychological states invoked by stress (Ching et al., 2020).

In general, students' social support could be derived from internal and external support structures (Aryuwat et al., 2024; Ching et al., 2020; Courtney-Pratt et al., 2017; Henshall et al., 2023; Liang et al., 2019; Lopez et al., 2018; Low et al., 2019; Revell et al., 2022; Thomas & Revell, 2016; Walsh et al., 2020; Wang et al., 2021; Zulu et al., 2021). Social support from internal structures is the supportive relationships students establish from learning in academic and clinical settings, which includes NCIs and clinical staff (Henshall et al., 2023). Social support from external structures is the supportive relationships students establish outside of learning from academic and clinical settings, such as family and friends (Henshall et al., 2023).

Additionally, research shows that positive emotions and mental states enhance learning and academic success (Li et al., 2020; McConnell & Eva, 2012). Studies involving nursing students demonstrating resilience and its associated skills and traits are strongly correlated with achieving learning outcomes (Hwang & Shin, 2018), and acquiring clinical and essential nursing skills, such as teamwork and communication (Cleary et al., 2018; Hurley et al., 2020; Revell et al., 2022; Walsh et al., 2020). This may be credited to the cognitive reframing strategy associated with resilience, whereby students engage in thinking positively and optimistically about challenges (Henshall et al., 2023; Huang et al., 2023; Liang et al., 2019; Lopez et al., 2018; Low et al., 2019). From this process, students reframe stressful events into meaningful experiences, which facilitates their learning of clinical knowledge and skills (Lopez et al., 2018; Low et al., 2019; Wang et al., 2021) and their determination to achieve academic success (Liang et al., 2019; Lopez et al., 2018; Revell et al., 2022; Roxburgh, 2014; Walsh et al., 2020; Wang et al., 2021). For example, resilience promotes students' capability to learn from constructive criticism by perceiving it as a positive learning opportunity rather than a highly stressful event (Hurley et al., 2020).

***NCIs can be a Facilitating or Impeding Factor for Student Resilience Development***

NCIs are essential to students' clinical practice experiences, as they are equipped with the knowledge, skills, and attitudes to help guide and support students' success in learning and implementing clinical competencies and judgements (Labrague et al., 2020).

Thus, it is unsurprising that NCIs influence student resilience development as a facilitating or impeding factor.

NCIs facilitate student resiliency in multiple ways. Firstly, they foster it by providing positive social support for guidance and motivation. They provide encouragement and act as a role model of personal resilience with strong professional values, competencies, and identities (Ching et al., 2020; Henshall et al., 2023; Liang et al., 2019; Lopez et al., 2018; Low et al., 2019). NCIs also impact student resilience by teaching strategies that develop it, such as reflection and cognitive reframing (Low et al., 2019). Lastly, NCIs indirectly influence resilience development by promoting its social-environmental protective factors. This includes facilitating a culture of student peer support that emphasizes respectful, collegial relationships and a learning environment where students are welcome to share their knowledge and experiences (Henshall et al., 2023; Liang et al., 2019; Low et al., 2019; Walsh et al., 2020).

On the other hand, students may also perceive NCIs as a substantial stressor and a barrier to their resilience development. Research by Ching et al. (2020) and Huang et al. (2023) establishes that students feel pressured to demonstrate clinical competence to NCIs. Furthermore, NCIs contribute to students' stress by showing a lack of empathy and understanding regarding the challenges they face (Wang et al., 2021). These challenges include bridging theoretical knowledge to practice, acclimatizing to the clinical milieu, and the pace of their education, which are key factors that impact students’ clinical performance (Wang et al., 2021). Additionally, students are vulnerable to direct and indirect bullying behaviours from NCIs due to the inherent power imbalance in the mentor-student relationship, such as students being yelled at and belittled in front of their peers (Courtney-Pratt et al., 2017; Tian et al., 2019). Poor supportive behaviours from NCIs impede student resilience development by diminishing their self-confidence and self-efficacy and evoking passive coping behaviours (Courtney-Pratt et al., 2017). These traits and coping strategies are identified as opposing characteristics exhibited by students with high resilience (Cao et al., 2021; Low et al., 2019).

***Limited Research on Clinical Instructors' Perceptions of Improving Student Resilience***

Despite the importance of HCPIs' roles in cultivating student resilience, little research examined HCPIs' perceptions of supporting student resilience in the fields of nursing, medicine, paramedicine, and social work. Only Chan and Dennis (2019a) addressed this phenomenon by exploring HCPIs' conceptualization of resilience and outlined their methods for building it in students.

Chan and Dennis (2019a) found that HCPIs did not share a consistent conceptual definition of resilience. Most HCPIs viewed resilience as a dynamic process, whereby its development was derived from experiencing adversity, and few defined it as a personal attribute (Chan & Dennis, 2019a). HCPIs who perceived resilience as a process also recognized that it could be affected by personal traits and skills. Still, they rarely considered the influence of contextual factors other than interpersonal interactions (Chan & Dennis, 2019a). However, Chan and Dennis (2019a) identified four main themes in HCPIs' conceptualization of resilience: adaptation, endurance, engagement with one's responsibilities, bouncing back and flourishing. These elements were also shared in proposed resilience definitions from various conceptual analyses in nursing research

(Cooper et al., 2020; Tsui & Adam, 2023; Windle, 2011).

How HCPIs conceptualize resilience may influence their approach to support student resilience. HCPIs are mainly described using strategies informed by the curriculum and associated instructional methods (Chan & Dennis, 2019a). This included applying a learner-centred teaching approach, having reflections in their lessons, and using debriefing sessions to discuss with students what happened and how to improve their weaknesses (Chan & Dennis, 2019a). HCPIs also reported using methods associated with the informal curriculum, such as role-modelling and story-telling (Chan & Dennis, 2019a). Interestingly, HCPIs seldom mentioned using strategies that influence environmental factors, which aligned with their resilience conceptualization as a personal orientation (Chan & Dennis, 2019a). This may produce unintended negative consequences. HCPIs' poor recognition of external factors' influence on student resilience may result in negative perceptions of and lay blame on the individual for their low resilience (Chan & Dennis, 2019a; Luthar et al., 2000).

The focus on strengthening personal traits and skills to improve resilience is also commonly reported in review articles on resilience-building strategies for nursing students (Amsurd et al., 2019; Diffley & Duddle, 2022; Low et al., 2019; Thomas & Revell, 2016; Walsh et al., 2020). This may partially be attributed to Stephens' (2013) seminal nursing student resilience model that suggests personal factors and resources should be the focus of resilience teaching strategies (Hughes et al., 2021). Additionally, many studies have linked certain personal traits and skills with resilience, such as self-efficacy and self-care (Cooper et al., 2020; Tsui & Adam, 2023; Walsh et al., 2020).

Most of the selected review articles identified similar multi-factorial resilience teaching approaches, such as reflections and peer support (Amsurd et al., 2019; Diffley & Duddle, 2022; Low et al., 2019; Thomas & Revell, 2016; Walsh et al., 2020). They differed on how the strategies were grouped for synthesis purposes. For example, Diffley and Duddle (2022) grouped the strategies into three themes, while Walsh et al. (2020) clustered them into five categories. Only Amsrud et al. (2019) provided a higher level of thematic abstraction on the teaching strategies by generating two analytical themes to summarize findings: an educational culture of trustworthiness and readiness to care. The former theme describes a supportive learning environment with clear learning standards and instructors who role model professional nurses' knowledge, behaviours, and values (Asmurd et al., 2019). From this environment, students are empowered and learn to develop confidence, cognitively reframe their difficulties, and develop resilience-associated traits and skills (Asmurd et al., 2019). Moreover, the environment conveys a sense of safety and is a source of courage for students (Asmurd et al., 2019). The readiness to care theme describes students' capacity for action and their preparation to embody the role of a nurse (Asmurd et al., 2019). Asmurd et al. (2019) referred to it as a dynamic state of being, and it emerges from a trustworthiness education culture where instructors are attentive, responsive, and supportive to students' learning needs.

How HCPIs conceptualize and promote student resilience may be influenced by their knowledge and experience. In a medical educator conference report, Longenecker et al. (2011) noted attendees, which included medical faculty, perceived resilience as a lifelong process where individuals acquire improved self-awareness, coping strategies, and resilience-associated skills. Consequently, when they proposed curricula for teaching resilience, they focused on teaching it as a lifelong process and a skill of reflection and adaptation for personal growth (Longenecker et al., 2011). While there is little research on where and how nursing instructors learn about resilience, there are studies that examine their stress. Academic institutions are highly stressful environments (Gui et al., 2009). Nursing instructors face a multitude of occupational stressors in their role, such as having poor confidence in their teaching skills, lack of support, role ambiguity, heavy workloads, and bullying (Chan & Dennis, 2019b; Logan et al., 2015; Singh et al., 2019). Novice instructors are particularly susceptible to stress because they need more formal training on teaching skills, have unclear role expectations and career development guidelines, and receive poor support from their employing institutions in building personal resilience (McDermid et al., 2016).

**Summary of Literature Review Findings**

Overall, four main themes emerged from the current literature on how resiliency is described within the context of nursing clinical practice education and HCPIs' experiences supporting resilience development. Firstly, resilience is recognized as a personal attribute and/or process of positive adaptation that enables individuals to recover and overcome challenging experiences. In academic works that define resilience as an attribute, it is acknowledged as an inherent or acquired attribute gained from experiencing adversity or both. Further, various interpersonal traits were identified as characteristics associated with resilience. Secondly, resilience is perceived as vital for nursing students in overcoming challenges that are unique to clinical practice education. Given that clinical settings are often filled with stressful situations, students are expected to anticipate these challenges while learning in clinical settings. Resilience helps students to positively adapt to these challenges, as it has been linked to reducing their distress, and improving their mental health, learning and academic success. Thirdly, NCIs can either facilitate or hinder the development of student resilience. NCIs can support student resilience development by serving as a source of social support, teaching resilience-based strategies, and fostering social-environmental factors that facilitate student resilience. Conversely, NCIs may undermine student resilience, as students may perceive them as significant stressors. This perception may stem from students feeling pressured to show competency, as well as from a lack of empathy and mistreatment by NCIs. Fourthly, there is limited research on HCPIs' perceptions of improving student resilience. Only Chan and Dennis (2019a) explored how HCPIs described resilience and their strategies for promoting student resilience-building. Furthermore, the selected literature on approaches to teaching resilience highlights that many similar teaching strategies were identified.

# CHAPTER FOUR: METHODS

The research approach selected for this study was the qualitative descriptive (QD) design. This methods section outlines the QD design, the primary researcher's self-reflection, the study setting and context, and the methods used for sampling, recruitment, data collection, management, and analysis. Additionally, it discusses the methods applied to ensure the study was ethical, just, and rigorous.

## Study Design

This study aimed to describe and understand NCIs' experiences supporting student resilience development during their clinical practice education. The goal of QD studies is to produce a rich and straightforward description of a phenomenon generated from data directly from individuals who have experienced it (Bradshaw et al., 2017; Sandelowski, 2000). The QD design is an appropriate research approach when little is known about the studied phenomena, and pragmatism is required (Doyle et al., 2020). These factors reflected this study's contexts, as evidenced by the dearth of knowledge on the studied phenomenon identified in the literature review.

Compared to other qualitative designs, the QD approach does not require significant commitments to specific theories and frameworks throughout the research process (Kim et al., 2017). Therefore, QD studies' findings are less interpretive as they do not require high levels of abstraction (Sandelowski, 2000). Nevertheless, the QD approach is not atheoretical, as it is underscored by the naturalism philosophical assumption (Sandelowski, 2000, 2010). Naturalistic inquiry emphasizes that a studied phenomenon should be examined in its natural state, free from research-related interferences whenever possible (Sandelowski, 2000, 2010), while acknowledging potential researcher bias (Bradshaw et al., 2017; Creswell, 2009). Sandelowski (2010) maintains that everyone has philosophical perspectives that shape their views of reality. Therefore, relativism is an ontological assumption that underlies QD designs (Bradshaw et al., 2017). Relativism assumes reality is subjective and multiple, and all phenomena individuals describe are affected by their senses and ascribed meanings (Bradshaw et al., 2017). The knowledge generated from QD research is socially constructed from the subjective and interpretive perspectives of researchers, participants, and their relationships within a specific context (Bradshaw et al., 2017; Doyle et al., 2020). Consequently, qualitative researchers must engage in ongoing reflexivity to acknowledge and examine how their perspectives, characteristics, and behaviours affect the research process and its results (Luciani et al., 2019).

Pragmatism, a crucial principle of QD studies, implies that research decisions are primarily guided by research aims and the feasibility of those decisions within the constraints of available time and resources (Bradshaw et al., 2017; Doyle et al., 2020; University of Nottingham, n.d.). This was reflected in this study’s flexible inductive research methods, as the research decisions and strategies were based on pragmatism and its ability to fulfill the study purpose (Bradshaw et al., 2017; Colorafi & Evans, 2016; Doyle et al., 2020).

**Self-Reflection**

Researchers have a significant impact on the research process. Their values, past experiences, and other characteristics affect participants’ behaviours, the rapport between researchers and participants, and the data analysis processes from which conclusions are drawn (Berger, 2015; Finlay, 2002; Pezalla et al., 2012). Therefore, the researcher's engagement in reflexivity is important in qualitative studies (Finlay, 2002; Luciani et al., 2019). It enables researchers and research consumers to examine how researchers have affected the research process and its outcomes and, in turn, bolsters the study's rigour (Berger, 2015; Finlay, 2020; Luciani et al., 2019).

As the primary researcher, I am an RN with experience working in the emergency department and mentoring nursing students as a preceptor. In both roles, I was exposed to many challenging situations that underscored the importance of resilience in clinical settings. My experiences as a former student and practicing nurse sparked my interest in exploring how resilience is taught in nursing education. I became motivated to pursue a Master's thesis to expand my understanding of NCIs' perceptions and experiences of building resilience in students. For my detailed self-reflection, see Appendix C. To ensure that reflexivity was maintained throughout the research process, I engaged in reflexive journaling to stay cognizant of my positionality and its influence on the research process. See Appendix D for an excerpt of my reflexive journaling process during my data analysis.

**Setting and Context**

McMaster University's baccalaureate nursing program is offered in a consortium of three institutions: McMaster, Mohawk College, and Conestoga College. At the McMaster (2025a) site, the baccalaureate program is offered in the Basic and Accelerated streams. The Basic stream is a four-year program for students without post-secondary education (McMaster, 2025a). The Accelerated stream is for students with at least two years of post-secondary education experience and is offered in 20 months (McMaster, 2025a, 2025b). This study took place only at the McMaster site.

At the McMaster site, clinical practice is an essential component of nursing education integrated into both streams, starting from Year 2 (McMaster, 2023, 2025c). Depending on the student's year of study, their clinical practice is supervised by an NCI or by a partnership between a nursing preceptor and a faculty member (McMaster, 2023, 2025c). NCIs have clinical and instructional expertise and are primarily responsible for introducing students to fundamental nursing knowledge and skills in a clinical setting (Melrose, 2022). NCIs teach groups of six to eight students in Years 2 and 3 in both streams. They are responsible for assessing students' achievements in the clinical practice learning outcomes. Once students transition into their final year, their clinical practice is overseen by a preceptor-faculty partnership. This partnership facilitates students' integration into the profession by providing the necessary support to build on their existing knowledge, skills, and clinical experience (Robinson, 2022; Smedley & Penney, 2009).

**Sample and Sampling Strategies**

Participant recruitment and sampling strategies must align with the study design and purpose. This study's target population was NCIs who taught McMaster undergraduate Year(s) 2 and/or 3 nursing clinical practice course(s) in a clinical setting, with a minimum of one year experience. NCIs were chosen as they were the sole instructors who oversaw all of their students' clinical practice education. Additionally, purposive sampling strategies were used. Purposive sampling is a non-randomized sampling technique where participants are selected intentionally based on their experience or expertise in the research topic and their ability to convey this information to researchers (Campbell et al., 2020; Doyle et al., 2020). According to Sandelowski (2000, 2010), any purposive sampling strategy can be applied in QD research provided the recruited participants are information-rich about the studied phenomenon. Convenience and maximum variation purposive sampling strategies are often recognized as the ideal techniques for QD inquiries (Bradshaw et al., 2017; Doyle et al., 2020; Kim et al., 2017; Sandelowski, 2000). These strategies and criterion sampling were used in this study.

### *Convenience Sampling*

Convenience sampling is the selection of information-rich participants that are conveniently accessible to researchers, and it is a common pragmatic practice in qualitative research (Andrade, 2021; Captive Population, 2008; Gill, 2020; Palinkas et al., 2015). The primary researcher's identity as a McMaster graduate student allowed for convenient, pragmatic access and recruitment of information-rich McMaster site NCIs. Only McMaster site NCIs were sampled.

### *Criterion Sampling*

Criterion sampling is a technique for selecting participants that fulfill a proposed inclusion and exclusion criteria, as these characteristics are predetermined to be vital for recruiting information-rich participants (Palinkas et al., 2015). A minimum of one year of experience inclusion criterion was added to ensure that NCIs had sufficient experience and rich information to inform the study. Participants were also required to be proficient in speaking, reading, and writing in English, as the data collection methods were conducted in English only. Given that participants were McMaster NCIs, all eligible individuals were fluent in English.

***Maximum Variation Sampling***

Maximum variation sampling was used to capture a wide breadth of NCI experiences. Palinkas et al. (2015) explain that this sampling strategy is implemented when the research aim is to determine common patterns that span across variations of the target phenomenon experience. The heterogeneity of experiences is purposively attained by selecting participants with a wide range of characteristics known or suggested to influence an individual's experience of the phenomenon (Suri, 2011). As maximum variation sampling is an effective technique to attain broad insights into the studied phenomenon, it is often promoted and applied in QD research (Doyle et al., 2020; Kim et al., 2017; Sandelowski, 2000).

At McMaster (2025c), nursing students are offered learning opportunities in diverse clinical settings, such as maternal-newborn family centers and in-patient post-surgical units. The types of adverse experiences present and their respective perceived stress levels are associated with the nature of the clinical setting (Hamaideh & Ammouri, 2011). This may impact NCIs' experiences supporting student resilience development. As such, after the initial recruitment for this study had occurred, maximum variation sampling was used to recruit additional participants, ensuring input from diverse clinical settings.

The last criterion was the years of experience participants had as an NCI. Based on Benner's (1982) model of novice to expert, an individual's experience of a certain role influences their understanding and proficiency of applied skills for certain practice situations (Eustace, 2020; Moore, 2021). The study aimed to recruit participants with varying years of experience to promote the maximum variation of this variable in the sample.

### *Sample Size*

The study's estimated sample size was based on specific NCI characteristics. The goals were to have NCIs from two streams, teaching in Years 2 and 3, instructing in diverse clinical settings, and with varying years of experience. Meeting this aim suggested a sample size of 8 to 16 participants was needed, within the recommended range of 3 to 20 participants for QD research (Magilvey et al., 2009). Data saturation is a common indicator reported in QD research as a justification to stop participant recruitment and data generation (Bradshaw et al., 2017; Doyle et al., 2020; Kim et al., 2017). Data saturation refers to when no new relevant data is attained from further data collection (Gill, 2020; Malterud et al., 2016). The sample size to reach data saturation is influenced by various factors, including the data collection method and the quality of data obtained from participants (Malterud et al., 2016; Morse, 2015a).

## Recruitment

Effective recruitment strategies are essential in qualitative inquiries as they influence the trustworthiness of research outcomes (Jessiman, 2013). Gatekeepers are a common facilitator in participant recruitment. They are vital individuals within an organization or community that comprise the target population of interest and may grant researchers access to potential participants (Andoh-Arthur, 2019; Negrin et al., 2022). The gatekeepers for this study were Years 2 and 3 nursing faculty clinical practice leads and the Assistant Dean of the Undergraduate Nursing Programs.

At McMaster, the clinical practice leads organize NCI meetings and events for various purposes. Such events include NCI orientation day, midterm and end-of-term meetings. With the approval of the clinical practice leads, the primary researcher attended NCI events to introduce herself, the study, and its recruitment email to help familiarize potential participants with her and the study. NCIs were informed they must respond to the recruitment email to participate in this study. This direct face-to-face recruitment approach was used as it is known to yield successful participant recruitment rates (Estabrooks et al., 2017). This may partially be attributed to the researcher's ability to express credibility and develop rapport with participants (Negrin et al., 2022).

