Resilience in Nursing Education: 
An Integrative Review

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ABSTRACT
Background: Resilience is a phenomenon known to buffer the negative effects of stress. Resilience is important in the lives of nursing students and nurse educators.
Method: An integrative literature review was conducted to explore the current state of knowledge of resilience in the context of nursing education. Implications from the review findings were deduced for nursing education practice and research.
Results: Three theoretical papers and 16 empirical reports were included in the review. Three themes emerged from the analysis: (a) Resilience Is Important in Nursing Education, (b) Resilience Is Conceptualized as Either a Trait or a Process, and (c) Resilience Is Related to Protective Factors.
Conclusion: The findings provide data to support interventions to enhance the resilience of nursing students and nurse educators and offer a foundation for further research of resilience in nursing education. [J Nurs Educ. 2015;54(8):438-444.]

Stress, which involves an individual’s appraisal of the environment as threatening to his or her well-being (Lazarus & Folkman, 1984), can adversely affect the education of nursing students and the work life of nurse educators. Continued ineffective coping with stress has been documented to produce deleterious effects on the well-being and academic performance of nursing students and has resulted in leaving their programs (Wells, 2007). Although nursing students may deal with the same academic challenges as most postsecondary students (including increased academic workload, stress at examination times, and social integration into different learning communities), they face unique stressors. Their practicum areas have been identified as one of the leading stressors in their academic lives (Thomas, Jack, & Jinks, 2012). Students cope with culture shock around the realities of their clinical workload (Brennan & McSherry, 2007), unwelcoming and negative attitudes of clinical staff (Hoel, Giga, & Davidson, 2007; Pearcy & Elliott, 2004), death and other social issues and concerns (Mackintosh, 2006; McGowan, 2006), and anxiety about making clinical errors (Levett-Jones & Lathlean, 2008; Sharif & Masoumi, 2005). They also grapple with faculty incivility that increases their stress and negatively influences their learning and self-confidence (Clark, 2008).

Nurse educators are also subjected to high levels of stress in their workplaces. Growing numbers of nursing faculty members are stressed, emotionally exhausted, and without a sense of personal accomplishment (Sarmiento, Spence Laschinger, & Iwasiw, 2004; Talbot, 2000). Many nurse academics lack readiness for faculty work expectations, such as being a researcher, mentor, and educator (Siler & Klein, 2001; Tartavoule, Manning, & Fowler, 2011). Educators can also experience stress from pressure to maintain both clinical and educational expertise (Hinshaw, 2001); increasing complexity of the nursing faculty role (Disch, Edson, & Adwan, 2004); rapidly changing educational technology (Burke, 2009); faculty-to-faculty incivility (Clark, Olender, Kensi, & Cardoni, 2013); student aggression and incivility (Luparell, 2007); and role overload, conflict, and ambiguity, particularly for clinical faculty (Whalen, 2008; Wiens, Babenko-Mould, & Iwasiw, 2014).
Because nursing students and nurse educators must cope with stress and adversities on a daily basis, it is paramount for them to develop resilience. The phenomenon of resilience has been widely researched and is known to buffer the effects of stress, thereby facilitating adaptation to adversities (Mallack, 1998; Tusaie & Dyer, 2004). Although the number of studies about resilience in nursing is growing, the description of resilience in the nursing education literature remains limited.

PURPOSE

The current integrative review had two purposes. The first was to analyze and synthesize empirical and theoretical reports on resilience in nursing education. The second was to deduce implications from the findings of the literature review for nursing education practice and research. The overall research question that guided the current review was: What is the current state of knowledge of resilience in the context of nursing education?

METHOD

Whittemore’s and Knaff’s (2005) integrative review method was used to analyze and synthesize the literature on resilience in nursing education. This method allows for the use of empirical (both quantitative and qualitative) studies and theoretical reports. Whittemore’s and Knaff’s framework for data collection, analysis, and synthesis is composed of five stages: (a) problem identification, (b) literature search, (c) data evaluation, (d) data analysis, and (e) presentation. The first stage of the method—problem identification—has been applied in the introduction of this article. The last four stages are discussed in the sections that follow.

