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# Teaching Resilience to Nurses and Nursing Students

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# TEACHING RESILIENCE TO NURSES AND NURSING STUDENTS

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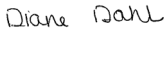
Dean/Chief Nursing Administrator Signature: 

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**Acknowledgements**

This project is dedicated to my grandmother,

Mary A. Manchester,

For her unconditional pride and confidence.

I wish you could have been here for this, gramma.

And to Dr. Kim Meyer,

For her unending patience and stellar feedback.

I hope I grow up to be just like you.

## Abstract for Critical Review of the Literature

**Background:** Nurses are leaving the profession at high rates and many of them cite compassion fatigue and burnout as the cause. Nursing students leave their schooling at even higher rates. Developing resilience in nursing students and practicing nurses will prevent many from changing careers.

**Purpose:** The purpose of this critical review of the literature is to answer the question: How can nurse educators encourage the growth of resilience in nursing students and practicing nurses?

**Results:** Using the Johns Hopkins Research Evidence Appraisal Tool (Dearholt & Dang, 2002), eighteen high quality and good quality articles were reviewed for this project. This literature review reveals multiple techniques for nurse educators to use in the development of a more resilient workforce. These techniques include education on relevant topics, mentorship programs, and social support.

**Conclusion:** Burnout and compassion fatigue are significant issues affecting nurses in the healthcare system. One way to combat the effects of these disorders is through building resilience. There are many ways for nurse educators, as well as schools and organizations, to build resilience in their nurses and nursing students. It is imperative to build resilience to encourage compassion satisfaction and keep nurses in the healthcare industry.

**Implications for Research and Practice:** Nurse educators have a variety of techniques they can employ to develop resilience in nurses and nursing students including education, support, and empowerment. Through increased resilience, the healthcare industry will be able to retain more nurses and alleviate some of the strain caused by the current nursing shortage. Additional research is needed to identify the most effective and efficient ways of encouraging resilience in new nurses and nursing students. Further research is also needed to assess the nature of resilience

in larger and more diverse populations, as well as the long-term impact of resiliency programs and education.

**Keywords:** resilience, compassion fatigue, burnout, nursing students, nursing shortage

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# Chapter One: Introduction

Medicine is a field of imperfect practitioners carrying the burden of knowledge that mistakes can be deadly. Nurses strive to be perfect, to show perfection, but few are given any resources or training on how to handle the emotional weight of care giving. Unfortunately, a nurse's response to mistakes and other perceived failures can be the difference between vocational fulfillment and leaving the field. Compassion fatigue and burnout often leave nurses suffering emotionally, intellectually, physically, socially, and spiritually. They impact every aspect of a person's being and as a result, leave patients to receive inadequate care and organizations to contend with a loss of valuable resources. Nursing students, as new learners, are particularly vulnerable to compassion fatigue and burnout for a variety of reasons and risk entering the nursing profession already carrying emotional debt. Mercifully, there is an answer to the issues of compassion fatigue and burnout: resilience. This chapter will present the statement of purpose for this critical review, provide evidence to support the review, discuss the significance to nursing, and present the metatheory of resilience and resiliency.

## Statement of Purpose

Compassion fatigue is a critical topic in the nursing profession today. Many nurses cite compassion fatigue and burnout as reasons for leaving nursing – a tragedy as compassion fatigue can be prevented, and nurses are needed now more than ever to support an increasing patient population. The issues of compassion fatigue and burnout are particularly salient to nursing students. Although college enrollments continue to increase, nationwide approximately 50% of students who begin a nursing program will leave without completing their degree (Beauvais, Stewart, DeNisco, & Beauvais, 2014).

An important mitigating factor against compassion fatigue and burnout is resiliency. In this chapter, resiliency will be defined, its significance to nursing examined through a discussion of compassion fatigue and burnout, and Richardson's Metatheory of Resilience and Resiliency will be discussed. Furthermore, in this critical review of the literature, an attempt is made to answer the question: How can nurse educators encourage the growth of resilience in nursing students and practicing nurses?

**Evidence that Supports the Need for a Critical Review**

In order to examine resilience, it is important to define several related terms. Burnout and compassion fatigue are trending concepts in medicine, but what exactly are they? According to Neville and Cole (2013), compassion fatigue is a cumulative process caused by repeated exposure to emotional traumas such as grief and anxiety and resulting in "physical, social, emotional, spiritual and intellectual changes" (p. 348). Compassion fatigue is a potential result of close contact with patients and negatively affects nearly every part of a nurse's health. Burnout is closely related to compassion fatigue but differs in that it is the result of external stressors such as short staffing, poor management, and long hours, among other factors (Potter, Deshields, Berger, Clarke, Olsen, & Chen, 2013). Both compassion fatigue and burnout are cumulative in effect; they develop into severe problems over time (Houck, 2014). They are also highly prevalent in the nursing field, with high end estimates at 39% for compassion fatigue and 38% for burnout among the general nursing population (Potter et al., 2013). The numbers are even higher among nursing students, with estimates reaching as high as 87% of students experiencing burnout and 74% experiencing compassion fatigue (Sheppard, 2015).

Resilience is the most important protective factor against compassion fatigue and burnout (Fletcher & Sarkar, 2013). One of the difficulties in researching resilience, however, is a lack of

consensus on how, exactly, to define resilience. In physics, resilience is the ability of a "strained body" to recovers its shape after being deformed; in biology, resilience is the capability to return to homeostasis after the introduction of a stimulus (Fletcher & Sarkar, 2013). This critical review of the literature will seek to apply these ideas to psychology, and specifically to the psychology of nurses and nursing students.

**Significance to Nursing**

Due to their high prevalence, burnout and compassion fatigue are more than individual problems and have an enormous effect on the nursing field as well as the practice of medicine worldwide. Burnout and compassion fatigue have been connected to increased apathy and irritability which in turn decreases a nurse's ability to provide "compassionate care" (Houck, 2014, p. 454). This in turn reduces patient satisfaction and as patient satisfaction is used as a guide in some payment models, this means less income for medical systems. In addition, high rates of compassion fatigue and burnout have been connected to higher rates of absenteeism and turnover, another financial loss for medical systems. In extreme cases, burnout has also been related to poorer patient health outcomes as nurses with severe cases frequently become forgetful or cut corners (Potter, Pion, & Gentry, 2015).

Burnout and compassion fatigue also contribute to incidences of lateral violence among nurses. Nurses experiencing burnout and compassion fatigue are more likely to commit acts of bullying and other inappropriate behavior while victims of lateral violence are more likely to report feelings of burnout and compassion fatigue. The most common victims of lateral violence are nursing students, new nurses, and night nurses (Christie & Jones, 2014).

Most researchers agree that resilience is positive adaptation to stress or trauma. There must be a negative event for resilience to be present or develop (Fletcher & Sarkar, 2013;

Foureur, Besley, Burton, Yu, & Crisp, 2013; Grafton, Gillespie, & Henderson, 2010; McAllister & McKinnon, 2009). It is a result of adaptation, a return to a state of acceptable functioning. While researchers agree on this, there is disagreement on whether resilience is an innate trait or a learned process. Those who favor the "innate trait" idea assume that resilience is static and cannot be learned (Fletcher & Sarkar, 2013). To the contrary, current research supports the theory that at least certain aspects of resilience can be learned, and these aspects generally increase or decrease over a lifetime (Foureur et al., 2013). To summarize a truly complex concept, human resilience is the capacity of a person, through inner traits and learned skills, to return to a state of normal functioning after a trauma (Noh & Lim, 2015). Resilience has been described as the ability to "bounce back" from adversity.

**Metatheory of Resilience and Resiliency**

In 2002, Richardson proposed a metatheory of resilience that went beyond the commonly held idea of resiliency as a simple "bounce back" from adversity. To begin, Richardson suggested that resilience is triggered not only by negative life events, but can also be a response to eustress, or stress caused by beneficial life events. For example, the birth of a child may not be a negative event, but it is certainly a disruption that requires a significant life change. From the point of a life disruption, Richardson describes resilience and resiliency through three "waves of inquiry" or postulates (p. 308).

Richardson's first postulate assumes that people have certain characteristics or strengths that can assist them in surviving adversity. Some of these characteristics are genetically or environmentally determined (Richardson, 2002). For instance, women, physically healthy individuals, and individuals from a higher socioeconomic background are more likely to score highly on resilience measurements. To the contrary, individuals who experience daily

environmental instability, poverty, or whose parents have mental health conditions are less likely to have high levels of resilience (Beauvais et al., 2014; Fletcher & Sarka, 2013; Richardson, 2002).

Fortunately, Richardson's Metatheory of Resilience and much of the current research suggests that many characteristics of resiliency can be learned. Mindfulness, social responsibility, communication skills, emotional intelligence, and self-care are all traits or skills that can be acquired, at least to a certain extent (Beauvais et al., 2014; Foureur et al., 2013; Richardson, 2002). In addition to these acquired skills, there are many other traits that may be a combination of genetic predisposition and learned behavior and therefore can be influenced by educational programming. Examples of these "in-between" traits are an internal locus of control, self-esteem, and optimism (Fletcher & Sarka, 2013; Klatt, Steinberg, & Duchemin, 2015; Noh & Lim, 2015; Sanso et al., 2015; Taylor & Reyes, 2012; Richardson, 2002).

Richardson's second postulate suggests that resiliency is not only a person's ability to "bounce back" or return to homeostasis, but a way of responding to life disruptions in a way that promotes growth, self-improvement, and an increased rate of return to baseline when faced with future adversity (Richardson, 2002). This is in contrast to a person who might respond to a disruption, such as the death of a patient, without resilience. This person might become addicted to drugs or become cynical or angry.

Richardson's final postulate proposes that there is a force that motivates people to respond to adversity and other life disruptions with growth, and that this motivational force may also be termed "resilience." Resilience is what drives people "to seek self-actualization, altruism, wisdom, and harmony with a spiritual source of strength" (Richardson, 2002, p. 313). To apply this postulate to current nursing practice, it may be that part of the role of the nurse educator or

leader is to assist a nurse in removing barriers to resilient energy as a way to encourage resilient personal development and to help students and nurses learn and practice strategies that promote resilience.

**Summary**

Burnout and compassion fatigue are important concepts in the nursing profession. They are a large reason that nurses - and even nursing students - choose to change careers (Potter et. al, 2013). In addition, burnout and compassion fatigue increase the costs of medical care and create poorer outcomes for patients (Houck, 2014; Potter, Pion, & Gentry, 2015). Richardson's Metatheory of Resilience suggests that resilience is the opposing force to burnout and compassion fatigue (2002). It is a way through which people can grow and improve through adversity and stress. This leads to the question: How can nurse educators encourage the growth of resilience in nurses and nursing students?