The Assistant Dean served as a crucial gatekeeper, as they possess the work email addresses of all current McMaster NCIs. With their permission, an email recruitment strategy was implemented. The administrative staff from their office sent the study's recruitment email to NCIs on behalf of the primary researcher. The email recruitment strategy was chosen due to its low cost and fast response time (Murphy et al., 2020). As per Murphy et al. (2020), recruitment emails have the potential to yield a low response rate, partially owing to the email remaining unopened if the sender is unknown to the recipient. The primary researcher's participation at NCI meetings potentially addressed this barrier. The email was sent during the week of midterm NCI meetings. Appendix E shows the recruitment email, which included information on the study goals, eligibility criteria, and the primary researcher's contact information.

All recruitment strategies were initiated after receiving ethical approval from the Hamilton Integrated Research Ethics Board (project number: 16628). Eligibility screening occurred when potential participants contacted the primary researcher to confirm their interest in this study. The eligibility criteria were the same as the participant sample inclusion criteria, and the screening was completed through an eligibility screening tool. This tool was sent to NCIs' email addresses in a Microsoft Word document, along with a correspondence thanking them for their interest (see Appendix F for the eligibility screening tool and Appendix G for the eligibility screening email correspondence). After the primary researcher received and reviewed the completed screening tool, eligible and ineligible participants were notified of their respective eligibility and ineligibility to participate in the study. Appendix H and I outline the email notification confirming the participants' eligibility and ineligibility to participate. In the email notification for eligible participants, they also received an informed consent form and survey that aimed to gather their demographic data in separate Microsoft Word documents.

**Data Collection**

The data collection methods in QD studies aim to provide a broad, rich description of a studied phenomenon, which includes collecting information on "the who, what, and where of events or experiences" (Sandelowski, 2000, p. 338). While various data collection methods are used in QD studies, semi-structured in-depth interviews are typically the primary technique (Bradshaw et al., 2017; Doyle et al., 2020; Sandelowski, 2000). Semi-structured interviews and demographic surveys were the data collection methods used in this study.

***Demographic Survey***

Demographic surveys collect rich contextual information about participants to enhance data analysis (Dobosh, 2017). In this QD study, eligible participants were sent a demographic survey via email before their interview. The survey questions included asking participants about their years of clinical teaching experience (at McMaster and other institutions), the type of clinical settings and the streams they taught in, and other teaching responsibilities at McMaster. Appendix J shows the demographic survey. Participants were encouraged to return the signed consent form and completed survey to the primary researcher through email before the interview. If this did not happen, both were completed before the start of the interview.

***Semi-Structured Interviews***

Individual interviews are the ideal technique for understanding the perspectives of others about a specific phenomenon (Merriam & Tisdell, 2016). In this study, the primary researcher conducted all interviews, and each was approximately 30-60 minutes in length. The interviews were conducted face-to-face and recorded on audio equipment in a private room or via Zoom in a password-secured virtual meeting room. The Zoom platform was selected for its user-friendly features, simplicity, audio recording capability, virtual meeting functionalities, and secure data storage (Zoom Video Communications, Inc., 2019). To protect participants' privacy and confidentiality, interviews were not conducted during their McMaster NCI workday hours to prevent their study participation from being known by others.

Individual interviews were the ideal data collection method for this study, as discussions on supporting student resilience may evoke dialogues about sensitive topics (Merriam & Tisdell, 2016), such as mental health. A semi-structured interview format was selected to allow the primary researcher to flexibly respond to emerging information generated by the participant, such as asking additional interview questions to explore new concepts (Merriam & Tisdell, 2016). An interview guide (Appendix K) was used for all interviews. It included questions about participants' perceptions of resilience, their experiences supporting student resilience development during clinical practice, their views of the barriers, facilitators, and personal comfort level in supporting student resilience, and the resilience concept's integration in McMaster's clinical practice courses. Before being used for participant interviews, the interview guide was pilot-tested by a non-McMaster NCI, the primary researcher's supervisor and thesis committee member. From this, several changes were made in the wording and question sequence. The modifications encouraged participant responses that reflected their experiences and to have conversations that would be gradual and flowing in nature (Roberts, 2020).

After each participant interview, the primary researcher transcribed all interview recordings by hand or obtained the audio-recording transcript using the Zoom transcription feature if the interview occurred virtually (Zoom Video Communications, Inc., 2022). The primary researcher also reviewed all audio transcripts for accuracy and removed any potentially identifying participant information.

During the post-interview period, the primary researcher immediately recorded field notes. Field notes are informal, private written memos concerning the researcher's observations, thoughts, and feelings about the interview and are essential to the interview process (Phillippi & Lauderdale, 2018). They provide additional information to construct detailed and thick descriptions of the study's contexts that facilitate data analysis and promote the study's rigour (Phillippi & Lauderdale, 2018).

**Data Management**

Safeguarding participant privacy and confidentiality is a crucial ethical responsibility of all researchers (Heale & Shorten, 2017), and it requires implementing thoughtful data management techniques (Kamal, 2021; Lin, 2009). This study implemented several data management techniques to uphold this responsibility, such as verifying that no participant-identifying information was collected and using unique participant identification numbers during the data collection, analysis, and reporting processes (Kamal, 2021; Lin, 2009). An electronic master file only accessible to the primary researcher was created to keep track of participants' participation. It listed the participant's name, contact information, unique participant identification number, scheduled date and location of the interview, and the completion status of their informed consent form, demographic survey, and interview. This master file was kept separate from the demographic surveys and interview transcripts, and it was destroyed when all participants completed their survey and interview.

Managing interview data required additional considerations to protect participant privacy and confidentiality. Post-interview, the recordings were immediately transcribed.

The recordings were deleted once transcripts were reviewed for accuracy and all participant-identifying information was removed. All electronic files were deleted through electronic shedding. Any physical paper records created during data collection and analysis, such as memos, were uploaded to an electronic cloud service and destroyed by a paper shredder. Further, all electronic files created were password-protected and stored in a password-secured OneDrive cloud service associated with the primary researcher's McMaster account. NVivo 14, the software used to manage and analyze interview transcript data, also has a password protection feature to ensure only the study's researchers can review and edit the data (John Hopkins Sheridan Libraries, 2023).

All of the primary researcher's work for this study was done on her laptop, which was password and facial recognition-protected and accessible only by her. This laptop and interview audio recorder were stored in her home office throughout the study.

**Data Analysis**

A conventional content data analysis approach was used for this study. Sandelowski (2000, 2010) asserts that content analysis is ideal for QD research, as it provides a detailed general description of a studied phenomenon built from minimally interpretive findings. This is partially achieved through quantifying data to promote the discovery of minimally abstract themes and patterns (Sandelowski, 2000, 2010; Vaismoradi et al., 2013). Generally, the data quantification involves counting meaningful codes and the number of participants in the code category (Sandelowski, 2000). Conventional content analysis is an ideal approach when the aim is to generate a description of a studied phenomenon, and little is known about the phenomenon (Hsieh &

Shannon, 2005). Hsieh and Shannon (2005) maintain that the vital difference between the content analysis approaches is how the codes are generated. In conventional content analysis, codes are developed from the data rather than a prior existing theory (Hsieh & Shannon, 2005), aligning with an inductive style of data analysis (Doyle et al., 2020; Vaismoradi et al., 2013).

This study's data analysis process adhered to the inductive qualitative content analysis framework described by Elo and Kyngas (2008), which portrays data analysis in three main phases: preparation, organizing, and resulting. In the preparation phase, researchers familiarize themselves with the data to "obtain a sense of a whole" (Elo & Kyngas, 2008). In this study, the primary researcher conducted all the interviews, repeatedly read interview transcripts, and reviewed field notes to immerse herself in the data (Maher et al., 2018). During this phase, researchers are also expected to decide whether to focus on manifest or latent content (Elo & Kyngas, 2008), which refers to the level of abstraction anticipated to be conducted during data analysis (Graneheim & Lundman, 2004). This study primarily focused on manifest content as it required a lower level of data abstraction and interpretation (Graneheim & Lundman, 2004).

The organizing phase describes the overall process of creating general descriptions of the studied phenomenon (Elo & Kyngas, 2008). The processes for developing categories and subcategories, which are abstracted from aggregating meaningful codes that emerge from data, are dynamic, iterative, and cyclic (Elo & Kyngas, 2008; Hsieh & Shannon, 2005; Vaismoradi et al., 2013). In this study, this phase was facilitated by coding schemes that guided the systematic application of codes to the data and the frequency analyses of codes, categories, and subcategories to identify common themes, patterns, and variations (Hsieh & Shannon, 2005; Sandelowski, 2000). The primary researcher developed the coding schemes with her supervisor and committee members. The reporting phase refers to the process of presenting data analysis and its findings (Elo & Kyngas, 2008; Vaismoradi et al., 2013). As recommended by Sandelowski (2000), how the results would be reported depended on what was suitable for the data and what made the most logical sense.

For this QD inquiry, data collection and analysis occurred concurrently, and both processes shaped each other due to the emergent nature of data generation and analysis (Merriam & Tisdell, 2016; Sandelowski, 2000). The data gained from each interview influenced how the primary researcher approached subsequent interviews, to accommodate and refine developing insights (Merriam & Tisdell, 2016; Sandelowski, 2000). During the data collection and analysis, the supervisory committee met with the primary researcher and reviewed early transcripts, coding schemes, and emerging findings as needed.

**Rigour**

Lincoln and Guba's (1985) trustworthiness criteria are widely accepted tools for assessing and illustrating rigour in qualitative research (Krefting, 1991; Morse, 2015b), and they were applied in this study. The quality indicators in Lincoln and Guba's (1985) trustworthiness criteria are credibility, confirmability, dependability, and transferability.

Credibility describes the study finding's truth value (Krefting, 1991). Since relativism is an ontological perspective of QD designs (Doyle et al., 2020), credibility is assessed based on how well the findings capture and represent participant views and experiences (Krefting, 1991; Milne & Oberlem, 2005). The strategies to ensure this study's results' credibility were fostering rapport and trusting relationships with participants and member checking. The former strengthens credibility by promoting a welcoming environment where participants freely speak and share information (Bradshaw et al., 2017; Krefting, 1991). Member checking refers to providing participants with their interview transcript or summary of data analysis outcomes to ensure it reflects and represents their experience (Morse, 2015b). As member checking carries the potential risk of participants changing their answers (Morse, 2015b), an oral summary of the main points of participant's responses was immediately offered post-interview to prevent participants from not recognizing or altering details in their answers (Milne & Oberlem, 2005).

Confirmability refers to the objectivity of findings (Morse, 2015b). The aim is to provide research consumers with an in-depth understanding of events during the research process that influenced researchers' decisions (Krefting, 1991). The strategies to enhance the confirmability of this study's results included practicing reflexivity, member checking, and producing an audit trail. The primary researcher practiced reflexivity by providing a reflective statement and engaging in reflexive journaling throughout the research process. Member checking promoted confirmability by ensuring the researcher's interpretations of participant responses were accurate (Bradshaw et al., 2017; Milne & Oberlem, 2005). The primary researcher created the study's audit trail in collaboration with her supervisory committee to ensure all processes of the research methodological decisions were clear

(Bradshaw et al., 2017; Krefting, 1991). She also ensured documents of raw data, data analysis (i.e., products of coding schemes, data reconstruction and synthesis), progress notes (i.e., memos), any written works detailing methodological decisions and changes (i.e., internal email communication), and research instrument drafts (i.e., demographic survey and interview guide) were included in the audit trail.

Dependability denotes the reliability and consistency of the study's outcomes (Krefting, 1991; Morse, 2015b). Since qualitative studies are context-specific, a pivotal method to illustrate dependability is to provide thick, detailed descriptions of the study's context and research process (Krefting, 1991). This study generated the context and participants' rich descriptions through demographic surveys, interviews, and field notes (Bradshaw et al., 2017; Colorafi & Evans, 2016). The audit trail provided details on the research process (Bradshaw et al., 2017; Colorafi & Evans, 2016). The peer review process augments dependability by ensuring the data analysis processes are parallel across qualitative researchers' expert perspectives (Colorafi & Evans, 2016; Krefting, 1991). The peer review for this study was conducted by the primary researcher's supervisory committee members, who are all experienced nursing clinicians, faculty, and researchers.

Transferability indicates the external generalizability of study results. To strengthen transferability, this study used a purposive sample and provided rich, thick descriptions of the research contexts and process (Krefting, 1991). A purposive sample representative of the potential variations of the studied phenomenon experiences promotes transferability, as findings common across diverse experiences are more likely applicable across diverse contexts (Merriam & Tisdell, 2016). The latter strategy builds transferability by enabling readers to judge the study findings' generalizability to specific contexts (Krefting, 1991; Merriam & Tisdell, 2016).

**Ethical Considerations**

This QD study involved human participants. Therefore, the study's ethical considerations were guided by the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans 2, which has three core principles: respect for persons, concern for welfare, and justice (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, Social Sciences and Humanities Research Council [CIHR, NSERCC, SSHRR], 2018). Approval by the HiREB was also obtained before the study commencement.

The respect for persons principle emphasizes the importance of respecting an individual's autonomy, and a core method to uphold this is to seek participants' voluntary informed consent (CIHR, NSERCC, SSHRR, 2018). For this study, the primary researcher confirmed that all participants signed an informed consent form before starting data generation. The consent form provided information on the primary and principal researchers' identities, contact information, and potential conflicts of interest. In addition, the research aim, the participant's role and demands, benefits and risks associated with participation, the participant's right to withdraw at any given time, and how study findings would be disseminated were outlined in plain language. See Appendix L for the informed consent form. A crucial element of informed consent is its ongoing nature. To uphold this, the primary researcher encouraged participants to contact her with any queries and concerns, and created space and time before and after the interview to discuss any questions.

The concern for welfare principle broadly describes the prevention of harm associated with participants' research participation in all aspects of their life, including general well-being, employment, and other dimensions (CIHR, NSERCC, SSHRR, 2018). A central element of this principle is to maintain participant privacy and confidentiality. Numerous efforts were made during data collection, management, analysis and dissemination of study results to preserve participant anonymity. This included using participant ID numbers, removing potentially identifying information, and conducting the interview in a private space. In addition, participants were informed the primary researcher had no conflicts of interest in the consent form and at the beginning of the interview, reassuring participants that their involvement in the study would not affect their employment and social participation at McMaster University.

An essential component in protecting participant welfare is reducing potential risks of harm during the research process (CIHR, NSERCC, SSHRR, 2018). During the interview, participants had an increased risk of experiencing distress from recalling events supporting student resilience development, as it relates to topics of mental health and students' adverse clinical practice experiences. Hence, before starting the interview, participants were informed they had the right to pause or stop the interview at any time. Throughout the interview, the primary researcher was mindful of participants' verbal and nonverbal cues (e.g., tearful and upset) and would pause the interview and assess their emotional-mental state when it occurred (Whitney & Evered, 2022). As an RN, the primary researcher has rich experience caring for individuals suffering from distress and mental health crises. This made her qualified to recognize and care for any potential participant who experienced distress during the interview. If a participant experienced distress, they would be asked whether they would like to stop or continue with the interview once they had entered a more stable emotional and mental state. The primary researcher would accept their answer and respect their agency regardless of their decision (Whitney & Evered, 2022). At the end of the interview, participants were asked if they wished to participate in the member-checking process, as it may cause further harm if they experienced distress during the interview (Birt et al., 2016). Moreover, all participants were assessed and asked about their mental and emotional state and feelings about the experiences discussed during the interview. If the primary researcher sensed participants would benefit from seeking professional services to address their significant negative mental and emotional responses, they would be encouraged to do so. They would also be advised to contact the primary researcher if they could not find professional mental health services and support independently.

**Summary of Methods**

A QD approach was chosen to guide the overall study design to generate a detailed description of the study phenomenon that is largely unexplored. This study was conducted at McMaster University, targeting NCIs with a minimum of one year of experience teaching McMaster's undergraduate Years 2 and/or 3 nursing clinical practice courses in a clinical setting. The intended sample size was between 8 and 16 participants, and the sampling strategies used include convenience sampling, criterion sampling, and maximum variation. Participants were recruited through face-to-face and email strategies, facilitated by gatekeepers.

The data collection strategies used in this study were surveys and semi-structured interviews. Throughout the study, data collection and analysis occurred concurrently, as both processes mutually shaped each other. The data were analyzed using the conventional content analysis approach, and the overall data analysis process was guided by the inductive qualitative analysis framework (Elo & Kyngas, 2008). During data collection and analysis, data were managed appropriately to safeguard participants' privacy and confidentiality through various measures. Additionally, to ensure the research was conducted ethically and justly, ethical considerations were implemented guided by the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans 2 (CIHR, NSERCC, SSHRR, 2018) and approval from the research ethics board was obtained. Various steps were also implemented to ensure that this qualitative study adhered to the rigorous standards as per Lincoln and Guba's (1985) trustworthiness criteria.

# CHAPTER FIVE: STUDY RESULTS

This chapter outlines the study results. It begins with a summary of participants' demographic information, followed by the study findings presented in themes and subthemes. The thematic findings are organized into three sections: participants' (a) perceptions of resilience, (b) experiences supporting student resilience development, and (c) perceived facilitators and barriers to supporting resilience development.

## Participant Demographics

Nine individuals participated in a one-to-one semi-structured interview describing their experiences. All participants had multiple years of experience as an NCI teaching in clinical settings, with a mean length of experience of 6.7 years. Most participants (66.7%) taught across the McMaster nursing baccalaureate program streams, and two only (22.2%) had experience teaching in one stream. One participant (11.1%) also taught in the post-registered practical nurse baccalaureate nursing program that is offered in other McMaster-affiliated post-secondary educational institutions. Three (33.3%) taught clinical practice courses only. Most (66.7%) had experience teaching other nursing courses, including nursing theory and pathophysiology.

McMaster's nursing clinical practice courses provide students with opportunities to learn and practice clinical skills in simulated clinical laboratories and clinical settings, with real-life applications for patient care. Participants taught in various clinical settings, with medical-surgical adult in-patient units in acute care institutions being the most common (77.8%). Other settings in which participants taught included pediatrics, nephrology, oncology, rehabilitation, palliative care, continuing complex care, retirement homes, and vaccination clinics. Two (22.2%) only taught clinical practice in hospital adult mental health units due to their specialized work experience as psychiatric nurses. See Table 1 for a summary of the participant demographics.

**Table 1**

*Summary of Participant Demographics*

| Variables | N | % |
|---|---|---|
| Teaching Experience (Years) | | |
| Less than 5 | 4 | 44.4 |
| Between 5 to 10 | 3 | 33.3 |
| Greater than 10 | 2 | 22.2 |
| Teaching Stream | | |
| Basic | 1 | 11.1 |
| Accelerated | 1 | 11.1 |
| Basic and Accelerated | 6 | 66.7 |
| Other | 1 | 11.1 |
| Teaching Courses at McMaster | | |
| Clinical Practice Only | 3 | 33.3 |
| Clinical Practice and Theory | 5 | 55.6 |
| Clinical Practice, Theory, and Other Courses [a] | 1 | 11.1 |
| Clinical Practice Setting for Clinical Practice Course | | |
| Medical-Surgical Wards Only | 3 | 33.3 |
| Medical-Surgical and Other Settings [b], not Mental Health | 4 | 44.4 |
| Mental Health Only | 2 | 22.2 |

*Note.* [a] The other courses were pathophysiology and nursing community engagement citizenship. [b] The other settings were palliative, continuing complex care, rehabilitation, oncology, pediatrics, and nephrology units in hospitals, retirement homes, and vaccination clinics.

## Part I: Perceptions of Resilience

Participants' perceptions of resilience and its development were informed by their experiences as nursing students, NCIs, nurses, and other roles where they recognized their personal resilience development or supported others in fostering it. Two themes emerged regarding participants' perceptions of resilience: (a) resilience is a process of moving forward from challenges, and (b) participant-recognized indicators of student resilience development include having the ability to cope, feelings of self-confidence, and being self-directed to learn.