Literature Search

The literature search was conducted by using the following databases: Cumulative Index for Nursing and Allied Health Literature (CINAHL®), Scopus®, Educational Resources Information Center (ERIC®), PsycINFO®, PubMed®, and ProQuest®. The keywords used in the search included the terms resilience, resiliency, and hardiness, along with each of the following four terms: nursing education, nursing students, nurse educator, and nursing faculty. The following inclusion criteria were applied to the literature search: had to (a) be published between 1990 and 2014; (b) be written in English; (c) include research or theoretical reports on resilience; and (d) focus on resilience in nursing education. The last criterion pertained to the literature related to the resilience of nursing students (both undergraduate and graduate) or nurse educators in the academic setting. The exclusion criteria of the search were (a) studies focused on the resilience of new nurse graduates, school nurses in elementary and secondary schools, and nurse educators supporting nursing staff professional development and (b) research that did not include resilience as an outcome of the study. The second exclusion criterion pertained to research studies that had discussions of resilience as an implication, rather than part of the study findings. Unpublished master’s theses and doctoral dissertations derived from the electronic search were also included in the review if they met the inclusion criteria. A manual search of articles that were missed from the electronic search was also conducted by examining the references in relevant articles, and those further sources that met the inclusion criteria were included in the review.

A total of 1,165 records were retrieved. Abstracts were reviewed to determine their relevance to nursing education, and duplicate articles were removed. The large number of articles from the initial search result involved discussions of resilience as an implication, rather than as part of the study findings; hence, these were excluded from the review. In total, three theoretical and 16 research articles related to resilience met the criteria and were included in the data analysis of this integrative review. Detailed characteristics of the literature sample are included in Table A (available in the online version of this article) for the research studies and in Table B (available in the online version of this article) for the theoretical articles.

Data Evaluation and Analysis

Records included in the final sample were evaluated for methodological rigor and relevance of findings to the research question. All reports in the final sample were retained in the data analysis stage, regardless of the outcome of data evaluation, as suggested by Whittemore and Knaff (2005). The four steps of data analysis (data reduction, data display, data comparison, and conclusion drawing and verification), as explicated by Whittemore and Knaff, were used to arrive at common themes and patterns.

RESULTS

Three main themes emerged from the data analysis—(a) Resilience Is Important in Nursing Education, (b) Resilience Is Conceptualized as Either a Trait or a Process, and (c) Resilience Is Related to Protective Factors.

Resilience Is Important in Nursing Education

The studies included in the review suggested that resilience was necessary in the academic lives of nursing students and the work of nurse academics. As described in the studies, nursing students and nurse educators faced significant challenges that required them to have resilience. For example, resilience was demonstrated through students’ perseverance with their challenges, which then was a contributing factor in facilitating success in their nursing education and in the completion of their degrees (Carroll, 2011; Crombie, Brindley, Harris, Marks-Maran, & Thompson, 2013; Knight et al., 2012; Peters, 2003; Williamson, Health, & Proctor-Childs, 2013). Carroll (2011) found that students described resilience as having the determination to succeed, rather than retreating in the face of challenges. In the study by Mott (2013), students reported that resilience was a facilitating factor in persisting with the challenges of faculty bullying. Resilience was a major contributing factor to nursing students’ assertiveness in handling the aggressive behaviors of clinical staff in their clinical placements (Jackson et al., 2011). School staff members attributed resilience to students’ ability to remain in the program (Williamson et al., 2013).

Resilience is also important because it is a contributing factor to the hope and optimism of students and educators. Hope
and optimism pertains to having a positive outlook on the adversities faced by nursing students (Carroll, 2011). For nurse educators, hope and optimism were influential factors in their ability to reframe their future in the challenging workplace (Glass, 2007). Furthermore, as nurse educators become more hopeful and optimistic, they become more resilient in coping with workplace challenges by expressing their concerns and vulnerability (Glass, 2007).