# Chapter Two: Methods

A search through scholarly databases with the keyword "resilience" yielded several hundred articles. While this seemed promising at first, the articles varied widely in quality and usefulness in practical application. Therefore, it was crucial to have a systematic approach for inclusion or exclusion of research studies in this project. This chapter will identify the search strategies used to locate the literature for this critical review, the criteria for inclusion and exclusion, the criteria for evaluation, and the number and types of studies selected.

## Search Strategies

Articles for this project were found by searching three separate research databases: The Cumulative Index of Nursing and Allied Health Literature (CINAHL Plus), Scopus, and Education Resources Information Center (ERIC). A variety of search terms and term combinations were utilized including resilience, resiliency, compassion fatigue, compassion satisfaction, burn out, lateral violence, nursing, and nursing students. Multiple searches yielded several hundred articles. The articles were then narrowed down though careful and systematic selection with an emphasis on articles which presented a high level of evidence.

## Criteria for Inclusion and Exclusion

Articles were considered based first on their relevancy to the topic of resilience, particularly as it relates to nurses and nursing students. The second consideration was how recently they were published. The majority of articles for this project were published in the past five years, 2013-2018. However, several exceptions were made for articles with more than fifty references that were also high quality as defined by the Johns Hopkins Nursing Evidence-Based Practice guidelines (Dearholt & Dang, 2012) or were exceptionally well related to the topic of developing resilience in nurses or nursing students (Grafton et al., 2010; McAllister and

McKinnon, 2009; Melvin, 2012). Preference was also given to articles with larger sample sizes as it was believed that these studies more accurately reflect the experiences of nurses and nursing students.

Articles were excluded if they were not specifically relevant to the topic of developing resilience. Special emphasis was given to articles which discussed concrete tools nurse educators could use to develop resilience in nurses and nursing students. For example, if an article spoke more to burn out or compassion fatigue than to recovery from these traumas, it was not included. Articles were also excluded if they were more than five years old at the time of this writing, with exceptions as noted above. Additionally, articles were excluded if the studies they described were low quality or contained major flaws as defined by the Johns Hopkins Nursing Evidence-Based Practice guidelines. Studies that fit into this category have little evidence, inconsistent results, and insufficient sample sizes for the study design (Dearholt & Dang, 2012).

In addition to a focus on literature which focused on developing resilience, special consideration was given to articles highlighting the experiences of nursing students. New learners are particularly vulnerable to the negative impacts of poor resilience (Beauvais et al., 2014; McDonald, Jackson, Vickers, & Wilkes, 2016; Noh & Lim, 2015). With an aging population of working nurses combined with an overall nursing shortage, it is crucial to graduate as many nursing students into the profession as possible. An attrition rate of 50% will reduce the supply of nurses to unacceptable levels (Beauvais et al., 2014).

**Criteria for Evaluation**

To objectively measure the quality of articles in this project, the Johns Hopkins Research Evidence Appraisal Tool (Dearholt & Dang, 2012) was used. This tool categorizes evidence into five levels, with level one as the strongest available evidence. Level one consists of experimental

studies with systematic reviews of random controlled trials with or without meta-analysis. Only one of the studies found for this topic qualified as level one evidence (Klatt, Steinberg & Duchemin, 2015). Level two includes systematic reviews of randomly controlled trials and/or quasi experimental studies with or without meta-analysis, and level three includes non-experimental studies, systematic reviews of a combination of quasi-experimental and non-experimental studies with or without meta-analysis, and qualitative research or systematic reviews with or without meta-analysis (Dearholt & Dang, 2012). There were six level two sources of evidence presenting the results of quasi experimental studies chosen for this project (Foureur, et al., 2013; Houck, 2014; Potter et al, 2013; Taratino et al., 2013; Taylor & Reyes, 2012; Weidlich & Ugarriza, 2015) and seven level three sources of evidence which present non-experimental or qualitative research (Beauvais et al., 2014; McDonald et al., 2016; Melvin, 2012; Neville & Cole, 2013; Noh & Lim, 2015; Potter et al., 2015; Sanso et al., 2015). Level four evidence included non-research articles such as expert opinions based on scientific evidence and practice guidelines; there was no level four evidence used in this project. The Johns Hopkins Research Evidence Appraisal Tool categorizes literature reviews, expert opinions based on experiential evidence, case reports, and quality improvement programs as level five research (Dearholt & Dang, 2012). There were four literature reviews used in this project (Fletcher & Sarkar, 2013; Grafton et al., 2010; Ledoux, 2015; McAllister & McKinnon, 2009).

In addition, the Johns Hopkins Research Evidence Appraisal Tool provides characteristics to appraise the quality of evidence and divides evidence into high quality, good quality, and low quality or major flaws. Only evidence of high or good quality have been included here. To be considered high quality, the study must have consistent results, an adequate sample size, firm conclusions, and must be consistent with recommendations. Good quality

evidence presents studies that have moderately consistent results, some control, adequate sample size for the study design, and consistent recommendations based on thorough literature review which contains some scientific evidence (Dearholt & Dang, 2012). This project used eleven high quality articles (Beauvais et al., 2014; Foureur et al., 2013; Grafton et al., 2010; Klatt et al., 2015; McDonald et al., 2016; Melvin, 2012; Nevilles & Cole, 2013; Potter et al., 2013; Sanso, et al., 2015; Taratino et al., 2013; Taylor & Reyes, 2012) and seven good quality articles (Fletcher & Sarkar, 2013; Houck, 2014; Ledoux, 2015; McAllister and McKinnon, 2009; Noh & Lim, 2015; Potter et al., 2015; Weidlich & Ugarriza, 2015).

**Number and Types of Studies Selected**

Eighteen articles were selected for inclusion in this project. Four of these articles are non-research as defined by the Johns Hopkins Nursing Evidence-Based Practice guidelines. This category of evidence includes literature reviews, expert opinions, organizational experiences, case reports, and current practices (Dearholt & Dang, 2012). For the purpose of this project, all four non-research articles are literature reviews (Fletcher & Sarkar, 2013; Grafton et al., 2010; Ledoux, 2015; McAllister & McKinnon, 2009). The remaining articles report evidence from a variety of research studies. One study, from Klatt et al. (2015), is an experimental, randomized control trial. Of the thirteen other research studies, six are quasi experimental (Foureur, et al., 2013; Houck, 2014; Potter et al, 2013; Taratino et al., 2013; Taylor & Reyes, 2012; Weidlich & Ugarriza, 2015), three are non-experimental, quantitative (Beauvais et al., 2014; Neville & Cole, 2013; Noh & Lim, 2015), and four are qualitative (McDonald, et al., 2016; Melvin, 2012; Potter et al., 2015; Sanso et al., 2015).

**Summary**

While initial search results appeared to provide an extensive amount of evidence on the topic of resilience, rigorous evaluation of the research narrowed the data to eighteen articles which are closely relevant and presented evidence of high enough quality to be used when discussing resilience in nursing students and new nurse. A more detailed listing of the individual articles examined for this project can be found in the appendix.

## Chapter Three: Literature Review and Analysis

Nurses are often socialized and trained in ways that promote high levels of stress but minimize the likelihood of effective self-care (Foureur et al., 2013; Neville & Cole, 2013). Attrition rates for nursing programs nationwide are 50%, and while it is unlikely all of those students left their programs due to compassion fatigue or burnout, resilient students are more likely to graduate and go on to practice nursing (Beauvais et al., 2014; Taylor & Reyes, 2012). Resilient nurses are overall better able to manage their responses to stress and are therefore less likely to suffer ill effects from compassion fatigue and trauma (Grafton et al., 2010). Without adequate resilience, nurses are at a high level of risk for developing chronic compassion fatigue (Melvin, 2012), an issue which impacts not only the individual nurse's mental and physical health, but also patient outcomes and organizational costs (Potter et al., 2015).

Clearly, resilience is a crucial topic in healthcare today. Less literature is available focusing on nursing students, but there are several significant studies available for analysis. This chapter will discuss major findings of current evidence including characteristics of resilient nurses, special considerations for nursing students, organizational influences on resilience, a misconception related to resilience and compassion fatigue, and strengths and weakness of the literature presenting in this critical review. A more detailed description of the individual articles referenced in this project is available in the appendix.

### Major Findings

Upon examination of the literature, several major themes presented themselves. One of the themes that emerged was the characteristics of resilient nurses. An individual's personality characteristics can be an important consideration when examining resilience because these characteristics will contribute to a person's natural level of resilience. With this knowledge,

educators and organizations can better determine where to expend resilience development efforts.

Another theme that emerged was the methods organizations can use to influence resilience. Organizational efforts to increase resilience are important as a nurse educator can take little action without institutional support and resources. While many techniques utilized in developing resilience are broadly applicable, special consideration is needed toward the unique needs of nursing students. Lastly, much of the literature discussed common myths and misconceptions on the theme of resilience. An examination of the misconceptions related to resilience was useful in identifying barriers to resilience programming.

**Personality characteristics of resilient nurses.**

Several research studies in this project identified characteristics of resilient nurses. Within this group, characteristics have been divided into two categories: characteristics that could be influenced or changed, and traits that were thought to be permanent and cannot be influenced by outside factors. For example, Fletcher and Sarkar (2013) suggested that nurses who are hardy, optimistic, and extraverted are often more resilient; however, the authors also acknowledge that these traits are closely related to personality and can be difficult if not impossible to change.

Fortunately, research suggested that there are many characteristics of resilient nurses that can be influenced by both individuals and organizations. For instance, nurses with multiple self-care techniques at their disposal consistently rated higher on measures of resilience (Grafton et al., 2010; Houck, 2014; McDonald et al., 2016; Sanso et al., 2015). The use of mindfulness techniques also increased resilience (Klatt et al., 2015; Melvin, 2012). Nurses who feel they have a great deal of autonomy and control over their work reported higher levels of resilience and less

compassion fatigue (McDonald et al., 2016; Noh & Lim, 2015; Taratino et al., 2013). On the other end of the spectrum, social isolation and feelings of inefficacy in the face of suffering increased incidences of compassion fatigue and burnout (Houck, 2014; Ledoux, 2015; McAllister & McKinnon, 2009).