### *Theme One: A Process of Moving Forward from Challenges*

Although participants described resilience in various manners, the conceptualization of resilience as a process of moving forward from a challenging experience was shared. Some used the phrase "moving forward" when describing resilience, highlighting its core features of learning from a challenging experience and applying that acquired knowledge to new, novel challenges. Participants explained that the new, novel challenges could be related to past stressful experiences, where a similar concern is presented in a different context or new concerns where the knowledge and skills needed to address them are like those previously applied. When recounting student resilience, participants commonly mentioned students' ability to problem-solve clinical issues using their knowledge gained from past experiences. They described how this ability showcased students' reflections on their past challenges, which promoted learning by fostering a deeper understanding of relevant concepts. Overall, participants said resilience was not exclusively the experience of enduring or resolving stress evoked by challenges. Instead, it was an outcome associated with an individual's personal and professional development, given that resilience was about "learning and growing ... from a situation and being able to apply that learning to new situations" (P03).

When describing student resilience, participants stated students develop resilience from "experiencing challenging events". They reported having "real" experiences in clinical settings was important, as it helped students gain an understanding of stress and the skills related to learning from challenges. They explained resilience would be difficult to learn in other education settings, such as classrooms or simulations, because the stress evoked would be incomparable to having "a real patient, a real kind of situation that may be going sideways" (P03). They emphasized the skills related to learning from challenges could not be fully appreciated by "just theoretically talking about it" (P03). Additionally, participants suggested students' stress levels from facing challenges should not be excessively high to develop resilience, as it would disrupt their ability to learn from the situation. A participant elaborated on the relationship between experiencing stressful challenges and resilience development in this way:

> I don't think that it is safe nor ... appropriate for somebody to experience great distressing events, because I feel that without proper preparation for that, they wouldn't be able to meet the expectations of that stressor or learn from it. You need to experience [a progressive] escalation of distressful events ... for you to appropriately reflect and learn about what it is that they have experienced in order to then apply that in practice. (P04)

Participants perceived resilience development would not conclude from a single instance of moving forward from a challenging experience. They stated fostering resilience takes considerable time, as it is nurtured from exposure to various challenges across contexts. A participant (P08) detailed this would be "hard to do in one placement" and that for some, achieving resilience “is hard to do over a whole career," given that exposure to challenging experiences differed based on their clinical settings.

Participants stated that although resilience would not “directly correlate to things like psychomotor skills or knowledge and skills and judgment” (P08), students with poor resilience would “struggle” to perform well in clinical practice. They indicated poor resilience negatively impacted students’ ability to learn from difficult clinical experiences and acquire the necessary competencies for the course. Participants suggested resilience is critical in nursing, as nurses are bombarded with chronic and unprecedented challenges due to the human resource shortage in patient care. They perceived nurturing student resilience as fundamental to preventing the adoption and development of “unhealthy coping patterns,” “compassion fatigue,” and “burnout” when students struggle to meet the expected nurses’ roles and responsibilities.

### *Theme Two: Participant-Recognized Indicators of Student Resilience Development*

The final theme describes the indicators participants recognized as student resilience development. These indicators include the ability to cope with stress, feelings of self-confidence, and the self-directedness to learn. Since participants perceived resilience as the process of moving forward from challenges, these indicators were also seen as signs of students’ personal and professional growth. The following paragraphs will outline each indicator as a subtheme.

**The Ability to Cope with Stress.** All participants recognized students’ ability to cope with stress as a student resilience development indicator. They noted students’ experiences of negative emotions, such as anxiety and depression, could arise when they are confronted with challenges and are unable to cope. Participants perceived positive stress management as a process of acknowledging negative feelings and having the ability to “bounce back” to a less stressful state, rather than the absence of negative emotions when faced with challenges. This involved enacting coping strategies that promote learning from challenging experiences, such as reflection and peer feedback. As a participant stated, “Resilience isn't just like, oh I have a thick skin, nothing bothers me ... It’s more like things can bother me, [and] I know how to cope with it” (P08).

Participants emphasized students’ ability to cope positively from stressful clinical situations arises from developing self-awareness, reflection, and critical thinking skills. Without these skills, they characterized students as vulnerable to negative emotions, hindering their capacity to learn and develop resilience. Participants explained this was due to students becoming “fearful” of clinical practice, resulting in them avoiding and “flat-out refusing” to take opportunities to learn new clinical knowledge and skills, despite participants knowing they were “capable or should be capable of doing it” (P09). Participants also recognized severe stress could be detrimental to students’ physical and mental health. As one participant described, “Resilience is also about not being burned out. Resilience is ... not having your emotional state ... degraded to a point that you can't deal with things anymore” (P09). Here, the participant referred to burnout as the inability to manage stress, which impacts a student’s ability to manage and learn from further challenges. Participants reported recognizing students’ inability to cope through their negative outlook and overt “avoidance behaviours,” such as “physically hiding” from their NCIs. They also associated these behaviours with students who have poor resilience.

**Feelings of Self-Confidence.** Most participants recognized students' "well-founded" self-confidence that emerges from overcoming difficulties as a sign of resilience development. They remarked that students' feelings of "well-founded" self-confidence come from their assurance in their knowledge, critical thinking, and problem-solving skills, which are strengthened by experiencing difficulties. This is illustrated in the quote where a participant explained that students felt "less burdened" mentally and emotionally when facing challenges because they had experienced the following: "You know kind of what is going on, you understand the situation, you know how to respond to the situation. If this situation changes, you have an idea of how you would change to respond to that" (P07). Participants stated students' self-confidence would be evident in their self-assurance in providing patient care independently and their behaviours of advocating for their learning needs when necessary.

Although participants recognized students' feelings of self-confidence as a resilience development indicator, they also noted it could be a sign of a lack of resilience. Participants described students' feelings of "unfounded" self-confidence could be derived from poor reflections on past challenges, leading to their poor or lack of awareness of the potential or actual harms caused by their knowledge gaps and resistance to learning. A participant stated their overall concern about confidence as a resilience development indicator in this manner, "If you were so confident, that would cause me concern. Because maybe you don't have insight [into] your own knowledge gaps" (P02). Using feelings of self-confidence as an example, some participants highlighted the difficulty in recognizing student resilience, as students with poor resilience may demonstrate indicators associated with having resilience.

**Self-Directedness to Learn.** Participants also recognized students' self-directedness to learn as a resilience-building indicator and remarked developing self-awareness, reflection, and critical thinking skills were its antecedents. According to participants, these skills were crucial for students to identify their knowledge and skill gaps, which would prompt them to take action to address these gaps. This was illustrated in a participant's shared experience of supporting a student's resilience development after making a "clinical judgment error" that contributed to a patient's health deterioration:

> Through a reflection that she wrote, she reflected on our conversation together. She then ... identified some areas that she needed to ... improve and work on. And she even ... mentioned resilience in her reflection ... [She wrote] to be successful, here's what I have to do. Here's [*sic*] [are] the next steps that I'm going to do to move forward. (P08)

This participant emphasized the student's self-directedness to learn was how they recognized their resilience development, as it characterized the process of moving forward. Other examples of student self-directed learning behaviours provided by participants included problem-solving independently, volunteering to perform novel clinical tasks, and seeking out new learning opportunities in clinical settings unprompted. These examples highlighted participants' views on the importance of self-awareness, reflection, and critical thinking skills for student resilience-building, a process significantly shaped by participants' direct and indirect support.

## Part II: Participants' Experiences Supporting Student Resilience Development

Participants' experiences supporting student resilience development were influenced by the clinical settings they taught in, their teaching experiences as NCIs, their work experience as bedside nurses, and other factors. Three themes emerged about their experiences: (a) active guidance by participants, (b) building a supportive teaching environment, and (c) uncertainties about resilience development strategies.

### *Theme One: Active Guidance by Participants*

Participants described their active guidance in supporting student resilience as essential. Without this, they noted students struggled to move forward, as they were often "stressed," "lost," and "overwhelmed," which inhibited their ability to manage and learn from challenges. Participants expressed providing active guidance on approaches for resilience-building and discussed resilience-related topics with students despite resilience being absent in the course curricula. They also deliberately presented students with appropriate challenges to support their resilience-building. The paragraphs below describe participants' experiences providing active guidance on the key approaches for student resilience development and presenting appropriate challenges for students as subthemes.

**Providing Guidance on the Key Approaches for Resilience Development.** Participants described discussing resilience-related topics and delivering active guidance on approaches to build resilience in three instances: at the start of the course, near the end of class during post-conference, and when students encountered challenges in clinical practice. To support student resilience, participants stated students need to learn something "practical" where they develop the knowledge and skills that help them learn from their challenges. They suggested self-awareness, reflection, and critical thinking as key approaches for students to build resilience, as it helped students gain a deeper understanding of themselves, the knowledge gained from their challenging experiences, and other relevant information crucial for nursing care. The paragraphs in this subtheme will discuss each key resilience-building approach and participants' experiences in guiding each one.

***Self-Awareness*.** Participants acknowledged self-awareness is vital for nurturing resilience, and it involves knowing oneself, one's emotions, knowledge, and thinking processes. They described emotional self-awareness for students as the ability to recognize their feelings and understand how they influence their current and future behaviours. They reported students experiencing significant stress and negative emotions arising from difficulties may impede critical reflection and thinking, which are core approaches to learning and resilience development. One participant said the following:

> If you don't identify those feelings ... you won't understand where those feelings originated from and how that feeling occurred. The next time that you encounter that [stressful event] without having that reflective piece, you may pre-emptively become more anxious and more distressed. If you're not trying to understand why those feelings are occurring, you can't build more ability to manage that distress. (P04)

To build resilience, participants recognized the importance of students developing self-awareness and reflection skills to identify their emotional responses and knowledge gaps, which are needed to initiate self-directed learning behaviours that address them.

They reported guiding students on self-awareness by engaging in discussions and delivering prompts to help them recognize their baseline knowledge, emotional triggers, and emotional state in relation to providing patient care. One participant noted prompting self-awareness in students when they could not provide patient care due to finding the situation “triggering” was beneficial. It guided students to consider what would happen if they had to provide patient care, what that would look like, and consider what they would need to learn to provide that care.

***Reflection and Critical Thinking*.** Participants indicated students’ practices of reflection and critical thinking as intertwined fundamental approaches for fostering student resilience. They emphasized reflection goes beyond the mere practice of ‘absently’ regurgitating past experiences. Building from self-awareness, participants said reflection involves thinking critically about past challenges to allow one to recognize their areas for growth, which requires students to be intentional, earnest, and honest with themselves. Participants suggested critical thinking as a process embedded within reflection. It is a process where students analyze past challenging experiences and themselves to gain new knowledge and decide how to close their identified knowledge gaps. Also, they described students using critical thinking when applying knowledge gained from past experiences to novel contexts. This was expressed by a participant when elaborating on how they encouraged students to practice reflection and critical thinking to support their resilience-building:

> You would always encourage reflection ... [I] encourage them to try to figure it out [problem solve], maybe make connections to what they've done in the past ...

> and try to figure out if there are ways to cope [problem solve] same kind of way ... not exactly the same but [similar] in a lot of the same ways. (P09)

Participants described providing students guidance on reflection and critical thinking as essential. Without this, they claimed students might passively reflect without considering what could be learned from their experiences to grow personally and professionally. Participants reported guiding students on reflection and critical thinking by giving feedback on assignments and engaging students in discussions, individually and in groups. Some also specified journalling with deliberate prompts and presenting mock case scenarios to work through as helpful tools for students to practice reflection and develop critical thinking, respectively.

**Presenting Appropriate Challenges.** Although participants perceived resilience is developed from experiencing difficulties, they also suggested facing adverse events without preparation impeded this development due to experiences of unmanageable stress. To support student resilience-building, they emphasized presenting students with challenges or tasks at a progressive yet appropriate difficulty level to prevent inducing severe stress. One participant shared an example of this approach, explaining the rationale behind their teaching practice of gradually increasing the difficulty of challenges for students in an entry-level clinical practice course:

> I try to take time ... step by step, so that the first time [students] are buddied with a nurse ... so they get the sort of the sense of what's happening, and then the next week, they would start to take on some skills ... I try to do a stepwise approach so that ... they're comfortable and then move to the next thing. (P05)

Without this gradual approach, participants reported having the risk of students developing “fear” of the clinical practice components. Most highlighted that for students to build resilience, they need to feel that they can overcome their challenges. Participants also acknowledged their responsibility to evaluate students’ stress levels and feelings about their clinical experiences to ensure they maintained this perspective. For instance, a participant noted their approach to determining when to introduce further challenges to students as “pushing and supporting” (P06). They described pushing as “challenging students to think deeper and more complex” and supporting as providing more hands-on support and easing the pace of challenges. This participant remarked their decision to push or support a student depended on their assessment of where they lie on the continuum of learning and readiness for challenges.

***Theme Two: Building a Supportive Teaching Environment***

Considering the nature of patient care, clinical practicums can often be described as “chaotic,” “emotionally volatile,” and “adverse." Participants indicated this may negatively impact student resilience as it could invoke overwhelming stress. Participants shared several ways they used to create a teaching environment conducive to student resilience development when describing their experiences. The paragraphs below will discuss participants’ experiences of fostering an environment where students recognized they were valued and felt psychologically and emotionally safe.

**Students are Valued.** Participants said it was crucial to create a teaching environment where students recognized they were valued by participants. They found this environment nurtured students’ trust in participants and encouraged them to share their concerns, such as fears, mental health issues, and acute stress experiences that impact their ability to learn and provide safe patient care. Participants shared that students' awareness that they are valued underpinned their ability to "support" and "advocate" for them in clinical practice. Without this awareness from students, participants reported struggling to provide appropriate guidance to students that fostered their resiliency. They attributed this to their difficulty in knowing the cause of students' distress, as it may stem from extraneous factors outside of clinical practice, which participants would not know unless students communicated directly. A participant illustrated this perspective by sharing an experience where they observed a student was suddenly performing poorly in clinical practice, as she was consistently "distracted":

> I had one student whose uncle was intubated because of COVID. But she didn't tell me, and I couldn't figure out why she was doing [poorly] ... I finally just asked her ... that is when she told me. So, we walked through how to cope with that kind of stress and keep going. (P01)

This participant shared that they had a routine where they encouraged students to inform them of significant events or changes in their personal lives that may impact their practice. They observed that students would only engage if they felt the participant "cared" about them as individuals.

**Students Feel Psychologically and Emotionally Safe.** Participants acknowledged students experience considerable stress from learning in clinical settings and having other academic or personal concerns, such as completing course assignments or facing financial challenges. As such, they were conscious of "reducing stress intentionally" when possible, through building a teaching environment where students feel psychologically and emotionally safe to protect their general well-being and facilitate their learning.

A common strategy mentioned by participants to minimize students' stress and support their resilience development was to tailor specific challenges that students face. A prevalent method participants engaged in to achieve this was to adjust students' patient assignments. Participants revealed that if students continued to care for patients whose cases reminded them of their stressful experiences, they would be "triggered" and "distracted." This would exacerbate students' stress and vulnerabilities, undermining their clinical learning experiences and potentially jeopardizing patient safety. One participant stated establishing a sense of safety in students would minimize their stress about facing clinical challenges, given that they developed an awareness they would not approach a situation unattended or unprepared, as they would be "taken care of" by their NCI and peers.

Participants remarked that establishing a teaching environment where students feel psychologically and emotionally safe extends beyond student-NCI interactions. It included interactions between students to encourage them to share their honest experiences with their peers and facilitate learning opportunities for one another. One participant explained that they purposefully cultivated a learning environment where students were "willing to work together" instead of "working against each other" competitively, to ensure students felt more supported in clinical settings and "secure" when facing clinical challenges alongside their peers.

***Theme Three: Uncertainties about Resilience Development Strategies***

Participants had several uncertainties about fostering student resilience, stemming from having (a) uncertainties about strategies and assessment measures for resilience and (b) a need for more training in supporting student resilience development. Despite these doubts, most felt comfortable fostering student resilience. These points are discussed as subthemes below.

**Uncertainties about Strategies and Assessment Measures for Resilience.** While all participants described resilience when asked about the concept's meaning, they also recognized many interpretations exist. For example, they remarked some NCIs view resilience as a quality that promotes the "desensitization" and "dissociation" from traumatic events to minimize stress. Additionally, participants were well informed about many existing strategies purported to improve resilience, such as "doing activities that fill your soul," "mindfulness," and "meditation." Despite this, they felt uncertain about the strategies' effectiveness, as they perceived it would depend on one's interpretation of resilience. Participants also claimed that the strategies would not apply universally. They explained that the student resilience development process and its facilitating strategies are "personal," "multidimensional," and "interdependent." The process is personal, given that specific coping methods are helpful for some individuals and not others. It is multidimensional, as personal and environmental factors influence the resilience process. Finally, the process is interdependent on the NCI and the student since it is affected by how NCIs provide the information and how students interpret it. Participants also stated that the explicit absence of the resilience concept in the course curricula perpetuated the poor clarity surrounding resilience-building strategies.

Participants revealed they implicitly considered students' resilience during formal assessments. When asked about assessment measures for student resilience, most participants expressed uncertainty about using objective measures as they were not incorporated into the courses' student evaluation tools. One participant elaborated on the difficulty of assigning objective measures for resilience: "It's [resilience] a subjective experience through and through, and even objective signs are based on your subjective interpretation of such" (P04).

Additionally, participants maintained that assigning specific factors for assessing resilience would be difficult since students with poor resilience may also show similar behaviours, such as self-confidence. When asked what factors participants used as resilience assessment measures, most reported using critical thinking. Others also mentioned using measures such as time management, energy, professionalism, problem-solving, and coping with stress. Most participants identified using many variables when assessing student resilience. A few could not provide a specific indicator.

**A Need for More Training to Support Student Resilience Development.** Some participants attributed their uncertainties about supporting student resilience development to their lack of formal training in this subject matter. A participant stated this topic was not the focus of any professional development events they attended as an NCI or in clinical practice. Two described their uncertainties about supporting students' mental health and resilience inspired them to seek resources to advance their knowledge about these subjects independently. Those participants asserted their actions were driven by their observations that students now had a higher prevalence of significant anxiety that negatively impacted their performance in clinical practice.

Regardless, most participants stated they felt comfortable supporting student resilience development. They attributed their comfort to their nursing skills in assessing patients, where they analyzed cues about a person's emotional state and general health. They emphasized that their approaches to supporting student resilience were informed by their experiences fostering resilience as nursing students, nurses, and in other roles.

Interestingly, one participant admitted feeling "uncomfortable" in facilitating their students' resilience-building and stated:

> [Resilience development has yet to be] part of something that was taught to me as well. You know, I've been around for a few years ... [the culture was] if you had an issue ... you just dealt with it, and you moved on. It's a different world now ... I think, it is just my own biases towards things [mental health concerns]. (P09)

This participant indicated their discomfort was due to their lack of knowledge and skills in managing others' mental health and their own bias toward mental health concerns. They reported their approaches to supporting student resilience and mental health were "unintentional," and they were uncertain about their effectiveness. This participant's appreciation of their knowledge gaps underscored various factors influencing NCIs' ability to support student resilience development.

**Part III: Perceived Facilitators and Barriers to Supporting Resilience Development**

After participants described their experiences supporting student resilience development, they identified various factors that facilitated and impeded student resilience-building. These factors are categorized into four themes: (a) NCI factors, (b) student factors, (c) environmental factors, and (d) curriculum factors. Table 2 lists the facilitators and barriers, grouped into four themes.

**Table 2**

*NCI Perceived Facilitators and Barriers to Supporting Student Resilience Development*

| Theme | Facilitators | Barriers |
| --- | --- | --- |
| NCI Factors | • Finding value in challenges<br>• Role-modelling<br>• Active presence in clinical settings<br>• Positive rapport with students<br>• Open and clear communication approach | • Inactive presence in clinical settings<br>• Negative rapport with students<br>• Poor communication approach<br>• Uncertainties about resilience-building strategies |
| Student Factors | • Awareness that NCIs would safeguard patient safety<br>• Exposure to life experiences | • Limited exposure to life experiences<br>• Acute life stresses<br>• Anxiety |
| Environment Factors | • Peer support among students<br>• Supportive clinical staff | • Unsupportive clinical staff |
| Curricula Factors | | • Lack of time<br>• Emphasis on clinical hours |

***Theme One: NCI Factors***

**Finding Value in Challenges.** Participants described finding value in challenges as reframing students' subjective perceptions of difficult experiences as learning opportunities beneficial to their professional growth. They reported NCIs' support in developing this outlook in students as a facilitator. They found guiding students to find value in challenges facilitated students' development in their self-awareness, reflection, and critical thinking skills, which are vital in fostering student resilience development. Participants said they often integrated this strategy during NCI-student debriefs and student group discussions about "making [clinical] mistakes."