Findings from three quantitative studies (Beauvais, Stewart, DeNisco, & Beauvais, 2014; Pitt, Powis, Levett-Jones, & Hunter, 2014; Taylor & Reyes, 2012) also demonstrated the importance of resilience in the academic lives of nursing students. In these studies, a statistically significant (albeit weak) relationship was noted between students’ academic success and their resilience. Pines et al. (2012) and Pines et al. (2014) suggested the significant role of resilience in nursing students’ management of conflicts. Students who had cognitive habits that predisposed them to acute or chronic stress (rather than being resilient) used conflict management styles that were less assertive and more neglectful of their personal concerns (Pines et al., 2012). Students also demonstrated an increase in assertive conflict management styles and a decrease in unassertive conflict management styles after a resilience educational intervention that was conducted over two semesters (Pines et al., 2014). Quantitative studies demonstrating the relationship between resilience and psychological empowerment also indicated the importance of resilience in nursing students’ lives. For example, Beauvais et al. (2014) demonstrated a statistically significant (albeit weak) correlation between resilience and empowerment. Pines et al. (2012) showed that empowerment was associated with skill recognition on the Stress Resiliency Profile by Thomas and Tymon (1992), which means that resilient students recognize that their success depends on their competence and abilities (internal resources), rather than on external forces.

Finally, one quantitative study (Connolly, Darby, Tolle-Watts, & Thomson-Lakey, 2000) that focused on the resilience of nurse academics indicated that resilience is necessary, particularly in teaching students from diverse cultures. In that study, the emotional resilience of faculty members (nursing, dental hygiene, medical laboratory sciences, and physical therapy) was tested as a subscale of a construct called cultural adaptability. That group of faculty members had higher cultural adaptability scores (including the subscale of emotional resilience) than did a larger cohort that was previously tested on the instrument. The finding suggests that emotional resilience is imperative, as faculty members interact with students from diverse cultures.

Resilience Is Conceptualized as Either a Trait or a Process

It was evident in the studies reviewed that resilience was conceptualized as either a trait or a process. In four quantitative studies on the resilience of nursing students, resilience was presented as a personal trait (Beauvais et al., 2014; Pitt et al., 2014; Stephens, 2012; Taylor & Reyes, 2012). Resilience was also viewed as a trait in a study of cultural adaptability of educators from nursing and other disciplines (Connolly et al., 2000). In six qualitative studies, resilience was viewed as a trait or personal capacity. For example, Williamson et al. (2013) suggested that resilience was a characteristic of students’ personality that allowed them to adapt, withstand challenges, and stay in the nursing program. Peters (2003) identified resilience as being a personal characteristic that modifies students’ ways of coping with stressors, thus changing their way of thinking and resulting in successful adaptation. Jackson et al. (2011) reported that nursing students who are able to confront the hostile behavior of staff in clinical learning settings have well-developed personal resilience. Qualitative studies by Crombie et al. (2013) and Glass (2001, 2007) also indicated resilience as being a trait or personal capacity.

Four studies and a concept clarification article suggested that resilience was a process. Descriptions of resilience related to action, such as “struggling through” bullying behaviors (Mott, 2013, p. 115), and “making it through” (Carroll, 2011, p. 66), signify that the experience of resilience occurs in phases, thus indicating that resilience is a process. Knight et al. (2012) described resilience as strategies used by students to remain and succeed in the program, which denotes that resilience is a process. In her concept clarification of the resilience of nursing students, Stephens (2013) described resilience as a being a process of applying personal protective factors in coping with adversities. In the intervention study in which the effects of a 4-week educational program on resilience were investigated, Stephens (2012) suggested that resilience is a process. Stephens’ study was also based on her concept clarification of resilience as being a process that can be learned and taught. The conceptualization of resilience as a process suggests that resilience is a dynamic and changeable phenomenon involving growth and development (Carroll, 2011; Stephens, 2013).

