

Teaching Strategies and Student Resiliency in Online/Hybrid Graduate Nursing Education: An Empty Review

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Abstract

Background: Resiliency is an important ability for graduate-level nursing students to possess, as it may lead to increased persistence and retention within academic programs and post-graduation. Evidence-based teaching strategies may foster resiliency among graduate students in online/hybrid academic programs.

Aims: The primary aim of this review was to determine what teaching strategies in online/hybrid graduate nursing education promote resiliency. A secondary aim was to identify measurement tools for resiliency.

Design: Integrative literature review.

Data Sources: The databases MEDLINE via PubMed, CINAHL, ProQuest Nursing and Allied Health Literature, and ProQuest Education Database were searched.

Review Methods: This integrative review was guided by Whittemore and Knafl's methodology. The titles and abstracts of 3,848 peer-reviewed publications were reviewed for inclusion eligibility, of which two articles underwent full-text review.

Results: No articles fully answered the review question; therefore, this was determined to be an empty review.

Conclusions: This review highlights the need for future nursing research to evaluate the effects of evidence-based teaching strategies on graduate student resiliency. Valid and reliable tools measuring resiliency are available that can be used in future nursing research and quality improvement projects.

Keywords: graduate nursing education; resiliency; online; hybrid; learning; teaching

Background

A trifecta of factors is creating a turbulent staffing storm within the nursing profession – nursing retirement, a nursing faculty shortage, and younger nurses leaving the profession. By the year 2030, the International Centre on Nurse Migration predicts 4.7 million nurses are to retire globally (NewsCAP, 2021). Data from the American Association of Colleges of Nursing (AACN) reflected that in 2022, the nurse faculty vacancy rate was 8.8% (with the majority of positions requiring or preferring a doctoral degree). Auerbach et al. (2022) conducted a workforce analysis in the United States, demonstrating that in 2021, registered nurses (RNs) younger than age 35 comprised the majority of nurses leaving the profession. Nurse educators have an opportunity to assist graduate-level students in the development of resiliency, which may lead to increased persistence and retention within academic programs and in the workforce.

Many definitions for the concept of resiliency exist. In a recent concept analysis, Cooper et al. (2020) found that there was no universally agreed-upon definition of what it means for a nurse to be resilient. In the literature, definitions were found linking the concept of resiliency to adaptability (AACN, 2024; Kalisch et al., 2017), coping ability (Ahern, 2006; Fullerton, et al., 2021; Stephens, 2013), recovery from stress (Atkinson et al., 2009), and bouncing back and rebounding from adversity (Aryuwat et al., 2022; Thompson et al., 2022; Thomas & Revell, 2016). McAllister and Lowe (2011) assert that resiliency is a learned behavior. Fullerton et al. (2021) explored academic resilience, focusing on the capacity or ability to overcome adversity and attain successful educational outcomes. For the purpose of this integrative review, the definition of resiliency by Kalisch et al. (2017) was used, which describes resiliency as “the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress” (p. 784).

Aims

The primary aim of this integrative review was to answer the question: What teaching strategies in online/hybrid graduate nursing education promote resiliency? A secondary aim was to identify valid and reliable measurement tools for resiliency.

Methods

This integrative review was guided by the five-stage framework established by Whittemore and Knafl (2005), which included the following steps: 1. Problem identification; 2. Literature search; 3. Data evaluation; 4. Data analysis; and 5. Presentation. The Whittemore and Knalf (2005) methodology was chosen as it provides a structured, systematised review process.

Literature Search

To identify relevant studies, a search for primary research investigating teaching strategies that promote resiliency within online/hybrid graduate-level nursing students was conducted by a university librarian. Four databases, namely, MEDLINE via PubMed, CINAHL, ProQuest Nursing and Allied Health Literature, and ProQuest Education Database were searched from January 2013 until September 2023. Terms within the search strategy included subject headings and keywords for *graduate nursing education*, *online/hybrid learning*, and *resiliency*. Each database, specific search terms, and syntax are detailed in Supplemental Digital Content. To increase the comprehensiveness of the search, the reference lists of relevant articles were also reviewed for additional studies and, if identified, included for title and abstract screening.