**Role-Modelling.** Participants reported role-modelling resilience and its development by demonstrating learning and growing from their challenges. They did this mainly through storytelling or managing clinical challenges in front of students. They described role modelling as a facilitator, prompting students to develop the resilience-building strategies NCIs use when facing their own difficulties.

**Active and Inactive Presence at Clinical Settings.** Participants described NCIs' active presence, where NCIs are with students at clinical practice and responsive to their needs, as facilitators. They indicated that their active presence signified to students their readiness to "support" and "advocate" for students' clinical learning experiences, which is crucial for fostering student resilience. Additionally, they stated their active presence helped assess students' stress levels and readiness for further clinical challenges.

Conversely, participants reported that NCIs' inactive presence or lack of availability to assist students in clinical settings posed a barrier. Participants identified this as a hindering factor since NCIs have crucial roles in guiding students to develop resilience-building approaches (i.e., self-awareness, reflection, and critical thinking), generating a supportive teaching environment, and implementing student resilience-building facilitators. They also mentioned that the NCIs' inactive presence enables students to leave clinical settings prematurely, undermining students' resilience development by reducing their opportunities to confront challenges and apply their knowledge and skills.

**Positive and Negative Rapport with Students**. Participants expressed that the rapport between NCIs and students affects students' willingness to share their experiences, impacting NCIs' ability to support resilience-building among students. They found that a positive rapport encouraged students to communicate with them. They identified that demonstrating they were "a safe person" to confide in, promoting self-care, acknowledging the challenges of nursing practice and clinical education, and expressing empathy helped establish a positive atmosphere of rapport.

Participants emphasized that NCIs' empathy towards students was essential for establishing a positive rapport. They said that without it, students felt "lonely" and "gas-lit," which results in socially isolating behaviours and a lack of communication with NCIs. They also highlighted that communication is a crucial factor in the rapport between NCIs and students, as poor communication leads to "poor connections with students."

**Open and Clear Versus Poor Communication Approaches.** Participants noted that NCIs' communication approach influences student resilience development. They explained that when NCIs communicate clearly and openly with students, it promotes student resilience-building by encouraging a positive NCI-student rapport and a learning environment where students feel emotionally and psychologically safe. Participants explained students' sense of safety was partially derived from NCIs clarifying course requirements and NCIs' roles and expectations, which minimized students' stress.

Participants identified inadequate communication from NCIs as a barrier. They shared personal experiences that illustrated how ineffective communication with students restricted their ability to intervene during students' distressing clinical experiences and provide timely support to promote resiliency. They stated their lack of awareness about students' acute stress and exposure to distressing clinical experiences was partially due to poor communication.

**Uncertainties about Resilience-Building Strategies.** Some participants expressed their uncertainties about the resilience concept and its development strategies. They identified this as a barrier, acknowledging that it could lead to their reliance on inappropriate resilience teaching strategies or a lack thereof. An example of this was provided by participants who clarified the rationale behind why some NCIs employed teaching strategies that involve punitive measures. They noted that while NCIs who used this strategy view it as beneficial for student resilience and learning, it could have the opposite effect and cause student distress.

### ***Theme Two: Student Factors***

**Awareness that NCIs will Safeguard Patient Safety.** Participants noted that students often feared "making mistakes" that could harm patients. If not addressed, they stated it could hinder students' learning and willingness to engage in new clinical experiences. They described raising students' awareness that their NCIs would safeguard patient safety as a facilitator. Establishing this would promote a sense of security in students, advancing their readiness to confront clinical challenges. Participants indicated that this awareness is fostered by assessing students' understanding of their knowledge and skills before assisting them in performing procedures while reassuring them that they will promptly intervene if there is a potential risk to their care delivery.

**Exposure Versus Limited Exposure to Life Experiences.** Participants noted students' exposure to life experiences served as a facilitator. They attributed this to students with these experiences having better personal and interpersonal skills that assist them in overcoming clinical practice challenges, such as self-awareness, communication, and conflict resolution. Participants referred to these skills as “life skills”. Examples of life experiences provided by participants include previous post-secondary education, parenthood, and employment.

Participants described students with limited exposure to life experiences as having poorer life skills, which impedes their resilience-building. They noted that when these students face what participants perceive as minor challenges (i.e., not receiving a high mark on an assignment), it causes severe stress in students as they lack the necessary skills and experience to help foster resilience and cope with the situation. Most reported students in the traditional four-year stream tend to have limited exposure to life experiences due to their age and lack of post-secondary education experience. However, they also said this was not always the case.

**Acute Life Stresses.** Participants reported students who faced acute life stresses during their clinical practice education, such as family members having severe illnesses, experienced overwhelming stress and an inability to cope. Participants indicated this was a barrier, as students were unable to concentrate on their learning during clinical practice and exercise the self-care needed for safe learning and practice, such as getting enough sleep the night before clinical.

**Anxiety.** Some participants reported students having significant anxiety was a barrier. They indicated having anxiety inhibits students' ability to think critically when confronted with challenges, which is a crucial skill for building resilience. One participant acknowledged this view may bias NCIs against students with anxiety about their ability to handle a nursing career. They stated this perspective was "unfair," as nursing occupations are diverse and exist in various contexts, including settings that are not inundated with stressful clinical situations.

### *Theme Three: Environmental Factors*

**Peer-Support Among Students.** Participants highlighted positive peer support among students as a facilitator. They said it provided additional emotional support and encouragement for students, mitigating their loneliness, fears, and socially isolating behaviours caused by stressful clinical events. Participants stated that when students share their stressful clinical experiences with their peers, it promotes all students' personal and professional growth by stimulating their self-awareness and reflective skills, which are vital to resilience-building.

**Supportive and Unsupportive Clinical Staff.** All participants emphasized clinical settings where staff were "supportive" of students as facilitators. They reported supportive staff provided safe learning environments for students and facilitated opportunities for them to encounter new challenges that deepened their clinical knowledge and advanced their critical thinking, which are important for enhancing their resilience.

Conversely, participants identified that “unsupportive” clinical staff hindered the students’ development of resilience. They heightened students’ stress by mistreating them, such as making “disempowering” and “derogatory” comments and engaging in “bullying” and other unprofessional behaviours. Additionally, participants mentioned that unsupportive staff would intentionally impede students’ opportunities to perform nursing care, limiting students’ exposure to clinical challenges and opportunities to practice resilience-building strategies meaningfully in the clinical context.

***Theme Four: Clinical Curricula-Related Barriers***

Participants identified two obstacles related to the clinical curricula that hindered student resilience development. First, participants expressed that the current curricula are oversaturated with content, which limited their time and discouraged them from taking additional course time to discuss resilience-related topics. Second, there is an emphasis on completing a required number of clinical hours to achieve success in the course. A participant explained that this conveyed an insistence that students need to “force themselves to accommodate in order to be successful,” (P04) rather than taking time to recuperate. Participants stated this message potentially could worsen students’ distress and hinder their resilience development, as it implied that it would be the fault of the individual student if they were unable to achieve this. Additionally, participants explained this perception overlooked the factors related to the course and nursing programs that inhibit student resilience development, such as insufficient organizational student support to take time away from clinical settings to recover and foster resilience as a remediation strategy.

**Summary of Results**

In summary, participants perceived resilience as a process of moving forward from challenging experiences, where learning from past difficulties and applying the acquired knowledge to new, novel situations were core characteristics. They expressed that students build resilience from experiencing challenges in clinical settings, as the knowledge and skills that foster its development are best understood through real-life experiences. Participants identified student resilience development through three indicators: the ability to cope with stress, feelings of self-confidence, and self-directedness to learn.

When describing their experiences supporting student resilience, participants reported providing active guidance on key approaches for developing resilience, such as self-awareness, reflection, and critical thinking, while also presenting students with appropriate challenges. They also described building a supportive teaching environment where students felt valued and safe psychologically and emotionally. Some reported uncertainties about supporting student resilience-building, citing personal doubts about resilience-building strategies and assessment measures. Moreover, several acknowledged having knowledge gaps concerning student resilience development and supporting mental health in general. From reflecting on their experiences, participants identified various factors that facilitated and hindered their ability to support student resilience-building.

Those factors were thematically organized into four groups: NCI-related, student-related, environment-related, and curriculum-related factors.

# CHAPTER SIX: DISCUSSION

Despite the prominence of the resilience concept in nursing literature, minimal research has been conducted on NCIs' experiences supporting the development of student resilience. This study is the first known study to address this knowledge gap. This chapter discusses the study's significant results in relation to what is currently known about this topic within nursing research.

## Participant Perceptions of Resilience

### *Learning and Growth are Essential to NCIs' Understanding of Student Resilience*

In this study, all participants viewed resilience as a process of moving forward from a challenging experience, where students apply the knowledge and skills acquired from past difficulties to tackle new challenges. As such, resilience is linked to both personal and professional development. This description is uncommon, as conceptual analyses typically describe resilience as a process that facilitates an individual to recover from or positively adapt to adversity (Cooper et al., 2020; Earvolino-Ramirez, 2007; Windle, 2011). Recovery and positive adaptation encompass both the absence of adverse psychological effects and the capability to function at a level that exceeds expectations after adverse experiences (Aburn et al., 2016; Cooper et al., 2020; Earvolino-Ramirez, 2007; Rutter, 2012; Windle, 2011). It does not suggest that one's outcome after facing adversity is more advanced than at baseline (Rutter, 2012; Windle, 2011). Learning is also not an identified attribute of resilience (Aburn et al., 2016; Cooper et al., 2020; Earvolino-Ramirez, 2007; Windle, 2011). Instead, the scholarly works link various personal and environmental factors as essential resilience characteristics, such as optimism, self-efficacy, and positive social support (Aburn et al., 2016; Cooper et al., 2020; Earvolino-Ramirez, 2007; Windle, 2011).

The essential characteristics of resilience noted by other authors (Aburn et al., 2016; Cooper et al., 2020; Earvolino-Ramirez, 2007; Windle, 2011) differ from the participants' description of resilience in this study, which identifies learning from challenging experiences that foster personal and professional growth in students as a defining characteristic. This perspective highlights that resilience is not the absence of negative psychological and emotional effects arising from encountering challenges, such as feelings of anxiety. Rather, it implies that these negative effects are expected initial reactions stemming from students' realization of their lack of knowledge and skills to resolve the challenge. This aligns with the pushing through model by Reyes et al. (2015), which details nursing students' stress and anxiety as expected behaviours in their process of resilience enactment.

Participants' perceptions suggest that learning from challenging experiences allows students to gradually become less stressed by the difficulties they encounter in clinical practice. Through the learning process, students recognize their ability to acquire the knowledge and skills required to manage challenges and develop self-confidence in their competencies. Therefore, resilience is essential in nursing education, as the self-awareness, reflection, and critical thinking skills developed through building resilience are vital to nursing practice (CNO, 2019). These skills are also known to significantly contribute to students' success and growth in the nursing profession (McAllister & McKinnon, 2009; Rasheed et al., 2019). Additionally, this viewpoint emphasizes that students' negative outcomes after facing challenges do not indicate a lack of or failure in resilience-building. Instead, it suggests that students have faced overwhelming events and need support to learn from their experiences to foster professional growth.

In the nursing student resilience literature, individualized growth is clearly defined in Stephens' (2013) concept clarification and Tsui and Adam's (2023) conceptual analysis of resilience. In these works, personal growth is identified as a resilience-building outcome. Tsui and Adam (2023) also characterized students' professional growth as an outcome, which is illustrated by their willingness to share their challenging experiences with others and to learn how to navigate difficulties in clinical settings. This study supports and extends the works of Stephens (2013) and Tsui and Adam (2023) by providing insights into participants' perspectives on resilience regarding students' personal and professional growth, the key approaches for resilience development, and the facilitating and inhibiting factors that impact student resilience-building.

***Resilience Development is Gained through Experiential Learning***

Experiencing challenges is the antecedent to resilience development (Cooper et al., 2020; Stephens, 2013; Tsui & Adams, 2023; Windle, 2011). This indicates that resilience is developed through experiential learning, a process that explains how knowledge is acquired by doing or hands-on learning (Morris, 2020). Kolb's experiential learning theory is a widely cited pedagogical model that describes how learners develop knowledge through actively grasping and transforming their direct experiences through reflection (Akella, 2010; Kolb, 1984; Morris, 2020). In Kolb's theory, learning is depicted as a four-stage cyclic process (Healey & Jenkins, 2000; Kolb, 1984, 2014), and it explains participants' perceptions of resilience development. Kolb's theory outlines experiential learning's four stages in the sequential order of concrete experiences, reflective observation, abstract conceptualization, and active experimentation (Kolb, 1984, 2014).

The first stage, concrete experience, refers to learners' direct experience of an event or activity (Akella, 2010; Morris, 2020). This aligns with the participants' understanding that developing student resilience necessitates personal, authentic encounters with challenges. The second stage, reflective observation, describes a process in which learners derive meaning from their experience by reflecting on the event and assessing the relevance of their existing knowledge to the situation (Gordon, 2022; Morris, 2020). Abstract conceptualization, the third stage, describes the process by which learners draw conclusions, formulate hypotheses, and conceptualize abstract theories specific to their experience that emerge from their reflective observations (Gordon, 2022; Healey & Jenkins, 2000; Morris, 2020). The second and third stages mirror participants' descriptions of self-awareness, reflection, and critical thinking as core approaches to resilience-building. Both emphasize reflecting and critically analyzing their direct experiences to determine their baseline knowledge and gaps. The final stage of Kolb's model is active experimentation. It refers to learners' active conceptual applications of their new knowledge to new experiences to refine their understanding (Gordon, 2022; Morris, 2020). This stage parallels participants' resilience description as a process in which students leverage the knowledge gained from past experiences to tackle newly encountered difficulties, thereby linking resilience development to personal and professional growth.

Furthermore, Kolb's model expresses experiential learning as a cycle, indicating it is iterative in all stages (Kolb, 1984, 2014). This perspective aligns with the participants' views, emphasizing that resilience is not developed through a single stress-provoking challenge, but is instead built over time from numerous encounters.

**Participants' Experiences of Supporting Student Resilience Development**

Participants identified NCIs as crucial to student resilience development. They provide direct support when students face challenges and offer guidance on developing essential resilience-building approaches. This is congruent with findings from the literature that highlight students' perception of inadequate NCI support as a significant stressor (Del Prato et al., 2011; Lopez et al., 2018). Research shows that nursing instructors foster student resilience and minimize stress by using effective educational strategies, such as reflection (Amsrud et al., 2019; Low et al., 2019). A review by Low et al. (2019) aimed at identifying and understanding resilience educational strategies found that supportive student-instructor partnerships were essential, as supportive instructors can role model resilient professional identities, behaviours, and growth (Low et al., 2019). In addition, supportive instructors directly impart the knowledge and skills that promote student resilience development through storytelling, such as self-awareness and strategies to achieve new insights into challenging experiences (Low et al., 2019).

Participants also identified tailoring appropriate student challenges, such as gradually increasing their difficulty, as an essential strategy to enhance student resilience.

They described students experiencing highly stressful situations without foundational knowledge, experience, or mental readiness are hindered in their resilience development due to experiences of acute stress. Acute stress may hinder students’ capacity to reflect and think critically about themselves and their prior knowledge and experiences, which participants considered important learning processes. This strategy was not commonly identified in the nursing literature (Diffley & Duddle, 2022; Low et al., 2019; Thomas & Asselin, 2018; Walsh et al., 2020). However, this strategy aligns with the steeling effect in resilience. The steeling effect posits that exposure to manageable stressful events is necessary for developing resilience responses to future adversities, as it strengthens resilience resources (Ashokan et al., 2016; Höltge et al., 2021; Liu, 2015; Rutter, 2012). However, repeated stress exposures may also cause a sensitization effect, where maladaptive responses to early stress exposures trigger similar or inadequate responses to future adversities, even if those stressors are lesser in severity (Liu, 2015; Rutter, 2012).

While the causes of both effects remain unclear, the steeling and sensitization effects are influenced by the duration, predictability, and severity of stress experienced in earlier events (Ashokan et al., 2016; Höltge et al., 2018; Rinne et al., 2023). Evidence also supports that moderately stressful experiences contribute to the steeling effect, as they stimulate an individual’s growth in coping abilities (Höltge et al., 2018). In this study, participants reported they ensured the challenges faced by students were appropriate, when possible, by ensuring students had adequate knowledge and skills to understand and learn from their challenging experiences. They also highlighted the importance of NCIs in evaluating students’ stress responses to ensure the challenges remain manageable, thereby preventing negative stress-related impacts on learning. Hence, NCIs' role in presenting appropriate challenges to support resilience development is complex. It involves frequent monitoring of student stress responses to maintain a balance where the challenging experiences are stimulating without being overly unmanageable.

Participants found that NCIs also play vital roles in creating supportive learning environments that foster student resilience development. The existing literature supports this viewpoint, as positive learning environments underpinned by instructors' demonstration of caring for students' learning and well-being strengthen their resilience (Amsrud et al., 2019; Froneman et al., 2016). Instructors demonstrate care by engaging in open, genuine communication with students that is respectful, supportive, and empathetic (Froneman et al., 2016; van Dyk et al., 2022). According to Amsrud et al. (2019), a caring relationship between nursing instructors and students fosters an academic culture of trustworthiness in which students identify educators as role models for nursing skills, values, and identities. Consequently, this supports student resilience by creating a sense of safety and encouraging them to assume the roles and responsibilities of a nurse in patient care (Amsrud et al., 2019). These findings are consistent with this study's results. Participants also described their roles in fostering student resilience involves creating a positive learning environment where students feel valued and psychologically and emotionally safe during their clinical practice. These two elements were vital in nurturing student resilience, as they promoted students' readiness to tackle and learn from new clinical challenges that support their personal and professional growth.

## Perceived Facilitators and Barriers to Resilience Development

### *NCI-Related Factors*

Nursing instructors' impact on student resilience is well-known. They play crucial roles in its development by creating a positive learning environment, ensuring open and transparent communication, maintaining an active presence and positive rapport with students, role-modelling resilience processes, and imparting the knowledge and skills related to resilience-building, such as finding value in challenging experiences (Froneman et al., 2016; Lopez et al., 2018; Low et al., 2019; van Dyk et al., 2022; Walsh et al., 2020). These assertions were evident in this study, as NCI-related factors that addressed these elements were identified as facilitators of student resilience development.

Among NCI-related factors, participants identified that their uncertainties about resilience and its development strategies posed significant barriers. These uncertainties may stem partly from the ambiguity of the resilience concept within the literature, as demonstrated by the diverse definitions offered by conceptual analyses about this topic (Cooper et al., 2020; Earvolino-Ramirez, 2007; Stephens, 2013; Windle, 2011). This raises significant concerns since, depending on how researchers interpret the resilience concept, studies utilize different variables and tools to assess an individual's resilience level. For instance, some resilience intervention studies rely on self-reported measures of anxiety and depression, whereas others use quantitative scales for life satisfaction and well-being (Kunzler et al., 2020). This creates confusion when analyzing research about resilience-building interventions' efficacy, potentially leading to NCIs using inconsistent methods to foster student resilience development, such as mindfulness-based versus cognitive behavioural therapy approaches. This inconsistency can worsen the confusion among students and NCIs regarding the resilience concept and heighten the risk of providing ineffective resilience-building strategies to students.

