Critical Incident Stress Management: Program Utilization & Perceptions of Organizational Support

Julie Bethany Herrema

This paper is submitted in partial fulfillment of the requirements for the degree of

Doctor of Nursing Practice

Ferris State University

School of Nursing

July 12, 2019

Appendix L

Ferris State University

School of Nursing

Doctor of Nursing Practice Program

Proposal Approval

As members of the DNP project committee and department administrator, we certify that we have read this project proposal prepared by: Julie B. Herrema, titled: Critical Incident Stress Management (CISM) Utilization and approve. Student can move to implementation.

Date: 12/8/18

DNP Faculty Mentor

12/9/2018

Date:

DNP 2nd Faculty Member

Date: 12/10/2018

Name and Position Content Expert or Clinical Preceptor

Susan Owens, PhD, RN

Digitally signed by Susan Owens, PhD, RN
DN: cn=Susan Owens, PhD, RN, o=Ferris State University, ou=SON, email=owenss3@ferris.edu, c=US
Date: 2019.01.09 12:30:48 -05'00'

Date:

Ferris State University School of Nursing Chair

Acknowledgements

I would like to give special thanks to my DNP faculty mentor, Dr. Stephanie Gustman, for the insight, guidance, and encouragement she provided on this project.

Thank you to my content expert, Phillip Weichart, and project teammate, Drew Peklo, whose passion and dedicated to providing support to clinicians at this project site is truly inspiring. This project would not have been possible without their investment of time, advocacy, and interdisciplinary teamwork.

I would also like to give special recognition to Amanda Fox and Than Johnson for their support in sponsoring my project at Spectrum Health. Their support was crucial for this project's implementation and was very much appreciated.

Thank you to my wonderful husband, Matt, for all his support, and for taking care of so much around the house and caring for our kids so well, while I completed countless hours of school work. And, to my children Theo and Gwen, for all their love, encouragement, and support.

Finally, I'd like to thank the other members of this inaugural DNP cohort. You have each inspired me with your own journeys, and taught me so much along the way. I have appreciated the many laughs, and words of advice and encouragement. I will always think back on our time together fondly, and know we have formed life-long friendships.

Table of Contents

Contents

Abstract

Clinician well-being and resiliency has gained recent national attention as a priority for improving patient care. Without adequate coping strategies and organizational support following distressing workplace events, healthcare clinicians experience higher rates of secondary traumatic stress (STS), which can lead to compassion fatigue (CF) and burnout (BO). STS, CF, and BO result in significant consequences for the clinician, such as anxiety and depression. Furthermore, organizations can face higher turnover rates and absenteeism, lower workplace morale and patient satisfaction, and even medical errors related to STS, CF and BO. Despite the evidence that support programs such as the Critical Incident Stress Management (CISM) program, benefit clinicians following distressing events, challenges exist in increasing utilization of such programs. The purpose of this quality improvement project was to increase utilization of a currently existing CISM program at a Pediatric Level 1 Trauma Hospital, and thus increase registered nurse's perceptions of organizational support after a distressing event. A CISM champion role was developed for this project, and formal and informal leaders throughout the hospital were identified and trained to fulfill this role. CISM utilization metrics were tracked, and a pre-post intervention survey was utilized to evaluate registered nurse's perceptions of support. Findings demonstrated that some units increased utilization of the CISM program and increased perceptions of support after implementing the CISM champion role, while others did not. This project offers some insight into developing a sustainable plan for increasing utilization of a CISM program across a health system, and ultimately supporting employee and organizational resiliency.

Keywords: Critical Incident Stress Management (CISM), peer support program, secondary traumatic stress, compassion fatigue, burnout, pediatric nursing, utilization

Critical Incident Stress Management: Program Utilization and Perceptions of Organizational Support

Witnessing and providing care during traumatic events is unfortunately a necessary part of a healthcare provider's work duties. Registered nurses working in areas such as emergency care, critical care, surgery, pediatrics, and oncology areas are at an increased risk for exposure to traumatic events (Beck, Cusson, & Gable, 2017). These conditions can become overwhelming for staff who may not have the tools or resources to manage the emotional toll that comes along with these events. Furthermore, staff are not often enough encouraged to reach out for support when they are suffering. Crowe, Sullivant, Smith, & Lantos (2017) describe the pervasive critical care and healthcare culture that discourages care providers to admit suffering from work related stress, and the fear of stigmatization that employees may have related to asking for help.

Literature demonstrates that the result of caring for patients and their families in the midst of traumatic events, intense suffering, and loss, can be secondary traumatic stress (STS), leading to compassion fatigue (CF), and even burnout (BO) of the care provider (Beck et al., 2017). Significant levels of STS, CF, and BO have been noted amongst healthcare professionals. Organizations and individual clinicians have a lot at stake when it comes to maintaining emotional wellness in the workplace. Hinderer et al. (2014) note that the second victim experience is associated with a decrease in efficiency as well as a decrease in patient satisfaction. Furthermore, Hunsaker, Chen, Maughan, & Heaston (2015) identified that compassion fatigue and burnout are associated with higher turnover and absenteeism rates. The National Academy of Medicine (n.d.) indicates that in extreme cases, clinical burnout has even led to medical errors and clinician suicide.

To address this significant problem, the National Academy of Medicine launched the Action Collaborative on Clinical Well-Being and Resilience in 2017. The Collaborative has three goals which include raising awareness of the problem, improving "baseline understanding of the challenges to clinician well-being" (National Academy of Medicine, 2018, "About the action collaborative"), and advancing "evidence-based, multidisciplinary solutions to improve patient care by caring for the caregiver" (National Academy of Medicine, 2018, "About the action collaborative"). A growing body of literature supports the utilization of peer support programs that provide organizational support and emotional "first aid" following distressing workplace events, in order to improve resilience and decrease related STS, CF, and BO (Blacklock, 2012; Chan, Khong, & Wang, 2016; Dukhanin et al., 2018; Li, Early, Mahrer, Klaristenfeld, & Gold, 2014; Merandi et al., 2017; Muller-Leonhardt, Mitchell, Vogt, & Shurmann, 2014). Peer support programs such as the Critical Incident Stress Management (CISM) program should be recognized as an innovative, evidence-based, and multidisciplinary solution to caring for the caregiver following distressing workplace events.

One of the notable challenges to employee utilization of peer support programs, such as a CISM program, has been raising awareness about the existence, purpose, and potential benefit of utilizing such programs (Dukhanin et al., 2014; Muller-Leonhardt et al., 2014). These challenges relate back to the first two goals of the National Academy of Medicine's Action Collaborative on Clinical Well-Being and Resilience, in that employees and leadership may not have the necessary awareness of the problem of STS, CF, and BO, or baseline understand of clinician well-being, to support utilization of such programs. Implementing sustainable programs that raise awareness of the need, purpose, process, and benefits of utilizing a peer support program is the next step in the translation of evidence related to improving clinician well-being following

distressing workplace events. Another challenge to utilization of peer support programs, is shifting the social norms that keep people from reaching out for support following distressing events (Crowe et al., 2017). Organizational safety culture and organizational commitment to encouraging utilization of such programs have been identified in the literature as potential key factors to addressing STS, CF, & BO, and should be taken into account (Dukhanin et al., 2016; Li et al., 2014; Quillivan et al., 2016). This DNP project was developed to translate evidence into practice, keeping in mind the three goals of the National Academy of Medicine's Action Collaborative on Clinical Well-Being and Resilience. As such, the main focus of this project was to improve understanding of STS and clinician resiliency, shift the social norms of "suffering in silence", and increase utilization of the CISM program, through the development and implementation of a unit-based CISM champion role.

Problem Statement

An unavoidable and unfortunate consequence of working in healthcare, and specifically in pediatric healthcare, is the potential exposure to high stress patient-related events that can cause emotional distress (dos Santos & Moreira, 2014). These events may include, but are not limited to, adverse events, "near misses", medical errors, patient deaths, unexpected outcomes, care of abuse victims, ethical dilemmas, and difficult or violent interactions (Dukhanin et al., 2018). These types of incidents are referred to as "critical incidents" within the CISM peer support program. Health care workers who are exposed to these types of high stress situations and experience personal traumatization are referred to as "second victims" (Quillivan et al., 2016), and may experience higher levels of secondary traumatic stress (STS), compassion fatigue (CF), and burnout (BO) (Beck et al., 2017; Berger, Polivka, Smoot, & Owens, 2015). Berger et al. (2015) found that over a quarter of the nurses they sampled, reported low compassion

satisfaction (CS), high BO, and high STS. Nurses who work with pediatric patients are at an increased risk for experiencing psychological trauma related to patient care events (dos Santos & Moreira, 2014; Beck et al., 2017; Berger et al., 2015). The vulnerable and innocent nature of children, and routine exposure to child trauma as well as the families' trauma, puts pediatric nurses at an increased risk for experiencing STS, and subsequently developing CF (Berger et al., 2015).

Organizational Impact of Second Victim Trauma

The organizational impact of a second victim experience is extensive. Of primary importance, patient safety can be affected due to distraction and underperformance related to a second victim experience, which could result in an increase in medical errors and poor patient outcomes (Hinderer et al., 2014). According to Quillivan et al. (2016) "if not abated or treated, a second victim experience can harm the emotional and physical health of the health care provider and subsequently compromise patient safety" (p. 377). Furthermore, lower patient satisfaction scores, and decreased efficiency are also noted as potential consequences of CF, BO, and STS (Hinderer et al., 2014). For example, Hunsaker et al., (2015) note that compassion fatigue and burnout are linked to absenteeism, low workplace morale, and higher turnover rates. It is estimated that the cost of nurse turnover in the United States is $300,000 for every one percent increase in turnover (Moran et al., 2017). This significant financial burden only further compounds the negative consequences associated with second victim trauma.

Peer Support Programs

A growing number of organizations are turning to peer support programs to combat the negative effects that critical incidents can have on individual clinicians as well the organization as a whole. One such peer support program is Critical Incident Stress Management (CISM).

According to Muller-Leonhardt et al., (2014), CISM is a comprehensive peer support program intended to support "employees in the recovery from critical incident stress reactions and ultimately enhance the resiliency of the organization" (p. 173). Since fiscal year 2014, professional chaplains at the project site have led and coordinated an organization wide effort to maintain a CISM peer support program for staff across their healthcare system. This healthcare system includes a large, urban level one pediatric trauma hospital, which served as the project site. Although peer support programs have demonstrated benefits to staff in regards to coping with critical incidents, challenges remain in low awareness and utilization of these programs (Dukhanin et al., 2014; Muller-Leonhardt et al., 2014).

PICOT Question

The PICOT question for this project was as follows: Will implementation of a unit-based CISM Champion role, increase CISM program utilization and increase registered nurse's perceptions of organizational support following distressing events at work, as opposed to not having a CISM Champion role?

The population that this project focused on was registered nurses at the pediatric hospital, however other disciplines were encouraged to participate as well, in order to have the greatest impact on overall culture and social norms related to STS. The CISM program at this healthcare system offers multi-disciplinary interventions, available to all staff across the system, at all times. The pediatric hospital served as the primary site for implementation and evaluation of this project, as the literature supports that pediatric nurses are at particularly high risk for STS, CF, and BO (Beck et al., 2017).

The intervention for this project consisted of the creation and deployment of a unit-based CISM champion role. Formal and informal nursing leaders were recruited to serve in this role.

CISM champion training included an overview of role responsibilities, stress responses to look for in peers, types of incidents on the unit that might warrant CISM support, the types of interventions provided by the CISM team, and the process to initiate a CISM intervention. One primary CISM champion training event was held live for formal leaders (nurse managers, supervisors, and educators) and was facilitated by the lead CISM coordinator. Formal leaders were asked to identify 3-5 informal unit leaders for this role, and a train the trainer approach was utilized to train these individuals. After completing training, these formal and informal leaders immediately assumed the role of CISM champion, and began to seek out opportunities to fulfill this role on their unit.

The primary evaluation method for this project was a pre-post intervention survey which measured employee's perceptions of organizational support following their involvement in distressing workplace events. Nursing staff at the pediatric hospital completed this survey prior to deployment of the CISM champion role, and then again twelve weeks following deployment of this role, and changes in perceptions of support were analyzed. Additionally, CISM program utilization metrics were also evaluated to provide additional insights into the overall impact of the CISM champion role.