Inclusion/Exclusion Criteria

Team members established the following inclusion and exclusion criteria before review initiation. Sources were included in the review if they: 1. Reported original findings of quantitative, qualitative, or mixed-methods research investigating graduate nursing student

resiliency. 2. Analyzed, evaluated, or discussed specific teaching methods or interventions to improve resiliency within an online/hybrid learning environment. 3. Published within peer-reviewed journals in the English language within the past ten years (2013 and newer). Articles were excluded if they were non-research, grey literature, dissertations, or quality improvement projects. Also, articles were excluded if there was no focus on nursing education or if the education setting was face-to-face or in-person.

Procedure

Initial database searches resulted in 5,260 records, of which 1,412 duplicates were removed, resulting in 3,848 unique records for title and abstract screening. A blinded review was conducted by the review team using an online software program for managing collaborative literature reviews. The review team split the total number of records into two screening groups, consisting of three reviewers per group, who independently reviewed the 1,924 records assigned to their group. After a blinded review, the group members convened to discuss any discrepancies and reach an agreement on which studies would move on to full-text review, based on discussions of the inclusion and exclusion criteria set forth prior to the review.

Results

The six nurse authors screened the titles and abstracts of 3,848 publications, of which only two articles were selected for full-text review. The first full-text article identified was excluded as it was non-research. The second full-text article by White et al. (2024) was a peer-reviewed original research study that explored the concepts of grit (which relates to the concept of resiliency), self-directed learning, and compassionate teaching; 5.3% were in an on-campus (face-to-face) program. This study was the only study found where resiliency was objectively measured among graduate-level students. The rationale for why White et al. (2024) was excluded

from this review is because the participants were not solely online/hybrid learners. There was consensus among all authors that none of the articles fully answered the review question. Thus, this was determined to be an empty review.

Discussion

The findings of this empty review underscore the need for specific evidence-based teaching strategies that promote resilience in graduate students. Evidence-based teaching strategies based on rigorous research are needed to guide teaching (Oermann et al., 2022). An original research idea was discovered as primary research articles were not found that measured resilience objectively. Reyes et al. (2015) found a weak correlation between nursing students' resilience and academic success and discussed the need for investigation and testing of educational interventions that promote resiliency. Beauvais et al. (2014) reported an association between resilience and academic performance that was observed among graduate nursing students. With valid and reliable tools available to measure resilience outcomes (see Table 2), teaching strategies can be tested against traditional models in future research. Targeted research can provide reliable and conclusive results to determine effective teaching strategies in online/hybrid graduate education to promote resiliency.

In the nursing literature, empty reviews are rare (Gray, 2021). Nursing education can facilitate resilience building that can impact learning outcomes (Aryuwat et al., 2022; Goddard et al., 2022; Thompson et al., 2022). The need for further research and concept clarification will offer opportunities for students to become aware of key resilient characteristics that promote success and satisfaction with learning. This lack of evidence in this empty review highlights the need for a better understanding of specific teaching strategies that promote resilience in graduate

students, which can affect student learning success and clinical practice outcomes at the patient, staff, and organizational levels.

Conclusions

It is necessary for nursing educators to conduct future research and quality improvement projects exploring effective evidence-based teaching strategies that support student resiliency among graduate-level nursing students. Strengthening resiliency among graduate nursing students may improve retention rates not only while they are enrolled in academic programs, but also in the workforce.

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Table 1*Search Terms*

Concept	Subject headings	Text words
Resilience	Psychological Processes and Principles+ Hardiness Self Concept+ Optimism Psychological Well-Being Stress Behavior and Behavior Mechanisms+ Behavioral and Mental Disorders+ Psychological Resilience	resilienc*, persev*, persist*, adapt*, grow*, recover*, rebound*, overcome*, cop*, well being, well-being, wellbeing, buoyan*, invulnerab*, protective factors, protective factor, self concept, self-concept, self esteem, self-esteem, self awareness, self-awareness, confidence, self-actualization, self compassion, self efficacy, trust worthiness, self regulation, optimis*, communicat*, strength*, quality of life, satisfy, flourish, thrive, hardiness, psychological well-being, strain*, stress*, tension*, pressure*, anxiety*, distress*, burnout, burn-out, depress*, mental health, overwhelm, behavioral and mental disorders*, psychological processes and principles*
Graduate Nursing	Graduate nursing education Graduate Nursing Students Masters Nursing Education Masters nursing students Nurse Anesthesia Education Nurse Midwifery Education Doctoral Nursing Education Doctoral nursing students Nurse Practitioners Nursing Informatics Nurse Specialists	Education, nursing, graduate* Students, nursing, graduate* Master of science in nursing, masters of science in nursing, MSN Masters, master, advanced practice, advanced-practice, post-graduate, doctorate, doctoral, degree, nurs* nurse practitioner, np, msn- np, master of nursing practice, nursing practice, nurse administrator