### *Student and Environmental-Related Factors*

Study participants agreed that student-related factors related to exposure to life experiences, acute life stresses, anxiety, and awareness that NCIs would protect patient safety influenced student resilience development. These findings were also supported in the literature. It is well-established that past exposure to life experiences where students experienced meaningful difficulties facilitates resilience-building (Chye et al., 2024; Turner et al., 2017). They enable students to draw on their previous knowledge learned from past experiences to navigate and overcome their current challenges (Turner et al., 2017). However, when students experience significant acute life stresses, such as the loss of a family member, it undermines their resilience at that time. Such stressors can lead to experiences of severe stress and anxiety, impairing their self-awareness and causing self-care neglect and poor academic performance (Veesart & Cannon, 2022). Additionally, students indicated the absence of NCI support at clinical practice poses a barrier to their resilience, due to traumatic experiences of near-patient-harm events (Lopez et al., 2018). Therefore, the roles and responsibilities of NCIs in supporting student resilience are complex. NCIs must also help their students address and overcome challenges outside the clinical setting to optimize their stress levels and perspectives on the stressors to facilitate their learning and professional development.

Beyond student factors, participants also acknowledged the impact of environmental-related factors on resilience development, specifically the clinical staff and peer support. Other studies also reflected this (McAllister & McKinnon, 2009; Lopez et al., 2018; Walsh et al., 2020). A study by Lopez et al. (2018) that aimed to describe nursing student clinical experiences found that clinical staff significantly influenced student resilience. Students described exposure to unsupportive staff hindered their resilience by increasing stress levels and fears when managing patient care independently (Lopez et al., 2018). Consistent with this study's findings, Lopez et al. (2018) reported unsupportive staff contributed to students' poor resilience by depriving them of opportunities to practice and learn clinical skills. Furthermore, the authors found that students identified positive peer support as a resilience facilitator. Students described peer support improved their ability to cope by increasing their awareness that their difficult experiences were shared, reducing their feelings of isolation (Lopez et al., 2018).

Overall, participants' general recognition of environmental-related factors' influences on student resilience, identified in this study and others, highlighted the importance of multi-level factors' dynamic interplay on resilience development. This understanding is reflected in resilience models that conceptualize it as a process shaped by individual and multi-level environmental factors, ranging from the immediate micro- to the larger macro-environment, such as family, peer support, social policies, and welfare (Szanton & Gill, 2010; Windle, 2011). Despite this acknowledgment, the recommended strategies to enhance an individual's resilience continue to emphasize the effectiveness of individual-level interventions, such as reflection and positive coping techniques (Diffley

& Duddle, 2022; Hughes et al., 2021; Low et al., 2019). This dominant discourse promotes a narrative that places the responsibility of student resilience development on the individual student. Ultimately, this leads to neglecting considerations for broader organizational and curriculum changes to better prepare students to face the complex challenges of modern nursing practice.

### *Curriculum-Related Factors*

Participants described limited course time as a barrier to supporting student resilience development. Since resilience was not an explicit topic in the clinical course curricula, participants primarily reported discussing it informally, as necessary, when students faced difficulties in overcoming challenges. Despite their perceived absence of resilience in the curricula, they acknowledged that some or all aspects of the key approaches to resilience development (i.e., self-awareness, reflection, and critical thinking) were present. Although clinical practicums did not explicitly identify them as resilience-building strategies, they mentioned that the curriculum included specific activities and allocated time to discuss the key approaches, such as reflection assignments and post-conferences.

Given the importance of resilience in promoting student well-being and academic performance (Aryuwat et al., 2023; Li & Hasson, 2020), various scholarly works recommend integrating resilience into the nursing education curricula (McAllister & McKinnon, 2009; Taylor et al., 2020). This would allow NCIs to have dedicated time and focus when discussing resilience and support the design and delivery of targeted resilience-building strategies to students. However, research on the type of resilience intervention and how and when to integrate it into nursing education curricula to foster student resilience remains underdeveloped (Brewer et al., 2019; Kunzler et al., 2020). According to a Cochrane review, the evidence related to determining the effectiveness of resilience interventions was of poor quality (Kunzler et al., 2020). This was due to numerous factors, including inconsistencies in resilience operationalization, studies with small sample sizes, and a shortage of research examining the longitudinal effects of resilience interventions (Kunzler et al., 2020).

Participants also consistently discussed resilience within the context of students struggling to perform well in clinical practice or those at risk of failing. The fear of failure and a recent history of academic setbacks are major stressors for students (McGregor, 2007). Consequently, integrating resilience into remedial education strategies could be beneficial. Many strategies recommended for remedial nursing education shared similarities with study findings, such as the importance of reflection for professional growth, developing a supportive student-instructor partnership, raising student awareness of the instructor’s commitment to supporting their academic success, maintaining open communication, viewing mistakes as learning opportunities, and providing individualized learning strategies that address student's psychological and cognitive needs (Custer, 2018; Hughes et al., 2024).

Interestingly, this study revealed that participants believed student resilience was hindered by the rigid requirements of clinical practice hours. Participants reported these requirements forced students to attend clinical practice without adequate recovery from their distressing experiences, which may exacerbate their stress and impede their learning.

The participants perceived that having greater flexibility regarding clinical practice hour requirements would enhance student resilience development. Specifically, reducing the hours required when appropriate, as students potentially need additional time away to reflect and learn from their distressing experiences. This finding was contrary to the studies that examined remediation education strategies (Hughes et al., 2024). Although increasing nursing clinical education program flexibility is an organizational strategy to support remedial education, it is usually suggested that students receive additional clinical practice time to help them develop and demonstrate the competencies necessary for passing the course (Hughes et al., 2024).

**Strengths and Limitations**

This study had several strengths. A key strength was its contribution to understanding NCIs' experiences supporting student resilience development, as little was known about this phenomenon. To enhance the transferability of study findings to other contexts, rich and thick descriptions of the study context and sample population were provided (Morse, 2015b). Another strength was the diversity of demographic characteristics reflected in the sample's teaching experiences. This included years of experience, the nature of their teaching role related to the type of course they instruct, the nursing student populations they teach, and the clinical settings for clinical practice courses. This diversity allowed participants to offer a range of insights into their experiences, contributing to generating a comprehensive, rich description of the studied phenomenon.

This study also presents several limitations. The study was conducted at a Southern Ontario university, involving participants with at least one year of experience teaching Year 2 and 3 clinical practice courses in a traditional four-year or 20-month accelerated baccalaureate nursing program. Given the specific context, the transferability of results may be limited when applied to NCIs who teach outside this particular nursing student population, such as final-year nursing students and internationally educated nursing students. Instructors who teach these student populations may have different experiences, as students' educational and work experiences in clinical settings may affect how they perceive clinical challenges. This may influence NCIs' experiences in fostering student resilience, as they may need specialized knowledge and skills, such as advocating for student learning needs when not physically present in clinical settings or when students encounter discriminatory actions in clinical settings due to their international student status (Crockford et al., 2023). Nevertheless, the recruited participants taught in various programs, levels, and clinical settings and had varying teaching experiences, which provided a wide range of responses. This enabled the generation of a comprehensive description of the study phenomenon that captures the multifaceted NCI experiences of supporting student resilience development during clinical practice education.

A second identified limitation was that information about NCIs' education and work-related experiences beyond their roles as NCIs was not collected. One participant expressed that their discomfort in supporting student resilience development and addressing students' mental concerns stemmed from not having received previous mental health training in any of their professional development. Evidence indicates that non-psychiatric nurses who received additional mental health training gain increased knowledge, self-efficacy, and confidence in managing patients with mental health concerns (Blair et al., 2018; Maindonald et al., 2020; Payne et al., 2002). Since this demographic information about the study participants was unknown, it was unclear whether their comfort level related to building student resilience was influenced by exposure to previous education or training in mental health. However, the need to further explore this factor's influence on NCI's experiences supporting student resilience would have remained unknown without this study, as this research topic of interest is relatively unexplored within the literature.

# CHAPTER SEVEN: IMPLICATIONS

This is the first qualitative study to examine NCIs' experiences supporting student resilience development. This chapter discusses the implications of the study findings for future NCI education, nursing education policy, and research.

## Nursing Education Implications for Nursing Clinical Instructors

Participants' uncertainties about resilience and strategies to develop it were identified as concerns and barriers to student resilience development. NCIs providing clear and consistent information about resilience and ways to foster it may enhance student resilience-building. Therefore, offering additional training to NCIs may address this barrier.

To address NCIs' knowledge gaps and uncertainties concerning resilience, it is essential to implement strategies that enable them to learn about resilience and its development, while also providing opportunities to apply this knowledge. Examples of instructor-specific educational approaches include professional development days (Kennedy, 2016) and simulation training (Hunt et al., 2015). For professional development days, reviewing the resilience concept, particularly nursing students' understanding and enactment of resilience through didactic teaching and group discussions, would be beneficial. This review should also address the key participant-identified approaches for supporting resilience development, their alignment with nursing practice competencies, and the participant-perceived facilitators and barriers to student resilience-building.

Simulation training that involves student scenarios where they struggle to overcome stress and clinical challenges, such as making a medication error, can be particularly beneficial. It can provide NCIs with opportunities to practice their teaching and supporting strategies aimed at student resilience-building and receive feedback on their approach from their peers and students (Hunt et al., 2015). However, this teaching approach should be applied with caution. The benefits of simulation training in improving learners' knowledge acquisition may be comparable to those of other traditional learning methods (Cant & Cooper, 2017). Poorly designed simulations or simulation scenarios intentionally structured to yield unsuccessful results, regardless of the learners' interventions, can impair learning due to the high extraneous cognitive load experienced by learners (Fraser et al., 2015). Therefore, to optimize learning during simulation training, it is vital to decrease the cognitive load in the simulation design to maximize learners' concentration and enhance memory consolidation (Fraser et al., 2015). Regardless of the strategy, discussing resilience concerning student stress and remediation strategies would be valuable for contextualizing how NCIs can support student resilience development.

It is also essential to provide clinical preceptors with education about student resilience development. Similar to NCIs, clinical preceptors are responsible for educating students during clinical practice, and participants indicated that clinical staff support can facilitate student resilience-building. Incorporating student resilience development education in healthcare organizations' preceptorship training will enhance preceptor competencies in supporting student resilience, equipping them with the knowledge and skills necessary to help students overcome clinical challenges and foster a positive learning culture in clinical settings.

**Policy Implications**

Given the rising concern about the nursing shortage crisis in Canada, several national strategies have been published recently to address nursing retention (Canadian Association of Schools of Nursing [CASN], 2022; Health Canada, 2024). Building student resilience was proposed as a strategy to help mitigate new graduate nurse stress to support their retention (CASN, 2022), as enhancing resilience has been shown to serve as a protective factor in reducing students' intentions to leave their nursing education programs (Altharman et al., 2023; Mcdermott et al., 2020; Van Hoek et al., 2019). Although larger Canadian nursing education organizations, such as CASN (2022), recognize the need to develop student resilience, there are no specified approaches for achieving this across nursing education institutions.

Integrating resilience into the curriculum is recommended for nursing education (Aryuwat et al., 2023; McAllister & McKinnon, 2009). This recommendation requires a comprehensive review and amendment of nursing curricula, educational policies, and procedures to incorporate and support student resilience development in alignment with nursing entry-to-practice competencies and evidence-based resilience-building interventions. This, in turn, may necessitate further NCI professional development to optimize the teaching practices for the proposed new content.

Nursing organizations can support these aspects by proposing recommendations on integrating resilience into the nursing curricula and education institution's policies and procedures. For example, the American Association of Colleges of Nursing [AACN] (2024) developed toolkits that proposed teaching strategies to incorporate well-being and resilience concepts into the nursing curricula. This toolkit outlines how the resilience concept is integrated into essential nursing competencies, provides examples of teaching and assessment strategies and activities, and lists key resources that nursing instructors and other stakeholders can refer to for more information (AACN, 2024). For instance, the toolkit suggests that students critically reflect on their coping strategies and protective factors for developing resilience near the beginning of their nursing education. They encourage students to draft a mock resilience development plan using templates provided by AACN, with the purpose of allowing students to implement their plan during their education. Overall, the study's findings may inform the formulation of the recommended strategies by offering crucial insights into NCIs' experiences supporting student resilience development.

**Research Implications**

The findings of this study revealed that participants viewed resilience as a process associated with personal and professional growth. They also expressed uncertainty about supporting student resilience-building due to the unclear nature of the resilience concept. The literature review conducted for this study showed no universal definition of resilience despite several conceptual analyses published on the topic. Additionally, the effectiveness of existing resilience-building strategies remains unclear. Consequently, further research is needed to enhance the operationalization of resilience and provide better insight into the effectiveness of its various development strategies.

The study results also underscored the clinical nurses' vital roles in facilitating student resilience development. It is imperative to investigate their understanding of resilience and its development strategies, as nurses in preceptor roles bear significant responsibilities in supporting students' clinical education. Given that the preparation nurses receive for preceptorship is managed by their employer organizations (Blegen et al., 2015), their perspectives on resilience and its development approaches may differ from those of NCIs. Hence, to gain deeper insights into the resilience concept to support student resilience-building, further research is needed to explore NCIs' and nursing preceptors' understanding of resilience while recognizing and reconciling the differences between their perspectives, if any, and those of nursing students.

Replicating this research and examining the phenomenon in different nursing education contexts is needed to better understand NCIs' perceptions of resilience and experiences of supporting student resilience development, and enhance the dependability and transferability of this study's findings. Future research should also investigate how NCIs' work, educational backgrounds, and preparations influence their views on resilience and their strategies to support student resilience-building. Achieving a deeper understanding of this may unveil patterns that can be used to design and implement more targeted interventions tailored explicitly to NCIs' specific backgrounds, experiences, and perspectives to enhance their ability to support student resilience-building.

Participants in this study also reported that environmental factors, such as course curricula, NCIs, peer support, and clinical staff, serve as barriers and facilitators of student resilience-building. However, the recommended strategies in the literature for improving student resilience emphasize interventions that bolster individual qualities and skills associated with resilience (Tsui & Adam, 2023). Currently, there is limited research on understanding the influence of meso- and macro-environmental factors on student resilience and examining the effectiveness of strategies that alter these factors to enhance resilience (Diffley & Duddle, 2022; Low et al., 2019; Walsh et al., 2020). Consequently, this perpetuates a flawed, non-holistic understanding of resilience as mainly an individualistic orientation influenced by micro-environment factors, such as peers and NCIs, while overlooking the impact of organizational and system-level factors (Slater, 2022; Tsui & Adam, 2023), such as clinical nursing education curricula and education institutions' policies about nursing clinical practice education. This can cause unintended harm to students and instructors, as it implies that students' lack of resilience is due to the failures of both the students and their instructors. It also incorrectly assumes that both students and their instructors can significantly impact student resilience development in isolation without more extensive environmental structural supports (Tsui & Adam, 2023). Future research on resilience development strategies for students should also explore the interventions that address system and organizational-level concerns. Future recommendations on student resilience-building should also encompass multi-level environmental changes to avoid reinforcing a narrative that conveys resilience as an individual responsibility.

**Summary of Implications**

Overall, the findings of this study carry significant implications for NCI education, policy, and research. The study results indicate that participants view their knowledge gaps about resilience and its development strategies as a major barrier to fostering student resilience. The study findings can inform the design of NCI professional development opportunities that equip NCIs with the necessary knowledge and skills to bridge that knowledge gap. Given the significant role of clinical preceptors in students' clinical practice education, it is also suggested that they receive training on fostering student resilience. Furthermore, incorporating student resilience development into the nursing education curricula is a proposed strategy to support nursing retention. However, currently, there are no established guidelines or tools from Canadian national nursing organizations to facilitate this implementation. Study findings can facilitate the development of this guidance by offering insights into NCIs' experiences supporting student resilience-building. In addition, the study results also emphasized the need for further research to enhance the understanding of student resilience development, its influencing factors, and the effectiveness of resilience-building strategies. Since this is the first known study to examine NCIs' experiences of supporting student resilience, replicating the study is also imperative to evaluate the dependability and transferability of study findings.

# CONCLUSION

This QD study aimed to describe and understand the experiences of NCIs in supporting undergraduate nursing students' resilience development, their perceptions of resilience, and the factors that promote or hinder that development during their clinical practice education. Study results indicated that participants perceived resilience as a process of moving forward from challenges characterized by learning from the experience, which necessitated encountering a difficult challenge as an antecedent. Additionally, participants recognized student resilience development through various student indicators.

The results underscored that NCIs had multi-faceted yet essential roles in fostering student resilience during their clinical practice education. They provided active guidance, designed teaching approaches to ensure students would be appropriately challenged without feeling overwhelmed, and created an environment conducive to student resilience-building. In line with nursing scholars' viewpoints on resilience in nursing education, participants found that resilience was related to students' academic performance and identified it as necessary within the nursing profession. However, most participants felt comfortable but uncertain about supporting student resilience due to the ambiguity surrounding the resilience assessment measures and its development strategies. This ambiguity was recognized as a significant NCI-related barrier to facilitating student resilience development. Additionally, participants identified a variety of NCI-, student-, environmental-, and curricula-related factors as barriers and facilitators in supporting the development of student resilience. This indicated their recognition that the process for students to cultivate resilience was not solely the student's responsibility but was also influenced by many factors.

This is the first known study that examined NCIs' experiences of fostering resilience-building among undergraduate nursing students. These findings can provide valuable insights for NCIs, nursing scholars, nursing leaders, academics, and nursing practice organizations regarding effective strategies to support nursing student resilience development. Improving resilience in nursing students can enhance their clinical practice experiences and abilities to manage stress and complex challenges. Ultimately, this enhancement may influence their future retention in the nursing profession and their ability to provide safe and competent nursing care to patients.

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## Appendix A

## Search Terms Used for Literature Review

The search terms were used in combination as appropriate to seek out relevant scholarly articles pertaining to the respective literature review guiding question.

The search terms used for the first guiding question were: *undergraduate nurs* student, baccalaureate nurs* student, nursing student, resilienc*, hardiness, psychological adaptation, clinical placement, clinical education, professional practice, and professional practice placement*.