Resilience Is Related to Protective Factors

A prominent theme in the integrative review was that resilience is a phenomenon related to protective factors. Through concept clarification, Stephens (2013) described resilience as being a process of development resulting from the use of protective factors. According to Stephens, protective factors generally refer to resources, attributes, and skills that minimize the debilitating effects of stress. Protective factors are better explained in contrast to risk factors, which pertain to individuals’ internal characteristics and external conditions and events that exacerbate or maintain a problem (Fraser & Terzian, 2005) or that increase the probability for more negative outcomes to occur (Masten & Reed, 2002). Stephens further categorized protective factors as both internal (such as the personal characteristics of hope, optimism, and self-efficacy) and external (such as supportive relationships).

Expanding on protective factors from the review, Pines et al. (2012, 2014) conceptualized resilience, using the Neuman system model (Neuman & Fawcett, 2011), as a construct pertaining to an individual’s protective lines of defense to maintain stability and balance. In Carroll’s (2011) phenomenological study of nursing students’ experience of resilience, nine themes emerged that resonated with the protective factors of resilience. These nine themes included Support, Perseverance, Autonomy, Empathy, High Expectations, Sense of Purpose, Optimism, Honesty, and Critical Thinking. Perseverance, as a protective factor of resilience, was a common theme among sev-
eral studies of attrition and retention of nursing students (Crombie et al., 2013; Knight et al., 2012; Peters, 2003; Williamson et al., 2013). Other internal protective factors of nursing students that were evident in the studies include self-efficacy (Taylor & Reyes, 2012) and psychological empowerment (Beauvais et al., 2014; Pines et al., 2012). Hope and optimism were internal protective factors that enhanced the resilience of nurse academics (Glass, 2007).

Social support was evident as an external protective factor of nursing students’ resilience in several studies (Crombie et al., 2013; Jackson et al., 2011; Knight et al., 2012; Mott, 2013; Williamson et al., 2013). Hodges, Keeley, and Grier (2005) and Chen (2011) also suggested that supportive relationships with teachers who are willing to engage with students could promote the development of student resilience. In relation to external protective factors for nurse educators, Glass (2007) articulated that as teachers sought support through colleagues by sharing their experiences, their resilience was further developed. The explication of protective factors related to resilience is important because the enhancement of protective factors facilitate further development of resilience (Stephens, 2013).

SUMMARY OF ANALYSIS OF THE LITERATURE

In nine of the 10 qualitative studies about resilience in nursing education, examination of resilience was not a study purpose; yet, resilience was a theme that emerged from the data analysis (Table A). Only Carroll’s (2011) study purpose included the exploration of the concept of resilience. Seven of 16 studies reviewed were quantitative research studies (Table A), and those authors recommended study replication. For example, the relationship of resilience to other variables (i.e., academic success, conflict management styles, effects of educational interventions, empowerment) remains inconclusive. More testing is required, using larger samples and alternate indicators of selected variables. Common limitations articulated in the studies were small sample sizes, short intervention periods, lack of generalizability, and use of a single-site cohort. Three studies in the review did not explicitly refer to study limitations (Glass, 2001, 2007; Peters, 2003).

Common to all of the studies reviewed are recommendations to replicate the research with larger sample sizes, multiple sites, and longer study durations, particularly for interventional studies. Furthermore, many research articles excluded from the integrative review had implications about the importance of resilience but did not have direct descriptions of resilience in the study findings. This suggests that researchers are aware of the importance of resilience in nursing education but have yet to investigate it more fully.

DISCUSSION

The current state of knowledge of resilience in nursing education addresses three main areas: (a) the importance of resilience, (b) the conceptualization of resilience as either a trait or process, and (c) the protective factors related to resilience. The results of the current integrative review reveal that (a) resilience is important in nursing students’ academic lives and nurse educators’ work lives because they continually face and respond to setbacks and adversities and (b) resilience is a key contributing factor in the successful adaptation to these challenges. The findings of the studies in the current integrative review also included the conceptualization of resilience as a trait or personal characteristic or as a process. Finally, resilience in the context of nursing education is related to different protective factors that facilitate mitigation of the effects of stress in the lives of nursing students and nurse educators.