Conceptual and Theoretical Framework

The Theoretical Model of Compassion Satisfaction & Compassion Fatigue (Stamm, 2010) was utilized to guide and inform this project. In this theoretical model, three components contribute to whether a person experiences compassion satisfaction in their professional helping role, or on the flip side, compassion fatigue and potential burnout in their professional helping role (Stamm, 2010). Compassion satisfaction (CS) is referred to as the positive feelings that one has in relation to their ability to help others in their professional life. Individuals with high levels

of compassion satisfaction tend to experience well-being and resiliency in their work (Stamm, 2010). On the other hand, compassion fatigue (CF) is associated with the negative aspects of one's professional helping role. This model is depicted in Figure 1:

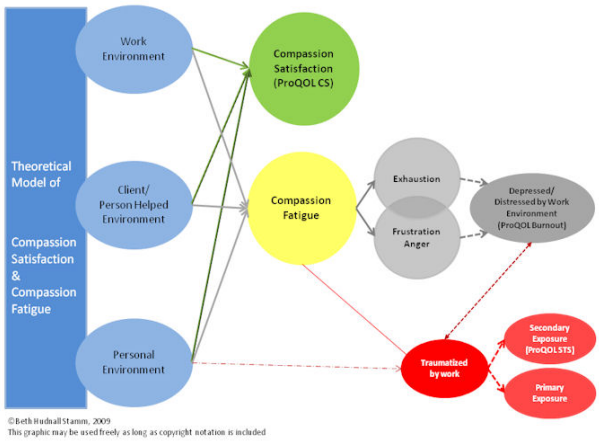

Figure 1. *Theoretical Model of Compassion Satisfaction & Compassion Fatigue*

As depicted in this model, trauma in the workplace may contribute to CF, which can lead to exhaustion, frustration, anger, and professional burnout. Additionally, there are three components in this model, which include the work environment, client environment, and personal environment, which can contribute to either CS or CF. While the theory does not define these three components, the work environment might include variables such as supportive colleagues, organizational supports (such as CISM), shift lengths, and nurse to patient ratios. The client environment might include the acuity of the patient, and the circumstances of their hospitalization. Finally, the personal environment involves how one personally processes or copes with their helping role, and whether or not they become traumatized by work.

Synthesis of the Literature

The literature search for this project began with systematic search conducted in PubMed, CINAHL, Cochrane Review databases, and Google Scholar. The data bases were searched for

English-language articles published between 2012 and 2018. Key words used included secondary traumatic stress, compassion fatigue, burnout, critical incident stress management, second victim, and peer support program. In addition, reference lists from relevant studies, literature reviews, and systematic reviews were reviewed for potential contributions. Only primary research and systematic reviews were included in the synthesis of the literature. Articles were selected based on their contribution to (a) understanding organizational factors that positively or negatively affect secondary traumatic stress and compassion fatigue in nurses (with a particular emphasis on pediatric nurses) (b) demonstrating the benefits of peer support programs and (c) informing challenges and successes in the implementation and/or utilization of a peer support program. Fourteen primary articles were included in the synthesis, no systematic reviews were included. Each primary article was reviewed carefully, noting the research question, theoretical foundation, research design, key findings, recommendations, and levels of evidence.

The Second Victim Experience

The results of the selected articles were consistent with previous findings reporting that nurses are regularly exposed to traumatic events in the workplace, leading to STS and CF. In a study performed by Meyer, Li, Klaristenfeld & Gold (2013) of new graduate nurses in a pediatric hospital, 89.2% of respondents reported experiencing a major stressful event, such as a life-threatening injury, severe human suffering, or an unexpected death during their first three months in practice. It has been noted that “pediatric nurses may be at a higher risk because children are typically seen as helpless and vulnerable” (Meyer et al., 2013, p. 175). The selected studies demonstrated that nurses frequently experience symptoms of secondary traumatic stress, ranging from 7% to 49% (Hinderer et al., 2014; Hunsaker et al., 2015; Ullstrom, Sachs, Hansson, Ovretveit, & Brommels, 2014), and this was specifically true for nurses working in pediatric

specialties (Beck et al., 2017; Berger et al., 2015; Li et al., 2014; Meyer et al., 2013). Scott et al. (2009) provide a formal definition of a second victim as "a health care provider involved in an unanticipated adverse patient event, medical error and/or a patient-related injury who becomes victimized in the sense that the provider is traumatized by the event." (p. 326). Symptoms of secondary traumatic stress may include a change in perspective, recurrent memories, anxiety, insomnia, loss of control, and feelings of fear and helplessness (Berger et al., 2015).

In regards to the potential effects of this second victim trauma, multiple studies reported findings that secondary traumatic stress was significantly associated with the development of compassion fatigue and burnout (Berger et al., 2015; Hinderer et al., 2014; Meyer et al., 2013; Li et al., 2014), as well as turnover intentions and second victim-related absenteeism (Burlison et al., 2017). The results of the selected articles also included important information for healthcare organizations regarding confounding factors of second victim trauma and the support needs of employees who experience the second victim phenomenon. Organizational factors that were found to significantly reduce compassion fatigue following a second victim experience include a non-punitive safety culture (Quillivan et al., 2016), as well as group cohesion (a connectedness to one's work group) (Li et al., 2014; Meyer et al., 2013). Furthermore, a sense of organization support was shown to have a positive effect on compassion satisfaction and job satisfaction following traumatic events (Li et al., 2014; Meyer et al., 2013; Quillivan et al., 2016). Finally, results from the selected studies indicate that being able to talk about the experience with a trusted peer at work was one of the most frequently cited support preferences for aiding recovery (Beck et al., 2017; Burlison et al., 2017; Dukhanin et al., 2017; Hinderer et al., 2014; Ullstrom et al., 2014), along with the need for manger and organizational support (Beck et al., 2017; Hunsaker et al., 2015; Li et al, 2014; Ullstrom et al., 2014). These articles provide significant

information for leaders, as they seek to support and retain their nurses, and improve the quality of patient care. Based on the high incidence of second victim trauma related to adverse events, and the associated negative consequences, "The Joint Commission and the National Quality Forum have recommended that health care institutions establish support structures to help health care workers recover after traumatic events in the workplace" (Dukhanin et al., 2017, p. 1).

Benefits of Peer Support Programs

Critical Incident Stress Management (CISM), is a peer support program in which trusted clinician peers who are members of the workforce are specially trained to provide a first line intervention following traumatic events (which CISM calls critical incidents) (Muller-Leonhardt et al., 2014). During a typical intervention, those directly involved in the incident have an opportunity to share with their teammates and the CISM peers about what happened during the incident and their emotional responses to the incident. The objective of the intervention is for CISM peers to facilitate the sharing and support amongst teammates, normalize and validate the reactions that staff are having to the event, and give staff the tools to manage their responses as they recover (Muller-Leonhardt et al., 2014). The overall goal is to support employees "in the recovery from critical incident stress reactions and ultimately enhancing the resiliency of the organization" (Muller-Leondardt et al., 2014, p. 173).

The literature demonstrates that a growing number of institutions have begun to implement organization-wide peer support programs to address the second victim problem (Blacklock, 2012; Muller-Leonhardt, 2014), specifically in pediatric hospitals (Dukhanin et al., 2017; Scott, 2015). These peer support programs offer employees organizational support, demonstrate organizational commitment when promoted by leadership, and promote group cohesion amongst team members. This is important to note, as group cohesion was shown in one

study to moderate the effects of STS, significantly reducing rates of CF and BO, and increasing CS (Li et al., 2014). Staff have reported positive experiences in utilizing such peer support programs following critical incidents, including: greater openness, support, and understanding (Muller-Leonhardt et al., 2014), improved perceptions of organizational support (Dukhanin et al., 2018; Scott, 2015), and a decrease in symptoms related to the critical incident (Blacklock, 2012). After implementation of a peer support program at one large pediatric hospital, nearly 100% of nurses who had utilized the program stated that they would recommend it to a co-worker following a second victim experience (Dukhanin et al., 2018).

Organizational Benefits of Peer Support Programs

Additional organizational benefits to utilization of peer support programs were also noted in this literature review, namely their impact on safety culture survey ratings. Two of the studies implemented a cross-sectional approach to analyzing the impact of second victim exposure and organizational support on the AHRQ-HSOPS instrument (Quillivan et al., 2016; Scott, 2105). The AHRQ-HSOPS is a popular survey utilized to assess patient safety culture within a healthcare setting (Scott, 2015). Quillivan et al. (2016) noted in their study that perceptions of a non-punitive safety culture were significantly association with decreases in clinician psychological, physical, and professional distress as second victims. However, lack of organizational support was noted in this study to mediate this relationship.

In another study, Scott (2015) analyzed each of the twelve dimensions of AHRQ-HSOPS survey, in relation to second victim experiences and organizational support. The organization where this study was performed, employs an organization wide peer support program to provide immediate first line support to clinicians following critical incidents (Scott, 2015). Scott (2015) found that respondents who had experienced a second victim experience and received support

noted significantly higher safety culture ratings than those who had not received support, at similar rates to those who had not had a second victim experience, and above the AHRQ national benchmark mean (see Figure 2).

Figure 1. AHRQ-HSPOS Mean Dimension Scores—Three Clinician Groups Across Time

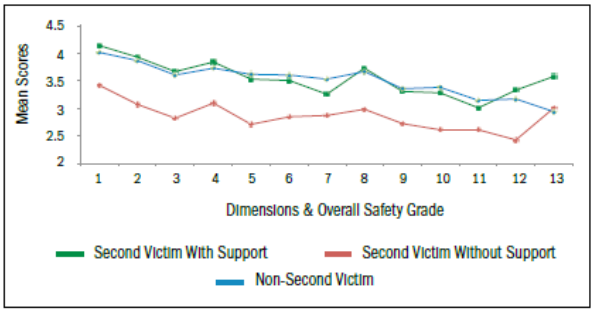

Figure 2: AHRQ-HSPOS Mean Dimension Scores-Three Clinician Groups Across Time (Scott, 2015)

Furthermore, individual units that reported the highest percentage of support related to second victim experiences, scored higher as a unit in safety culture as compared to those who reported lower percentages of support (see Figure 3).

Table 4. MUHC Patient Safety Culture Survey—Specific Unit Exemplars

Unit	Responses (n)	Second victim prevalence %	Second victim support %	Unit—Overall safety grade mean score	MUHC—Overall safety grade mean score
A	40	68%	26%	3.40	4.10
B	51	64%	13%	2.64	4.10
C	25	56%	71%	4.17	4.10
D	45	56%	72%	4.22	4.10
E	38	53%	25%	3.32	4.10
F	51	39%	75%	4.11	4.10
G	71	36%	70%	4.62	4.10
H	27	30%	71%	4.17	4.10

Figure 3: MUHC Patient Safety Culture Survey- Specific Unit Exemplars (Scott, 2015)

Finally, in a study conducted by Moran et al. (2017) the cost-benefits of staff utilizing a peer support program were analyzed. This study was conducted at Johns Hopkins Medicine, which implemented the Resiliency in Stressful Events (RISE) peer-to-peer support program,

providing timely support to help clinicians cope following stressful events (Moran et al., 2017). Moran et al. (2017), compared the costs of staff taking time off or quitting related to a second victim experience with and without support from the RISE program, compared to the costs of offering the program, and demonstrated a net monetary savings of US $22,576.05 per year, per nurse who utilized the program.

Peer Support Program Utilization

Despite significant evidence in the literature which support the necessity and benefit of peer support programs, such as CISM, organizations with established programs report challenges with maintaining awareness and utilization of the program amongst staff (Dukhanin et al., 2018; Muller-Leonhardt et al., 2014; Scott, 2015). In order for staff and organizations to benefit from the effects of peer support programs, ongoing commitment and dedication to increasing awareness and promoting utilization is needed (Dukhanin et al., 2018).

This review of the literature provided crucial information utilized to inform this DNP project and increase utilization of the CISM program among pediatric nurses at the project setting. First, this literature review established that staff need to be aware of the prevalence of second victim experiences, be offered support resources following events, and feel comfortable to utilize these resources. Second, this literature review highlights the essential role that nurse leaders (specifically nurse managers) play in supporting their staff following critical incidents. Managers should be aware that staff are relying on them for support following these events, and facilitating CISM support can make a significant impact on the employee's recovery, and the organization's resiliency as a whole. Finally, the importance of group-cohesion, and the need to shift social norms related to coping with traumatic events, are additional findings from this literature review that offered valuable insights for this DNP project. Overall, this literature

review informed the decision to deploy a unit-based CISM champion role for this DNP project. This decision was based on the notion that CISM champions can facilitate group-cohesion by advocating for the emotional wellbeing of their teammates, raising awareness about STS, and promoting utilization of the CISM program (See Appendix A for the full role description). Lastly, the CISM champion role offers another layer of formal support to staff following a critical incident, and can help to shift culture and social norms by encouraging use of organizational support, and modeling self-care behaviors following traumatic events in the unit. (See Appendix B for literature review table).

Practice Recommendations

After synthesizing the literature, it is recommended that healthcare organizations, specifically those specializing in pediatrics, promote utilization of a formal organizational peer support program available to all staff following critical incidents. Considerations for increasing utilization of the program must include attention to safety culture (Quillivan et al. 2016; Dukhanin et al., 2017), the stigmatization of suffering related to work (Dukhanin et al., 2017), and facilitation of group cohesion at the unit and organizational level (Meyer et al., 2013; Li et al., 2014). Raising awareness about STS and the availability of organizational support resources, shifting the social norms related to the stigmatization of workplace distress, and demonstrating a commitment from leadership to promoting utilization of support resources should also be considered (Beck et al., 2017; Dukhanin et al., 2017).

Project Design

Executive leadership at the project hospital recognized employee resiliency as an important component to their strategic goals of safety culture and high reliability (Fox, personal communication, 2017). Project implementation involved the creation of a newly established

CISM champion role, along with identification and training of formal and informal leaders to assume this role. A pre-post survey design was utilized to determine if implementing this new role would increase registered nurse's perception of organizational support following distressing workplace events.