For the second literature review guiding question, a combination of the search terms *clinical nurs* instructors, clinical nurs* educators, nurs* educators, nurs* instructor, nurs* facilitator, nurs* mentor, nurs* education, experience, insight, perception, clinical teaching, clinical education, professional practice education, clinical placement, attitudes, views, resilienc*, hardiness, psychological adaptation* were used and it yielded no relevant results. Therefore, the search terms were modified to encompass a wider field of clinical healthcare professional educators. The new search terms were *medical educator, medical instructor, paramedic field instructor, paramedic field educator, social work field educator, social work field instructor, healthcare professional educator,* and *healthcare professional instructor.*

## Appendix B

### Evaluation of Scholarly Articles in the Literature Review

| **Author, Date, & Study Design** | **Research Purpose or Question** | **Setting and Sample** | **Data Collection and Analysis** | **Main Findings Pertinent to Literature Review** | **Critique** |
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| Amsrud et al. (2019)<br><br>Systematic review of qualitative studies on education strategies to increase student resilience. | Purpose: Synthesize qualitative research on resilience develop-ment strategies for nursing students. | Seven primary studies and one doctoral thesis. | The databases used: Medline, CINAHL, Scopus, Embase, PubMed, PsycINFO, Web of Science, ProQuest, British Nursing Index, Health Research Premium Collection, Social Science Premium Collection, and ERIC.<br><br>Articles were selected if they focused on nursing students, addressed resilience in nursing education, and were published in English. No restrictions on the year of | Findings: five descriptive themes and two analytic themes.<br><br>The descriptive themes were demonstrating caring relationships, recognizing resources and power, acknowledging uncertainty, reframing burdensome experiences, and adjusting frames for learning.<br><br>The two analytical themes provided were the authors' final syntheses and interpretations. They were an educational culture of trustworthiness and readiness to care.<br><br>Strategies that | Qualitative studies focused on the nursing students' perspective of resilience only. No studies on nursing educators' perspectives on resilience.<br><br>Unknown if the authors reviewed reference lists of key articles to identify potential studies to be included in the review.<br><br>The exact process of how analytical themes were abstracted was brief. The authors were unclear on how the descriptive themes and results from the primary qualitative studies contributed to its abstraction.<br><br>The authors did not provide an in-depth description of existing strategies used by nurse educators to build resilience in their students. |

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|---|---|---|---|---|---|
| | | | publication.<br><br>Articles were appraised by two reviewers using the Joanna Briggs Institute (JBI) Critical Appraisal Tools.<br><br>Thematic data analysis. | built resilience in students ultimately influenced their readiness to care. | Steps to promote study rigor were limited. Only peer review among the researchers was mentioned. |
| Aryuwat et al. (2024)<br><br>Quantita-tive cross-sectional study | To explore the association between resilience and key variables in Thai undergrad-uate nursing students within the domain of clinical | Conveni-ence sample of 319 full-time nursing students who completed their first clinical practice from three nursing colleges in | Data was collected using self-reported questionnaires for demographic data.<br><br>Instruments used included the Conner-Davidson Resilience Scale (CD-RISC), the Multidimensional Scale of Perceived Social Support, the Personal Responsibility | Students' perceived social support and self-directed learning capacity had a statistically significant positive association with resilience, and stress had a negative correlation with resilience.<br><br>The relationships between students' GPA and their resilience, and income and resilience were unknown due to data ambiguity. | Vague study aims. From the study aim alone, would not be able to identify the "relevant variables related to resilience."<br><br>Did not justify why only nursing students who completed their first clinical practice were selected.<br><br>Uncertain if the sample represents the target population, as the authors used a convenient sample.<br><br>The psychometric properties of instruments translated into Thai |

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|---|---|---|---|---|---|
| | practice education. | the Praborom-arajchanok Institute's Faculty of Nurses. Recruited through nurse educators who acted as gate-keepers. | Orientation to Self-Direction in Learning Scale, and the Stressors in Nursing Students Scale. Instruments were translated into Thai.<br><br>All questionnaires were distributed online using Google Forms. | | (except the CD-RISC) were not examined. The instruments were pilot-tested, and it is unknown if further revisions were made after. Details on how participants' anonymity and confidentiality were maintained were also absent. |
| Bsharat (2023)<br><br>Quantita-tive cross-sectional study | Three questions:<br><br>1) To identify Palestinian nursing students' degrees of stress and resilience during the COVID-19 pandemic. | Conveni-ence sample of 336 nursing students in their second, third, or fourth year from the Arab American | Data was collected using self-reported questionnaires for demographic data. Used the Perceived Stress Scale and CD-RISC to measure participants' stress and resilience respectively, which are validated instruments. | Students experienced high stress levels and identified the following factors as the cause: taking care of patients, assignments and workload, poor professional knowledge and skills, the environment, peers and daily life, teachers and nursing staff. Students found assignments and workload to be the most stressful. | It is unclear if the sample represents the target population, as the authors used a convenient sample.<br><br>Lack of rationale of why CD-RISC 10 was chosen over other CD-RISC scales.<br><br>Students may have experienced differing levels of stress and resilience during the different stages of the COVID-19 pandemic. A longitudinal study is needed to confirm the statistical correlations |

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|---|---|---|---|---|---|
| | 2) To explore the relation-ships between Palestinian nursing students' stress and resilience levels.<br><br>3) To assess and examine demograph-ic factors' impact on the stress levels and resilience of Palestinian nursing students. | University.<br><br>Partici-pants were recruited face-to-face, with the Dean and nursing instructors acting as gate-keepers. | All questionnaires were distributed in person to participants.<br><br>Data were analyzed using SPSS and the Pearson correlation, t-test, and ANOVA analyses were used to assess the relationship between variables. | Students had moderate levels of resilience. Stress and resilience had a negative correlation. When examining the causes of stress by students in relation to resilience, the stress from the environment and resilience had the strongest correlation. | and examine the nursing students' stress levels during the different stages of the COVID-19 pandemic. |
| Cao et al. (2021) | "To explore the relationship | 972 nursing students | Data were collected from May 1 – 31, 2021, using the | Students' level of resilience was positively associated with compassion | No rationale why the inclusion criteria had to be nursing students who received their clinical practice |

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| Quantitative cross-sectional design | between social support, empathy, resilience, coping strategies, compassion fatigue, and compassion satisfaction" in Chinese nursing students during their clinical practice education in Sichuan | from 15 universities or colleges in Sichuan, who received at least 10 months of clinical practice education.<br><br>Recruited through snowball sampling. Initial recruitment occurred in a tertiary hospital. | validated instruments presented through an online survey. Instruments were: Perceived Social Support Scale; Jefferson Scale of Empathy; CD-RISC with 10 questions; Simple, Coping Style Questionnaire, and Professional Quality of Life Scale.<br><br>Data were analyzed to assess the relationship between variables through correlation and regression analysis using SPSS 23.0 | satisfaction and burnout, and negatively with secondary traumatic stress.<br><br>Lower levels of resilience, empathy, and higher passive coping styles positively predicted higher levels of secondary traumatic stress. Higher levels of perspective-taking, resilience, and adaptive coping positively predicted compassion satisfaction. | education in a tertiary hospital, and at least 10 months of experience.<br><br>Lack of rationale of why CD-RISC version with 10 questions was chosen in comparison to other CD-RISC scales.<br><br>Sample size not justified.<br>Poor description of whether confidentiality and privacy were maintained, and whether participant personal identifiers were removed. No blinding was mentioned.<br><br>Lack of confidence intervals reported in correlation and regression analyses. |
| Chan & Dennis (2019a) | Two questions: | Convenience sample of | An online questionnaire with open-ended | Educators conceptualize resilience as a trait or a process. Define resilience | Unspecified qualitative design. Unable to critique if the sample size |

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| Qual-itative study, unspecified design.<br><br>Part of a larger mixed-methods study. | 1. How do healthcare professional instructors conceptual-ize resilience?<br><br>2. How do healthcare professional instructors report fostering student resilience? | 244 UK healthcare profess-sional educators.<br><br>Recruited via emails, social media, e-notices, or printed notes. Recruit-ment began at the University of Dundee's Centre for Medical Education. | questions mixed within a larger quantitative cross-sectional questionnaire.<br><br>Thematic analysis using a framework. The authors analyzed data separately. | through five themes: adaptation, bouncing back, flourishing, endurance, and engagement.<br><br>Educators mainly focused on strategies in the formal curriculum (reflection, teaching approaches and methods), and in the informal curriculum (such as role-modelling, networking, and counselling) to enhance students' resilience. Rarely did they consider strategies that addressed macro- and meso-environmental factors. | and sampling methods were appropriate.<br><br>Lack of reflexivity statement. Unknown if reflexivity was practiced in the study, despite it being acknowledged.<br><br>Lack of description regarding ontological and epistemological paradigms applied.<br>Did not mention how themes and subthemes were derived. No rationale for why data collection and analysis were stopped.<br><br>Study described rigor was maintained through researcher triangulation and reflexivity only. |
| Ching et al. (2020) | To explore the stressors and coping methods | 24 final-year Hong Kong nursing | Data was collected through 10 focus groups. Used a semi-structured interview | Students who possessed high levels of resilience and low burnout conformed with personal values, used | Unspecified qualitative design. Unable to critique if the sample size and sampling methods were appropriate. |

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| Qual-itative study, un-specified design.<br><br>Part of a larger mixed-methods study. | experienced and utilized by undergrad-uate nursing students with differing levels of resilience and burnout during their clinical practice. | students identified in a larger mixed-method study as having either low resilience and high burnout or high resilience and low burnout, were recruited. There are no details on how partici-pants were recruited in the larger study or this study. | guide. High-resilience and low-burnout students were separated from the low-resilience and high-burnout students.<br><br>Data were analyzed thematically | problem-solving and seeking meaning in adverse experience coping strategies. They also sought social support for advice and psychological support.<br><br>Students with low resilience and high burnout conformed to external expectations, used avoidance coping and self-blame strategies, and sought social support to vent negative feelings. | Minimal description of ontological and epistemological paradigms applied.<br><br>No rationale as to why only two groups of students were chosen (high resilience and low burnout or low resilience and high burnout) and not heterogeneous sampling.<br><br>Lack of reflexivity statement. Unknown if reflexivity was practiced in the study. Vital as participants were familiar with the principal researcher before the study.<br><br>Rigor was maintained only by researcher triangulation during the coding and creation of an audit trail.<br><br>Use of focus groups may be inappropriate. The phenomenon studied may be considered sensitive and may affect students’ |

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| | | | | | willingness to share their experiences. |
| Cleary et al. (2018)<br><br>Integrative review that evaluated quant-itative and qualitative studies | "To synthesize evidence that explored resilience and emotional intelligence (EI) in undergrad-uate nursing students." | 14 primary studies selected by two independ-ent reviewers. | The databases used: CINAHL, PubMed, ERIC, Scopus, and PsycINFO. Reviewed literature that was published up to 2017 and was in English.<br><br>All articles were critically appraised using the New Castle Ottawa Assessment Scale for quantitative studies and the CASP tool for qualitative studies.<br><br>Used Whittemore and Knafl's integrative review method. Data were analyzed thematically. | Resilience and EI were positively associated with students' clinical communication skills.<br><br>Resilience helped students overcome the incongruence between their expectations and the reality of nursing care to provide compassionate patient care. Resilience was positively associated with students' self-perception of their general well-being.<br>High EI was associated with students' ability to make meaning of their adverse experiences to drive personal growth. | Used limited search terms. May have restricted the scope of literature available concerning resilience and EI.<br><br>Unknown if the authors reviewed reference lists of key articles to identify potential studies to be included.<br><br>No theoretical scholarly articles were included and there was a greater emphasis on quantitative than qualitative studies. No RCT, longitudinal or case-control studies were included.<br><br>The authors did not appraise tools that measured resilience and EI (psychometric properties). |

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|---|---|---|---|---|---|
| Courtney-Pratt (2017)<br><br>Qual-itative descriptive study<br><br>Part of a larger mixed-methods study. | "To explore nursing students' experiences of bullying in their academic and clinical settings, and the strategies used by nursing students to negotiate bullying" | Conveni-ence sample of 29 undergrad-uate Australian nursing students (first to third year) from three different campuses. | Data was collected through semi-structured interviews.<br><br>Data was analyzed using direct content analysis. | Students experienced overt and covert bullying from their instructors in the academic and clinical settings.<br><br>Bullying behaviors caused stress, anxiety, fear, and a lack of confidence. Also invoked doubt about staying in the nursing program. Not all students reported their bullying experiences.<br><br>Students reported having peer support, supportive instructors, and other sources of social support as resilience-building factors. | No description of ontological and epistemological paradigms applied.<br><br>Lack of reflexivity statement. Unknown if reflexivity was practiced in the study.<br>The author noted that some of the participants were familiar with the researcher before the study.<br><br>The interview guide was not included in the article.<br><br>Details on how participants' anonymity and confidentiality were maintained were also absent. |
| Diffley & Duddle (2022)<br><br>Systematic review | To explore learning and teaching strategies for resilience develop-ment in | 12 studies were included: four mixed methods, two qualitative studies, | The databases used: Medline, CINAHL, PsycINFO, and Google Scholar. Articles restricted from 2015-2020. | Intervention strategies synthesized in three themes**:** information sharing (sub-categorized into general information and stressor-specific information), skill application (relaxation techniques, coping | Scholarly databases that were education-focused (e.g. ERIC) were not used.<br><br>The presentation of the effectiveness of interventions (Table F in the article) is unclear. However, the rationale for why the |

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| | undergrad-uate nursing students. | and six quant-itative studies. | Articles were appraised using JBI critical appraisal tools. The effectiveness of the interventions was evaluated using the JBI Level of Evidence tool.<br><br>Data from all studies were pooled for analysis (using JBI mixed methods data extraction tool), then thematically analyzed.<br>The credibility of the findings was evaluated using three levels of JBI credibility. | techniques, non-technical work skills, and other), reflective processing of learning (self-assessment, quizzes, reflection, debriefing and goal setting).<br><br>The interventions' effectiveness was based on the student's ability to "recognize stress and stressors, empowerment, and increase of resilience".<br><br>All studies had multiple interventions. Unable to conclude the effectiveness of singular teaching or enhancing method. | effectiveness of resilience interventions was difficult to evaluate was discussed.<br><br>Further details about the length of time of the interventions and their justification, and the time of evaluation of their effectiveness would be beneficial. |
| Edo-Gual et al. (2015) | To understand the relationship between | Initial random cluster sampling selected | Data was collected using self-reported questionnaires for demographic data and using validated | Students' death anxiety and fear of death were negatively and significantly correlated with resilience. | Poor description of sampling and recruitment methods. Sample size not justified. |

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|---|---|---|---|---|---|
| Quantitative cross-sectional study | death attitudes and EI, self-esteem and resilience in undergraduate nursing students | four out of 15 universities, and then a sample of 854 Spanish nursing students was recruited from those four universities. | instruments to measure participants: "fear of death, death anxiety, perceived EI, resilience, and self-esteem."<br><br>Data were analyzed using SPSS v21.0. Correlation, t-test, ANOVA, and multiple linear regression analyses were used to assess the relationship between variables. | The relationship between EI and death anxiety was nuanced, as the attention to feelings dimension of EI was positively correlated with death anxiety, while dimensions of clarity and mood repair had a negative association with death anxiety.<br><br>Attention to feelings, resilience and self-esteem were predicting factors for death anxiety in students. | Participants answered the self-reported questionnaire during class time. Their responses may be influenced by social desirability bias if they had the opportunity to discuss the questionnaire with their peers.<br><br>Unknown if the psychometric properties of the instruments were assessed with the nursing student population.<br><br>The authors did not discuss why resilience and self-esteem are predictors of death anxiety. |
| Henshall et al. (2023)<br><br>Qualitative study with unspecified design. The study | To explore the influence of the COVID-19 pandemic on the UK undergraduate nursing students' experiences | Convenience sample of 216 students who had clinical placement between November 2020 and | Data was collected in a variety of methods. The pre-placement survey was distributed and collected online. The data for descriptive statistics was analyzed using SPSS. | In relation to patient care, students found the following factors stressful: increased acuity of patients resulting in the normalization of death, the isolative nature of practice, increased expectations in practice, and unsatisfactory relationships with clinical staff and teachers. | Unspecified qualitative design. Unable to critique if the data collection methods, sample size, and sampling methods were appropriate.<br><br>Minimal description of ontological and epistemological paradigms applied. |

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|---|---|---|---|---|---|
| is part of a larger multi-site longitud-inal qualitative study called "COV-ED nurse." | of resilience and resilience develop-ment processes. | July 2021 was recruited for the COV-ED nurse study. 59 partici-pants' data were purpo-sively sampled for this study based on the data from their interviews and/or diary entries that discussed resilience. Partic-ipants for the COV- | Participants' diary entries (either written or audio-recorded) were recorded on their personal devices and then uploaded to Google Forms. Participants were provided with a topic guide for the diary entries. Participants who had a post-placement interview had a one-on-one semi-structured interview with a researcher. Data was analyzed through inductive thematic analysis. NVivo was used for the thematic analysis. | Students also found clinical practice stressful due to perceived risks related to the pandemic. This included concerns about infection control measures, COVID-19 vaccines, and spreading the infection to patients and families.<br><br>Other stressors students included were the changes in education delivery and the changes in their education guidance (e.g., courses and clinical placements).<br>Students found that reframing challenging situations, role-modelling clinical staff, acknowledging their contributions to patient care, internal and external support structures, and self-management activities | Lack of reflexivity statement. Unknown if reflexivity was practiced in the study.<br><br>The authors noted that participants were given a broad topic guide to help them complete their diary entries. No details were provided on how the guide was developed and/or tested before it was used for data collection purposes.<br><br>The interview guide was included in the study. No details were provided on how it was developed and/or if it was tested before it was used for data collection purposes<br><br>No rationale was mentioned for stopping data collection and analysis. |

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| | | ED nurse study were recruited using a hub-and-spoke method. | | helped them build resilience. | |
| Huang et al. (2023)<br><br>Qual-itative descriptive study | To understand Taiwanese undergrad-uate nursing student resilience develop-ment and indicators of resilience in the context of clinical practice education. | 15 nursing students from North-eastern Taiwan were recruited using purposive and snowball sampling. Recruit-ment methods were not described. | Data was collected using semi-structured interviews. The author also wrote field notes to support data collection and analysis.<br><br>The data was analyzed through content analysis in a framework, and findings were presented thematically. | Students had feelings of discouragement, frustration, and helplessness in clinical practice due to having poor professional knowledge and skills, and poor teamwork. Students also found poor interpersonal relationships with nursing staff and instructors, and theory-to-practice gaps as major sources of stress<br><br>To cope, students normalized adverse experiences at clinical practice, developed solution-oriented thinking, built positive relationships with staff and instructors, | No description of ontological and epistemological paradigms applied.<br><br>Lack of reflexivity statement. Unknown if reflexivity was maintained. The study described the present researcher had more than 10 years of nursing instructor experience. It is unknown whether the participants knew the researcher.<br><br>No rationale was provided for the sample exclusion and inclusion criteria. Poor details on recruitment strategies provided.<br>The interview guide was included. No details were provided on how it was developed and/or tested before using it for data collection purposes |

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| | | | | and adopted positive coping strategies. Students developed greater confidence and a sense of achievement by practicing reflection and receiving positive feedback from staff and patients. | No rationale was mentioned for stopping data collection and analysis.<br><br>Details on how participants' anonymity and confidentiality were maintained were also absent. |
| Hurley et al. (2020)<br><br>Qual-itative study, un-specified design.<br><br>Part of a larger mixed-methods study. | To understand how, if at all, student nurses would use their enhanced EI training received before their clinical placement, during their clinical practice education. | Conveni-ence sample of 12 first and third-year Australian nursing students who completed EI training workshop before their clinical practice education. | Data was collected through semi-structured interviews.<br><br>Data were analyzed thematically. | Participants reported that their EI training enhanced their resilience, ability to cope with adversity and emotional demands during their clinical practice, and ability to receive feedback from their instructors.<br><br>EI training also increased emotional self-awareness and management skills, which are constructs of resilience. | Unspecified qualitative design. Unable to critique if sample size and sampling techniques were appropriate.<br><br>Minimal description of ontological and epistemological paradigms applied.<br><br>Lack of reflexivity statement. Unknown if reflexivity was practiced in the study.<br><br>The interview guide was not included in the study.<br><br>Only researcher triangulation to promote rigour. |

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| | | Email recruit-ment only. | | | No rationale was mentioned for stopping data collection and analysis. |
| Hwang & Shin (2018)<br><br>Quant-itative cross-sectional study | To ascertain the character-istics of high academic resilience in undergrad-uate nursing students. | Conveni-ence sample of 254 South Korean nursing students from three different univer-sities.<br><br>No recruit-ment methods described. | Data was collected using questionnaires. No mention of how the questionnaires were distributed. Validated instruments were used to measure students' levels of academic resilience, social affective capability, clinical practice stress and satisfaction.<br><br>Demographic data and other relevant data, such as possessing a role model, grades, and level of satisfaction with their nursing major were collected. | A large portion of high academic-resilient students had "good interpersonal relationships, high grades, a role model, and high satisfaction with their major."<br><br>Highly resilient students' clinical practice stress was significantly related to clinical tasks burden. They were less stressed about patient conflicts and poor interpersonal relations.<br><br>There were no differences in clinical practice satisfaction between students with low, average or high resilience. High academic resilient students had higher levels of social affective capability | Lack of description regarding the inclusion and exclusion criteria for students' experiences of clinical practice. Students' current and past clinical experiences may influence their level of academic resilience.<br><br>Lack of justification for sample size.<br><br>Uncertain if the sample represents the target population, as the authors used a convenient sample.<br><br>It is unknown if the instruments were provided to participants in English or Korean. The same tool in different languages may have different psychometric properties.<br>The authors did not discuss the limitations of the study. |

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|---|---|---|---|---|---|
| | | | Data was analyzed using SPSS program. The chi-square test was used to assess the relationship between demographic variables and academic resilience. ANOVA and Turkey's post hoc test were used to examine the association between continuous variables. | | |
| Liang et al. (2019)<br><br>Partic-ipatory action approach, a qualitative study. | To develop and implement a resilience enhance-ment intervention project for undergrad-uate nursing students undergoing | Purposive sample of 28 Taiwanese nursing students.<br><br>Email recruit-ment only. | Data was collected through group discussions, individual semi-structured interviews, participatory observation, reflective diaries, and field notes during six workshops. Students | Students reported developing strategies of positive thinking and self-encouragement to foster resilience. They also identified having a supportive social network of peers, family, and instructors as key facilitators to resilience-building. | Although it was participatory action research, students were not co-contributors throughout the entire research process.<br><br>Inclusion and exclusion criteria for the sample were not described. The authors did not describe how potential participants were identified for recruitment. |