The context of resilience in the current review was the daily traumatic experiences of stress, burnout, and oppression. The obstacles and problems that nursing students experienced were pervasive across their academic lives. The challenges that nurse educators faced were ongoing, daily experiences of struggle and distress (Glass, 2001, 2007). Masten (2001) posited that resilience is often observed in common aspects of daily living. Therefore, the chronic and ongoing nature of students’ and educators’ difficult circumstances suggests that resilience is not only important to successfully adapt to adversities but is also required for them.

In the current integrative review, resilience was conceptualized as either a trait or a process. Although resilience was described as a trait in some studies, resilience was not demonstrated as a static trait or characteristic but as a phenomenon that changed over time (Beauvais et al., 2014; Pitt et al., 2014; Stephens, 2012; Taylor & Reyes, 2012). Resilience as a process was more evident in qualitative studies (Carroll, 2011; Knight et al., 2012). The dynamic nature of resilience suggests that resilience is a changeable phenomenon (Tusaie & Dyer, 2004). This also indicates that resilience can be learned or taught (Gillespie, Chaboyer, & Wallis, 2007). Therefore, the conceptualization of resilience as something that can be learned or taught implies that there are strategies and approaches that can be best applied to develop resilience.

The third main area of the results of the integrative review is based on the conceptualization of resilience as a construct related to different protective factors. Protective factors are those that empower an individual to rebound from stress (Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003). The identification of related protective factors is important because fostering the development of resilience can be achieved through enhancing protective factors (Haase, 2004; Luthar, Cicchetti, & Becker, 2000). More importantly, protective factors do not function independently, but rather interdependently, to buffer or mitigate the risk factors (Luthar, Doenberger, & Zigler, 1993). Therefore, comprehensive explorations of related protective factors and subsequent application of strategies for enriching identified protective factors are imperative.

In summary, the results of this integrative review highlight the current state of knowledge of resilience in the context of nursing education. Resilience is important in nursing education because nursing students and nurse educators must cope with challenges on an ongoing basis. Resilience in the current nursing education research literature is conceptualized as either a trait or a process. Finally, the various related protective factors of resilience underscore that resilience development can be achieved through enhancement of protective factors.
IMPLICATIONS FOR NURSING EDUCATION

The findings of the current review suggest that nursing students and nurse educators must continually develop and enhance their resilience to positively adapt to the challenges of their school and work environments. In fostering students’ resilience, teachers are a valuable source of support (Carroll, 2011). An approach to facilitating students’ resilience is through increased engagement between the teacher and the student (Hodges et al., 2005). This individual approach involves more purposeful support to students, rather than generic ways that may be ineffective in addressing the unique circumstances of students.

Regarding nurse educators’ resilience, it was evident from the integrative review that nurse educators also require resilience in handling the challenges of their workplace. The results of the studies by Glass (2001, 2007) demonstrated that providing opportunities for teachers to voice their concerns in safe conditions without repercussions is therapeutic, freeing, and a healing experience. Therefore, fellow nurse educators have a critical role in collectively creating safe spaces for colleagues who are facing distress and oppression.

The findings of the current integrative review also denote that resilience must be viewed in a holistic perspective when consideration is given to fostering resilience in students and educators. Review findings indicating resilience as a process and as related to protective factors suggest that resilience involves both a stage of disruption, or acute phase, and reintegration (Fine, 1991; Richardson, 2002). Findings also connote that resilience is an interactional process between protective and risk factors (Dyer & McGuinness, 1996). Therefore, a holistic view of resilience involves a broader framework of examining strengths and capacities, as well as weaknesses and vulnerabilities. From a holistic view, the interactions of protective factors are also considered. Using a holistic framework in enhancing the resilience of students and educators takes into account other variables and contexts. Therefore, listening to the stories of both thriving and struggling, exploring strengths and weaknesses, determining capacities and deficits, and addressing problems and solutions are essential in facilitating students’ and educators’ resilience.