First, role responsibilities for the CISM champion role were developed by the project team with input from unit leaders, staff nurses, and CISM team members. The role was trialed on two pilot units the year prior to hospital wide implementation, and the role responsibilities and training content was adjusted based on feedback from the trial. Training and support tools were created/collected to support individuals in the CISM champion role. These tools included a video depicting a CISM intervention, an algorithm to follow for initiating a CISM intervention, a CISM intervention invitation checklist, a CISM FAQ quick reference guide, and a video testimonial of the benefits that staff have experienced from past CISM interventions. An online toolkit consisting of these resources was created for CISM champions, and can be found on the organization's intranet.

CISM champion training for formal leaders (nurse managers, supervisors, and educators) took place during a pre-existing quarterly hospital leadership meeting. The literature supports the essential role that unit leadership play in supporting staff following critical incidents. Therefore, training of formal leaders to fulfill this CISM champion role was considered essential to increasing CISM utilization, and registered nurse's perceptions of organizational support. Following the formal leader CISM champion training, the leaders were asked to recruit 3-5 staff members (informal leaders) from their unit, who they felt would be interested in and willing to fulfill the responsibilities of the CISM champion role. A train the trainer approach was utilized to train these additional staff, with support from the CISM coordinator as requested. A record of

trained CISM champions is being maintained by the lead CISM coordinator and an email distribution list has been created for continued communication with this group of individuals.

CISM champion training included an overview of role responsibilities, stress responses to look for in peers, types of incidents on the unit that might warrant CISM support, the types of interventions provided by the CISM team, and the process to initiate a CISM intervention. The role responsibilities of the CISM champion includes advocating for peers to attend CISM interventions, educating peers about STS and the CISM team, identifying stress responses in peers and incidents on the unit that might warrant a CISM intervention, and initiating requests for CISM interventions when appropriate. CISM champions pledged to fulfill these responsibilities, and in doing so, promote the well-being and resiliency of their team through fostering group cohesion and organizational support.

Project Setting

The project setting is a local, urban, level one pediatric trauma hospital. This hospital has an already established team of executive leadership and quality improvement specialists, dedicated to identifying and implementing projects across the hospital, using the Plan-Do-Study-Act (PDSA) model for process improvement. In the (PDSA) model, once a practice gap is identified, a team is assembled that will review the evidence, make a plan for improvement, implement the plan, evaluate the outcomes, and finally determine a plan for sustainability and dissemination based on the outcomes (McBride, Tietz, & Terrell, 2016).

The quality improvement team at the project site has built a structured process and visual management board to track improvement projects throughout the hospital. This team also assists bedside clinicians and leaders in identifying practice gaps throughout the hospital that align with the hospital's mission and vision. Once a gap is identified, the team helps to establish project

leaders that will be tasked with developing a plan, based on the evidence and a needs assessment, to address the identified practice gap. At this point the project starts being tracked on the visual management board in the centrally located quality improvement work space. This visual management board is organized by the strategic goals established by the hospital leadership (which align with the organization's mission and vision), as well as by the phases of the PDSA cycle model.

Each week, unit leadership, project participants, project partners, and any interested staff review the visual management board and briefly discuss the progress and barriers of each project, as well as track the project's movement through the PDSA cycle. This weekly review creates accountability for projects to continue to progress through the PDSA cycle, and also allows project owners a chance to directly discuss any project barriers with executive leadership and/or key stakeholders from throughout the hospital. In addition, each project is assigned an executive sponsor and must align with one of the designated categories that have been identified under each strategic goal as a key area of need within the hospital.

Hospital leadership at the project site have continued to recognize the need to improve their employee's resiliency in order to decrease turnover rates of staff, increase employee and patient satisfaction, and become a high reliability organization when it comes to patient safety (A. Fox, personal communication, February 23, 2018). In response to this identified need, one of the designated categories on the visually tracking board is "employee safety", which includes employee emotional safety and well-being. Previous work in this category has included work to improve nurse's break time during their shift, as well as their break environment. Therefore, this project was a continuation of the work that had already been accomplished at the hospital surrounding employee safety. The nursing director of nursing outpatient services at the hospital

served as the executive sponsor for this project. The lead CISM program coordinator, a hospital chaplain, served as the content expert for this project. This project was also tracked on the visual management board, which provided great benefit in addressing barriers that were identified throughout the implementation process. The objective of this project was to increase utilization of the organization's CISM program, and ultimately increase registered nurse's perceptions of organizational support following distressing workplace events, as evidenced by a pre-post survey administered prior to deploying the CISM champion role, and administered again twelve weeks following deployment of the CISM champion role. The Secondary Traumatic Stress Scale developed by Bride, Robinson, Yegidis, & Figley (2004) was utilized to analyze the impact at that employee's perceptions of support has on STS scores. The long term objective of this project is to increase employee resiliency, decrease STS, and decrease turnover rates of employees working at the project setting. These outcomes were outside of the scope of this project evaluation plan.

The Participants

The participants of this DNP project were nursing unit leadership and all registered nurses working at this level one pediatric trauma hospital, which is approximately 690 registered nurses. The pediatric hospital was selected for this project after considering evidence in the literature that employees working in pediatrics are especially vulnerable to secondary traumatic stress (Beck et al., 2017; Berger et al., 2015; Dukhanin et al., 2018). All formal nursing leaders (nurse managers, supervisors, and educators) were trained to fulfill the CISM champion role on their units, and were asked to recruit and train approximately 3-5 additional informal nursing leaders on their unit to become CISM champions as well. The informal nursing leaders were

recruited based on their interest in employee resiliency/wellness as recognized by the formal nursing leaders.

Multiple disciplines have had the potential to be impacted by this project, including nursing, medical, respiratory therapy, child life specialists, support staff, and physical therapy, amongst others. Staff from each of these disciplines interact on daily basis with the CISM champions, and champions were encouraged to consider all interdisciplinary peers in relation to their role responsibilities. However, evaluation of the effectiveness of the project focused solely on the nursing staff.

Quality

The pre-post survey that was utilized to evaluate employee's perceptions of organizational support following distressing workplace events, was administered via Survey Gizmo. Survey Gizmo is a secure internal software system utilized by the project setting organization for a variety of data analytic applications. The employee email addresses were entered securely and confidentially into the Survey Gizmo system and then discarded securely. The Survey Gizmo system then automatically sent an anonymous electronic survey to the employee's email at designated dates (prior to the intervention, and after twelve weeks following the intervention). Staff were informed that completion of each survey was completely anonymous, and participation was strictly voluntary. Employees were notified at the start of their electronic survey that completion of the survey indicated consent to participate in the study. No identifying data was obtained from this survey. All results from the pre- and post- surveys were stored securely in the Survey Gizmo software system.

All CISM utilization data has been stored securely on a limited, password protected hard drive (M:drive) within the organization's internal computer system. No employee names are ever

recorded at CISM interventions, and no identifying data has been stored on the M:drive related to utilization of the program. Comparison of the utilization rates to the years prior to the implementation of this project provided a baseline and control of the data.

Ethics and Human Subjects Protection

There was a low anticipated risk that participants of this project would fear stigmatization due to taking on the role of CISM champion, or participating in CISM interventions. This risk was mitigated by nursing leaders promoting a culture that supports and encourages attendance at CISM interventions. Furthermore, anonymity was ensured for all individuals who provided feedback in the pre-post survey related to their involvement in a distressing workplace events and subsequent support received. In addition, there was a low risk of psychological distress that could occur as a result of taking the pre-post survey, which could potentially trigger past or current emotional responses to high stress or traumatic events. Staff were reminded that services such as the CISM peer support program, chaplains, and other more in depth counseling services are available to them if this were to be the case.

Participants of this project received the benefit of increased awareness about the second victim phenomenon, greater connectedness to their peers (group-cohesion), and increased self-efficacy related to coping with critical incidents events at work. Long term, these benefits may also lead to improving employee and organizational resiliency through increased utilization of the CISM peer support program. Participants may also experience increased compassion satisfaction and job satisfaction, and a reduction in compassion fatigue, secondary traumatic stress, and job burn out as a result of utilizing the CISM program.

Budget

Salary Expenses

Salary expenses can be divided into the planning of the CISM champion role and trainings, and actual implementation of the CISM champion trainings. The main personnel involved in the planning of this intervention included myself, the lead CISM team coordinator, and the nurse manager from the Emergency Department who joined the project team as a key stakeholder. These team members met as needed throughout the planning phase to discuss and develop the CISM champion role, champion training content, training materials, training evaluation tools, training timeline, and plan for sustainability of the CISM champion role.

Implementation of the CISM champion training events required salary costs as well as some minimal supply costs. The formal leadership CISM Champion training took place during a pre-existing leadership meeting, with all formal leadership participants on fixed salaries. Therefore, the salary costs incurred for training events included approximately one hour of paid time for each informal leader who received the CISM champion training. This cost was included by the nursing management in their unit's approved education budget. However, nursing management had been tasked with reducing this portion of their unit budget during the fiscal year this project occurred in, so some leaders expressed concern that this training expense might create a variance in this portion of their budget. Therefore, this training expense was discussed and approved by executive leadership early on in the planning process. Unit management are now prepared to describe this variance in their annual budget review and will be able to provide written executive support for this variance. Additional salary costs were also incurred by the training presenter (the CISM coordinator) for each CISM champion training event he participated in (which was approximately five events).

Finally, the CISM program at this healthcare system currently has approximately 84 trained CISM facilitators on their team. These are the specially trained peers that facilitate CISM

interventions on the nursing units, following a critical incident. Careful discussion with the CISM team steering committee and CISM team leadership occurred to ensure that this current group of facilitators would be able to sufficiently manage an increase in the volume of requested interventions that was expected to occur as an outcome of this project (Wiechart, personal communication, 2017). At this time it has been determined that additional trainings of CISM facilitators is not necessary based on the volume of requests, however the CISM team leadership is making preparations for future facilitator trainings should they become necessary as this project spreads to the rest of the organization. Additionally, as utilization increases as a result of this project, additional salary costs have incurred related to increased utilization of the current CISM facilitators, as well as the salary costs of staff who attend the CISM debriefings. Executive leadership is fully supportive of supporting these costs (A. Fox, personal communication).

Table 1

Budget

EXPENSES		**REVENUE**	
Direct		Billing	
Salary and benefits	$3000.00	Grants	0
Supplies	$25.00	Institutional budget support	$3725.00
Services	$300.00		
Statistician	$300.00		
Indirect			
Overhead	100.00		
Total Expenses	3725	Total Revenue	$3725.00

Net Balance	0

Supplies & Services

Supplies for the CISM champion trainings included 2-3 paper handouts for each participant. Costs of these supplies was minimal and was included in the CISM team's current supply budget, with institutional support. Survey results were tracked in Survey Gizmo software system as previously described, which required no additional costs to the institution, but made data storage and retrieval easy and accessible for the project team and the statistician. A data analyst was utilized to build the survey in the Survey Giszmo system. A statistician was also involved in the analysis of the survey results to determine any correlations between registered nurse's perceptions of organizational support and Secondary Traumatic Stress Scale scores. The statistician was already employed by the organization, and salary related costs were supported by the institution for this service. Finally, a video production specialist was utilized for the creation of two CISM champion training videos, and salary related costs were supported by the institution for this service as well. All participants in these videos were organizational employees who volunteered their time and service in helping to produce these training videos.

Indirect Expenses

Indirect expenses included the use of photocopier machines for the production of the CISM champion training handouts. Additionally, overhead costs such as electricity were also considered for these trainings. Overall, indirect expenses were negligible and supported by the institution.

Strengths and Weaknesses

An evaluation of the organization's strengths and weaknesses and therefore readiness for the implementation of this project were explored. Strengths of the organization included a robust

quality improvement team and process, with a solid infrastructure for tracking project progress and outcomes. Additionally, a strong CISM program leadership team, made up of CISM coordinators with a strong commitment to improving employee wellness, and a steering committee to evaluate resources and provide direction, provided support to this project. Further strengths included an experienced nursing leadership team who are highly engaged in quality improvement, safety culture, and employee wellness.

Weaknesses included a complex organizational system which can make resource management a complex issue, however the infrastructure of the quality improvement team at the hospital which included designation of an executive sponsor was helpful in mitigating this weakness. The identification by executive leadership that employee wellness is an important component to the system's strategic goals, was an opportunity which led to availability of organizational resources such as a quality improvement specialist, a video production specialist, a data analyst, and a statistician. Finally, the readiness assessment identified potential threats, which included the ability of leaders to provide their staff time away from their clinical duties to attend CISM interventions when they are requested/needed. This has proved to be a significant challenge that has required substantial dedication and buy-in from nursing leadership for the success of this project (see Figure 4 for SWOT analysis).