**Considerations for nursing students.** While the majority of techniques and themes utilized to develop resilience in practicing nurses also apply to nursing students, it is important to keep in mind some of the special challenges facing nursing students. The process of learning is stressful (Noh & Lim, 2015; Taylor & Reyes, 2012). New learners are vulnerable to the negative side effects of stress, and nursing students are particularly vulnerable for several reasons. For example, nursing students are learning a much larger mass of information at once than practicing nurses, who may only be learning one or two new skills at a time (Beauvais et al., 2014; Taylor & Reyes, 2012). Second, nursing students, as a cohort, tend to be young. Part of developing resilience is exposure to stress and practicing beneficial recovery. Many nursing students simply lack the life experience to support high levels of resilience (Beauvais et al., 2014; Noh & Lim, 2015). It is crucial to be mindful of the challenges nursing students face and intentional in developing resilience in this sensitive population.

**Organizational influences on resilience.**

There are several methods that have been found to be beneficial for organizations in enhancing staff resilience. One of the ways nursing programs and medical organizations have influenced resilience is through educational programming designed to improve self-care and/or self-awareness. A large variety of resilience programming exists in the current literature. Studies have shown that teaching nurses mindfulness-based stress reduction, either in a single training or over multiple days, can have a positive impact on reports of resilience for up to a year after

teaching (Foureur et al., 2013; Houck, 2014; Klatt et al., 2015; Weidlich & Ugarriza, 2015). Alternatively, training on effective self-care - that is, self-care that improves physical or mental health - also improved resilience for at least a year (Houck, 2014; Potter et al., 2013; Taratino, et al., 2013; Weidlich & Ugarriza, 2015). As a notable benefit, teaching resilience programs can also improve the overall resilience of the instructor (McAllister & McKinnon, 2009; Potter et al., 2015).

Significant consideration should also be given to the ability of the organization to influence individuals toward resilient practices. For example, mentorship programs can be time intensive and may require organizations to allow staffing adjustments and additional time for completion of activities (Grafton et al, 2010; Klatt et al., 2015; McDonald et al, 2016). Organizations should also allow for continuing education opportunities both among nurse educators and individual nurses (Houck, 2014; McAllister & McKinnon, 2009). Atfer all, without the opportunity to learn themselves, nurse educators are unable to disseminate information to others. Institutional support is a crucial aspect of developing resilience in nurses and nursing students.

**A misconception about resilience.**

One of the common misconceptions about resilience is that it prevents compassion fatigue; however, the truth is that resilience is a response to stress. Resilience and compassion fatigue are two different way of responding to trauma (Fletcher & Sakar, 2013; Grafton, et al., 2010). Perhaps it is better to think of them as two sides of the same coin, as it were, rather than having a specific relationship to each other. Both compassion fatigue and resilience are ways to respond to multiple, cumulative traumas. A nurse that responds to trauma with compassion fatigue feels emotionally exhausted. Compassion fatigue often results in lowering job satisfaction

ratings, poorer patient outcomes, and higher medical costs (Melvin, 2012; Neville & Cole, 2013). New nurses are particularly vulnerable to compassion fatigue (Grafton et al., 2010; Ledoux, 2015). A nurse that responds with resilience, while he or she may initially feel overwhelmed or experience other negative emotions, is eventually able to learn and grow from difficult experiences (Fletcher & Sarkar, 2013; Grafton et al., 2010).

**Strengths and Weaknesses of Salient Studies**

Resilience in nursing is a relatively new subject, and much of the research available is non-experimental in nature. Klatt et al.'s article (2015) is a report of one of the rare level one, randomized controlled trials available. The research study report in this article is strongly presented and easily maintains high quality as defined by the Johns Hopkins Research Evidence Appraisal Tool (Dearholt & Dang, 2012). Klatt et al.'s study utilized pre- and post-testing to analyze the effectiveness of an abbreviated mindfulness-based stress reduction program on resilience in ICU nurses. The study had excellent retention in test subjects with nearly the entire sample following the program completely from start to finish. This is particularly fortunate as a weakness of the study is the small, thirty-four nurse sample study. The generalization of Klatt et al.'s research results to the general population of nurses is questionable due to the small sample size and narrow selection of only ICU nurses. The findings in this study are supported by the work of other researchers; mindfulness-based stress reduction is a solid way to improve resilience among nurses (Foureur et al., 2013; Houck, 2014; Sanso et al., 2015).

Neville and Cole's study on healthy behaviors, compassion fatigue, and compassion satisfaction (2013) supported Klatt et al.'s work. Neville and Cole's non-experimental, survey-based study shows that nurses who practice emotional and physical self-care, including mindfulness, demonstrate higher levels of resilience. Like Klatt et al.'s study, Neville and Cole's

study can be categorized as high quality under the Johns Hopkins Research Evidence Appraisal Tool (Dearholt & Dang, 2012). Unlike Klatt et al.'s research, Neville and Cole surveyed multiple disciplines of nurses. Neville and Cole also have a much larger sample size of two hundred fourteen nurses; however, given that there are approximately 3,000,000 nurses in the United States according to the Bureau of Labor Statistics (2019), a sample size of two hundred fourteen nurse still may not be generalizable to the larger population. An additional weakness is that neither Neville and Cole nor Klatt et al.'s observed nursing students in their samples.

There is research available on resilience in nursing students. In their study, Noh and Lim (2015) examined factors influencing nursing students' ability to cope with nursing school stressors. Noh and Lim's study boasted a robust one hundred nine participants; however, this strength is tarnished by the fact that the nursing students were all female. Another which may limit the study's ability to be widely generalized was that the study is based in South Korea However, the results of the study, that high self-esteem and an internal locus of control positively correlated with resilience, were reproducible and supported by other research (McDonald et al., 2016; Potter et al., 2015).

Another study which observed nursing students is Taylor and Reyes' research (2012). This study also provided one of the larger sample sizes with one hundred thirty-six baccalaureate students, which included both male and female students, all involved in advanced coursework in their program curriculum. Additional strengths of this study included a high-quality rating from the Johns Hopkins Research Evidence Appraisal Tool (Dearholt & Dang, 2012) as well as the use of pre- and post-intervention testing. The primary weakness of this study was that there is no long-term follow-up measuring the resilience and self-efficacy of the subjects once the students formally entered the nursing profession.

**Summary**

Current resilience literature examined many common trends. Some personal characteristics and qualities of resilient nurses are fixed; however, organizations and individual nurse educators can influence resilience in their nurses. Although many current studies share the same weaknesses, such as small sample sizes, much of their research is reproducible in multiple settings. Further information on the literature examined in this project is presented in the appendix.

# Chapter Four: Discussion, Implications, and Conclusions

Compassion fatigue and burnout are an enormous for nurses. While there are many factors in resilience that are outside the influence of nurse educators, there are a variety of ways that the growth of resilience can be encouraged in nursing students and new nurses. High resilience is strongly correlated with better academic performance among nursing students (Beauvais et al., 2014; Noh & Lim, 2015; Taylor & Reyes, 2012). This leads to the question "How can nurse educators encourage the growth of resilience in nursing students and new nurses?"

## The Role of Nurse Educators in Developing Resilience

### The importance of education.

Education on compassion fatigue and burnout and how these conditions impact the individual is the most basic teaching essential to the growth of resilience (Ledoux, 2015). For decades, not only nursing but the entire medical profession has discouraged the discussion of compassion fatigue as many have seen it as a sign of individual weakness. The truth is that many - if not most nurses - will feel the effects of compassion fatigue at some point in their career. The effects of compassion fatigue include poor sleep, depression and anxiety, feelings of anger, frustrations, and helplessness, and can lead to poorer patient outcomes and nurses leaving the profession (Neville & Cole, 2013; Potter et al., 2013). Early identification of stress and compassion fatigue supports early intervention, but it is impossible to identify the signs and symptoms of compassion fatigue without education on the subject (McAllister & McKinnon, 2009; Melvin, 2012; Potter et al., 2013).

An effective way to teach prompt identification of stress is through education on mindfulness techniques. At its simplest, mindfulness is a method of enhancing emotional

awareness through systematic attention to a specific moment. Through this approach, an individual becomes more alert to their emotional state and can more effectively make choices to influence themselves and their surroundings (Foureur et al., 2013). Mindfulness, as taught through the mindfulness-based stress reduction (MBSR) program, has been thoroughly researched and strongly correlates with improvements in resilience. Improvements can be seen regardless of length of program, with even one-time educational programs demonstrating improvements in resilience (Foureur et al., 2013). However, the most significant improvements in resilience are seen with programs spanning a longer period of time; specifically, programs that provide education, give learners the opportunity to practice what they have learned, and then return to the classroom setting (Houck, 2014; Klatt et al., 2015; Melvin, 2012).

**Coping strategies and self-care techniques.**

In addition to mindfulness, education on coping techniques and self-care also improves resilience. Self-care is any personal activity that improves physical or mental health (Grafton et al., 2010). However, literature suggests that effective self-care may be difficult to teach as there are several studies suggesting that self-care has a neutral influence on resilience (Sanso et al., 2015). These studies are in the minority, though. An explanation for this discrepancy may be in teaching technique: self-care and coping are not a cookie-cutter propositions. A "self-care" activity that is beneficial for one person might be detrimental to another. For example, one person might enjoy going out with friends to improve his or her emotional health, while to a more introverted person, this activity would be stressful. The second person might prefer to stay at home and read a book to cope with a difficult day. Self-care techniques cited in the literature include exercise, rest, time spent alone, time spent with friends, reading, sleeping, and meditation

– in short, self-care is highly individualized and there are as many self-care techniques as there are people (Grafton et al., 2010; Houck, 2014).

Due to the need for individualized self-care, traditional lecture-style teaching may be less effective than a judgement free, discussion-based exploration of available self-care activities and coping methods (Grafton, Gillespie & Henderson, 2010; Houck, 2014; McAllister & McKinnon, 2009; Melvin, 2012). Regardless of educational method, nurses who practice relentless emotional self-care score higher on measures of resilience than nurses who demonstrate poor self-care or coping skills (Fletcher & Sarkar, 2013; Foureur, Besley, Burton, Yu, & Crisp, 2013; Houck, 2014; McDonald, Jackson, Vickers, & Wilkes, 2016; Neville & Cole, 2013). This means that nurses who constantly, consistently, and intentionally perform activities to care for their emotional health are more resilient.

Coping strategies and self-care techniques are similar, and a single activity, such as meditation, can be either or both a self-care technique and a coping strategy. Coping strategies differ from self-care, as coping strategies are activities performed in response to stressors or life events (Fletcher & Sarkar, 2013). In addition, while self-care by definition must have a positive impact, coping strategies can be either beneficial or detrimental (Grafton et al., 2010; Nevile & Cole, 2013). An example of a detrimental coping strategy would be drug abuse; while this coping strategy may help a person survive temporarily, it will overall reduce an individual's emotional or physical health. With the knowledge that coping strategies may reduce overall resilience, an important aspect of developing resilience is learning to identify and choose coping strategies which improve emotional health and encourage positive adaptation to adversity (Fletcher & Sarkar, 2013; Grafton et al., 2010; Ledoux, 2015; Sanso et al., 2015).