IMPLICATIONS FOR NURSING EDUCATION RESEARCH

The current integrative review includes results that require further exploration. For example, the weak correlation between academic success and resilience needs to be further studied because academic success in the studies included in the review were limited to measuring grade point average and test grades only. More evidence-based understanding of the role of resilience in academic success is helpful in developing strategies and programs that promote the retention of nursing students (Taylor & Reyes, 2012). A specific area for further exploration includes determining the moderating variables that influence the relationship between academic success and resilience. Measures of academic success that do not capture only the cognitive aspects of learning should also be considered. For example, the psychological and emotional aspects of clinical learning can be assessed in relation to resilience because clinical learning is a major aspect of students’ education, and negative clinical learning experiences affect student attrition (Eick, Williamson, & Heath, 2012; Thomas et al., 2012).

Another area of further investigation is the testing of educational interventions that promote resilience. The quantitative studies in the current review indicated a lack of significant differences between resilience levels before and after educational interventions. In addition, the increasing diversity of the nursing student population (such as diversity in age and cultural groups) and the proliferation of technology-based forms of teaching–learning methods (e.g., the use of online formats of instruction) imply the need for further research on effective educational interventions geared to fostering resilience. Therefore, further analysis of the design of interventions is required to determine effective educational content, learning conditions, and delivery processes that facilitate the development of resilience.

More qualitative studies are required because description is lacking of how resilience is manifested and enacted in the academic lives of students. Further exploration of this research area can provide a better understanding of the effective approaches and strategies for fostering the resilience of students. Expanded knowledge in this area can also contribute to the design of educational interventions geared to promoting and fostering student resilience.

Regarding nurse educators’ resilience, only three studies (Connolly et al., 2000; Glass, 2001, 2007) were related to the resilience of nurse educators. The limited research on educators’ resilience suggests the need for more research on the relationship between educator resilience and other variables and the exploration of resilience in other workplace contexts of nurse educators, such as clinical settings. An in-depth investigation of resilience in these areas can provide the theoretical groundwork for future research on the understanding educators’ resilience and on evidence-based strategies for promoting the resilience of nurse educators.

CONCLUSION

From a nursing education perspective, the three themes derived from this integrative review (Resilience Is Important, Resilience Is Conceptualized as Either a Trait or a Process, and Resilience Is Related to Protective Factors) suggest that the teacher–student relationship is key to students’ development of resilience. Hodges et al. (2005) posited that teachers’ engagement and connection with students is foundational to students’ development of professional resilience. Novotny (2011) advocated that teachers engage with their students on an individual basis to purposefully and effectively support them. The findings also imply that nurse educators’ safe expression of their concerns contributes to their own resilience development (Glass, 2001, 2007). Furthermore, the results of the current integrative review highlight the need for more resilience research in the context of nursing education. In the current state of knowledge of resilience in nursing education, little is known about evidence-based processes that promote the development and enhancement of resilience of nursing students and nurse educators. Therefore, more research is required in this area. If the area of resilience research is explored, a better understanding
of the effective strategies and approaches that foster the experience of resilience among nursing students and educators will be demonstrated.

REFERENCES


REYES ET AL.


### Summary of Empirical Reports on Resilience in Nursing Education

<table>
<thead>
<tr>
<th>Study/Country</th>
<th>Purpose</th>
<th>Participants</th>
<th>Design</th>
<th>Relevant Findings</th>
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<tbody>
<tr>
<td>Beauvais, Stewart, DeNisco, &amp; Beauvais, (2014) USA</td>
<td>To determine the relationship between emotional intelligence, psychological empowerment, resilience, spiritual well-being, and academic success</td>
<td>124 baccalaureate (second year to fourth year) and graduate (master’s and doctoral) nursing students</td>
<td>Quantitative, descriptive, correlational</td>
<td>The relationship between resilience and academic success was weak but statistically significant ($r = 0.243, p = 0.007$).</td>
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<td>Carroll (2011) USA</td>
<td>To explore the role of resiliency in students’ completion of their nursing program</td>
<td>11 college-based associate degree in nursing students who were within 2 months of graduation</td>
<td>Qualitative, phenomenological</td>
<td>Nine themes emerged from a reductionary coding process: support, perseverance, autonomy, empathy, high expectations, sense of purpose, optimism, honesty, and critical thinking.</td>
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<tr>
<td>Connolly, Darby, Tolle-Watts, &amp; Thomson-Lakey (2000) USA</td>
<td>To investigate the cultural adaptability of teachers from four health sciences</td>
<td>40 faculty members in nursing, dental hygiene, medical laboratory sciences, and physical therapy</td>
<td>Quantitative, descriptive</td>
<td>All four faculty groups indicated high average Cross-Cultural Adaptability Inventory scores. No statistically significant difference in emotional resilience dimension between faculty groups was found ($F = 0.4671, p = 0.707$).</td>
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Table A (Cont.)