SWOT Analysis	
Strengths • Robust Quality Improvement Infrastructure and team • Strong CISM program leadership team with commitment to employee resiliency & wellness • Experienced and dedicated nursing leadership team, highly engaged in quality improvement, safety culture, and employee wellness • Nursing staff dedicated to improving care for pediatric patients	**Weaknesses** • Complex organizational system which can make resource management more complex. • Large organization necessitating more resources for education and intervention.
Opportunities • Ability to leverage specialists such as quality improvement specialist and statistician. • The potential to impact a large number of clinicians in a positive manner. • The identification by leadership of employee wellness as essential to organizations strategic goals.	**Threats** • Cost of educating a large scale of employees. • Ability of leaders to provide staff time away From clinical duties to attend CISM interventions. • Stigmatization of reaching out for help in healthcare in general

Figure 4. Organizational SWOT analysis of project site

Project Description

The change model that was employed for this project was the Institute for Healthcare Improvement's (2018) Plan-Do-Study-Act (PDSA) Cycle. According to the Agency for Healthcare Research and Quality (AHRQ) (2013), this model for improvement is a "simple yet powerful tool for accelerating quality improvement" (para 1). Taylor, McNicholas, Nicolay, Darzi, Bell, & Reed (2014) note that PDSA cycles offer a method for structuring change initiatives. This model is divided into four phases. During the "Plan" phase of the cycle, the project team identifies a practice gap and a change aimed at improvement is identified. During the "Do" phase, actions are taken to implement and test the change. The next phase is the "Study" phase, which evaluates the outcomes and success of the change. Finally, the "Act" phase examines next steps for adaptation of the change and potential dissemination of findings (Taylor et al., 2014). Taylor et al. (2014) assert that the PDSA cycle "presents a pragmatic scientific method for testing changes in complex systems" (p. 291) which mirrors the scientific experimental method.

This model was selected based on its current utilization by the quality improvement team and executive leadership at the project hospital, as previously described. Leadership skills that were influential in the success of this project included social judgement and problem solving skills, which will helped to identify barriers to staff utilization of the CISM program and influence change. It was be important to think "outside the box" and consider effective solutions to addressing barriers, as well as rely on highly innovative team members to consider alternative approaches that may not have been considered. Flexibility and adaption were also important in working with multiple units, acknowledging that the stressors and barriers regarding this change might be unique to each team, and even each individual staff member. Lastly, as manager support was identified as a crucial component to increasing CISM utilization and thus was a major influencer of this project's success, it was imperative to utilize leadership skills to obtain buy-in from unit leadership and "lead the leader".

Outline of Proposed PDSA Cycle Plan

An outline of the detailed steps that were taken during each phase of the PDSA cycle is as follows:

Plan.

1. Develop and define the responsibilities of the CISM champion role with project team.
2. Trial CISM champion role on pilot units and modify the role responsibilities as needed.
3. Meet with executive leadership to determine an appropriate leadership meeting or event to provide the in-person CISM champion training for all nursing unit leadership.
4. Prepare content and format for CISM Champion training sessions.
5. Prepare training and sustainment resources for CISM Champions such as the CISM intervention algorithm, and training videos.

6. Prepare pre-post intervention survey in Survey Gizmo with assistance of data analyze for collection and storage of data.
7. Review the pre-post employee perception of support survey.
8. Develop plan for potential problems such as nursing unit leaders absent from the CISM champion training, lack of willing recruits for the CISM champion role, and push-back from unit leadership.

Do

1. Submit acceptable project proposal.
2. Create handouts and evaluations for CISM champion trainings.
3. Obtain IRB and institutional approval.
4. Distribute pre-CISM champion role implementation survey utilizing the Survey Gizmo software.
5. Execute in-person CISM champion training for formal nursing unit leadership.
6. Obtain CISM Champion recruit names from unit leadership.
7. Schedule and execute CISM champion trainings for informal unit leaders.
8. Create email distribution like of all CISM champions for on-going semi-annual newsletters and additional communication.
9. Distribute post- CISM champion role implementation survey utilizing the Survey Gizmo software.
10. Record utilization metrics for CISM interventions, including number of events, number of participants, and role of person requesting the intervention.
11. Make notes for future improvements to the CISM champion trainings/resource materials.

Study

1. Complete analysis of utilization metrics and summarize findings.
2. Analyze findings from the pre-post intervention surveys, specifically noting percentage of staff reporting support following distressing workplace events.
3. Report findings to hospital leadership and staff, as well as the CISM program leadership team and steering committee.
4. Evaluate differences between units and investigate contributing co-factors.

Act

1. Develop a plan for sustainability and a plan for spread across the institutional system.
2. Consider modifications to the plan for future spread.
3. Develop a plan for dissemination of knowledge via conference presentations or publication.

(See Appendix C for timeline schedule chart)

Evaluation

Intervention

After reviewing the literature, it is evident that organizational support following second victim experiences is connected to improved nurse resiliency and patient safety (Dukhanin et al., 2017; Li et al., 2014; Scott, 2015). Furthermore, nursing leadership and organizational culture seem to play an integral role in employee's perceptions of support following a second victim experience (Beck et al., 2017; Crowe et al., 2017; Dukhanin et al., 2017; Ullstrom et al., 2014). Muller-Leonhardt et al. (2014) specifically studied the utilization of CISM in complex systems, such as the one where this DNP took place, and noted in their study that lack of awareness was prevalent amongst staff, despite the program having been in place for six years at the time. Muller-Leonhardt et al. (2014) identified in their study that 75% of staff who had experienced a

critical incident were not offered support and did not request support. Based on qualitative data, Muller-Leonhardt et al. (2014) proposed that professional culture and work structures were significant barriers to CISM utilization at the study hospital. Educating a large number of staff in a complex system can be both time and cost intensive. Additionally, a culture of "suffering in silence" can create significant barrier to program utilization. Henceforth, the development and implementation of the CISM champion role was the selected intervention for this DNP project, based on the evidence that support for second victims provides significant benefit to employee resiliency, that organizational culture may impact utilization of support resources, and that leadership play an integral role in the process. A quarterly nursing leadership meeting served as the primary venue for CISM champion training of the formal nursing leadership. Following this training, unit leadership were asked to recruit and train (with assistance from the CISM coordinator as needed) 3 to 5 informal leaders on their unit to serve in the CISM champion role. The names of all CISM champions were obtained and recorded by the lead CISM coordinator. In total, thirty-two CISM champions were trained in these initial trainings.

Formative Evaluation

CISM Champion Trainings.

Two components of formative evaluation were important to provide context for the summative evaluation of this project, including the efficacy of both the CISM champion trainings, as well as the CISM program itself. The evaluation of the efficacy of the CISM champion trainings focused on whether participants increased their knowledge of the CISM program and expressed positive feelings toward promoting CISM on their unit. The evaluation of the CISM champion trainings consisted of a pre/post knowledge test, along with a few open ended questions which evaluated the leaders' perceptions and personal feeling toward taking on

the CISM champion role (See Appendix D). Results from these evaluations demonstrates that participants did in fact increase their knowledge about the CISM program.

Table 2

Pre/Post Knowledge Test Evaluation of CISM Champion Trainings

Question	**Pre-Training (% Correct)**	**Post-Training (% Correct)**
How do you request a CISM intervention?	88.9%	100%
What is the difference between a CISM debriefing and a CISM defusing?	77.8%	100%
Who should be invited to attend a CISM intervention?	38.9%	100%

Qualitative feedback provided a couple of themes relevant to future CISM champion trainings and continued promotion of CISM utilization. First, qualitative data revealed that the trainings allowed the leaders to feel more prepared to promote CISM utilization on their unit. Second, qualitative data revealed that scheduling and staffing remain perceived barriers to utilization of the CISM program.

Organizational Support and CISM Program Evaluation.

Another important piece of formative evaluation that was important to this project, was the evaluation of the perceived benefits that staff reported from receiving organizational support following a distressing workplace event, and specifically from participating in a CISM intervention. This information was collected using two methods. The first method that was used

to collect this information was the Secondary Traumatic Stress Scale (STSS) (Bride et al., 2004), which was added to the pre-intervention Employee Perception of Support survey for comparative purposes (See appendix E). The STSS is a 17-item Likert-type that assesses secondary traumatic stress symptoms in clinicians related to their work. Respondents are asked to rate how often they have experienced each symptom, which corresponds to the *Diagnostic and Statistical Manual of Mental Disorders* (Fourth Edition) (DSM-IV) 17 PTSD symptoms (Beck et al., 2017). The STSS has demonstrated reliability (Bride, Robinson, Yegidis, & Figley, 2004), and has repeatedly demonstrated internal consistency (Beck et al., 2017). The average Secondary Traumatic Stress Scale scores were statistically analyzed, comparing registered nurses who reported that they *did* receive support from someone within the organization following a traumatic event occurring in the previous 3 months, versus registered nurses who reported that they *did not* receive support from anyone in the organization following a traumatic event occurring in the previous 3 months. This STSS was administered along with the pre-intervention survey between February 12, 2019 and March 5, 2019. As you can see in Table 3, results from this statistical analysis demonstrated statistically significant lower STS scores for the group who reported that they *did* receive support compared to the group that reported that they *did not* receive support.

Table 3.

Did you receive support?	Method	N	Mean	Std Dev	Std Err	Minimum	Maximum
No		55	35.8909	14.0879	1.8996	17.0000	73.0000

Yes		120	30.6333	10.2571	0.9363	17.0000	55.0000
Diff (1-2)	Pooled		5.2576	11.5896	1.8872		
Diff (1-2)	Satterthwaite		5.2576		2.1178		

Comparison of STSS means of nurses with and without support following a distressing event

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	173	2.79	0.0059

These results are in line with findings in the literature that organizational support is a protective factor in STS and CF, and also offers additional context to the benefits and importance of this project.

Finally, to evaluate the efficacy of the CISM program at the project site, an additional survey was administered to the participants of each CISM intervention that took place at the pediatric hospital during the study period (January 2019-June 2019). This survey consisted of anonymous ordinal (4 Likert style questions and 4 yes/no questions) and qualitative data regarding the participant's experience of participating in a CISM intervention (See Appendix F).

This survey was created by the project team, and thus validity and reliability of this survey have not been tested. The data obtained from this study was utilized to further analyze whether participants of a CISM intervention at the project site perceived benefits from their participation that are in-line with findings in the literature. Results from this survey are also being used to inform the CISM leadership team and CISM steering committee for continued improvement of the overall CISM program. This survey was also administered electronically and anonymously through the Survey Gizmo internal software, and did not include any identifying information in order to protect the privacy of CISM participants. In total, 127 multi-disciplinary participants of CISM interventions between January 28, 2019 and June 1, 2019 received this survey invitation and survey link to their email a week after the CISM intervention. 58 respondents completed the electronic survey, for a 45% response rate. See figure 5 for a summary of the Likert-style question response data.

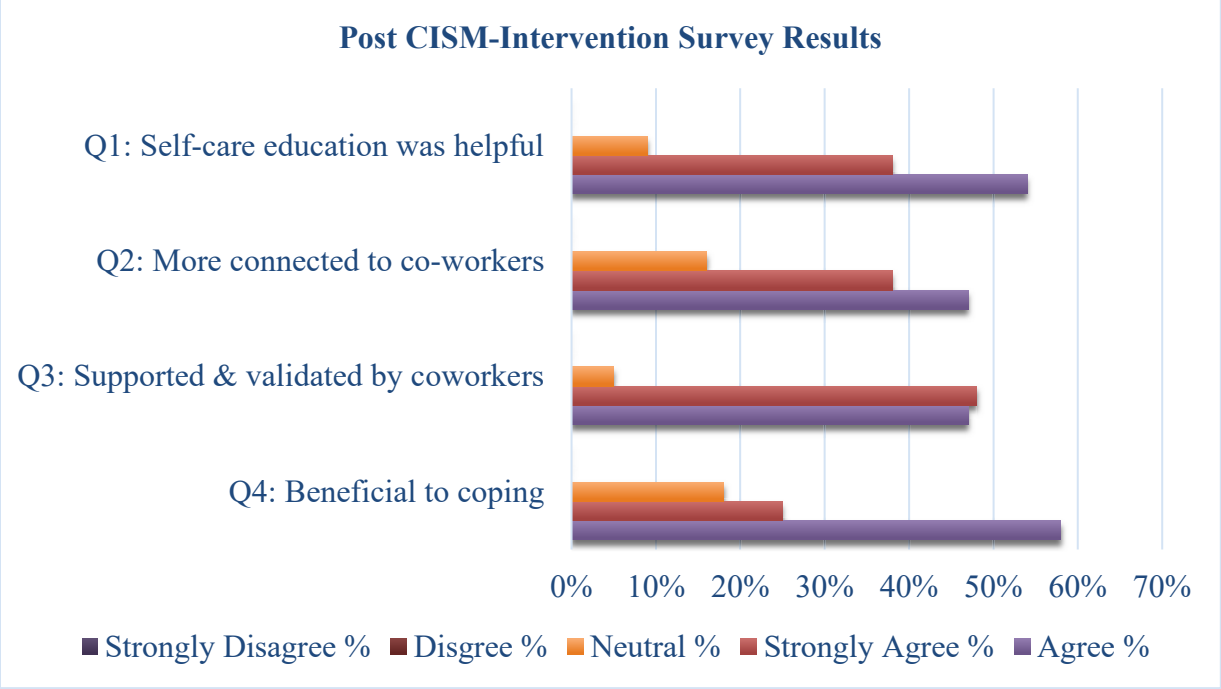

Figure 5. Summary of Post CISM-Intervention Survey Results

Overall, results from this survey demonstrated that the majority of participants of the CISM interventions report benefits such as feeling supported and validated by their teammates and the CISM peers, felt more connected to their team, and enhanced their coping. This data aligns with the literature that peer support programs promote group cohesion, organizational support, and a decrease in symptoms related to the distressing event.

