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## Improving Nurse Resilience

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## **Executive Summary**

### **Introduction of the Problem**

The national average nurse turnover rate was 18.2% in 2017 (Ackerson & Stiles, 2018). A contributing factor for nursing turnover rates was nurse burnout and compassion fatigue (Barratt, 2018; Cleary, Kornhaber, Thapa, West, & Visentin, 2018; Cope, Jones, & Hendricks, 2016; Magtibay, Chesak, Coughlin, & Sood, 2017; Delaney, 2018; Manomenidis, Panagopoulou, & Montgomery, 2019; Poulsen, 2015). Delaney identified compassion fatigue as the emotional and physical exhaustion from prolonged exposure to stress and suffering. Burnout was defined as the reaction, both physically and mentally, to prolonged exposure to stressors which led to exhaustion, pessimism, self-doubt, and unproductiveness (Kester, 2018). Burnout and compassion fatigue of nurses was also attributed to poor patient satisfaction, increased infection rates, suboptimal care, decreased job satisfaction, and impaired patient safety (Delaney; Manomenidis et al., 2019). Improvement in nurse resilience was revealed to reduce burnout and compassion fatigue in nurses (Ackerson & Stiles; Delaney).

The impact of burnout and compassion fatigue on nurses suggested a need for resilience education. A 174 licensed bed hospital in a rural Midwestern town had a nursing turnover rate of 22.4% compared with the national average of 18.2%, which suggested a need for resiliency education amongst nurses (Ackerson & Stiles, 2018). The clinical significance and resulting impact of implementing a resilience education program promised to help nurses mitigate burnout, reduce turnover, improve overall patient care, and alleviate the financial impact associated with the turnover of nurses.

### **Literature Review**

There was several definitions of resilience in the literature. The lack of a centralized definition did not discount the need to improve resilience in nurses. The most comprehensive definition of resilience was an individual's ability to positively adjust to stressors resulting in the individual returning to his/her original mental state prior to the introduction of the stressor (Ang, Uthaman, Ayre, Lim, & Lopez, 2019; Babanataj, Mazdarani, Hesamzadeh, Gorji, & Cherati, 2019; Yu & Lee, 2018). A resilient individual did not ignore a stress, adversity, or trauma, but rather, addressed them positively (Clark & Gorton, 2019).

The literature revealed several different ways to assess an individual's resilience. Of the available assessments, the Connor-Davidson Resilience Scale (CD-RISC) was the most widely used. The CD-RISC was a 25 question survey that used a Likert scale with responses ranging from zero (not true at all) to four (true nearly all the time). Total scores ranged from zero to 100 where higher scores indicate greater resilience (Bonamer & Aquino-Russell, 2019; Chesak et al., 2015; Spiva et al., 2020). An individual who scored an 82 or higher was considered resilient (Delaney, 2018; Mealer et al., 2014). The external-internal consistency of the CD-RISC was  $\alpha = 0.89$ , and the test-retest reliability had the intraclass correlation coefficient = 0.87 (Bonamer & Aquino-Russell, 2019; Chesak et al., 2015). Hence, the CD-RISC was considered a reliable and validated tool for measuring resilience.

The literature revealed two different types of resilience education programs. The first type utilized established education programs to determine if resilience was improved because of the program. The advantage of using an established program was the program had been developed and could be easily implemented without having to create something new. The disadvantage was that it may be more difficult for educators to address specific needs of the nurses.

The second type of program was a customized program which used original interventions or a combination of established programs and original interventions to improve resilience. The advantage to this type of program was that it could be tailored by the educator to the nurses who participated in the program. The disadvantage of customized programs was that they took more time and effort to develop and implement.

There was a lack of consistent statistical validation of education programs in some studies, but the literature provided several options to consider when designing a resilience education program. The resilience education programs with more education sessions and more time in the delivery of that education more successfully improved resilience than education programs utilizing less of both (Cleary et al., 2018). Resilience education programs that implemented a customized program improved resilience with multifaceted strategies that addressed multiple components of resilience (Babanataj et al., 2019; DuBois & Gonzalez, 2018; Mealer et al., 2014; Spiva et al., 2020).

### **Project Methods**

The primary goal of this quality improvement project was to evaluate the use and impact of resiliency education on the resiliency of nurses in the hospital setting. The resiliency education was developed through the evaluation of methods discovered in the literature review and included education on compassion fatigue, signs of burnout, and methods of mitigating risks of burnout and compassion fatigue. The tool that was utilized to evaluate the effectiveness of the education was the CD-RISC.