**Mentorship programs.**

Mentorship programs are an exceptional social support to put in place prior to stressful events. Research consistently backs the importance of social support to the growth of resilience (McAllister & McKinnon, 2009; McDonald et al., 2016; Klatt et al., 2015). One method of encouraging social support in a structured way is through mentorship programs. Research focuses primarily on two types of mentorship. The first is through a teacher-student relationship. Students benefit by having an impartial and experienced person who can help to guide them through stressful situations and promote habits that will support resilience at an individual level (Melvin, 2012; McAllister & McKinnon, 2009; Beauvais et al., 2014). Of interest, this relationship also benefits the teacher. Individuals who teach resiliency-supporting skills consistently report much higher levels of resilience than before teaching. These reports also demonstrate some of the longest-lasting effects in the literature, with teachers citing improved resilience up to two years after providing education and support (Potter et al., 2015).

Another effective method of formal social support is peer-to-peer mentorship programing (Potter et al., 2015; Beauvais et al., 2014; McDonald et al., 2016; McAllister & McKinnon, 2009). Peer-to-peer mentoring can be an effective way to support new nurses and nursing students without the restrictions that may influence supervisor-employee or teacher-student relationships. Peer mentors can introduce nursing students and new nurses into the culture and social structure of an environment on a more equal base, and often have unique perspectives on the stressors and supports present in that area (Beauvais et al., 2014; McDonald et al., 2016). However, caution must be taken with encouraging these relationships as they may be more prone to lateral violence than a less equal relationship. Peer mentors must be carefully selected, trained, and placed with their mentees (Beauvais et al., 2014; McAllister & McKinnon, 2009).

**Support under stress.**

Lastly, nurse educators can also foster resilience by supporting students through stressful events. Self-efficacy, or a person's confidence in their ability to problem solve, is an important piece of resiliency; the more firmly a new nurse or nursing student believes they can effectively resolve a situation, the more resilient they will be (Beauvais et al., 2014; Fletcher & Sarkar, 2013; Taratino et al., 2013; Taylor & Reyes, 2012). There are several ways nurse educators can encourage self-efficacy, and through this encouragement, develop resilience in nurses. One way to do this is through the creation of controlled stressors. For example, the educator can set up a situation for a student that will be difficult, but that the student will be able to resolve favorably. Setting students up for success is another way to develop self-efficacy and subsequently, resilience (Noh & Lim, 2015). For instance, instructors could create role playing situations with difficult practical or ethical situations and allow students to attempt to work their way through the problems. After the scenario, instructors should then help the students identify what they did well, discuss areas for improvement, and generalize the scenario into real practice situations.

An additional way for nurse educators to support students and new nurses to develop self-efficacy is to support them through stressful events. Supporting student through difficult situations does not mean solving problems for them, but it would include helping to brainstorm potential solutions, reframing difficult problems into manageable components, and providing encouragement and emotional support (Fletcher & Sarkar, 2013; Taylor & Reyes, 2012).

Nurse educators are invaluable resources for students and practicing nurses in other ways as well. In addition to education, nurse educators have a wealth of experience to offer nurses, not only in how to be effective nurses but also in how to handle errors. Nursing culture is often a culture of perfection, and students and young nurses are conditioned to view mistakes as

personal and dangerous failings. Unfortunately, medicine is full of imperfect people. McAllister and McKinnon (2009) found that imperfect mentors, mentors who are willing to discuss their own mistakes and how they responded to those mistakes, are more effective than mentors who are unwilling to share their experiences with adversity. In this way, nurse educators can also promote the development of resilience through creating a safe space for nurses and nursing students to discuss stressful events and to reflect and learn from teachers or other students (McAllister & McKinnon, 2009). This provides an opportunity for nurse educators to normalize adversity and difficult emotions and to discuss how to manage and cope with these situations. Such emotional education is another way for nurse educators to develop resilience in others (Beauvais et al., 2014; Taylor & Reyes, 2012)

**Trends and Gaps in the Literature**

Exploration of resilience as a concept influencing nurses has grown rapidly in the past several decades. Most current studies focus on describing resilience as it appears in the general population of nurses. These narrative-descriptive studies tend to look at the qualities and practices of resilient nurses, but there is little research on the qualities of nurses who lack resilience, a factor which may prove to be important as we seek to find an answer to the question of why nurses are leaving the profession. Current research also tends to focus on two pieces of resilience: emotional awareness and self-care tools. While these are undeniably important strategies in the development of resilience, it is likely that there are other essential qualities in this puzzle.

As a relatively new topic in nursing, there are many gaps in resiliency research as it relates to nurses. Sample sizes tend to be smaller, particularly in descriptive studies. Many samples are also suspiciously unrepresentative of the general nursing population. Caucasian,

female, established nurses are over-represented, and literature on young or student nurses, men, or nurses who are members of minorities is rare. In addition, there are few experimental studies with control groups available to appropriately assess the effectiveness of various interventions and educational programming.

**Implications for Nursing Practice**

The literature clearly demonstrates that compassion fatigue is an enormous problem with both individual and systemic implications, and that improving resilience is an answer to this issue. However, while there are ways for the medical system to encourage and support the growth of resilience, improving resilience needs to be done at the ground floor, person to person. Resiliency is highly individual and dynamic, with each person bringing their own strengths and weaknesses to the table (Fletcher & Sakar, 2013; Grafton et al., 2010; McAllister & McKinnon, 2009; Melvin, 2012).

Due to its individualistic nature, there is a great deal of influence that nurse educators have in the development of resilience. Nurse educators and managers can be instrumental in early identification of compassion fatigue in their charges (Melvin, 2012). They can also help to provide emotional education on early warning signs as well as information on emotional health, mindfulness, and self-care practices (Beauvais et al., 2014; Grafton et al., 2010; Klatt et al., 2015; Sanso et al., 2015). Perhaps most importantly, they can help instill a culture of resilience into individual nurses are well as work and student groups (McAllister & McKinnon, 2009; Neville & Cole, 2013).

There are methods that can be used to encourage the growth of resilience at the organizational level as well among individuals. It almost goes without saying that organizations will benefit from providing realistic opportunities for mentorship programs, self-care, and

education (Foureur et al., 2013; Houck, 2014; Klatt et al., 2015; McDonald et al., 2016; Potter et al., 2013; Potter et al., 2015; Sanso et al., 2015; Weidlich & Ugarriza, 2015). Organizations can also develop resilience by encouraging autonomy in their nurses, thereby increasing self-efficacy among nurses and supporting an internal locus of control among individuals, both important factors in resilience (Foureur et al., 2013; Grafton et al., 2010; Noh & Lim, 2015; Taratino, et al., 2013; Taylor & Reyes, 2012). Additionally, organizations can reduce compassion fatigue and burnout by supporting "no-fault" problem solving, positive reinforcement learning, and mentorship programs (McAllister & McKinnon, 2009; McDonald et al., 2016; Noh & Lim, 2015; Potter et al., 2015).

A more resilient work force will strengthen the healthcare industry. Fewer nurses experiencing burnout and compassion fatigue will mean less turnover among nurses (Grafton et al., 2010). This would reduce healthcare costs as new employees are expensive to train. Nurses who are satisfied with their work are less likely to make expensive errors or mistakes that adversely impact patient outcomes (Potter et al., 2015). In addition, resilient nurses have happier patients (Houck, 2014), an important factor to consider as the industry increasingly factors patient satisfaction into its payment models. Therefore, increasing resilience among nurses is extremely beneficial to the healthcare industry.

Improving nursing student resilience also has important consequences for the healthcare industry. More resilient students would improve attrition rates and graduation rates, a particularly salient point when taking into account the current nursing shortage (Beauvais et al., 2014; Taylor & Reyes, 2012). Simply having more nurses and thereby improving staffing ratios and reducing errors drawn from too few hands doing too much work can reduce the stress nurses experience on a day-to-day basis (Potter et al., 2013). More resilient students would also reduce stress on

nursing faculty and improves their sense of job satisfaction (Potter et al., 2015). In truth, increasing nurses' resilience has a cascading effect on the healthcare industry, creating improvements in multiple areas at both the individual and system-wide levels.

**Recommendations for Future Research**

As previously noted, there is much room for future research on the topic of resilience, particularly where it comes to nursing students and new nurses. There is limited research on developing resilience in new nurses, but this is a small portion of a larger flaw in current research practice. Namely, there is a need for resilience research on larger, more diverse populations of nurses. In addition to little information on young nurses, little information has been gathered with minorities, men, and nurses outside the fields of oncology and hospice. Therefore, a focus on research studies with larger sample sizes and more diverse nursing populations would be beneficial to the topic (Beauvais et al., 2014).

Additionally, there is limited research into the long-term impact of resilience programming. Resilience is a dynamic process and takes time to develop. As such, time is needed to properly measure the effects of any education or interventions. There is almost no research in nursing which evaluates how resilience develops, either naturally or after an intervention, more than a year past an event (Foureur et al., 2013; Houck, 2014; Potter, et al., 2013). As trauma and resilience are such pivotal concepts in nursing at both the individual and system levels, it would be beneficial to understand as much as possible about the subject as both a naturally occurring phenomenon and as a concept that is influenced by outside factors (Melvin, 2012).

Similarly, most of the current research has been focused on the positive aspects of resilience; it may be important to also examine the qualities of nurses and nursing students with

little resilience. Examining a concept in negative can often provide new insights into how to achieve important goals (McAllister & McKinnon, 2009; Melvin, 2012). While we know a fair amount about the qualities and practices of resilient nurses, looking at the qualities and practices of non-resilient nurses may help educators avoid instilling detrimental habits or viewpoints in learners (Fletcher & Sarkar, 2013; Ledoux, 2015).

Finally, further experimental studies into the most effective methods of teaching and influencing resilience are needed (Foureur et al., 2013; McAllister & McKinnon, 2009). The experimental study with an intervention including both a control group and a research group is the gold standard of science for good reason (Dearhort & Dang, 2012); it is through this sort of experimental design though researchers can see where educators should focus their attention to be able to most efficiently develop resilience for the largest number of new nurses and student nurses (Klatt et al., 2015; Taratino et al., 2013).