Summative Evaluation

The overall goal of this quality improvement DNP project was to increase utilization of the CISM program at the project site, and subsequently to increase registered nurse's perceptions of organizational support following distressing workplace events. The summative evaluation of this goal was completed through the tracking of CISM program utilization metrics. The number of CISM interventions held on each unit, and the number of staff attending those interventions was tracked for the months of March-June 2019, and compared to data from the same time period in previous years. Additionally, a non-experimental pre- and post- survey design was used to reveal if the CISM champion role increased registered nurses perceptions of support. This "Perception of Support" survey consisted of 3 questions to assess if the nurse had experienced a recent distressing event (in the previous 3 months) in the workplace, if they received support from anyone in the organization, and if they found that support helpful in their coping (see Appendix G). This survey was created by the project team, based off of similar survey questions used by Scott (2015) to evaluate associations between second victim support and safety culture perceptions. The pre-survey was completed in February, 2019, CISM champion trainings were completed in early March, 2019, and the follow up post-survey was completed in June, 2019.

Approval for this quality improvement study was obtained from both the Ferris State University's institutional review board, as well as the project site's institutional review board.

Both institutional review boards determined this study to be a quality improvement activity, and agreed that it did not meet the definition for research on human subjects. For both the pre- and post- intervention survey, all six hundred and eight-nine registered nurses at the project site hospital were sent an email through the executive leadership office, inviting them to participate in this study, with a link to the electronic Perceptions of Support and Secondary Traumatic Stress Scale survey. In both instances, the survey link remained live for 3 weeks, and 1 reminder was sent midway through the survey timeframe. The participants completed the surveys electronically, implying their informed consent. All data was collected and analyzed anonymously.

CISM Utilization Metric Findings.

As shown in Table 4, the comparison between the number of CISM interventions held and number of staff attending CISM interventions, demonstrated an overall increase in CISM program utilization after implementation of the CISM champion role.

Table 4.

Utilization metrics of the CISM program at the project site

Unit	# of Interventions/Staff Attended Pre-Champion (Mar.-Jun. 18')	# of Interventions/Staff Attended Post-Champion (Mar.-Jun. 19')
Med/Surg. A & B	0 Interventions/0 Staff attended (Mar.-June 17')	4 Interventions/17 Staff attended (9 Interventions/49 Staff attended (Mar.-Jun. 18'))
Med/Surg. C	0 Interventions/0 Staff attended	1 Intervention/1 Staff attended
PICU	1 Intervention/8 Staff attended	5 Interventions/31 Staff attended

NICU	0 Intervention/0 Staff attended	1 Intervention/7 Staff attended
ER	1 Intervention/ 7 Staff attended	2 Interventions/15 Staff attended
Surgical	0 Interventions/0 Staff attended	1 Intervention/8 Staff attended
Total	2 Interventions/15 Staff attended (7 RNs)	14 Interventions/79 Staff attended (21 RNs)

For the medical/surgical units A and B, the utilization metrics are included for the previous two years, as these units trialed the CISM champion role as part of the planning process. The CISM champion role was deployed on those units beginning in February of 2018. As seen, increased utilization on these two units was sustained from 2018 to 2019, which is encouraging for overall sustainment of this project. Additionally, findings indicate that some units demonstrated a greater increase in utilization, as compared to other units. This points to the assumption that unit specific factors such as unit culture, staffing, leadership, etc., may contribute to the efficacy of the CISM champion role. Additionally, the relatively short period of data tracking may decrease the strength of these findings, as the occurrence of distressing events on each unit may fluctuate throughout the year. Utilization data will continue to be collected by the CISM leadership team throughout the existence of the program to track trends in increasing or decreasing utilization.

Perceptions of Support Findings.

The perception of support pre- and post- surveys provided additional data to support the CISM utilization metrics data. In total, 278 out of approximately 690 registered nurses completed the pre-survey, for a response rate of 40.3% respectively. Additionally, 104 out of approximately 690 registered nurses completed the post-survey, for a response rate of approximately 15.1%. The data should be interpreted cautiously due to the significantly lower

response rates on the post-survey as compared to the pre-survey. Overall, while some units showed increases in the percentage of registered nurses who reported receiving support after a distressing event in the past 3 months, other units did not. (See Table 5). It should also be noted that of the nurses who reported receiving support, 97.5% (117 out of 120) on the pre-survey and 90.6% (29 out of 32) on the post-survey selected "Yes", that the support was helpful in their coping with the event. Therefore, not only does organizational support statistically decrease symptoms of STS after a distressing event, as seen from the previously discussed results of the STSS, but registered nurses also perceive the support as helping them to cope with the event.

While the medical/surgical units A & B saw a slight decline in reports of support, the low post-survey response rates on those units may decrease the validity of those findings. It is also worth noting that these units are also the units that had previously implemented the CISM champion role prior to the pre- survey as they were the trial units when developing the role. When utilizing these units as a comparison group, it is encouraging to note that these units were among the highest in percentage of nurses reporting receiving support on both the pre- and post-surveys at 92% and 71.4%, respectively. So while there was a slight decline in reports of support on these two units, this data actually still provides positive support for the effectiveness of the CISM champion role to increase perceptions of support. While these units are included in the results, they have been excluded from the overall total results in Table 5 since this was not a new intervention for them.

Next, the Neonatal Intensive Care Unit (NICU) saw a significant decline in reports of support from the pre- to the post- survey. This may be due primarily to low post- survey response rates, or a separate unit specific variable that was unaccounted for. This significant drop in the NICU accounts for much of the overall decrease in reports of support. When also excluding the

NICU from the overall results as an outlier, the overall results shift from a -8% decrease in perceptions of support, to an overall +8.3% increase perceptions of support, with nurses 55.6% of nurses reporting having received support on the pre-survey to 64% reporting having received support on the post-survey.

The last unit worth highlighting is the Pediatric Intensive Care Unit (PICU), which saw an increase from 58.1% of nurses reporting support on the pre-survey to 72.7% of nurses reporting support on the post-survey. While these numbers must be interpreted cautiously due to the low response rate on the post-survey, this +14.6% increase in support is the highest of all the units, and it should be noted that the PICU also had the most significant increase in utilization of the CISM program during this same period. This is encouraging as the PICU was amongst the highest to report experiencing a recent distressing event at 79.6% on the pre-survey, and 68.8% on the post-survey. Furthermore, when interpreting this in the context of the STSS, it should be noted that the average STSS scores were the highest in the PICU at 38.9 (Moderate STS), which is to be expected in light of having the greatest exposure to distressing events. However, this average declines to 36.6 (Mild STS) for nurses reporting that they *did* receive organizational support following the distressing event, and increases to 42.1 (Moderate STS) for nurses who reported that they *did not* receive organizational support following the distressing event. Altogether, this data offers important insights for the organization in support for continued efforts to promote CISM utilization through the continued use of the CISM champion role, and additional future efforts.

Table 5.

% of registered nurses reporting support Pre and Post CISM Champion role

Unit	Event: % YES Support: YES Pre-Champion (Feb. 19') (n=278)	Event: % YES Support: YES Post-Champion (Jun. 19') (n=104)	% Change
Med/Surg. A & B (Excluded)	Event: 25 out of 38 (65.8%) Support: 23 out of 25 (92%)	Event: 7 out of 16 (43.8%) Support: 5 out of 7 (71.4%)	-20.6%
Med/Surg. C	Event: 8 out of 19 (42.1%) Support: 3 out of 8 (37.5%)	Event: 5 out of 14 (35.7%) Support: 3 out of 5 (60%)	+6.4%
PICU	Event: 43 out of 54 (79.62%) Support: 25 out of 43 (58.1%)	Event: 11 out of 16 (68.8%) Support: 8 out of 11 (72.7%)	+14.6%
NICU	Event: 46 out of 75 (61.3%) Support: 37 out of 46 (80.4%)	Event: 23 out of 36 (63.9%) Support: 10 out of 23 (40.5%)	-39.9%
ER	Event: 25 out of 26 (96.2%) Support: 14 out of 25 (56%)	Event: 6 out of 10 (60%) Support: 4 out of 6 (66.7%)	+10.7%
Surgical	Event: 19 out of 47 (40.4%) Support: 10 out of 19 (52.6%)	Event: 3 out of 10 (30%) Support: 2 out of 3 (66.7%)	+14.7%
Total	Event: 151 out of 240 (63%) Support: 97 out of 151 (64%) Support (excluding NICU): 50/90 (55.6%)	Event: 50 out of 89 (56%) Support: 27 out of 48 (56%) Support (excluding NICU): 16/25 (64%)	

Discussion and Implications for Nursing and Healthcare

Overall, the findings from this quality improvement project demonstrate that implementation of a CISM champion role, hospital or system wide, is a feasible intervention that *may* increase utilization of a peer support program such as CISM, following a distressing workplace event. Furthermore, implementation of such as role *may* also increase overall perceptions of organizational support following a distressing event. Overall, the results varied based on unit, suggesting that unit-specific factors such as culture, staffing, patient population, and leadership and staff buy-in may all contribute to the overall effectiveness of the CISM champion role.

Validity and Limitations

As previously discussed the lower response rate on the post- survey as compared to the pre- survey is a threat to the validity of the project findings. Multiple, additional hospital-wide surveys were also administered in the same time frame as the post- survey which could have contributed to the lower response rate related to "survey fatigue". The results of this project should also only be interpreted in the context of this organization and the population of pediatric registered nurses. While the CISM interventions are multi-disciplinary, primarily only nursing leadership and nursing staff received the CISM champion trainings (with the exception of two unit-based physicians who attended a training).

Additionally, while the centralized and visual quality improvement structure at the project site hospital were beneficial to the progress and success of the project, they also may have impacted the validity of the findings. More specifically, once the project started into the plan phase of the PDSA cycle (early 2018), it began being tracked on a centralized visual management board, and verbal reports on the progress of the project were given on a regular

basis at weekly QI review meeting throughout the course of the project. As the majority of the hospital leadership team are present at these review meetings, they may have begun informally "championing" CISM utilization, before the pre-survey was administered, and the CISM champion role was formally implemented. For example, the PICU utilized the CISM program for 13 interventions between July 2018 and February 2019, compared to two interventions during that same time period the previous year. This indicates that the pre- survey may not be the most accurate baseline of registered nurses perceptions of support related to this project. It does indicate that formal leadership play a significant role in championing utilization of a peer support program such as CISM, however the continued improvement seen on the post- survey indicates that staff involvement in the form of informal leader champions should not be forgotten, and that training and resources may also contribute to the success of the CISM champion role.

Significance and Implications

The CISM champion role offers organizations with peer support programs such as CISM, with a feasible, low-cost intervention for increasing utilization of their program, and increasing registered nurses perceptions of support. The most significant cost associated with this project, was the salary costs of the project team during the planning process, and the salary costs of the CISM champions to attend training. Overall, the approximate cost for this hospital-wide initiative was $3,725. Moran et al. (2017), demonstrated a net monetary savings of US $22,576.05 per year, per nurse who utilized their study site's peer support program (RISE), when taking into account the costs of absenteeism or turnover associated with lack of support after a second victim experience. During this DNP scholarly project, an additional 14 registered nurses attended a CISM intervention in the 4 month period following implementation of the CISM champion role, as compared to the same time period the previous year. When assuming similar

monetary savings as the Moran et al. (2017) study, this results in a potential $316,064.70 cost savings related to this project. Over the course of a year, with sustained results, that could equate to a cost savings of $948,194.10. While these cost-savings are highly subjective, compared to the project costs, they are significant and impactful.

The formative evaluation of this project also aligns with and adds value to the overall body of evidence that demonstrates the importance of organizational support after a distressing workplace event, and the benefits that peer support programs, such as CISM, offer in providing that support. For example, analysis of the STSS scores demonstrated statistically lower mean STSS scores for registered nurses who reported that they *did* receive support versus those who reported that they *did not* receive support. This indicates that clinicians with organizational support experience fewer stress symptoms after a distressing event than those without support. Furthermore, the Perceptions of Support survey established that over 90% of nurses who reported receiving organizational support, indicated that the support was helpful in their coping with the distressing event. Finally, the post-CISM intervention surveys demonstrated that >80% of clinicians who attended a CISM intervention following a distressing workplace event reported that the intervention helped them feel more connected to their co-workers (group cohesion), helped them feel validated and supported (organizational support), and overall was beneficial to their ability to cope with the distressing event (resiliency). While more research is indicated, the literature suggests that employee resilience, group cohesion, organizational support, and lower rates of STSS are associated with decreases in turnover intent and absenteeism (Burlison et al., 2017), are protective factors against the development of CF and BO (Li et al., 2014), and are associated with a culture of safety (Quillivan et al., 2016; Scott, 2015). As CF and BO have also been linked to patient dissatisfaction (Hunsaker et al., 2014), as well as poor patient outcomes

and medical errors (Quillivan et al., 2016), prevention of STSS, CF, and BO are of high significance. Therefore, this project offers encouraging and hopeful implications for nursing practice, and healthcare. In review, the three goals of the Action Collaborative on Clinician Well-Being and Resilience launched by the National Academy of Medicine in 2017, include raising awareness about the problem of clinician well-being, improving understanding about the barriers to clinician well-being, and advancing multi-disciplinary solutions that promote clinician well-being (National Academy of Medicine, 2017). This project sought to address each of those goals, and while more work is yet to be done, there is evidence that this project has been successful in this objective.