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<thead>
<tr>
<th>Study/Country</th>
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<th>Design</th>
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<tr>
<td>Crombie, Brindley, Harris, Marks-Maran, &amp; Thompson (2013) UK</td>
<td>To investigate the factors that influence attrition and completion of a nursing program</td>
<td>28 second-year students from a university adult nursing program</td>
<td>Qualitative, ethnographic case study</td>
<td>Resilience was a motivational factor for completing the program.</td>
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<td>Glass (2001) Australia</td>
<td>To develop a critical understanding of the lived experience of female nurse academics</td>
<td>20 female nursing faculty members from three Australian universities</td>
<td>Qualitative, postmodern feminist ethnography</td>
<td>Emotional resilience was imperative in the face of vulnerability and distress related to the subtleties of power and control within and outside of academia.</td>
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<td>Glass (2007) International</td>
<td>To explore the cultural, sociopolitical, and interpersonal workplace contexts of female nurse academics</td>
<td>53 nursing faculty members of universities from Australia, New Zealand, the UK, and USA</td>
<td>Qualitative, postmodern feminist ethnography</td>
<td>Work context of female nurse academics was described as male dominated, competitive, lacking support and recognition, and intolerant to novice faculty. The academics articulated the necessity of resilience in their workplace.</td>
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<td>Jackson et al. (2011) Australia</td>
<td>To understand student experiences of negative behaviors in the clinical learning setting</td>
<td>105 students from a 3-year Bachelor of Nursing program</td>
<td>Qualitative, content analysis of open-ended questions of an online survey</td>
<td>Clinical learning settings were described as hostile. Students were treated as “Other.” They resisted these exclusionary practices through confrontational behaviors, which indicated that they possessed enhanced resilience and professional identity.</td>
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<tr>
<td>Knight et al. (2012) New Zealand</td>
<td>To examine the reasons students stay and complete their nursing program</td>
<td>18 graduating baccalaureate nursing students and 13 students who graduated the previous year</td>
<td>Qualitative, phenomenology</td>
<td>Personal resilience was one theme that emerged as a contributor to staying in and completing the program. Resilience was related to being determined to finish school.</td>
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<tr>
<td>Mott (2013) USA</td>
<td>To understand students’ lived experience of faculty bullying</td>
<td>Five associate degree and one baccalaureate nursing students</td>
<td>Qualitative, descriptive phenomenology</td>
<td>Students used resilience in overcoming the emotional response to bullying. Resilience was demonstrated through behaviors such as persisting to remain in the program and overcoming bullying.</td>
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<td>Peters (2003) USA</td>
<td>To describe registered nurses’ realities of returning for a baccalaureate degree in nursing</td>
<td>15 RNs enrolled in a baccalaureate degree in nursing</td>
<td>Qualitative, constructivist grounded theory</td>
<td>The stress/coping/adaptation process was the emerging theory that explained participants’ realities. Resilience was conceptualized as personal characteristics of students that modified their coping with stressors, resulting in successful adaptation.</td>
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<td>Pines et al. (2012) USA</td>
<td>To investigate the relationships between stress resiliency, psychological empowerment, and conflict management styles</td>
<td>166 baccalaureate nursing students</td>
<td>Quantitative, descriptive, correlational</td>
<td>Stress Resiliency Profile (SRP) scores were significantly related to empowerment, except for the deficiency subscale of the SRP ($p &lt; 0.01$). Accommodating, as a conflict management style, was related to the skill recognition subscale of the SRP ($\beta = -0.21$, $p &lt; 0.05$).</td>
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<tr>
<td>Pines et al. (2014) USA</td>
<td>To examine the effects of an educational intervention on resiliency, empowerment, and conflict management styles</td>
<td>60 baccalaureate nursing students</td>
<td>Quantitative, pretest, posttest, quasi-experimental</td>
<td>Only one subscale of the resiliency scale (necessitating) was statistically significant after the intervention ($t = 2.527$, $p = 0.014$). A significant decrease in accommodating ($t = 2.835$, $p \leq 0.006$) and an increase in compromising ($t = 2.388$, $p \leq 0.002$), as conflict management styles, after the intervention was found.</td>
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## Table A (Cont.)