**Richardson's Metatheory of Resilience**

As discussed in chapter one, Richardson's Metatheory of Resilience holds to three postulates. The first postulate presumes that there are certain intrinsic characteristics that predispose an individual toward a resilient response to adversity (Richardson, 2002). This postulate is supported by current literature. Fletcher and Sarkar's work suggests that hardiness, optimism, curiosity, and a positive personal affect all contribute to resilience, and that these qualities are also resistant to influence from outside sources (2013). McAllister and McKinnon add altruism, empathy, experiential spirituality to the list of intrinsic characteristics of resilient individuals while supporting Fletcher and Sarkar's evidence of positive personal affect and optimism as important qualities (2009).

While there is conclusive evidence supporting Richard's theory of intrinsic characteristics of resilience, there is some conflicting data on the list of characteristics. For example, Richardson (2002) and McAllister and McKinnon (2009) both support age and gender as important qualities; however, Ledoux's more recent study in 2015 suggests that these qualities have no influence on resilience. Perhaps the clearest division in the research is on the topic of spirituality. Neville and Cole (2013), McAllister and McKinnon (2009), and Fletcher and Sarkar (2013) all found a strong sense of spirituality to be highly correlated with a resilient response to stress while other studies found spirituality to have no influence at all on resilience (Beauvais et al., 2014; Sanso et al., 2015). A possible cause for this discrepancy is the way spirituality is defined among the different studies. Researchers who defined spirituality as an extension or result of religious belief found no correlation between spirituality and resilience (Beauvais, et al., 2014; Sanso et al., 2015) while researchers who defined spirituality as belief in a power greater than oneself found a positive correlation between spirituality and resilience (Neville & Cole, 2013; McAllister & McKinnon, 2009; Fletcher & Sarkar, 2013). This example demonstrates the importance of accurately defining topics when discussing resilience.

Richardson's second postulate describes resiliency as a method of responding to life events. When exposed to stress or adversity, a "resilient person" is the person who is likely to return to a pre-stressor state easily and to experience growth and insight as a result (2002). This postulate is supported by literature suggesting that people who experience increased levels of trauma are often more resilient than the general population. Research subjects who disclose a history of adversity also report better mental health and well-being, both indicators of higher levels of future resilience to stress (Fletcher & Sarkar, 2013; Foureur et al., 2013; Grafton, et al., 2010 Taylor & Reyes, 2012). The contrasting side of this postulate is that people who do not

respond to adversity with resilience respond with compassion fatigue, burnout, or other secondary stress disorders. This position is also born out in the available research: higher levels of resilience correlate with lower levels of compassion fatigue and other negative responses to stress (Beauvais et al., 2014; Grafton et al., 2010; Houck, 2014; McAllister & McKinnon, 2009; Potter et al., 2013). Richardson suggests that chronic stress syndromes befall individuals who lack resilient qualities and have not grown through the traumas in their life (2002).

Richardson's Metatheory of resilience provides some suggestions for methods to enhance resilience. Resilience is a potential response to disruption; one way for educators and leaders to promote resilience may be to support students and nurses to respond to stressors with feelings of control and self-efficacy. Educators and leaders may find it possible to do this through active listening, assisting with development of solutions, and insights into problems that students and nurses may not have considered (Beauvais et al., 2014; Grafton et al., 2010; Noh & Lim, 2015; Richardson, 2002). While educators should not seek to solve an individual's problems, resiliency can be enhanced by removing barriers to growth and helping individuals to feel less overwhelmed by the adversity they are facing (McAllister & McKinnon, 2009; Richardson, 2002).

Richardson's third postulate expounds upon the second and recognizes resilience as not only a possible response to stress but also a driving force in a person's life. This force drives them to "seek self-actualization, altruism, wisdom, and harmony with a spiritual source of strength" (2002, p. 313). It is what motivates a person to recover and grow after an adverse experience. Perhaps the best support for this postulate is shown in the general response to trauma. So long as an experience is not overwhelming, the natural human response to stress is to learn, assess, and grow. This response is most evident in the research done with nursing students;

if given an appropriate challenge, students learn and become more confident, autonomous, and able to overcome adversity in the future (Noh & Lim, 2015; Taylor & Reyes, 2012; Richardson, 2002). In this way, a resilient response creates more resilience to future adversity.

**Conclusion**

Research and literature examining resilience has gathered momentum since Richardson proposed his metatheory in 2002. Traditionally, the assumption has been that adversity impedes positive adaptation. However, research has demonstrated that people with a history of difficult experiences report better mental health and well-being than those without lifetime trauma (Fletcher & Sarkar, 2013). Nurse educators are in a prime position to optimize the experience of adversity in some of the profession's most vulnerable members: nursing students, new nurses, and those learning new skills. Exposure to adversity in moderation, with careful environmental management and social support, can develop resilience and create a sense of mastery for future adversities.

# Appendix: Evidence Synthesis Matrix

<table>
<tr><td colspan="4">Source: Beauvais, A. M., Stewart, J. G., DeNisco, S., & Beauvais, J. E. (2014). Factors related to academic success among nursing students: A descriptive correlational research study. Nurse Education Today, 34 (6), 918-923. doi:10.1016/j.nedt.2013.12.005</td></tr>
<tr><td>Purpose/Sample</td><td>Design (Method/Instruments)</td><td>Results/Conclusion:</td><td>Strengths/Limitations</td></tr>
<tr><td>Purpose: To describe the relationship between emotional intelligence, psychological empowerment, resilience, spiritual well-being, and academic success in nursing students.<br><br>Sample/Setting:<br>124 graduate and undergraduate nursing students at a private, Catholic university<br><br>Johns Hopkins Evidence Appraisal<br><br>Level of Evidence:<br>Level 3<br>Quality:<br>High Quality</td><td>Non-experimental research: descriptive correlational study using the Mayer-Salovey-Caruso Emotional Intelligence Test, Spreitzer Psychological Empowerment Scale, Wagnild and Young Resilience Scale, and a background data sheet to assess salient research points.</td><td>Attrition rates from nursing programs nationwide are approximately 50%. Ability to manage emotions and resilience are predictors of academic success. Specifically, facilitating and managing emotions are important skills for adapting to academic rigors. For graduate students, psychological empowerment fosters higher success levels. Resilience is strongly correlated with better academic performance in graduate students. Spiritual well-being was not related to academic success.</td><td>Strengths:<br>Thorough surveys with standardized testing.<br><br>Limitations:<br>Small, convenience sample of students. The Catholic University setting is not representative of the general population. Self-reporting is susceptible to bias.</td></tr>
<tr><td colspan="4">Author Recommendations:<br>Additional research is needed to increase significance among the general population of nursing students. While many schools have attempted to improve attrition rates through improved selection processes, tutoring, and improved clinical placements, it may be that providing opportunities for emotional education and fostering resiliency are also important parts of the student retention puzzle.</td></tr>
<tr><td colspan="4">Implications:<br>Educators need to further research and assess methods and practices to promote student success. Nursing educators should develop programming to foster resilience. Such programming could include opportunities to create a sense of competence, success, and the ability to cope with diverse challenges. A positive environment allows students to feel supported during times of emotional struggle.</td></tr>
</table>

| **Source:** Fletcher, D., & Sarkar, M. (2013). Psychological resilience: A review and critique of definitions, concepts, and theory. *European Psychologist, (18)* 1, 12-23. doi: 10.1027/1016-9040/a000124 | | | |
|---|---|---|---|
| **Purpose/Sample** | **Design (Method/Instruments)** | **Results/Conclusion** | **Strengths/Limitations** |
| **Purpose:**<br>To review and critique the multiple definitions, concepts, and theories related to psychological resilience.<br><br>**Sample/Setting:**<br>Review of 80 articles.<br><br>**Johns Hopkins Evidence Appraisal**<br><br>**Level of Evidence:**<br>Level V<br>**Quality:**<br>Good quality | Literature review: Articles reviewed and critiqued. No information on how articles were chosen for inclusion. | An emerging debate is whether resilience is a process or a trait (ego resilience). Ego resilience traits include hardiness, optimism, curiosity, the ability to detach and conceptualize problems, extraversion, self-efficacy, spirituality, self-esteem, and positive affect. The majority of resiliency theories support the idea that resilience is a "dynamic process that changes over time" (p. 17). In addition, a wide range of factors influences whether a person will demonstrate resilience. Historically, the assumption has been made that negative life circumstances impede positive adaptation; however, research shows that people with a history of adversity report better mental health and well-being. | **Strengths:**<br>Large number of articles included<br>Thorough examination of the subject<br><br>**Limitations:**<br>Unclear how articles were chosen for inclusion. |
| **Author Recommendations:**<br>A difficulty in researching resiliency comes from the fact that there are many ways resiliency is defined and conceptualized. Most definitions are based around two core concepts: adversity and positive adaptation. Resiliency may be improved through exposure to stressful events; therefore, resources should focus on providing support to individuals dealing with stress. | | | |
| **Implications:**<br>It is important for researchers to clearly outline their definition of resiliency (both what constitutes an adverse event and how positive adaptation will be defined) and justification for the use of that definition. Resiliency's protective and promoting factors should be considered in relation to their specific function and may vary in relation to the adversity. Coping and recovery, while related to resiliency, are separate concepts and should be discussed as such. Governing agencies should provide opportunities for access to resources that develop resiliency. | | | |

**Source:** Foureur, M., Besley, K., Burton, G., Yu, N., & Crisp, J. (2013). Enhancing the resilience of nurses and midwives: Pilot of a mindfulness-based program for increased health, sense of coherence and decreased depression, anxiety and stress. *Contemporary Nurse, 45* (1), 114-125. doi:10.5172/conu.2013.45.1.114

| **Purpose/Sample** | **Design (Method/Instruments)** | **Results/ Conclusion:** | **Strengths/Limitations** |
|---|---|---|---|
| **Purpose:**<br>To test the effectiveness of a one day mindfulness-based stress reduction (MBSR) program to create resilience<br><br>**Sample/Setting:**<br>A convenience sample of 20 midwives and 20 nurses from two metropolitan teaching hospitals.<br><br>**Johns Hopkins Evidence Appraisal**<br><br>**Level of Evidence:**<br>Level II<br>**Quality:**<br>High quality | Quasi experimental research study: pre and post tests were administered to study participants; a subgroup participated in voluntary discussion/focus groups on the program and ongoing practice of the skills. Participants took the General Health Questionnaire (GHQ-12), the Sense of Coherence-Orientation to Life, and the Depression, Anxiety, and Stress Scale measurements. | Nurses are socialized in a way that promotes high levels of stress/distress but minimizes the likelihood of effective self-care. MBSR is thought to reduce rumination and thereby reduce destructive thought patterns, creating improved health and resilience. Nurses in this study were found to have significant improvements in measurements of resilience. | **Strengths:**<br>Multiple, standardized testing<br>Used both qualitative and qualitative data<br><br>**Limitations:**<br>Small sample size<br>Sample not representative of the general population |

**Author Recommendations:**
Further experimental research is needed to study the effect of MBSR on resilience. Follow-up research is also recommended to assess the long-term effects of MBSR training. Employers can support MBSR through supporting mindfulness in the day-to-day activities of the workplace.