Future Research

A future consideration for research on the benefits of a CISM program, might be its impact on interdisciplinary teamwork. With 84.5% of respondents reporting that the CISM intervention helped them feel more connected to their coworkers, and 94.8% of respondents reporting that the CISM intervention helped them feel supported and validated by their coworkers, it can be assumed that CISM interventions promote stronger teams. CISM interventions are often multi-disciplinary, with clinicians from all disciplines who are involved in the distressing event being invited and encouraged to attend. The team of CISM facilitators, trained to lead the interventions is also an interdisciplinary group. Rose (2011) indicates that interdependency, mutual respect, and trust are important components to fostering interdisciplinary teamwork. Furthermore, O'Reilly, Lee, O'Sullivan, Cullen, Kennedy, and MacFarland (2017) recommend organizations build supporting structures that foster interdisciplinary teamwork. The structure of the interdisciplinary CISM team, and interdisciplinary CISM interventions provides an environment where interdependency, mutual

respect, and trust can be fostered. Interdisciplinary communication and teamwork are essential components to patient safety and cost-effective care (O'Reilly et al., 2017), making this a potentially significant aspect of CISM and other peers support programs to consider and explore.

The CISM champion role was developed to address some of the major barriers that were found in the literature, which prevent utilization of second victim peer support programs. These barriers included a pervasive culture of suffering in silence, and low awareness and knowledge amongst employees about STS, and programs such as CISM. However, an additional perceived barrier that was identified during the CISM champion trainings, was challenges with scheduling CISM interventions during a time when all employees involved in the event can attend. Some solutions to overcoming this barrier were suggested by more experienced CISM champions during the trainings, such as holding the intervention immediately after the shift that the distressing event occurred on, as well as personally reaching out to those most affected by the event and allowing them to pick the scheduled time. Another perceived barrier that was identified was challenges with staffing that makes it sometimes difficult to pull nurses away from patient care to attend an intervention. Future efforts to increase utilization of the CISM program at the organization should be focused on addressing these barriers. One of the pragmatic qualities of the PDSA approach to quality improvement, is that each cycle can integrate easily with subsequent cycles in which new interventions are developed based off the previous cycle, thus making continuous improvement possible (Reed & Card, 2016).

Dissemination and Sustainability

The CISM champion role offers organizations with peer support programs a proactive method for increasing utilization of such programs, and increasing the support that employees perceive from the organization following a distressing workplace event. Additionally, analysis of

the STSS scores demonstrated statistically lower mean STSS scores for registered nurses who reported that they *did* receive support versus those who reported that they *did not* receive support. This is an encouraging finding that suggests that the CISM champion role may have a positive impact on employee and organizational resiliency. Dissemination of these findings is a crucial step in the continued work being done internally and throughout health care to support clinician well-being, and ultimately patient safety as well.

The initial dissemination plan for this CISM utilization doctoral project includes a public presentation and oral deference. Those invited to participate in this presentation will include the Ferris State University School of Nursing faculty, students, the project team, and the content expert for this project. This presentation will consist of a summary of the project, its findings and implications, and plan for sustainability and dissemination.

The results from this project has been spread internally throughout the organization at various venues. Updates and final results have been shared at the weekly quality improvement meetings, already existing at the pediatric hospital. This venue includes multi-disciplinary leadership at the unit and executive level. A plan for appropriate spread across the healthcare system has also been discussed at this venue. Unit leaders who attend these meetings were also encouraged to share the information with their individual teams through staff meetings or staff newsletters. Additionally, an executive summary of the project was presented to the pediatric hospital leaders, as well as with the CISM program leadership team and steering committee. The CISM program leadership team and steering committee assisted with making a plan for the spread of this project to the other hospitals and ambulatory care settings within this large health care system. To date, the CISM champion training has been offered at multiple system leadership gatherings, and an additional 500+ CISM champions have been added to the email distribution

list system wide. With over 31,000 system employees, this remains a small but growing percentage of those championing this organizational support resource.

The venues and opportunities for presentation of this project are far reaching, as all registered nurses and nursing students are at risk of facing a second victim experience in the workplace. A variety of regional, national, and even international nursing conferences will continue to be considered for dissemination, including Sigma Theta Tau, the Michigan Nurses Association, and the American Association of Critical-Care Nurses, amongst many others. Pediatric focused nursing conferences are also being explored. Currently, this DNP project has been selected for a poster presentation at the 2019 Michigan Nursing Summit, which will take place in October, 2019.

Effective CISM programs also require an interdisciplinary approach and therefore dissemination at venues in other disciplines that promote CISM programs was also considered. For example, the professional chaplain group at the project organization has been the serving CISM program coordinators. This opened up the opportunity to offer a 90-minute workshop at the annual Association of Professional Chaplains Annual Conference, in Orlando, FL, which occurred at the end of June, 2019.

Publication of this project is being thoughtfully considered, and an article for publication is currently in the drafting and editing stages. The journals that would be considered for submission of a manuscript would include the *Journal of Pediatric Nursing* and the *Journal of Pediatric Health Care.* Additionally, contacts at the International Critical Incident Stress Foundation (ICISF) have requested that the project team thoughtfully consider publication of an article featuring the results of this project in their journal: *Crisis, Stress, and Human Resilience: An International Journal.* These journals will be considered based on their relevancy to the

project and the journal audience. As this project will hopefully inform support programs for pediatric nurses, it is important to capture the audience of pediatric nurses as well as those that would develop and lead similar peer support programs.

Conclusion

Utilizing the PDSA cycle model of quality improvement, the goal of this DNP project was to increase utilization of the organization's CSIM program and increase employee's perceptions of organizational support following distressing workplace events. The intervention was that was implemented to achieve this goal was the development and deployment of a unit-based CISM champion role. Role responsibilities of this newly developed role include raising awareness of the organization's CISM peer support program, recognizing situations that indicate a need for support, advocating for the utilization of the CISM program, and peer modeling of healthy self-care behaviors. This project aligned with the goals of the National Academy of Medicine's Action Collaborative for the Well-Being of Clinicians. Final analysis of registered nurse's perceptions of second victim support was captured using a pre-post intervention survey, with CISM utilization metrics offering supportive data for the effectiveness of the CISM champion role. The author concludes that the CISM champion role may be an effective intervention for increasing support for employees, however other unit specific factors should be considered which could inhibit the effectiveness of this role.

References

Agency for Healthcare Research and Quality. (2013). Plan-Do-Study-Act (PDSA) Cycle. Retrieved from https://innovations.ahrq.gov/qualitytools/plan-do-study-act-pdsa-cycle.

Beck, C.T., Cusson, R., & Gable, R.K. (2017). Secondary traumatic stress in NICU nurses. *Advances in Neonatal Care, 0*(0), 1-11.

Berger, J., Polivka, B., Smoot, E.A., Owens, H. (2015). Compassion fatigue in pediatric nurses. *Journal of Pediatric Nursing, 30,* e11-e17. http://dx.doi.org/10.1016/j.pedn.2015.02.005.

Blacklock, E. (2012). Interventions following a critical incident: Developing a critical incident stress management team. *Archives of Psychiatric Nursing, 26*(1), 2-8.

Bride, B.E., Robinson, M.R., Yegidis, B., & Figley, C.R. (2004). Development and validation of the Secondary Traumatic Stress Scale. *Research on Social Work Practice, 14,* 27-35.

Burlison, J., Scott, S.D., Browne, E.K., Thompson, S.G., & Hoffman, J.M. (2017). The second victim experience and support tool: Validation of an organizational resource for assessing second victim effects and the quality of support resources. *Journal of Patient Safety, 13*(2), 93-102.

Chan, S.T, Khong, P.C.B, & Wang, W. (2016). Psychological responses, coping and supporting needs of healthcare professionals as second victims. *International Nursing Review*, 64, 242-262.

Crowe, S., Sullivant, S., Miller-Smith, L., & Lantos, J. D. (2017). Grief and burnout in the PICU. *Pediatrics*, *139*(5), e20164041. https://doi.org/10.1542/peds.2016-4041

dos Santos, R.A., & Moreira, M.C.N. (2014). Resilience and death: The nursing professional in the care of children and adolescents with life-limiting illnesses. *Ciencia E Saude Coletiva, 19*(12), 4869-4878. https://doi.org/10.1590/1413-812320141912.18862013.

Dukhanin, V., Edrees, H.H., Connors, C.A., Kang, E., Norvell, M., & Wu, A.W. (2018). Case: A second victim support program in pediatrics: Successes and challenges to implementation. *Journal of Pediatric Nursing.* https://doi.org/10.1016/j.pedn.2018.01.011

Hinderer, K.A., VonRueden, K.T., Friedmann, E., McQuillan, K.A., Gilmore, R., Kramer, B., & Murray, M. (2014). Burnout, compassion fatigue, compassion satisfaction, and secondary traumatic stress in trauma nurses. *Journal of Trauma Nursing, 21*(4), 160-169.

Hunsaker, S., Chen, H.-C., Maughan, D., & Heaston, S. (2015). Factors that influence the development of compassion fatigue, burnout, and compassion satisfaction in emergency department nurses. *Journal of Nursing Scholarship*, *47*(2), 186–194.

Institute for Healthcare Improvement. (2018). Science of Improvement: Testing Changes. Retrieved from http://www.ihi.org/resources/Pages/HowtoImprove/ScienceofImprovementTestingChanges.aspx.

Li, A.L., Early, S.F., Mahrer, N.E., Klaristenfeld, J.L., & Gold, J.I. (2014) Group cohesion and organization commitment: Protective factors for nurse residents' job satisfaction, compassion fatigue, compassion satisfaction, and burnout. *Journal of Professional Nursing, 30*(1), 89-99.

Meyer, R., Li, A., Klaristenfeld, J., & Gold, J. (2015). Pediatric novice nurses: Examining compassion fatigue as a mediator between stress exposure and compassion satisfaction, burnout, and job satisfaction. *Journal of Pediatric Nursing, 30,* 174-183. http://dx.doi.org/10.1016/j.pedn.2013.12.008.

Moran, D., Wu, A.W., Connors, C., Chappidi, M.R., Sreedhara, S.K., Selter, J.H., & Padula, W.V. (2017). Cost-benefit analysis of a support program for nursing staff. *Journal of Patient Safety, 0*(0), 1-5.

Muller-Leonhardt, A., Mitchell, S.G., Vogt, J., & Schurmann, T. (2014). Critical incident stress management (CISM) in complex systems: cultural adaptation and safety impacts in healthcare. *Accident Analysis & Prevention 68*, 172-180.

National Academy of Medicine. (2018). *Action collaborative on clinician well-being and resilience.* Retrieved from https://nam.edu/initiatives/clinician-resilience-and-well-being/.

National Academy of Medicine. (n.d.). *Action collaborative on clinician well-being and resilience.* Retrieved from https://nam.edu/wp-content/uploads/2018/03/Clinician-Well-Being-and-Resilience-One-Pager-9.28.pdf.

O'Reilly, P., Lee, S. H., O'Sullivan, M., Cullen, W., Kennedy, C., & MacFarland, A. (2017). Assessing the facilitators and barriers of interdisciplinary team working in primary care using normalization process theory: An integrative review. *PLoS ONE,* 12(5), e0177026. Retrieved from http://doi.org.ezproxy.ferris.edu/10.1371/journal.pone.0177026 on Tuesday, September 5, 2017.

Quillivan, R.R., Burlison, J.D., Browne, E.K., Scott, S.D. & Hofman, J.M. (2016). Patient safety culture and the second victim phenomenon: Connecting culture to staff distress in nurses. *The Joint Commission Journal on Quality and Patient Safety, 42*(8), 377-384.

Reed, J. E., & Card, A. J. (2016). The problem with Plan-Do-Study-Act cycles. *British Medical Journal Quality & Safety*, *25*(3), 147–152. doi.org/10.1136/bmjqs-2015-005076

Rose, L. (2011). Interprofessional collaboration in the ICU: how to define? *Nursing in Critical Care*, 16(1), 5-10.