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| | their final clinical practice placement. | | participated in the development and evaluation of resilience strategies.<br><br>Data was analyzed through content analysis. | Students felt empowered to develop their nursing skills independently when their instructors created supportive and structured learning environments. | Lack of reflexivity statement. Unknown if reflexivity was practiced in the study.<br><br>No rationale was mentioned for stopping data collection and analysis. |
| Lopez et al (2018)<br><br>Qual-itative study, un-specified design.<br><br>Part of a larger mixed-method study. | "To understand how undergrad-uate nursing students perceive and experience their clinical placements and to identify factors that will help build their resilience." | Conveni-ent sample of 19 third and fourth-year Singapore nursing students from a local university.<br><br>Recruit-ment of the larger mixed-method study was | Data was collected through focus groups.<br><br>Data analyzed through content analysis | Students felt clinical practice education was a major stressor as they felt unprepared in terms of knowledge and skills, and were unsupported by their instructors and clinical staff at their placement.<br><br>Clinical practice evoked feelings of helplessness, anxiety, and isolation.<br><br>Students developed resilience by developing positive coping strategies, adapting to ward culture, and seeking support from their instructors. | Unspecified qualitative design. Unable to critique if sample size and sampling techniques were appropriate.<br><br>Lack of description of ontological and epistemological paradigms applied.<br><br>Lack of reflexivity statement. Unknown if reflexivity was practiced in the study.<br><br>No description of the type of questions asked. Interview guide was not included in the study. |

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| | | not described. | | | No rationale was mentioned for stopping data collection and analysis.<br><br>The use of focus groups may be inappropriate. The studied phenomenon may be considered sensitive. This may affect students' willingness to share their experiences. |
| Low et al. (2019)<br><br>A scoping review. | To explore and understand known teaching strategies for educating resilience in undergrad-uate health science students, and its application in undergrad- | Sample of 25 studies. | The electronic databases used: Medline, CINAHL, PsycINFO, ERIC, and EBSCO. Articles restricted from 2005-2018, published in English, were about improving resilience in undergraduate students.<br><br>Scoping review process guided by Arkey and O'Malley | Key educational strategies to enhance resilience: reflective practice, storytelling, peer support and mentoring, professional support and mentoring, mindfulness and meditation practices, and applying strategies to enhance self-knowledge and competencies.<br><br>Recommendations for instructors to improve students' resilience: introduce and integrate resilience-building in | No details on the types of studies identified in the sample. The authors did not describe how the articles were screened or reviewed.<br><br>Although the authors indicated the individual articles were apprised, a synthesis of the articles' quality was not provided.<br><br>The process of thematic analysis was not described. Steps to promote rigor were not described.<br><br>Not all studies identified in the sample had nursing students as their target population, therefore |

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|---|---|---|---|---|---|
| | uate nursing education. | | framework for scoping reviews.<br><br>Arkey and O'Malley framework was also used to guide critical appraisal of the selected articles. Thematic analysis is used to synthesize and interpret results. | education early, integrate learning activities that improve personal competencies related to resilience, incorporate structured peer sharing strength-based reflective practices, emphasize the importance and practice of self-care, and facilitate a supportive learning environment through peer support. | generalization of the applicability of findings to the nursing student population may be limited. |
| Revell et al. (2022)<br><br>Qual-itative study, un-specified design. | To assess the quality of the students' learning from a senior experiential learning mentorship course by evaluating their written critical | Conveni-ence sample of 33 self-reflective written assign-ments.<br><br>Details about students' demo-graphic | Data was collected through students' written self-reflective assignments after their completion.<br><br>Data was analyzed through thematic content analysis guided by Mezirow's transformative learning theory. | Self-reflection promoted students' resilience by allowing them to discover meaning in their experiences and practice positive cognitive reframing.<br><br>Students gained a greater appreciation of self-efficacy, determination, and social support (which are constructs of resilience) | Unspecified qualitative design. Unable to critique if sample size and sampling techniques were appropriate.<br><br>Recruitment method was poorly described<br><br>No description of the epistemological and ontological paradigms applied.<br><br>Lack of reflexivity statement. Unknown if reflexivity was |

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| | reflections on their experiences. | data were not reported. | Reported the use of narrative analysis, but not described. | through the experimental course. | practiced in the study.<br><br>No framework described for data analysis. No rationale was mentioned for stopping data collection and analysis.<br><br>Methods to promote rigor only included researcher triangulation.<br><br>No mention of how privacy and confidentiality were maintained |
| Roxburgh (2014)<br><br>Qual-itative study, un-specified design.<br><br>A part of a larger qualitative study that explored students, | To explore undergrad-uate nursing students' perceptions of two clinical practice learning models: the hub and spoke, and the classical rotational model. | Purposive sample of 10 second-year nursing students who previously underwent the hub and spoke model and are currently experien- | Tinto's Model of Institutional Departure was the theoretical framework that the authors used to inform the study.<br><br>Data was collected through focus groups.<br><br>Data analysis was performed using the | Students' resilience-building was related to having an enhanced familiarity with their clinical learning environment and learning expectations.<br><br>Students identified that resilience developed from past experiences helped them overcome difficult future challenges. | Unspecified qualitative design. Unable to critique if sample size and sampling techniques were appropriate.<br><br>Lack of reflexivity statement. Unknown if reflexivity was practiced in the study.<br><br>Questions used in focus groups were not described. Interview guide was not included in the study.<br><br>No justification for the use of the constant comparative method. No |

| **Author, Date, & Study Design** | **Research Purpose or Question** | **Setting and Sample** | **Data Collection and Analysis** | **Main Findings Pertinent to Literature Review** | **Critique** |
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| mentors, and clinical managers' percep-tions of two learning models. | | cing the classical rotational model.<br><br>Recruit-ment for the larger study was not described. | constant comparison method. | | rationale was mentioned for stopping data collection and analysis.<br><br>Methods to promote rigor only included researcher triangulation. No mention of how privacy and confidentiality were maintained. |
| Thomas & Revell (2016)<br><br>Integrative review that reviewed primary articles. | To explore and understand resilience within the context of nursing education.<br><br>Sub purposes: to define resilience, to identify factors affecting | Nine articles and one dissert-ation.<br><br>Of the nine articles: Four quant-itative studies, two qualitative studies, | The electronic databases used: CINHAL, ERIC, and PsycINFO. Articles selected had to be published between 1990-2014, published in English, and described within the context of nursing students.<br><br>Integrative review was guided by Whittemore and | Resilience within the context of nursing studies was not well defined. Existing definitions were provided in association with adversity, personal characteristics, and outcomes.<br><br>Support from external factors (family, friends, and mentors) was often recognized as having a positive impact on building resilience. | Critical appraisal of quantitative resilience tools used in primary studies was not evaluated (psychometric properties).<br><br>The authors emphasized the concept of defining resilience in nursing education originates from the field of psychology. However, the authors did not expand on how resilience was defined or resilience theories in the psychology field.<br><br>Very limited articles were found on resilience improvement strategies. |

| **Author, Date, & Study Design** | **Research Purpose or Question** | **Setting and Sample** | **Data Collection and Analysis** | **Main Findings Pertinent to Literature Review** | **Critique** |
|---|---|---|---|---|---|
| | resilience, to identify resilience improve-ment strategies for nursing students. | one concept clarifica-tion, and one theoretical method-ology. | Knafl and Cooper frameworks. Critical appraisal for the primary studies was guided by an appraisal tool and protocol. | Only three strategies to improve resilience were discussed. Two methods came from intervention studies that showed no statistical significance. The third strategy was based on a theoretical paper that used Parse's theory to teach reflection and perseverance as resilience-building methods. | Possibly due to the use of limited search terms. |
| Tian et al. (2019)<br><br>Quant-itative study. Study design was not described. | Three purposes:<br><br>To understand nursing students' experiences of workplace vertical violence (WVV) in clinical settings. | Cluster sampling from Chinese Medicine University, a sample of 524 nursing students. | Data was collected using self-reported questionnaires for demographic data and utilized the validated instruments of the Resilience Scale of University Students and Questionnaire on Nursing students' WVV.<br><br>Data were analyzed using SPSS 13.0, | 77% of students experienced or observed WVV, and perpetrators included clinical nurse mentors, instructors, and other clinical staff.<br><br>Students with lower resilience experienced a greater psychological impact.<br><br>Higher levels of resilience were associated with the tendency to "not report the | Poorly described study aims.<br><br>No justification for the sample size and sampling methods.<br><br>No justification for the chosen instruments for data collection. No description of how the questionnaires were distributed.<br><br>Lack of exact operational definition of WVV.<br><br>No mention of how privacy and confidentiality were maintained. |

| **Author, Date, & Study Design** | **Research Purpose or Question** | **Setting and Sample** | **Data Collection and Analysis** | **Main Findings Pertinent to Literature Review** | **Critique** |
|---|---|---|---|---|---|
| | To explore the relationship between resilience and the effects of WVV on students.<br><br>To identify variables that affect WVV experienced by students. | | and correlation, t-test, ANOVA and regression were used to assess the relationship between variables. | behaviour" and "communicate with the perpetrators and obtain the understanding of each other." | |
| Walsh et al. (2020)<br><br>Integrative review. | To understand the concept of resilience and explore the nursing educational strategies and | Sample of 18 papers was identified. | The electronic databases used: CINAHL, Cochrane Library, Medline, Web of Science and PsycINFO. Articles published from 2000-2018, in English, and about | Resilience was defined by key attributes of self-efficacy, confidence, and reflective ability.<br><br>Educational interventions that foster resilience were grouped into five categories: peer activity, reflective | Scholarly education-focused databases (e.g. ERIC) were not used for the literature search. Also, it would have been beneficial if the authors reviewed reference lists of key articles to identify potential studies to be included in the review. |

| **Author, Date, & Study Design** | **Research Purpose or Question** | **Setting and Sample** | **Data Collection and Analysis** | **Main Findings Pertinent to Literature Review** | **Critique** |
|---|---|---|---|---|---|
| | interven-tions to foster resilience. | | learning and teaching resilience were included.<br><br>Literature search approach guided by PRISMA framework for systematic reviews and meta-analyses. | practice, direct study, problem-based learning, and experiential learning. | No critical appraisal was performed for studies included in the sample.<br><br>The authors did not describe the data analysis process. Unknown how the results were generated other than that they were "common". |
| Wang et al. (2021)<br><br>Qual-itative construc-tivist grounded study | To understand undergrad-uate nursing students' academic resilience experiences during their Adulting Nursing practicums and to identify protective factors that promote it. | Purposive theoretical sample of 19 Taiwanese nursing students.<br><br>All partici-pants were recruited by email. | Data was collected through individual interviews. The researchers also wrote memos and reflections to support data collection and analysis<br><br>Data was analyzed using the constant comparative method. Detailed description of how these themes were extracted was provided. | Students viewed instructors as stressors if they showed a lack of empathy, disregard for their feelings and circumstances, exhibited impatience, and believed instructors had an unfair view of their performance and speed of learning.<br>Students also found having an unsupportive environment, and clinical staff and patients not trusting their knowledge and skills hindered their resilience-building. | No description of the epistemological and ontological paradigms applied. No justification for why the interpretive-constructivism paradigm was chosen.<br><br>Lack of reflexivity statement. Unknown if reflexivity was practiced in the study.<br>No theoretical model/framework was utilized/applied to support data analysis and interpretation.<br><br>No rationale was mentioned for stopping data collection and analysis. |

| **Author, Date, & Study Design** | **Research Purpose or Question** | **Setting and Sample** | **Data Collection and Analysis** | **Main Findings Pertinent to Literature Review** | **Critique** |
|---|---|---|---|---|---|
| | | | | Students viewed their ability to maintain optimism, be mindful, and receive support from patients and caregivers, clinical staff, peers, and family as facilitating resilience-building factors. | No interview guide was included in the study. |
| Zulu et al. (2021)<br><br>Qual-itative descriptive design | Two questions:<br><br>What are nursing students' experiences at a clinical placement in PHC setting for their clinical nursing practice education? | Purposive sample of 25 fourth year South African nursing students in a specific South African province "who had familiarity with the primary healthcare settings." | Data was collected using semi-structured focus group interviews, and field notes.<br><br>Data were analyzed using thematic data analysis until data saturation was reached. | Students described the following factors helped them be resilient and overcome challenges: (a) passion for nursing stemming from their value(s) of making a difference in their patients and communities, and receiving gratitude from their patients; (b) possessing resilient qualities such as cumulative nursing knowledge and skills, determination, having faith in a higher being; (c) receiving support from their | No description of the epistemological and ontological paradigms applied.<br>Lack of reflexivity statement. Unknown if reflexivity was practiced in the study.<br><br>No mention of how privacy and confidentiality were maintained.<br><br>Co-coder was described as a strategy to promote rigor. The use of a co-coder was not described in the data analysis. No description of whether a codebook was used, and how consensus was reached between co-coders regarding codes and themes. |

| Author, Date, & Study Design | Research Purpose or Question | Setting and Sample | Data Collection and Analysis | Main Findings Pertinent to Literature Review | Critique |
|---|---|---|---|---|---|
| | "How can nursing students be supported to strengthen their resilience during challenging situations at clinical placement in PHC setting?" | The recruit-ment strategy was not described. | | family, patients, instructors, clinical staff, and peers. | |

## Appendix C

## Primary Researcher's Self Reflection

In Appendix C, the primary researcher will describe how her interest in resilience emerged through three experiences: (a) as a nursing student, (b) as a practicing bedside nurse, and (c) as a nursing preceptor and mentor.

### Personal Experience: Overcoming Challenges in Clinical Practice as a Student

My interest in resilience as a concept of overcoming difficulties began when I was a nursing student during my clinical practice education. During this time, I was experiencing higher levels of stress and anxiety from caring for my family member's illness while fulfilling my responsibilities as a nursing student. In clinical practice, I remember feeling overwhelmed, as I was consistently triggered by events that evoked my concerns about my family members' burdens. Although my NCI at that time recognized my elevated stress levels, she and I struggled to communicate about how to manage my adverse experiences and stress at clinical practice. Ultimately, my academic performance in the clinical practice course suffered, and I had to take a leave of absence from my education to manage my well-being. Before this event, I was a student who had attained high levels of academic achievement while experiencing various significant challenges in my clinical practice education. My history of past successes and failures in bouncing back from difficulties, specifically my previous undergraduate education experiences in terms of academic performance, made me reflect on my abilities to cope with stress and overcome adversities. This reflection facilitated my recognition of the importance of resilience in nursing. It also sparked my interest in how to advance my resilience capacity, and the roles and experiences that NCIs have in building student resilience to prepare them for the roles and responsibilities of professional nurses.

**Personal Experience: Importance of Resilience as a Registered Nurse**

After completing my baccalaureate degree in nursing, I worked as a bedside nurse in various settings, including the Emergency Department for approximately three years, before and during the COVID-19 pandemic. While working in the Emergency Department, I swiftly realized resilience's importance in nursing. I quickly discovered that my inability to manage stress and negative emotions negatively impacted my ability to provide patient care.

After encountering substantial difficulties where I felt significantly distressed during my shift, such as caring for patients who were victims of abuse and receiving consistent verbal abuse from patients, I noted that I felt greater mental and physical exhaustion if I did not take the time to process these adverse experiences. Through my observations, I also found this pattern was shared among my nursing colleagues. I noticed that nurses who struggled to manage their stress exhibited greater severity of burnout and developed persistent apathetic and negative attitudes and feelings toward their patients, colleagues, and the nursing profession. During the COVID-19 pandemic, these observations became more frequent, as all nurses experienced additional stress from encountering an unknown virus, working in severely short-staffed environments, and witnessing patient suffering and death at an unprecedented rate. My colleagues who could not manage the elevated stress and bounce back from these challenges tended to quit their jobs or leave the profession. These experiences and observations made me ponder whether resiliency was incorporated into nursing education, if at all, and if so, how. Based on my personal experience as a nursing preceptor and mentor, I strongly felt that NCIs have a significant role in building nursing student resilience.

**Personal Experience: Supporting Student Resilience as a Preceptor and Mentor**

Throughout my practice as an RN, I had the wonderful opportunities to be a nursing preceptor and mentor to various nursing students for their clinical practice education during their final year of study. In my experiences of guiding and mentoring students, I frequently witnessed situations where they struggled to manage clinical adverse events, such as observing and caring for patients suffering from pain. In my initial encounter of supporting a student to overcome their adverse experiences, I quickly realized how poorly I was prepared to help. I was never formally or informally guided on how to manage my student's inability to cope and how to support their process of bouncing back from distressing experiences. With that recognition, I initially turned to my senior nursing peers for guidance on how to build resilience in students. From my interactions, I discovered that although many of my peers shared my perspective on the importance and value of resilience in nursing, they also struggled to support student resilience development due to minimal or lack of resilience training. I was also astonished by the lack of research on NCIs' experiences in supporting student resilience development, despite the awareness that students consistently experience elevated stress in clinical practice (Labrague et al., 2017).

From my accumulated experiences as a student, bedside nurse, nurse preceptor and mentor, my perspective on the importance of resilience in nursing and NCIs' roles in supporting student resilience-building became increasingly resolute, as I continuously witnessed the adverse effects of stress and burnout to nursing students, nurses, and the nursing profession overall. My hope in conducting this QD study was to provide meaningful findings that may contribute to the development of future teaching and learning strategies for nursing student resilience development, helping to better prepare them for the ongoing difficulties and challenges nurses face in the clinical practice setting.

## Appendix D

### Excerpt of Primary Researcher's Reflexive Journalling

**Jan 29, 2024 - Reflection of an Evolving Code: Problem Solving**

NCIs view resiliency as an indicator that one can handle/manage/solve issues and problems.

- NCIs often mention conflict management as important to resilience development.
- Merge conflict management under a bigger code of problem-solving/handling issues because participants abstractly considered conflict management as managing/handling an issue. Highlighted and labelled codes and linked them to this memo.

**Personal Reflection**: It is interesting how some NCI highlighted conflict management. Thinking back, as a student, conflict management was scary because I saw everyone in a position of authority. Therefore, I just listened to what they had to say and accepted it. As a bedside RN and preceptor, I saw conflict management more as issues communicating when solving a problem. Thinking back at the interviews (P01 and P02), that is also how the participants also view conflict - as a solving problem (some big and some small - e.g., what to do when witnessing unethical nursing practice, dealing with verbal abuse from clinical staff, etc). Highlighted conflict management as a problem-solving subcode for now and will note its frequency.

**Feb 9, 2024 - Reflection on critical thinking and problem solving as an evolving code**

<u>Should critical thinking </u>(sub-theme of NCI perception of resilience) <u>be merged under problem-solving?</u>

- critical thinking is a process of analyzing, interpreting, synthesizing, and evaluating information. With this information, it can inform actions and decisions. Learning and critical thinking go hand-in-hand.
- But if NCIs viewed resilience as "problem-solving" and a key characteristic of resilience is critical thinking, then is resilience necessary in the nursing profession and education?
  - Go to memo <u>Resilience is needed in nursing"</u> for ongoing reflection about this.
- CNO (2019) defines critical inquiry as "*a process of purposive thinking and reflective reasoning through which practitioners examine ideas, assumptions, principles, conclusions, beliefs, and actions within a particular context".*

- As per the CNO entry-to-practice competencies (2019): as a clinician, nurses need to "*1.5 develop plans of care using critical inquiry to support professional judgement and reasoned decision making*."

**Personal reflection**: Although I often use the term critical inquiry in my own work as an interim APNE, it is important to note that the participants do not. However, participants do acknowledge that the ideas of reflection and critical thinking are linked.

But is critical thinking and problem-solving the same thing? Or does one lead to another?

- code critical thinking and problem-solving separately. Make a note of how participants describe each concept and how they are linked. Linked comments to this memo.

**March 11, 2024 - Reflection of an evolving code: Moving forward**

Decided to reorganize themes so that problem-solving is a sub-theme of moving forward. Memo was renamed to "moving forward". *The abstract idea that participants are trying to convey is moving forward, meaning personal and professional growth?*

- Initially, in coding the P03 transcript, the participant described the difference between "getting over it" and "moving forward," which means learning from the challenging experience (whether stressful or not) and being able to learn from it so that in the future, you can apply the knowledge to new scenarios. This theme is also noted in the P4-P6 transcript.
- isn't adaptability just another way of describing problem-solving? adaptable/flexible meaning that if the old way does work, try a new method and reflect.