		nurse midwifery, nurse-midwifery, midwifery, nurse midwife, clinical nurse specialist, nurse clinician, nurse anesthetist, nurse anesthesia, advanced practice registered nurse
Online/Hybrid Learning	Non-Traditional Education + Blended Learning Online instruction Distance Learning Distance Education	non traditional, non-traditional, nontraditional, virtual, online, remote, mobile, distance, web-based, webbased, web-enhanced, internet based, internet-based, computer, computer-based, computer assisted, computer-assisted, combined, blended, hybrid, distributed, learning, education, teaching, course, e learning, mlearning, m-learning class
Years of Publication 2013 – 2023		

Table 2*Resiliency Measurement Tools*

Measurement Tool	Age Group(s) Studied	Uses Studied	Example Studies Where Measurement Tool Was Used in Education
Connor Davidson Resilience Scale (CD-RISC)	10-18 years, adults, over 65 years	Community, Primary Care, General Psychology, Post Traumatic Stress Disorder (PTSD), Nurses, Students	Use in many cultures with students and nurses. Wilson, J. L., Hampton, D., Hensley, A., Culp-Roche, A., De Jong, M. J., Chase-Cantarini, S., & Wiggins, A. T. (2021). A multicenter study about resilience of nursing students and faculty in online courses. <i>Journal of Professional Nursing, 37</i> (5), 894–899. https://doi.org/10.1016/j.profnurs.2021.07.005
Resilience Scale for Adults (RSA)	Adults	Adaptation to psychosocial adversity. Has been used among students (not specifically with nursing students)	Smith, C. S., Carrico, C. K., Goolsby, S., & Hampton, A. C. (2020). An analysis of resilience in dental students using the Resilience Scale for Adults. <i>Journal of Dental Education, 84</i> (5), 566–577. https://doi.org/10.1002/jdd.12041
Brief Resilience Scale	19 – 62 years	Ability to bounce back after stress. Has been used with nurses and undergraduate nursing students	Julian, M., Cheadle, A.C.D., Knudsen, K.S., Bilder, R.M., & Dunkel Schetter, C. (2022). Resilience Resources Scale: A brief resilience measure validated with undergraduate students. <i>Journal of American College Health, 70</i> (5), 1434-1443. https://doi.org/10.1080/07448481.2020.1802283
Scale of Protective Factors	College students	Social, interpersonal cognitive resilience. Used after trauma and assault.	No studies were identified related to education.
Predictive 6-Factor Resilience Scale	18 years and older	Assess ego resiliency, such as confidence and optimism.	No studies were identified related to education.

Ego Resilience Scale	16 – 48 years	Assess ego resiliency, such as confidence and optimism.	Lee, S., Hye, Y. A., & Choi, H. S. (2022). Effects of ego-resiliency on interpersonal problems among nursing students: The mediating effects of aggression. <i>Healthcare</i> , 10(12), 2455. https://doi.org/10.3390/healthcare10122455
Academic Resilience Scale	College students	Ability to bounce back from academic adversity. Studies with pharmacy and medical students.	Furtado, M. (2022). Assessment of academic resilience as a non-cognitive variable in entry-level Doctor of Physical Therapy students. <i>Journal of Allied Health</i> , 51(3), 189-197. https://www.proquest.com/docview/2718688405?parentSessionId=828LnKfID8ZoPP%2F4r0bVfa664jwt2ww%2Bdjj2UFsSMmU%3D&pq-origsite=primo&accountid=147674&source=Scholarly%20Journals