Scott, S. (2015). Second victim support: Implications for patient safety attitudes and perceptions. *Patient Safety & Quality Healthcare.* Retrieved from https://www.psqh.com/analysis/second-victim-support-implications-for-patient-safety-attitudes-and-perceptions/

Scott, S.D., Hirschinger, L.E., Cox, K.R., McCoig, M., Brandt, J., & Hall, L.W. (2009). The natural history of recovery for the healthcare provider "second victim" after adverse patient events. *Quality and Safety in Healthcare, 18*(5), 325-330. Doi: 10.1136/qshc.2009.032870.

Taylor, M. J., McNicholas, C., Nicolay, C., Darzi, A., Bell, D., & Reed, J. E. (2014). Systematic review of the application of the plan–do–study–act method to improve quality in healthcare. *BMJ Quality & Safety*, *23*(4), 290–298. doi.org/10.1136/bmjqs-2013-001862

Ullstrom, S., Sachs, M.A., Hansson, J., Ovretveit, J., Brommels, M. (2014). Suffering in silence: A qualitative study of second victims of adverse events. *BMJ Quality and Safety, 23,* 325-331. Doi: 10.1136/bmjqs-2013-002035

Spectrum Health. (2016). *Spectrum Health Hospitals Helen DeVos Children's Hospital.* Retrieved from https://www.spectrumhealth.org/locations/spectrum-health-hospitals-helen-devos-childrens-hospital

Spectrum Health. (2018). *Critical incident stress management (CISM).* [Class handout]. Grand Rapids, MI: Spectrum Health.

Appendix A

Critical Incident Stress Management (CISM): Champion Role Responsibilities

- Assess for and recognize stress reactions in peers
- Identify incidents that might warrant a CISM intervention
- Comfortable utilizing Perfect Serve to seek consultation or request a CISM from a coordinator
- Advocate for CISM interventions by initiating a request or communicating the need to the unit leader
- Identifies other disciplines impacted by the incident and assist in advocating for interdisciplinary CISM interventions
- Educates peers about CISM (utilizing the CISM champion toolkit on InSite)
- Stay “in the know” by joining the CISM InSite group and the CISM champion email distribution list

Appendix B

Summary of Primary Research Evidence

Citation	Question or Hypothesis	Theoretical Foundation	Research Design (include tools) and Sample Size	Key Findings	Recommendations/ Implications	Level of Evidence
Meyer, R., Li, A., Klaristenfeld, J., & Gold, J. (2015). Pediatric novice nurses: Examining compassion fatigue as a mediator between stress exposure and compassion satisfaction, burnout, and job satisfaction. *Journal of Pediatric Nursing, 30,* 174-183. http://dx.doi.org/10.1016/j.pedn.2013.12.008.	The overall aim of this study is to increase the understanding of nurses entering the pediatric setting and how stress and compassion fatigue influence job satisfaction, compassion satisfaction, and burnout among novice nurses.	The theoretical model of compassion fatigue was utilized for this study.	The design of this study is a longitudinal study examining nurse stress exposure, CF, BO, and job satisfaction cross 6 mo. in a new RN residency program in a pediatric hospital. The Life Events Checklist was utilized to assess for exposure to traumatic events. The Mueller McCloskey Satisfaction Scale and the Compassion Fatigue Self-Test were also utilized. N=231 for this study.	Key findings indicate that exposure to stressful events during the first 3 months of bedside was significantly related to more burnout, and was associated with increased CF scores, and that stress predicts compassion fatigue. That is, exposure to trauma was related to burnout and compassion satisfaction through experiences of compassion fatigue.	In all, the results suggest that the inevitable trauma to which new nurses bear witness may have lasting adverse implications for their emotional condition, and ultimately lower job satisfaction. This highlights the critical importance of developing and supporting programs that reinforce healthy job-related coping skills. Given that exposure to stressful life events are commonplace and central to the nursing profession, coping with compassion fatigue should be acknowledged as a vital part of the support and training of nurses.	This is a level IV study.
Hinderer, K.A., VonRueden, K.T., Friedmann, E., McQuillan, K.A., Gilmore, R., Kramer, B., & Murray, M. (2014). Burnout, compassion	The purpose of this study is to determine what common characteristics exist amongst trauma nurses who experience BO, CF, and how	No theoretic model noted was noted in this study.	The population sampled in this study consisted of nurses working in a trauma specialty specific unit at a large university center hospital. Surveys were	Results from this study show significant relationships exist between burnout, compassion fatigue, compassion satisfaction,		This is a level VI study.

fatigue, compassion satisfaction, and secondary traumatic stress in trauma nurses. *Journal of Trauma Nursing, 21*(4), 160-169.	these relate to the development of STS. The purpose of this study is clearly stated in the article,		sent out to all nurses who met the inclusion criteria of working in a trauma unit at this hospital. Three survey instruments were used for data collection, and the reliability of each instrument was discussed in length. Researchers clearly identified the previous testing of each survey for internal consistency and validity. N=128	secondary traumatic stress, and factors such as the amount of exposure to trauma, coping skills, the work environment, and nurses' support systems. A critique of this research article demonstrates that valuable insights for clinical practice and future research can be drawn from this study. Interventions linked to increased coping skills and healthy work environments should be explored and their impact studied.		
Hunsaker, S., Chen, H.-C., Maughan, D., & Heaston, S. (2015). Factors that influence the development of compassion fatigue, burnout, and compassion satisfaction in emergency department nurses. *Journal of Nursing Scholarship*, *47*(2), 186–194.	The purpose of this study was to determine the prevalence of compassion satisfaction, compassion fatigue, and burnout in emergency department nurses across the US and examine the demographic and work-related components which affect them.	No theoretic model noted was noted in this study.	This study employed the Professional Quality of Life (ProQOL) scale to measure CS, CF, and BO. Surveys including this scale and a demographic questionnaire were mailed to 1,000 ED nurses provided by the Emergency Nurses Association who met the criteria of working directly with patients at least 8 hrs/wk in the ED with at least 1 year experience. Surveys were mailed back to	A few of the key findings in this study that are helpful in the development of my project is the correlations found between higher levels of CS and increased number of years working in the ED, shorter shift lengths, and supportive management..	This may indicate the need to focus interventions more specifically towards younger, less experienced nurses and to focus on training management to recognize CF, BO, and STS, in order to be able to support staff better	This is a level VI study.

			the researchers, 284 surveys were returned.			
Ullstrom, S., Sachs, M.A., Hansson, J., Ovretveit, J., Brommels, M. (2014). Suffering in silence: A qualitative study of second victims of adverse events. *BMJ Quality and Safety, 23,* 325-331. Doi: 10.1136/bmjqs-2013-002035	The aim of this study was to investigate how healthcare professionals at a Swedish university hospital were affected by their involvement in adverse events, with emphasis on the organizational support they needed and the organizational support they received.	No theoretic model noted was noted in this study.	A semi-structured interview guide developed by Scott et al. was utilized. The guide was translated form English to Swedish with some small modifications. 133 people who were identified as experiencing a serious adverse event were sent a letter. 21 people agreed to be interviewed. The interviews lasted 60 to 90 minutes. 18 recorded interviews with transcripts and 3 hand written note interviews. 10 physicians, 9 RN, 2 allied healthcare professionals. Qualitative content analysis, systematic classification process to analyze.	The majority of informants reported that the event had affected them on a personal and professional level. Emotional reactions initially of shock and disbelief, sadness, anxiety, and reliving the event, guilt, shame, damage to professional reputation. Many felt insecure in their role, doubting professional judgement. Symptoms lasted a few months to 1 year of more. Individual needs included the need to talk and receive emotional support, and the need to understand and learn from the event. Understanding from manager/employer. Only 5/21 said they received the support they needed from management.	Inadequate support seemed to deepen and prolong the impact. The majority reported inadequate organizational support. These findings indicate that timely emotional support from managers and colleagues is needed for second victims after adverse effects. This further highlights the benefits of a formal peer-support program and the need to promote utilization of such programs.	This is a level VI study.
Beck, C.T., Cusson, R., & Gable, R.K. (2017). Secondary traumatic stress in NICU nurses. *Advances in Neonatal Care,*	Research questions were clearly stated in the methods section. The purpose of this study was to measure the prevalence and severity of	No theoretic model noted was noted in this study.	A mixed-method approach was employed. A survey link was emailed to the 7500 members of NANN, with notification of the study. The	The mean score on the STSS was 38, which placed it in Bride's moderate category of STS. More than half of the respondents		This is a level VI study.

0(0), 1-11.	secondary traumatic stress in NICU nurses and develop a more complete picture of STS in NICU nurses.		STSS Likert-type scale was used to collect quantitative data regarding symptoms of secondary traumatic stress, and an open ended question asking participants to describe traumatic patient care experiences was used to collect qualitative data. 175 responses were collected and analyzed.	scored in the moderate to severe category of STS. The most common symptoms were those of arousal (trouble sleeping, difficulty concentrating), followed by intrusion (flashbacks, nightmares, intrusive thoughts). Moral distress was a reported theme of trauma for the NICU nurses and nurses also provided insight into factors which helped them in their trauma, including support from colleagues and the organization and psychiatric support services were highly valued.		
Berger, J., Polivka, B., Smoot, E.A., Owens, H. (2015). Compassion fatigue in pediatric nurses. *Journal of Pediatric Nursing, 30,* e11-e17. http://dx.doi.org/10.1016/j.pedn.2015.02.005.	The purposes of this study were to determine: 1) The prevalence and severity of CS and CF among pediatric nurses working with various subspecialty populations. 2) Variations in prevalence and severity of CS and CF based on respondent demographics 3) Sources of CF in pediatric nurses and methods used to address CF.	Professional quality of life is a theoretical concept developed to analyze pathways of convergence between person environments (e.g. nurses), client environments (e.g. patients), and work environment (e.g. unit, hospital or system)	This cross-sectional survey of pediatric registered nurses (RNs) was conducted in a five-hospital system which included an urban pediatric tertiary care teaching hospital. Participants completed the Professional Quality of Life Scale, Version 5 (ProQOL, V5) which assesses professional quality of life for those in the helping	Of the 239 participants, 71.5% had moderate to high CS. However, over one-quarter had low CS (28.5%), high burnout (29%), and high STS (27%). Nurses aged 18 to 39 years had significantly lower levels of CS, higher levels of burnout, and STS than those 40 years of age and older. Nurses working in	This study demonstrates that STS, CF, and BO are frequently experienced by pediatric nurses, may experience lower rates of CS. After exposure to trauma and loss, nurses may begin to integrate their patients' suffering, increasing their stress. It is important therefore to identify innovation and evidence-based	This is a level VI study.

			professions. 700 pediatric RNs that were employed in the system, 239 completed the survey for a 34% response rate.	medical/surgical units had significantly lower CS scores compared to nurses working in pediatric ICU, surgical services, oncology, and other non-specified areas. Nurses working on medical/surgical units also had higher burnout scores compared to nurses working in pediatric ICU.	approaches to help nurses, especially those working in pediatrics to cope with this stress that comes along with their job.	
Li, A.L., Early, S.F., Mahrer, N.E., Klaristenfeld, J.L., & Gold, J.I. (2014) Group cohesion and organization commitment: Protective factors for nurse residents' job satisfaction, compassion fatigue, compassion satisfaction, and burnout. *Journal of Professional Nursing, 30*(1), 89-99.	This study aims to determine if group cohesion and organizational commitment can serve as protective factors against the negative effect of preexisting stress exposure and PTSD symptoms and current stress exposure and PTSD symptoms on negative nurse outcomes (i.e., job dissatisfaction, burnout, and compassion satisfaction). Further, the study seeks to determine if group cohesion and organizational commitment also promote positive nurse outcomes (i.e., compassion satisfaction and job satisfaction).	The study team constructed a theoretic model which proposes that organizational commitment and group cohesion will mediate the effects of stress and traumatic experiences on compassion fatigue, nurse burnout, job satisfaction, nurse compassion satisfaction and job satisfaction.	A convenience sample of 251 participants (231 female, 20 male) from a possible 261 nurses (96% participation) were surveyed. The participants were new nurses in a residency program at a large children's hospital. The life events checklist was used to measure exposure to traumatic events, along with ratings of organizational commitment and group-cohesion. The CSF survey was used to determine levels of CS, CF, STS, and BO. The nurse were surveyed upon entering the program and after 3 months of bedside experience.	Results from this study suggest that exposure to traumatic stress plays a large role in determining CF. Group cohesion was found to be an effective protective factor in reducing the effects of stress on BO, CF, and STS. Organizational commitment explained a small, but significant amount of variance (5%) in job satisfaction.	This study has implications for nurse retention and programs aimed at decreasing negative outcomes of second victim experiences. Programs such be aware of the benefits of organizational commitment and group cohesion and leverage those aspects of their programs to improve employee resiliency and wellness. This could be an important step in improving job retention and increasing quality of patient care.	This is a level IV study.