**Implications:**
Mindfulness practice may be an important component in fostering resilience. Unlike several theoretical components of resilience, mindfulness can be taught and practiced outside of stressful situations and events.

<table>
<tr><td colspan="4">Source: Grafton, E., Gillespie, B., & Henderson, S. (2010). Resilience: The power within. Oncology Nursing Forum, 37 (6), 698-705. doi:10.1188/10.ONF.698-705</td></tr>
<tr><td>Purpose/Sample</td><td>Design (Method/Instruments)</td><td>Results/ Conclusion:</td><td>Strengths/Limitations</td></tr>
<tr><td>Purpose:<br>To examine resilience as a protective factor against workplace stress in oncology nurses.<br><br>Sample/Setting:<br>64 articles.<br><br>Johns Hopkins Evidence Appraisal<br><br>Level of Evidence:<br>Level V<br>Quality:<br>High quality</td><td>Literature review:<br>Articles were all peer reviewed, scholarly articles</td><td>Novice oncology nurses are particularly sensitive to compassion fatigue. It is not stress but the response to stress that affects physical and mental health. Resilient nurses are better able to manage their responses to stress and are therefore less likely to suffer ill effects. Self-care nurtures resilience by “enhancing self-awareness, self-efficacy, confidence, sense of purpose, and meaning.” Resilient individuals are better able to grow and learn from stress; this reduces their vulnerability to future adverse events. What works for self-care for one person may not work for another.</td><td>Strengths:<br>Many articles used as the foundation for this review<br>Only uses peer reviewed articles<br>Articles from multiple fields were reviewed<br>Heavily cited by other articles (100+ times in SCOTUS, ERIC, CINAHL)<br><br>Limitations:<br>Many articles disagree on the definition of “resilience,” making it a difficult topic in which to find consistent research.</td></tr>
<tr><td colspan="4">Author Recommendations:<br>Processes to develop resilience should be included in educational preparation and workplace environments. Education should emphasize “innovative, flexible, and reflective thinking.”</td></tr>
<tr><td colspan="4">Implications:<br>Aspects of resilience such as self-care can be taught to a certain degree. Nurses should be encouraged to participate in self-care practices. Nurses should also be taught that self-care is not a one size fits all prospect; what works for one nurse may be neutral or even increase stress in another.</td></tr>
</table>

| **Source:** Houck, D. (2014). Helping nurses cope with grief and compassion fatigue: An educational intervention. *Clinical Journal of Oncology Nursing, 18* (4), 454-458. doi:10.1188/14.CJON.454-458 | | | |
|---|---|---|---|
| **Purpose/Sample** | **Design (Method/Instruments)** | **Results/ Conclusion:** | **Strengths/Limitations** |
| **Purpose:**<br>To assess effectiveness of a skills class in developing coping skills and mindfulness in nurses as a method of preventing compassion fatigue<br><br>**Sample/Setting:**<br>34 oncology nurses<br><br>**Johns Hopkins Evidence Appraisal**<br><br>**Level of Evidence:**<br>Level II<br>**Quality:**<br>Good quality | Quasi-experimental research study:<br>Development of a skills class divided into three one-hour sections each on cumulative grief and compassion fatigue, holistic self-care, and spiritual self-care.<br>Measured via pre-and post-evaluations. | From literature review: grief can be chronic and cumulative, resulting in compassion fatigue when unaddressed. Nurses should aim for work-life balance and "relentless self-care."<br><br>Nurses noted increased focus on making self-care and maintaining emotional health a priority. Nurses reported feeling less isolated in the grieving process and stated they would be willing to ask for more help if needed. | **Strengths:**<br>Measured pre- and post-class<br>Included a literature review<br><br>**Limitations:**<br>Small sample size not significant to the general population |
| **Author Recommendations:**<br>Further study to determine long-term effectiveness of class. Continued education for nurses focused on developing mindfulness, coping skills, and raising awareness of institutional resources for addressing grief/compassion fatigue. Prevention of compassion fatigue is the responsibility of both the individual nurse and the employing organization. | | | |
| **Implications:**<br>Self-care is an extremely important part of resilience to trauma. Medical organizations should support self-care to reduce employee turnover and burnout. | | | |

**Source:** Klatt, M., Steinberg, B., & Duchemin, A. (2015). Mindfulness in motion (MIM): An onsite mindfulness-based intervention (MBI) for chronically high stress work environments to increase resiliency and work engagement. *Journal of Visualized Experiments*, 101, 1-11. doi:10.3791/52359

| **Purpose/Sample** | **Design (Method/Instruments)** | **Results/ Conclusion** | **Strengths/Limitations** |
|---|---|---|---|
| **Purpose:**<br>To study the effect of a mindfulness-based intervention on the stress and resiliency of ICU staff.<br><br>**Sample/Setting:**<br>34 ICU staff participated in the intervention group.<br><br>**Johns Hopkins Evidence Appraisal**<br><br>**Level of Evidence:**<br>Level I<br>**Quality:**<br>High Quality | Experimental, randomized control trial: MIM, an abbreviated MBSR-based course requiring one hour/week for eight weeks, was attended by an intervention group of ICU personnel. Baseline resilience and work engagement measurements were taken one week before MIM using the Connor-Davidson Resiliency Scale and the Utrecht Work Engagement Scale. Measurements were also taken one week after completing MIM. In addition, participants were surveyed to find the most and least useful aspects of the program. | The time commitment involved in standard MBSR programs can prevent people from learning and practicing mindfulness skills. Mindfulness has been found to positively impact not only stress levels and resiliency, but also to change brain chemistry, structure, and function. MIM courses were highly effective in increasing resiliency, work engagement, and vigor (subscale of Utrecht) scores among the intervention group. Participants reported institutional support, daily practice, and onsite location as most valuable components of the program. | **Strengths:**<br>Randomized control trial including pre- and post- intervention testing<br><br>**Limitations:**<br>Small sample size |

**Author Recommendations:**
Additional research into the important components of MBSR is recommended. Institution-supported mindfulness-based programs should be implemented to improve resiliency and engagement among staff.

**Implications:**
Mindfulness is a potentially important component to resilience. It is likely that mindfulness can be taught, but it may also be that some elements are more important to developing mindfulness than others.

<table>
<tr><td colspan="4">Source: Ledoux, K. (2015). Understanding compassion fatigue: Understanding compassion. Journal of Advanced Nursing, 71 (9), 2041-2050. doi:10.1111/jan.12686</td></tr>
<tr><td>Purpose/Sample</td><td>Design (Method/Instruments)</td><td>Results/ Conclusion</td><td>Strengths/Limitations</td></tr>
<tr><td>Purpose:<br>To examine how the concept of compassion fatigue is understood within the nursing field<br><br>Sample/Setting:<br>Review of literature on compassion fatigue from 1992-2012 and review of literature from 1998-2012.<br><br>Johns Hopkins Evidence Appraisal<br><br>Level of Evidence:<br>Level V<br>Quality:<br>Good quality</td><td>Literature Review: CINAHL, Proquest, Nursing and Allied Health Source, PubMed, and PsychInfo were searched with keywords “compassion” and “compassion fatigue.” Articles were reviewed and critiqued.</td><td>Compassion fatigue has been researched in North America, Europe, Australia, Asia, Africa, and the Middle East. Many studies have been done on the prevalence of compassion fatigue in diverse settings including: hospice, ER, oncology, nephrology, intensive care, surgery, mental health, pediatrics, and public health. There are no significant relationships between compassion fatigue and ethnicity, age, marital status, hours worked per week, experience, specialty, gender, nationality, or education. Compassion is a desire to act to alleviate the suffering of others, and it is integral to nursing practice. Compassion fatigue may be a result of the inability to alleviate the suffering of others adequately.</td><td>Strengths:<br>Author specifically looks at definitions of compassion fatigue and resilience<br><br>Limitations:<br>No information on how articles were chosen for inclusion.</td></tr>
<tr><td colspan="4">Author Recommendations:<br>Research on compassion fatigue should be based on an understanding of compassion. Further research and theory development are needed on the constructs of compassion and compassion fatigue.</td></tr>
<tr><td colspan="4">Implications:<br>When researching an abstract concept such as resilience or compassion, it is important to have a formal definition of the concept to guide the study.</td></tr>
</table>

<table>
<tr><td colspan="4">Source: McAllister, M., & McKinnon, J. (2009). The importance of teaching and learning resilience in the health disciplines: A critical review of the literature. Nurse Education Today, 29 (4), 371-379. doi:10.1016/j.nedt.2008.10.011</td></tr>
<tr><td>Purpose/Sample</td><td>Design (Method/Instruments)</td><td>Results/ Conclusion</td><td>Strengths/Limitations</td></tr>
<tr><td>Purpose:<br>To advance the discussion of resilience theory as a part of the educational content for students in order to “give students strength, focus, and endurance in the workplace (p.371).”<br><br>Sample/Setting:<br>61 Articles<br><br>Johns Hopkins Evidence Appraisal<br><br>Level of Evidence:<br>Level V<br>Quality:<br>Good Quality</td><td>Literature review:<br>Articles reviewed and critiqued.</td><td>There is research supporting that nursing is the healthcare profession most impacted by compassion fatigue; however, paramedics, ambulance officers, and doctors are also vulnerable. Young people and adults are better able to rebound from adversity when certain factors are present: social connection, family connection, connection to the physical environment, spirituality, and a supportive personal mindset. Resilience is contextual and dynamic, emotional trauma and resilience are individual. Personality characteristics of resiliency can be learned.</td><td>Strengths:<br>Numerous articles reviewed<br>Heavily cited by other articles (100+ times in SCOTUS and CINAHL)<br><br>Limitations:<br>No information on how articles were chosen for inclusion.</td></tr>
<tr><td colspan="4">Author Recommendations: Authors recommend discussion of resiliency in undergraduate education, promote reflection-style learning in the workplace, and promote coaching/mentoring programs in clinical and academic practice (imperfect mentors are the best). More research is needed on effective methods to encourage resilient growth. Additionally, more research is needed on identifying how an experience can be traumatic for one person but not another.</td></tr>
<tr><td colspan="4">Implications: In addition to more concrete skills such as mindfulness, it may be possible to teach or encourage the growth of personality traits associated with resilience. Some components of resilience may be learned through example; it may be beneficial for teachers and mentors to discuss incidents that were traumatic or stressful for them and how they responded (if they are comfortable doing so).</td></tr>
</table>