The hospital where the project was implemented was a 157 licensed bed medical center in rural east central Illinois. The hospital had approximately 164 employed nurses. There was no evidence of education or training programs to improve resilience at the time of the project.

COVID-19 restrictions forced the resilience education to be delivered in an on-line format instead of in person as originally planned. The program content was formatted into a computer based learning module which became required education for all 164 nurses in the facility.

The Vice President of Nursing Services granted permission for the project to be implemented. The Internal Review Boards of Southern Illinois University Edwardsville and OSF HealthCare approved the project as a quality improvement project.

A pre and post assessment using the CD-RISC was administered to assess the effectiveness of resilience training at the facility. Permission to use the CD-RISC was obtained from Kathryn Connor, M.D. and Jonathan R. T. Davidson, M.D. The training followed by an evaluation of its effectiveness was conducted in the months of June 2020 through August 2020. The analysis of the results of the CD-RISC took place from August 2020 through September 2020. The results of the effectiveness of the training was reported to the Vice President of Nursing Services.

### **Evaluation**

In the two week period leading up to the resilience education, nurses were asked to complete the CD-RISC survey via email with a link to the survey. The survey was sent to 164 nurses. Fifty-six nurses completed the survey during the two week period for pre-intervention data. The results of the survey revealed a pre-intervention mean score on the CD-RISC of 78.99. The resilience education module was sent out to all 164 nurses in a computer based learning format the following week with instructions and the expectation of completion within four weeks. The education module was completed by 85.96% of the nurses within the four week timeframe. Two weeks later the CD-RISC survey link was again sent to all nurses via email with

instructions to complete the second survey within two weeks for post-intervention data. Forty-nine of 164 nurses completed the post-intervention survey with a mean score of 75.82.

The decrease in the mean score pre-education to post-education was an unexpected result. The expected project goal was to see an increase in the CD-RISC mean score, revealing an improvement in resilience among nurses post resilience education module.

There were limitations to this quality improvement project. There were two outstanding factors that most likely impacted the results. First, the original plan was to complete the resilience education in person, but due to the COVID-19 pandemic, the education had to be completed via computer based learning. It was gleaned from the decrease in the CD-RISC mean score pre-education to post-education, that a computer based learning education program was not the best approach to complete the education. This did not allow the education to be participative with the nurses nor did it allow nurses to ask questions or seek clarifications about techniques for improving resilience. An adjustment for the future will be face to face education. Additional plans are to require hospital nurse leaders to attend resilience education programs for consistent application of resilience improvement techniques for nurses at all practice levels.

The second influential factor was one of timing with the Vice President of Nursing services unexpected death as post-education surveys were administered. Her death caused understandable and widespread unrest in the nursing staff due to the respect they had for her as a leader in the organization. Therefore, an additional modification would be to ensure that no major events occurred in the hospital prior to sending out a post-education survey, or to delay them should an event take place.

### **Impact on Practice**

Because of its impact on nurses personally, as well the care they render to patients, education regarding how to improve resilience is important. Despite the unexpected results from the post-education survey, resilience education will still be utilized as will interventions to improve resilience. When COVID-19 pandemic restrictions are lifted and education can be completed in person, the program will be reformatted for interactive, face to face education. This method of delivery will allow nurses to learn and practice techniques that can be used to improve their resilience. This education will be incorporated into the orientation and annual nurse education programs for greater professional impact.

Furthermore, nursing leaders will be educated on the importance of resilience and interventions they can use to improve resilience in their nursing staffs. Their education will include characteristics of nurses with low resilience and information about identifying nurse burnout and compassion fatigue. Involvement of nursing leaders will help with implementation of interventions to improve resilience of nurses in a collective effort to mitigate burnout and compassion fatigue and ensure better staff retention for increased job satisfaction and improved patient outcomes.

## **Conclusion**

Despite the unexpected results of this project, useful information was gleaned regarding the importance of delivery methods with resilience education programs. The dedication to improve nurse resilience, however, remains a tenet and with necessary modifications, resilience education will continue to be delivered. Improvements in educational delivery and the implementation of interventions by nurse leaders serve as core ideologies to be utilized in the future to increase the important efforts of increasing nurse resilience.

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