<u>Sub-categories of moving forward</u>: reflecting on this more abstract theme, noted that NCIs describe problem-solving as moving forward in a productive way, whereby a person is expected to apply the knowledge they learned before to new problems.

When describing moving forward, it means to move forward in a productive way. There is an emphasis on the student learning from a challenging experience (which in turn requires self-awareness and reflection) and applying that knowledge to new challenging experiences.

- NCIs view of resilience aligns with more of the perspective of it being a process rather than an intrinsic trait. Yet some of NCIs also describe/acknowledge that it can be a trait.

**Personal reflection**: Can the categories grouped in how NCI perceive resilience be organized as antecedents and consequences of resilience? As in what leads to resilience development, and what are the outcomes of resilience development? This rough idea is consistent with resilience as a process?

- rough ideas: Antecedents: critical thinking, reflection, and knowing oneself/knowing your own knowledge and feelings; Outcomes: confidence, can cope with stress

Through my own experience (as a student and bedside RN), and preceptor, I saw resilience as a process (maybe it is iterative?) because it can be learned and is ongoing. It would be interesting if participants saw it the same or as differently.

Carefully go back to transcripts and review how participants define resilience, describe when they know students achieved resilience, and what they need to help students learn/build/develop/ acquire to get resilience quality/start the resilience process. Maybe start with a list and see if the ideas of antecedents and outcomes align, and then go on from there.

# Appendix E

## Recruitment Email

**Study Title:** The Experiences of Nursing Clinical Instructors Supporting Undergraduate Nursing Students' Development of Resilience: A Qualitative Descriptive Study

Hello. I'm Carmen Fang, a nursing graduate student at McMaster University. I am conducting a study about nursing clinical instructors' experiences supporting students' development of resilience during their clinical practice education. This qualitative research study is part of my Master's thesis at McMaster University's School of Nursing, and I'm working under the supervision of Dr. Maria Pratt.

I'm inviting you to participate in a one-to-one interview, which will take approximately 30-60 minutes. The interview can be done in person at McMaster University or virtually through Zoom.

**Who is invited to participate?**

Nursing clinical instructors who have a minimum of one year of experience teaching a McMaster University professional practice course to levels 2 and/or 3 Basic and/or Accelerated stream nursing students at a clinical practice setting. We are seeking to recruit 8-16 participants with varying years of experience as NCIs, from a various of clinical practice settings where they teach professional practice (i.e., medical-surgical, mental health, maternity-child, pediatrics, etc.)

**What is involved in the research?**

Initially, you would be asked to respond to general questions about your teaching experiences at McMaster University. This includes your years of experience as an NCI, what courses and streams you teach in at McMaster University, and the type of clinical practice setting you teach in.

The interview will take approximately 30-60 minutes. With your permission, the interview will be recorded. Once the recording is transcribed for data analysis purposes, the recording will be permanently deleted. After the interview is analyzed, I may ask you to review some of the major points and details that were raised to verify what was discussed.

Please note that the information I collect from the survey and interview will be kept anonymous and confidential.

**How do I participate in this study?**

You can participate in this study by emailing me at fangc4@mcmaster.ca. If you are interested in participating, I will contact you to fill out an eligibility screening tool to make sure you are suitable to participate in the study. If you are eligible, I will provide a consent form and a document with a few questions to learn more about your teaching experiences at McMaster via email, and we will schedule a time for the interview.

**Please know that this study has been reviewed by the Hamilton Integrated Research Ethics Board (Project #16628)**

We would like to thank you in advance for your time and consideration!

If you have any questions or concerns about the study and/or your participation, please contact:

Student Investigator
Carmen Fang
Faculty of Health Sciences
McMaster University
Hamilton, ON, Canada
647-688-2938
E-mail: fangc4@mcmaster.ca

Local Principal Investigator
Dr. Maria Pratt
Faculty of Health Sciences
McMaster University
Hamilton, ON, Canada
(905) 525-9140 ext. 22511
E-mail: prattm@mcmaster.ca

## Appendix F

## Eligibility Screening Tool

Please answer the following questions by checking the appropriate box. These questions aim to screen whether you are eligible to participate in this study.

| Questions | Yes | No |
|---|---|---|
| 1. I have experience working as an undergraduate nursing clinical instructor (NCI) at the McMaster site. | ☐ | ☐ |
| *2.* I have experience working as an undergraduate NCI teaching *levels 2 and/or 3 Basic and/or Accelerated streams' clinical practice courses in clinical practice settings.* | ☐ | ☐ |
| 3. I have *at least one year of experience* as an undergraduate NCI teaching nursing clinical practice courses in a clinical practice setting for levels 2 and/or 3 Basic and/or Accelerated streams. | ☐ | ☐ |

## Appendix G

### The Eligibility Screening Email Correspondence

Dear [participant],

Thank you for your interest in participating in the research study *"The Experiences of Nursing Clinical Instructors Supporting Undergraduate Nursing Students' Development of Resilience: A Qualitative Descriptive Study."*

My name is Carmen Fang, and I am a Master's thesis graduate student at McMaster University. For my Master's thesis, I am interested in speaking to McMaster site undergraduate nursing clinical instructors who have experience teaching level 2 and/or 3 clinical practice courses in a clinical practice setting to Basic and/or Accelerated nursing students.

To ensure you are eligible to participate in this study, we kindly ask you to complete the screening tool that is attached as a Word document to this email and send it to fangc4@mcmaster.ca. Once I review your responses, please expect an email informing your eligibility status and the next steps.

Thank you,

Student Investigator
Carmen Fang
Faculty of Health Sciences
McMaster University
Hamilton, ON, Canada
647-688-2938
E-mail: fangc4@mcmaster.ca

Local Principal Investigator
Dr.  Maria Pratt
Faculty of Health Sciences
McMaster University
Hamilton, ON, Canada
(905) 525-9140 ext. 22511
E-mail: prattm@mcmaster.ca

## Appendix H

## The Eligibility Confirmation Participant Email Correspondence

Dear [participant],

Thank you for filling out the eligibility screening form for the research study *"The Experiences of Nursing Clinical Instructors Supporting Undergraduate Nursing Students' Development of Resilience: A Qualitative Descriptive Study."* Based on your responses, you are eligible to participate in the study.

**Next steps:**

1. Review and complete the informed consent form and answer a few questions about your demographic information for this study.
    a. These documents are attached to this email. Once complete, please send these documents to fangc4@mcmaster.ca.
        i. Once sent, please expect a copy of the consent form with the researcher's signatures in a separate email.
    b. The demographic information questions aim to collect some information about participant's experience as NCI at McMaster University. It should only take approximately 5 minutes to complete.

2. Participate in an approximate 30–60-minute interview.
    a. Please inform the student researcher, Carmen Fang, through email at fangc4@mcmaster.ca
        i. *A date and time* that is convenient for you for this interview, and
        *ii.* whether you would like to have this interview *in person at McMaster University* in a private room, OR *through Zoom.*

If you have any further questions before the interview, please contact Carmen Fang at the email address below.

Thank you,

Student Investigator
Carmen Fang
Faculty of Health Sciences
McMaster University
Hamilton, ON, Canada
647-688-2938
E-mail: fangc4@mcmaster.ca

Local Principal Investigator
Dr.  Maria Pratt
Faculty of Health Sciences
McMaster University
Hamilton, ON, Canada
(905) 525-9140 ext. 22511
E-mail: prattm@mcmaster.ca

## Appendix I

### Ineligible Email Correspondence

Dear [participant],

Thank you for completing the eligibility screening tool for the research study *"The Experiences of Nursing Clinical Instructors Supporting Undergraduate Nursing Students' Development of Resilience: A Qualitative Descriptive Study."*

Based on your answers to the screening tool, unfortunately, you *do not* meet the criteria to participate in this study. We appreciate your interest in sharing your knowledge and experience for this research study. However, we are aiming to speak to McMaster site nursing clinical instructors who teach level 2 and/or 3 clinical practice courses in clinical practice settings to Basic and/or Accelerated stream nursing students.

Thank you,

Student Investigator
Carmen Fang
Faculty of Health Sciences
McMaster University
Hamilton, ON, Canada
647-688-2938
E-mail: fangc4@mcmaster.ca

Local Principal Investigator
Dr. Maria Pratt
Faculty of Health Sciences
McMaster University
Hamilton, ON, Canada
(905) 525-9140 ext. 22511
E-mail: prattm@mcmaster.ca

**Appendix J**

**Demographic Survey Questions**

1. How many years have you been teaching clinical practice courses in a clinical setting in an undergraduate nursing program? (At McMaster University and other institutions)

2. What stream of undergraduate nursing students at McMaster University do you teach for clinical practice?

3. What other courses do you teach in McMaster University's undergraduate nursing program besides teaching clinical practice courses in a clinical practice setting? *Please check the boxes that apply. For 3c, if it applies, fill in the blank.*
   a. ☐ Teaching laboratory courses
   b. ☐ Teaching Nursing Theory/ Problem-Based Learning courses
   c. ☐ Other, please specify: ___________________________

4. What is the clinical practice setting where you teach the clinical practice course for level 2 and/or 3 nursing students? *Please check the boxes that apply. For 4b, 4c and 4d, if it applies, fill in the blank.*
   a. ☐ Medical-surgical units for adult populations
   b. ☐ In-patient specialty units for the adult population (i.e., psychiatry, complex continuing care, palliative). please specify: ___________________________
   c. ☐ Other inpatient specialty units for non-adult populations (i.e., pediatrics, combined maternity/newborn units). please specify: ________________________
   d. ☐ Outpatient settings. please specify: ___________________________

## Appendix K

## Interview Guide

*Start with a flexible introduction about resilience in nursing (i.e., resilience has been an important topic of conversation in nursing practice, education and policy in light of the COVID-19 pandemic that highlighted the experiences of nurses in all fields…)*

1. What does resilience mean to you? *Prompt:* what about resilience in nursing students?

*What clinical settings have you taught in for level 2 and/or 3 clinical practice courses? Thinking about teaching clinical practice experiences…*

2. How do you support your students' resilience development during their clinical practice?
    a. Do you think these strategies you mentioned are helpful for students? Why?
    b. In your opinion, what are some other strategies that work?
    c. What doesn't work? Why?

3. Can you share an experience(s) where you felt that you successfully supported your student's development of resilience? (*Prompt: for example, after witnessing or experiencing difficulties or challenges)*
    a. What made you feel that your student needed help with their resilience?
    *b.* How did your student demonstrate you were successful in improving their resilience? *(Prompt: behaviours, how did they act)*
        *i. Prompt: How do the behaviours you mentioned previously suggest that your student became more resilient?*

4. Can you share an experience where you felt you were unsuccessful in helping to improve your students' resiliency?
    *a.* How did your student demonstrate you were unsuccessful in improving their resilience? *(Prompt: behaviours, how did they act)*
        *i. Prompt: How do the behaviours you previously mentioned suggest that your student did not develop resilience?*

5. Based on your experience, what facilitates (helps to foster) students' resiliency development during clinical practice? *Prompts: Personal factors? Environmental/ institutional factors (inside and outside of healthcare organization? University? Social/Cultural?)*

  a. *Probing question:* How does what you mentioned help?

6. What barriers prevent you from supporting your students' development of resilience during clinical practice? *Prompts: Personal factors? Environmental/ institutional factors (inside and outside of healthcare organization? University? Social/Cultural?)*
   a. *Probing question:* How do these barriers you previously stated prevent you from supporting your student's resilience development?

7. Do you feel comfortable supporting your students to build resilience? Why or why not?
   a. Did you always feel this way? If no, what changed?
   b. What can be done to help you feel confident in supporting your students in developing resilience?

8. Is the concept of resilience integrated into the clinical courses you teach at McMaster?
   a. If so, how? If not, why do you think this is the case?

9. Would you like to tell me anything else about supporting your student(s)' development of resilience as a nursing clinical instructor?

**Appendix L**

**Informed Consent Form**

**Study Title:** The Experiences of Nursing Clinical Instructors Supporting Undergraduate Nursing Students' Development of Resilience: A Qualitative Descriptive Study

**Investigators:**

**Local Principal Investigator:**
Dr. Maria Pratt
Faculty of Health Sciences
McMaster University
Hamilton, ON, Canada
(905) 525-9140 ext. 22511
E-mail: prattm@mcmaster.ca

**Student Investigator:**
Carmen Fang
Faculty of Health Sciences
McMaster University
Hamilton, ON, Canada
647-688-2938
E-mail: fangc4@mcmaster.ca

**Purpose of the Study**

Nursing students are experiencing high levels of stress during their education. They have commonly identified their clinical practice education as a key stressor because of the difficulties they face in the clinical practice setting. Resilience is important for a person to bounce back from difficulties and cope with stress. We are seeking to understand the undergraduate nursing clinical instructors' (NCI) experiences of supporting resilience development in their students during their clinical practice education. You are invited to participate in this study because you have experience as an NCI at McMaster University and have taught (or are currently teaching) clinical practice education to Basic and/or Accelerated stream undergraduate nursing students.

This research study is part of the student investigator's thesis dissertation related to her Master's degree studies at McMaster University's School of Nursing.

**Procedures Involved in the Research Study**

For this study, you will be asked to answer a few questions about your demographic information and complete an interview.

You can answer the demographic questions online, which will take approximately 5 minutes, or during the interview. The purpose of the survey is to gain a better understanding of your background as an NCI. It will ask you questions about your years of experience as an NCI, the type of clinical practice setting and the undergraduate nursing streams you teach in, and your teaching responsibilities at McMaster University.

The interview will be one-to-one with the student investigator and will take approximately 30-60 minutes to complete. It will take place at a date and time that is mutually convenient for you and the student investigator, and it can occur in person at McMaster University or virtually via Zoom. To protect your privacy and confidentiality, the interview will be held at a time that will not be during your work day as an NCI at McMaster University. During the interview, the student investigator may take handwritten notes. With your permission, the interview will also be recorded (audio only if in person, and video and audio if virtual). The recording will be deleted once the interview is transcribed through a secure automated transcription software. During the interview, we will be asking questions related to your experiences of supporting the development of resilience in your students at clinical practice, such as asking you to describe your past successful and unsuccessful experiences.

**Potential Harms, Risks or Discomforts**

There are minimal foreseeable risks related to participating in this study. However, you may develop feelings of discomfort during the interview as we may be discussing sensitive topics, including challenges nursing students face during their clinical practice education. You may also feel uneasy about the length of time of the interview as it may run longer than estimated, which can disrupt your planned schedule. You may also worry about how others will react to what you say during the interview, and how this may potentially affect your employment at McMaster University.

To minimize these potential harms, risks, and feelings of discomfort, during the interview, you do not need to answer questions that you do not want to answer or that make you feel uncomfortable. During the interview, you can ask for it to be stopped at any time. Please know that your participation in this study is voluntary and anonymous, and you have the right to withdraw at any time. We do not report your participation and/or withdrawal to McMaster University's School of Nursing. In this study, we have taken several steps to protect your privacy and confidentiality. For details about the steps taken to protect your privacy, please see below.

**Potential Benefits**

The research will not benefit you directly.  We hope to learn more about the experiences of NCIs in supporting their students' development of resilience during clinical practice. We hope that this could help the future creation and development of teaching and learning strategies about building resilience in nursing students, which can contribute to the development of building a more resilient future nursing workforce in Canada.

**Privacy and Confidentiality**

You are participating in this study confidentially. The researchers do not ask for any identifiable personal information during the interview or in the demographic information questions. We will not use your name or any information that would allow you to be identified in any interview transcripts, demographic information, written notes, and data analysis, reports, and publications for this study. Instead, we use a unique participant identification number that is uniquely assigned to you when referring to your data.

Only one master file containing your name, contact information, and unique participant identification number will exist, which is password protected, accessible to the student investigator only. It will be deleted once the study is complete. All interview recordings will be immediately transcribed using secure transcription software. The interview recording will be deleted once the student investigator reviews the transcript for accuracy and removes any potential identifying information, including your name. All audio recordings will be accessible to the student investigator only, and the audio recorder will be kept in a secure room that is accessible to the student investigator only. However, there is a minimal risk that you may be identifiable through the stories you disclose. Please keep this in mind when deciding what to disclose during the interview. Only the student investigator will know whether you participated in the study unless you choose to tell them.

Please note that the use of the Zoom video-conferencing platform for data collection purposes is approved by the Hamilton Integrated Research Ethics Board (HiREB). A link to their privacy policy is available here: https://hireb.ca/privacy-policy-2/. If you choose to have the interview through Zoom, I will be using McMaster University's associated Zoom account which has enhanced security features to protect your privacy. While HiREB has approved using Zoom to collect data for this study, there is a small risk of a privacy breach for data collected on external servers. If you are concerned about this, I would be happy to make alternative arrangements for you to participate, perhaps via in-person at McMaster University. Please talk to the student researcher if you have any concerns. However, if you choose to have the interview through Zoom, we kindly ask you not to record the interview on any electronic device.

The information you provide to this study will be saved as password-protected electronic files, and along with all the electronic files created by the researchers during the study's data collection and analysis processes, they will be stored in a password-protected cloud service provided by McMaster University. Only the researchers involved in the study will have access to the cloud service and electronic files. All works related to this study by the student investigator will be completed on a password-protected laptop that is only accessible to her. Once the study has been completed, all forms of data containing participant identifying information will be destroyed.

For the purposes of ensuring proper monitoring of the research study, it is possible that representatives of HiREB, this institution, and affiliated sites or regulatory authorities may consult your original (identifiable) research data to check that the information collected for the study is correct and follows proper laws and guidelines. By participating in this study, you authorize such access.

**Participation and Withdrawal**

Your participation in this study is voluntary and anonymous. It is your voluntary choice to be part of the study or not, and your decisions will not be known to anyone else but to the student investigator. Please note by participating in this study, you do not waive any rights to which you may be entitled to under the law.

If you decide to be part of the study, you can choose to withdraw, at any time, even after signing the consent form or part-way through the study. If you decide to withdraw, there will be no consequences to you, and it will not impact your employment and its current standing at McMaster University's School of Nursing. If you decide to withdraw, please tell the student investigator whether you want to remove the data you provided in the study, or else the information you have provided up to the point where you withdraw will be kept in the study. You can inform the student investigator of your decision to withdraw from the study and how your data will be managed by email at fangc4@mcmaster.ca. Once this email is received and reviewed by her, she will send a confirmation email back to you about your withdrawal.

**Information about the Study Results**

We expect to have this study completed in the summer of 2024. If you would like a summary of the results, let us know in the consent form. Please also let us know how you would like it sent to you.

**Questions about the Study**

If you have questions or need more information about the study itself, please contact the student investigator at fangc4@mcmaster.ca or 647-688-2938, or the principal investigator (Dr. Maria Pratt) at prattm@mcmaster.ca. Please know that all questions and concerns will be kept anonymous and confidential.

This study has been reviewed by the HiREB. The HiREB is responsible for ensuring that participants are informed of the risks associated with the research and that participants are free to decide if participation is right for them. If you have any questions about your rights as a research participant, please call the Office of the Chair, HiREB, at 905.521.2100 x 42013.

**CONSENT**

I have read the information presented in the informed consent form for this study, which Carmen Fang is conducting under the supervision of Dr. Maria Pratt at McMaster University's Faculty of Health Sciences.

I have had the opportunity to ask questions about my involvement in this study and to receive the additional details I requested.

I understand that if I agree to participate in this study, I may withdraw from the study at any time. I will be given a signed copy of this form. I agree to participate in the study.

*Thank you for agreeing to participate in this research study! Please mark your choice for each item.*

1. *I agree that direct quotations from the interview can be used in oral presentations and written reports and publications*. ☐ Yes ☐ No
2. *I would like to receive a summary of the study's results at the completion* of the *study*.
   ☐ Yes ☐ No

*If yes, where would you like the results sent:*
*Email:*
*Or by Mail:*

| ______________________ | __________________________ | ________________ |
|---|---|---|
| Name of Participant (Printed) | Signature | Date |

Consent form explained in person by:

| _________________________ | ______________________ | ________________ |
|---|---|---|
| Name and Role (Printed) | Signature | Date |