<table>
<thead>
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<tr>
<td>Pitt, Powis, Levett-Jones, &amp; Hunter (2014) Australia</td>
<td>To explore the relationships between students’ personal attributes and their academic and clinical performance, behaviors, and progression</td>
<td>138 students of a 3-year Bachelor of Nursing program</td>
<td>Quantitative, descriptive, longitudinal, correlational</td>
<td>Resilience was positively related to grade point average in the first year only ($r = 0.214, p &lt; 0.05$), and with the clinical nursing course grade in the third year ($r = 0.252, p &lt; 0.05$). Resilience was a weak predictor of completing the nursing program (with an odds ratio of 0.970).</td>
</tr>
<tr>
<td>Stephens (2012) USA</td>
<td>To investigate the effectiveness of an educational intervention designed to increase resilience</td>
<td>70 junior-level baccalaureate nursing students</td>
<td>Quantitative, experimental</td>
<td>In a quadratic model ($p = 0.46$), resilience scores in the experimental group increased from time 1 (pretest) to time 2 (posttest) by 1.29 but unexpectedly decreased from time 2 to time 3 (follow-up) by 2.85.</td>
</tr>
<tr>
<td>Taylor &amp; Reyes (2012) USA</td>
<td>To determine the relationship between self-efficacy, resilience, and test grades</td>
<td>136 baccalaureate in nursing students</td>
<td>Quantitative, pretest, posttest, quasi-experimental</td>
<td>There was no significant difference in the overall resilience score between the first and last week of the semester ($t = -0.024, p = 0.981$). No significant correlations between resilience and test scores were found.</td>
</tr>
<tr>
<td>Study/Country</td>
<td>Purpose</td>
<td>Participants</td>
<td>Design</td>
<td>Relevant Findings</td>
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<tr>
<td>Williamson, Health, &amp; Proctor-Childs (2013) UK</td>
<td>To gain insights into students’ and staff concerns about their nursing program and placements</td>
<td>Six staff members and eight third-year students from an university adult nursing program, and four former students who left the program early</td>
<td>Qualitative, content analysis</td>
<td>Resilience as a characteristic of personality was a reason described by participants in persevering through challenges and staying in the program.</td>
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<tr>
<td>Study/Country</td>
<td>Purpose</td>
<td>Theoretical Framework</td>
<td>Summary</td>
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<tr>
<td>Chen (2011) Taiwan</td>
<td>To describe how problem-based learning (PBL) influences development of resilience of nursing students</td>
<td>PBL</td>
<td>The benefits of PBL could facilitate development of student resilience. Educators could help build resilience of students by increasing student engagement in self-reflection.</td>
<td></td>
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<tr>
<td>Hodges, Keeley, &amp; Grier (2005) USA</td>
<td>To articulate Parse’s theory as a framework for teaching–learning in fostering professional resilience in undergraduate nursing education</td>
<td>Parse’s (1988) theory of human becoming</td>
<td>Fostering professional resilience of nursing students could be achieved through engaging students in intentional reflections within student–faculty dyads.</td>
<td></td>
</tr>
<tr>
<td>Stephens (2013) USA</td>
<td>To clarify the concept of resilience for the nursing student population</td>
<td>Norris’s (1982) method of concept clarification</td>
<td>Resilience of nursing students is defined as the process of using personal protective factors to effectively cope with setbacks, resulting in cumulative successes, which further enhance coping and adaptive abilities.</td>
<td></td>
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</tbody>
</table>