<table>
<tr><td colspan="4">Source: McDonald, G., Jackson, D., Vickers, M. H., & Wilkes, L. (2016). Surviving workplace adversity: A qualitative study of nurses and midwives and their strategies to increase personal resilience. Journal of Nursing Management, 24 (1), 123-131. doi:10.1111/jonm.12293</td></tr>
<tr><td>Purpose/Sample</td><td>Design (Method/Instruments)</td><td>Results/ Conclusion</td><td>Strengths/Limitations</td></tr>
<tr><td>Purpose:<br>To explore the characteristics and habits of nurses and midwifes who perceive themselves as resilient.<br><br>Sample/Setting:<br>16 Australian nurses and midwives<br><br>Johns Hopkins Evidence Appraisal<br><br>Level of Evidence:<br>Level III<br>Quality:<br>High Quality</td><td>Qualitative research study: each participant was interviewed, interviews were transcribed and analyzed thematically using thematic analysis based on a non-linear process of comprehending, synthesizing, theorizing, and re-contextualizing the words of participants.</td><td>Three major protective themes were found among participants: social support networks, self-care and self-motivation, and autonomy. Coworker support networks were cited as the most important protective factor. Self-care activities were identified but were exceptionally individual to the participant. Self-motivation as described in this study appears to resemble optimism as described by other studies. Participants who had the greatest control over their work rated themselves as more resilient than their peers who had less autonomy.</td><td>Strengths:<br>Mathematical analysis of themes reduces biases<br><br>Limitations:<br>Small sample size<br>Interviews and self-reporting are susceptible to biases<br>Participants were self-selected</td></tr>
<tr><td colspan="4">Author Recommendations: Nurses should be encouraged to socialize positively. Peer mentoring may be an effective way to support new nurses into unit nursing culture and social structure. Nurses should be given opportunities to explore various self-care activities to better identify activities that benefit them as individuals.</td></tr>
<tr><td colspan="4">Implications: The burden of coaching resiliency may not necessarily fall on nursing instructors; peer coaching may also be beneficial. Environment also plays a significant role in reports of resilience in addition to being a common factor in burn out. Once again, useful self-care techniques are unique to the individual.</td></tr>
</table>

**Source:** Melvin, C. S. (2012). Professional compassion fatigue: What is the true cost of nurses caring for the dying? *International Journal of Palliative Nursing, 18* (12), 606-611. Retrieved from www.scopus.com

| **Purpose/Sample** | **Design (Method/Instruments)** | **Results/ Conclusion** | **Strengths/Limitations** |
|---|---|---|---|
| **Purpose:**<br>To explore the prevalence of compassion fatigue among hospice and palliative care nurses, and to identify any coping skills<br><br>**Sample/Setting:**<br>6 "highly experienced" nurses at a home health agency in the northeast<br><br>**Johns Hopkins Evidence Appraisal**<br><br>**Level of Evidence:**<br>Level III<br>**Quality:**<br>High quality | Non-experimental, descriptive qualitative study: Semi-structured interviews were collected from volunteer nurse participants with a minimum of 10 years of experience | Without adequate coping skills, nurses are at higher risk of developing professional compassion fatigue. Mindfulness, awareness of compassion fatigue at a personal level, and setting boundaries, were identified as an important coping skill. The nurses identified enjoyable activities away from work as important mechanisms to help fill up before they empty out. | **Strengths:**<br>Participants in the study are likely to be highly resilient<br>Semi structured interviews allow for increased data collection over a questionnaire<br>Heavily cited by other articles (75+ times in SCOTUS and CINAHL)<br><br>**Limitations:**<br>Small sample size not representative of the general population<br>Participants were selected via purposive sampling which may have limited how much they were willing to disclose |

**Author Recommendations:** Nurse managers are uniquely poised to identify compassion fatigue early on and assist nurses in preventing further damage. More study on the concept of compassion fatigue as well as on the identification and effectiveness of various coping skills is needed.

**Implications:** Through increasing knowledge of compassion fatigue, we are able to reach a higher understanding of resilience. A higher number of individual self-care skills is associated with increased resilience. Many self-care skills can be taught.

<table>
<tr><td colspan="4">Source: Neville, K., & Cole, D. A. (2013). The relationships among health promotion behaviors, compassion fatigue, burnout, and compassion satisfaction in nurses practicing in a community medical center. Journal of Nursing Administration, 43 (6), 348-354. doi:10.1097/NNA.0b013e3182942c23</td></tr>
<tr><td>Purpose/Sample</td><td>Design (Method/Instruments)</td><td>Results/ Conclusion</td><td>Strengths/Limitations</td></tr>
<tr><td>Purpose:<br>To study the relationship between health promotion behaviors and compassion fatigue/burnout.<br><br>Sample/Setting:<br>214 full time, part time, and per diem RNs working in a community medical center setting<br><br>Johns Hopkins Evidence Appraisal<br><br>Level of Evidence:<br>Level III<br>Quality:<br>High quality</td><td>Non-experimental research study: Nurses filled out a survey packet which included the Health Promoting Lifestyle Profile II, the Professional Quality of Life Scale, and a demographic data sheet</td><td>Literature review shows that nurses overall as a cohort tend to have poor health-promotional behaviors and insight. No statistically significant difference in compassion fatigue levels was found among nurses working in med surg, ICU, CCU, ED, and oncology. Additionally, no correlation was found among nurses who felt supported by management and nurses who did not. Spiritual growth and interpersonal relationship were highly correlated with compassion satisfaction.</td><td>Strengths:<br>Study included nurses in multiple disciplines<br><br>Limitations:<br>Small sample size</td></tr>
<tr><td colspan="4">Author Recommendations: A balanced approach to health which includes care of both the emotional and physical care of self may be most beneficial when combating compassion fatigue and burnout. Organizations should support both physical and spiritual growth as a way to promote resiliency among employees/nurses.</td></tr>
<tr><td colspan="4">Implications: When educating nurses and nursing students on self-care, activities should include both mental and physical elements. This study also found that spiritual growth is important to resiliency. This is contrary to other studies that have shown spirituality to have little or no impact on resilience.</td></tr>
</table>

| **Source:** Noh, J., & Lim, E. (2015). Factors influencing ego-resilience in nursing students. *International Journal of Bio-Science and Bio-Technology,* 7 (3), 233-242. Doi: 10.1425/ijbsbt.2015.7.3.25 | | | |
|---|---|---|---|
| **Purpose/Sample** | **Design (Method/Instruments)** | **Results/ Conclusion** | **Strengths/Limitations** |
| **Purpose:**<br>Examination of factors influencing the ability of female nursing students to cope with changing environmental needs and internal/external stressors.<br><br>**Sample/Setting:**<br>109 female undergraduate nursing students in South Korea<br><br>**Johns Hopkins Evidence Appraisal**<br><br>**Level of Evidence:**<br>Level III<br>**Quality:**<br>Good quality | Non-experimental research study: participants completed a self-reported questionnaire: Data was analyzed using t-tests and ANOVAs, post-hoc comparisons were performed using Scheffe's method and Pearson's correlation coefficients | High self-esteem was positively correlated with high levels of resilience and was found to be the most important factor influencing resilience. Students with high levels of resilience also reported an internal locus of control; these women believed they have a great deal of control over the outcomes of difficult situations. | **Strengths:**<br>Directly studies nursing students<br><br>**Limitations:**<br>Small sample size<br>Does not follow student after graduation |
| **Author Recommendations:** Teachers should create learning environments to enhance student self-esteem through the encouragement of free thinking and positive reinforcement. | | | |
| **Implications:** When exposing students to stress in order to build resilience, it is important for instructor to be moderate in their challenges. Unsolvable puzzles will damage self-esteem and thereby damage an individual's resilience. | | | |

**Source:** Potter, P., Deshields, T., Berger, J. A., Clarke, M., Olsen, S., & Chen, L. (2013). Evaluation of a compassion fatigue resiliency program for oncology nurses. *Oncology Nursing Forum, 40* (2), 180-187. doi:10.1188/13.ONF.180-187

| **Purpose/Sample** | **Design (Method/Instruments)** | **Results/ Conclusion** | **Strengths/Limitations** |
|---|---|---|---|
| **Purpose:**<br>Evaluation of a resiliency program designed to educate oncology nurses on the topic of compassion fatigue<br><br>**Sample/Setting:**<br>13 oncology nurses in an outpatient infusion center in the Midwestern US<br><br>**Johns Hopkins Evidence Appraisal**<br><br>**Level of Evidence:**<br>Level II<br>**Quality:**<br>High quality | Quasi-experimental, descriptive pilot study: Nurses attended five, 90 minute sessions on compassion fatigue resiliency over five weeks. Pre and post tests were given over six months. Tests were the Professional Quality of Life Scale (ProQOL) IV, Maslach Burnout Inventory, Impact of Event Scale-Revised (IES-R), and Nursing Job Satisfaction Scale. | Prevalence of compassion fatigue ranges from 16-39% in RNs. Long term benefits to the program (based on the Accelerated Recovery Program) were found. Secondary trauma scores on the ProQOL declined throughout the six month follow up. IES-R scores also improved. This program has the potential to alleviate some compassion fatigue and improve resilience. | **Strengths:**<br>Standardized, pre- and post-testing done<br><br>**Limitations:**<br>Small sample size<br>Participants were self-selected |

**Author Recommendations:** More research is needed to look at the extent to which compassion fatigue affects nurses' clinical judgment. Continued follow-up to determine long term effects of the program is recommended.

**Implications:** There can be no structured response to issues that people and organizations do not realize or understand. Fortunately, awareness of compassion fatigue and burnout is improving. The program outlined in this study shows potential for improving an individual's awareness of compassion fatigue as well as providing tools for improving resilience.

<table>
<tr><td colspan="4">Source: Potter, P., Pion, S., & Gentry, E. (2015). Compassion fatigue resiliency training: The experience of facilitators. The Journal of Continuing Education in Nurses, 46 (2), 83-87. doi: 10.3928/00220124-20151217-03</td></tr>
<tr><td>Purpose/Sample</td><td>Design (Method/Instruments)</td><td>Results/ Conclusion</td><td>Strengths/Limitations</td></tr>
<tr><td>Purpose:<br>Examination of the perceptions of the facilitators for a compassion fatigue resiliency program<br><br>Sample/Setting:<br>15 volunteer facilitators at a hospital; group included nurses, clinical staff, and administrative staff. Each facilitator teaches a minimum of two classes per year.<br><br>Johns Hopkins Evidence Appraisal<br><br>Level of Evidence:<br>Level III<br>Quality:<br>Good quality</td><td>Qualitative research study: facilitators completed a narrative describing their experiences and the impact of the program on their own resiliency: Statements were grouped thematically. Core feelings and perceptions were identified and quantified.</td><td>Facilitators described improved emotional health, internally and externally directed. They also noted increased internal loci of control and more success personally and professionally. Teaching resilience may further improve facilitator resilience. Continued practice and reminders of resilience skills likely improve retention of learned material and increase personal resilience. All of the study participants reported improved emotional health after teaching two resilience program classes per year.</td><td>Strengths:<br>Strong correlation between teaching resiliency classes and improved resilience in instructors.<br><br>Limitations:<br>Small sample size<br>Self-guided narratives may leave out important concepts</td></tr>
<tr><td colspan="4">Author Recommendations: Further research is needed. Resilience programs may benefit from having students teach their new skills to others.</td></tr>
<tr><td colspan="4">Implications: If peer mentorship programs are utilized by teaching institutions, it is likely that resiliency training would improve not only the emotional well-being of student nurses but also their peers who are assisting them with skills. Additionally, nursing instructors may benefit from teaching these skills to students thereby improving their own resilience and reducing instructor burnout and turnover.</td></tr>
</table>

<table>
<tr><td colspan="4">Source: Sanso, N., Galiana, L., Oliver, A., Pascual, A., Sinclair, S., & Benito, E. (2015). Palliative care professions' inner life: Exploring the relationships among awareness, self-care, and compassion satisfaction and fatigue, burnout, and coping with death. American Academy of Hospice and Palliative Medicine, 50 (2), 200-207. doi: http://dx.doi.org/10.1016/j.jpainsymman.2015.02.013</td></tr>
<tr><td>Purpose/Sample</td><td>Design (Method/Instruments)</td><td>Results/ Conclusion</td><td>Strengths/Limitations</td></tr>
<tr><td>Purpose:<br>Improve understanding of how competence in death care and awareness relates to compassion satisfaction and resilience.<br><br>Sample/Setting:<br>385 Spanish palliative care professionals including physicians, nurses, psychologists, and social workers<br><br>Johns Hopkins Evidence Appraisal<br><br>Level of Evidence:<br>Level III<br>Quality:<br>High quality</td><td>Qualitative research study: participants completed and adapted version of Kearney and Kearney's awareness model of self-care: Data were collected into five categories: self-care, awareness, coping with death, professional quality of life, and training in dealing with death and dying.</td><td>Positive relations were determined between self-care, awareness, coping with death, and compassion satisfaction. In particular, a strong positive relationship was found between coping with death and quality of life. Training in physical self-care was not found to be related to resilience in this study. Spiritual training was not found to have a statistically important impact on emotional health.</td><td>Strengths:<br>Although still not representative of the general American or student population, this is one of the largest sample sizes used to study resilience in nurses.<br><br>Limitations:<br>The study had a low response rate relative to the number of surveys sent out (33%)<br>The questionnaire used had non-specific questions on spirituality</td></tr>
<tr><td colspan="4">Author Recommendations: Emotional self-care plays an important role in resilience and ability to cope with death and other forms of emotional trauma. Education on emotional self-care should be a necessity, not a luxury, for healthcare professionals.</td></tr>
<tr><td colspan="4">Implications: Self-care is a key aspect in creating and maintaining resiliency. Emotional awareness, sometimes called "mindfulness," is also important. If a nurse has poor awareness of her or his emotional state, the individual will not know to implement self-care tactics.</td></tr>
</table>

| **Source:** Taratino, B., Earley, M., Audia, D., D'Adamo, C., & Berman, B. (2013). Qualitative and quantitative evaluation of a pilot integrative coping and resiliency program for healthcare professionals. *Explore, 9* (1), 44-47. doi: 10.1016/j.explore.2012.10.002 | | | |
|---|---|---|---|
| **Purpose/Sample** | **Design (Method/Instruments)** | **Results/ Conclusion** | **Strengths/Limitations** |
| **Purpose:**<br>To evaluate the effectiveness of a new program, Healing Pathways, which used multiple modalities to develop resilience in healthcare professionals.<br><br>**Sample/Setting:**<br>82 participants completed the Healing Pathways program, 90% of whom were nurses or nurse practitioners.<br><br>**Johns Hopkins Evidence Appraisal**<br><br>**Level of Evidence:**<br>Level II<br>**Quality:**<br>High quality | Quasi-experimental research study: participants completed questionnaires before the program, 8 weeks after, and at 12 months: Questionnaires included the Perceived Stress Scale and the Coping Self-Efficacy Scale, both Likert-type scales. | Stress decreased significantly from baseline to 8 weeks after the program and remained below baseline at the 12-month marker. Levels of self-efficacy increased during the same period and remained elevated at the 12-month marker. The Healing Pathways Program is an effective method for reducing the impact of burnout and compassion fatigue. | **Strengths:**<br>One of the larger studies looking at the effectiveness of a resiliency program intervention<br>Used both qualitative and quantitative measures<br>Study also measured effectiveness 1 year after training<br><br>**Limitations:**<br>Small sample size<br>Participants were self-selected so open to selection bias |
| **Author Recommendations:** Further research is needed to understand which parts of the program had the greatest impact on participant resilience. However, programs designed to improve resilience may be an effective way for a small number of people (the facilitators) to have a significant impact on large groups of employees. | | | |
| **Implications:** Formal resiliency programming may have far reaching effectiveness. A 6-week commitment could have enduring effects for participants. | | | |

<table>
<tr><td colspan="4">Source: Taylor, H., & Reyes, H. (2012). Self-efficacy and resilience in baccalaureate nursing students. International Journal of Nursing Education Scholarship, 9 (1), 1-13. doi: 10.1515/1548-923X.2218</td></tr>
<tr><td>Purpose/Sample</td><td>Design (Method/Instruments)</td><td>Results/ Conclusion</td><td>Strengths/Limitations</td></tr>
<tr><td>Purpose:<br>To explore the relationship between self-efficacy, resilience, and grades among baccalaureate nursing students<br><br>Sample/Setting:<br>136 baccalaureate nursing students attending a four-year program in Texas<br><br>Johns Hopkins Evidence Appraisal<br><br>Level of Evidence:<br>Level II<br>Quality:<br>High quality</td><td>Quasi-experimental research study: students completed pre-semester and post-semester tests to assess resilience and self-efficacy: Participants completed the Resilience Scale and General Self-Efficacy Scale before the semester began and at its completion. Scores were then analyzed using SPSS.</td><td>In spite of the rigorous reputation of nursing programs, this study determined that there was no significant change in students' feelings of self-efficacy or general resilience from before the semester to after final exams. Self-efficacy was slightly improved for many students, although not at a statistically significant level. This supports the theory that self-efficacy and resilience may improve with overcoming difficult circumstances.</td><td>Strengths:<br>One of the few studies which looks at resilience in nursing students<br>Although sample size is small, it is larger than many studies looking at this topic<br><br>Limitations:<br>Small sample size<br>Conducted over a short period of time and may not be reflective of long-term resilience in individuals</td></tr>
<tr><td colspan="4">Author Recommendations: Although students may express feelings of being overwhelmed, faculty should understand that overcoming difficult situations is an important part of developing self-efficacy and resilience.</td></tr>
<tr><td colspan="4">Implications: A crucial component of developing resilience is facing and overcoming challenges/stress. An appropriate challenge can improve self-efficacy and resilience; however, a challenge that is too difficult may negatively impact coping and reduce resilience in nursing students. Instructors can reduce the stress of a challenge by providing appropriate amounts of support and assistance.</td></tr>
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<tr><td colspan="4">Source: Weidlich, C., & Ugarriza, D. (2015). A pilot study examining the impact of a care provider support program on resiliency, coping, and compassion fatigue in military health care providers. Military Medicine, 180, 290-295. doi: 10.7205/MILMED-D-14-00216</td></tr>
<tr><td>Purpose/Sample</td><td>Design (Method/Instruments)</td><td>Results/ Conclusion</td><td>Strengths/Limitations</td></tr>
<tr><td>Purpose:<br>To evaluate the effectiveness of the Care Provider Support Program (CPSP), aimed at improving resilience and coping among military healthcare providers<br><br>Sample/Setting:<br>A convenience sample of 28 military and civilian RNs, LPNs, and medics who attended Care Provider Support Program (CPSP) training.<br><br>Johns Hopkins Evidence Appraisal<br><br>Level of Evidence:<br>Level II<br>Quality:<br>Good quality</td><td>Quasi-experimental research study: participants completed Connor-Davidson Resilience Scale, the Ways of Coping Questionnaire, and the Profession Quality of Life Questionnaire prior to training and 30 days after training: T-tests and mixed ANOVAs were used to analyze data collected.</td><td>CPSP training is widely used in military facilities. CPSP training was significant in reducing burnout as measured by the Professional Quality of Life Questionnaire. No significant change was noted in the Connor-Davidson Resilience Scale or Ways of Coping Questionnaire after CPSP training.</td><td>Strengths:<br>Uses standardized testing to evaluate an intervention.<br><br>Limitations:<br>Small sample size not representative of general population</td></tr>
<tr><td colspan="4">Author Recommendations: Researchers should seek to more clearly define resilience, particularly as it relates to compassion fatigue and burnout. Further research is needed among a larger population to determine the effectiveness of CPSP training; however, CPSP training decreases the level of burnout in both military and civilian providers.</td></tr>
<tr><td colspan="4">Implications: It is possible to create a standardized, wide-spread resiliency program that is effective for reducing burnout in medical professionals. Continued research is needed to determine the program that is most effective for the greatest number of people. As development of resilience is a highly individualized process, it may be that a single program can be adjusted for multiple settings.</td></tr>
</table>

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Potter, P., Deshields, T., Berger, J. A., Clarke, M., Olsen, S., & Chen, L. (2013). Evaluation of a compassion fatigue resiliency program for oncology nurses. *Oncology Nursing Forum, 40* (2), 180-187. doi:10.1188/13.ONF.180-187

Potter, P., Pion, S., & Gentry, E. (2015). Compassion fatigue resiliency training: The experience of facilitators. *The Journal of Continuing Education in Nurses, 46* (2), 83-87. doi: 10.3928/00220124-20151217-03

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