Burlison, J., Scott, S.D., Browne, E.K., Thompson, S.G., & Hoffman, J.M. (2017). The second victim experience and support tool: Validation of an organizational resource for assessing second victim effects and the quality of support resources. *Journal of Patient Safety, 13*(2), 93-102.	The purpose of this study was to develop and validate the Second Victim Experience and Support Tool (SVEST), a survey instrument that can assist health care organizations in implementing and tracking the performance of support resources for second victims	The study used Hinkin's guide for developing questionnaires, which is well cited and recognized as a cornerstone piece in survey design. For this study, the first 4 steps of Hinkin's 6-step process were used: (1) item generation, (2) questionnaire development, (3) initial item reduction, and (4) confirmatory factor analysis (CFA)	A final sample size of 281 staff members, including nurses, physicians, pharmacist, and med techs completed the study. An online version of the SVEST was created, with the items randomized for each participant to prevent ordering effect biases. The developed questionnaire was administered along with the Agency for Healthcare Research and Quality Hospital Survey on Patient Safety Culture (HSPSC)	Of the 7 support options in the questionnaire, "a respected peer to discuss the details of what happened" was rated the most desired (80.5% desired, 4% not desired; mean, 4.06; SD, 0.91). Co-workers were rarely perceived as poor resources for the support of second victims (i.e., only 1% of respondents agreed with these items) but that there is opportunity for growth in developing more effective resources at the organizational level (5.3% agreement).	These findings support the need for staff to be able to share with peers in a safe environment about their experience following critical incidents. Organizations should develop formal opportunities such as CISM for this to occur in order to support staff following these events.	This is a level IV study.
Quillivan, R.R., Burlison, J.D., Browne, E.K., Scott, S.D. & Hofman, J.M. (2016). Patient safety culture and the second victim phenomenon: Connecting culture to staff distress in nurses. *The Joint Commission Journal on Quality and Patient Safety, 42*(8), 377-384.	The purpose of this study was to investigate the effect of patient safety culture on second victim-related distress, and explore the impact on second victim support after traumatic events. It was hypothesized that second victim distress would be associated with dimensions of hospital	No theoretic model noted was noted in this study.	This study was conducted at a pediatric hospital that treats cancer and catastrophic illnesses. Nurses in direct patient care were contacted via email to participate. They were sent the AHRQ HSOPSC and SVEST surveys. Responses to non-punitive response to error, communicatio	Perceptions of a poor patient safety culture were associated with perceived increases in clinician psychological, physical, and professional distress. A non-punitive response to error was associated with reduced psychological distress, reduced physical distress, and improved professional self-efficacy. Organizational support fully mediated the relationship between non-	The findings are consistent with others that an unsupportive work environment amplifies second victim experiences, as opposed to a support work environment that decreases it. Highlights the importance of increasing support networks for second victims and improving reactions to events from peers and supervisors, specifically in terms of peer support.	This is a level IV study.

	patient safety culture.		n openness, feedback about error, and organizational learning were analyzed, along with colleague, supervisor, and institutional support.	punitive response and distress, partially for psychological distress.		
Dukhanin, V., Edrees, H.H., Connors, C.A., Kang, E., Norvell, M., & Wu, A.W. (2018). Case: A second victim support program in pediatrics: Successes and challenges to implementation. *Journal of Pediatric Nursing.* https://doi.org/10.1016/j.pedn.2018.01.011	The purpose of the study was to evaluate the John's Hopkins second victim support program called RISE, to identify success and barriers to implementation.	No theoretic model noted was noted in this study.	The research design was a mixed-method evaluation using quantitative analysis of two consecutive staff surveys, one before the implementation of the program, and one 4 years later. Content analysis of responses to open-ended questions on the surveys was also performed. The survey was sent to nurses, physicians, managers, and other allied health professionals, all in the department of pediatrics. 900 people were invited with response rates of 22.4% 23.3%.	Key findings showed that staff reported benefits from the RISE program, and provided evidence for the effectiveness of the second victim program. Success is found in being flexible, self-learning, and have a culture of patient safety. Beneficial features include active listening, showing compassion, safe environment, reassurance of clinical competencies. After four years of implementations, more respondents perceived that organizational support was available to them, and that there was benefit in reaching out to someone. 10% had accessed RISE. Promotion was through an awareness	This study provides additional support for implementation and ongoing promotion of peer support programs such as CISM. It also indicated that even with established programs, awareness of the program can be relatively low, so ongoing effort to increase utilization are warranted.	This is a level IV study.

				campaign, website, promotional videos, internal publications, screen savers, presentations to clinical units, unit-level champions. Barriers were time, and stigma.		
Muller-Leonhardt, A., Mitchell, S.G., Vogt, J., & Schurmann, T. (2014). Critical incident stress management (CISM) in complex systems: cultural adaptation and safety impacts in healthcare. *Accident Analysis & Prevention 68*, 172-180.	The purpose of this study was to explore how a CISM (critical incident stress management) program works within hospital settings. The goal was to investigate the impact that CISM can have on organizational safety and individual health for professionals working in the hospital settings.	No theoretic model noted was noted in this study.	Two questionnaires (one for staff and one for CISM peers) were emailed and printed/distributed to all 11000 staff at a large European hospital which had implemented a CISM program. The questionnaires were modified versions of questionnaires used in the aviation industry in Germany, with documented validity and reliability. Questionnaires contained open ended questions as well as a 5 point Likert scale regarding critical incident stress reactions. 63 staff and 25 CISM peers responded to the survey.	Valuable insights from the results of this study include the fact that while the program had been in place for 6 years prior to the survey, nearly half of the respondents had only just learned of the program through the survey. Greater openness, support, and understanding were reported from staff who had experienced a CISM intervention. The study also demonstrated that staff viewed "near miss" events and other smaller incidents as upsetting and causing distress.	This study demonstrates that even with an active program, it is important to focus on increasing awareness and utilization of this support resource.	This is a level VI study.
Blacklock, E. (2012). Interventions following a critical incident: Developing a critical incident stress	The question is whether staff will identify benefit to attending a CISM intervention following a	The Mitchell Model of Critical Incident Stress Management was utilized as the theoretical	In the study, the sample was 43 staff who attending a CSIM intervention after a critical	All staff reported no further symptoms associated with the incident, in the	The reactions to the CISM intervention in this study were highly favorable. The CISM	This is a level VI study.

management team. *Archives of Psychiatric Nursing, 26*(1), 2-8.	critical incident (a public suicide event).	framework for this study.	incident. Staff were sent an Impact of Event Scale survey 10 days after the incident, which measures intrusive thoughts, avoidant behavior, etc. The survey was re-sent six weeks after the event. 13 staff responded to the surveys. CISM peers also reached out individually to each of the 43 staff to following up with them personally after the incident and obtain feedback.	survey as well as personal communications. Anecdotally, staff expressed much benefit and appreciation related to the CISM intervention following the incident. Other types of frequent critical incidents that have utilized the CISM team included young patients dying, stillbirths, suicides, and traumatic ER admissions.	intervention was associated with a decrease in stress responses, and qualitative data suggests that staff perceived the CISM intervention as a form of organizational support. The author noted that the cost of developing and running the CISM team is negligible, but does require strong commitment in time and energy from personnel in strategic positions to be successful.	
Scott, S. (2015, October 12). Second victim support: Implication for patient safety attitudes and perceptions. *Patient Safety & Quality Healthcare.* Retrieved from https://www.psqh.com/analysis/second-victim-support-implications-for-patient-safety-attitudes-and-perceptions/	Research Question: "Overtime, is there a difference in clinician perceptions relating to patient safety among three groups of survey respondents (non-victims, second victims with support, and second victims without support)?"	No theoretic model noted was noted in this study.	A cross-sectional analysis of existing MUHC Patient Safety Culture Survey findings was conducted. This study was designed to monitor for group differences among three clinician types (non-victims, second victims with support, and second victims without support). The AHRQ-HSOPS instrument was	12 out of 13 dimensions of the AHRQ-HSOPS revealed highly statistically significant difference between the second victims with support and second victims without support, and above the national benchmark mean. The results also demonstrated that supported second victims raise the overall	This study demonstrates the impact that a second victim experience and the provision of support can have on the overall environment of units and the organization's safety culture. This study demonstrates that there is an association between second victim support and safety culture. Findings indicate that	Level of Evidence: IV

			used to collect MUHC data over time. Two additional questions were added to assess for second victim experiences and reception of support. A total of 4,228 participants were included in the study.	safety grade within units that have high percentage of support. Conversely, unsupported second victims can significantly lower the overall patient safety scores.	increasing support for second victims can have a positive impact on patient safety culture.	
Moran, D., Wu, A.W., Connors, C., Chappidi, M.R., Sreedhara, S.K., Selter, J.H., & Padula, W.V. (2017). Cost-benefit analysis of a support program for nursing staff. *Journal of Patient Safety, 0*(0), 1-5.	The hypothesis is that the peer support program at Johns Hopkins results in costs saving in the short term.	No theoretic model noted was noted in this study.	A survey was completed by a convenience sample of 36 nurses at Johns Hopkins who were familiar with the RISE program. The survey focused on identifying the probability of quitting and taking a day off after a stressful events with and without the RISE program. Costs were calculated regarding time off costs, turnover costs, and cost of the program. The costs were analyzed using a net monetary benefit from subtracting costs of the program from benefits of the program in staff not taking time off or quitting.	The RISE program resulted in a positive NMB after 1 year of 22,576.05. When multiplied by the number of users of the program, this cost savings increases to 1.81 million per year for the organization.	The results of this study suggest that having a peer-support program for medical providers may provide hospitals with a substantial return on investment and, thus, constitute good value for the hospital. This is largely driving by lower nursing turnover. The recommendations is to promote utilization of peer-support programs as a means to reducing turnover and saving money.	Level of Evidence: VI

Literature Review Table: Levels of Evidence Legend

Level I: Evidence from a systematic review or meta-analysis of all relevant RCTs (randomized controlled trial) or evidence-based clinical practice guidelines based on systematic reviews of RCTs or three or more RCTs of good quality that have similar results.

Level II: Evidence obtained from at least one well-designed RCT (e.g. large multi-site RCT).

Level III: Evidence obtained from well-designed controlled trials without randomization (i.e. quasi-experimental).

Level IV: Evidence from well-designed case-control or cohort studies.

Level V: Evidence from systematic reviews of descriptive and qualitative studies (meta-synthesis).

Level VI: Evidence from a single descriptive or qualitative study.

Level VII: Evidence from the opinion of authorities and/or reports of expert committees.

Reference:

Winona State University. (2018). *Evidence Based Practice Toolkit.* Retrieved from https://libguides.winona.edu/c.php?g=11614&p=61584

Appendix C

Project Schedule

	Semester and Course # Fall 18' NURS 820								Semester and Course # Fall 18' NURS								Semester and Course # Spring 19' NURS			
Activity	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 1	Week 2	Week 3	
Meet with faculty & preceptor	X								X								X			
Prepare project proposal	X	X	X	X	X	X	X	X	X	X	X	X								
Complete CITI Training					X															
Prepare and submit project to IRB at Ferris State University											X	X	X	X	X	X				
Prepare and submit project to IRB at Spectrum Health											X	X	X	X	X	X				
Build CISM Champion Training Materials															X	X	X	X	X	
Prepare & Launch pre- intervention survey															X	X	X	X	X	
Schedule formal leadership peer advocate training event															X	X				
Training for formal leadership team																				
Schedule & Deploy additional champion training sessions																				
Track CISM utilization data								X	X	X	X	X	X	X	X	X	X	X	X	
Prepare & Launch post-intervention survey																				

Appendix D

CISM Champion Training Evaluation

Pre-Training Quiz

1.) How do you request a CISM intervention?
   a. Call the hospital Operator.
   b. Page the Pastoral Care pager.
   c. Perfect Serve the CISM Coordinator.
   d. Page the Chaplain for my unit.

2.) What is the difference between a CISM debriefing and a CISM defusing?
   a. They are pretty much the same thing.
   b. A defusing is longer with more opportunity for individual sharing.
   c. A debriefing is longer with more opportunity for individual and group sharing.
   d. A defusing is held immediately after the incident or during the same shift.
   e. Both c and d.

3.) Who should be invited to attend a CISM intervention?
   a. Only staff who were directly impacted by the incident.
   b. Any staff who were working at the time.
   c. Any staff who want to attend along with unit leadership.
   d. Any staff who want to be supportive of their colleagues.

4.) Do you think staff on your unit find CISM helpful?
   a. Yes
   b. No

5.) What barriers to CISM being utilized do you observe on your unit?
   a. Comments:

Post Training Quiz

1. How do you request a CISM intervention?
   a. Call the hospital Operator.
   b. Page the Pastoral Care pager.
   c. Perfect Serve the CISM Coordinator.

2. What is the difference between a CISM debriefing and a CISM defusing?
   a. They are pretty much the same thing.
   b. A defusing is longer with more opportunity for individual sharing.

c. A debriefing is longer with more opportunity for individual and group sharing.
d. A defusing is held immediately after the incident or during the same shift.
e. Both c and d.

3. Who should be invited to attend a CISM intervention?
   e. Only staff who were directly impacted by the incident.
   f. Any staff who were working at the time.
   g. Any staff who want to attend along with unit leadership.
   h. Any staff who want to be supportive of their colleagues.

4. What opportunities do you anticipate for you to increase awareness and utilization of CISM on your unit? What are the growth areas/ needs?
   Comments:

5. Following this training, do you feel more prepared to advocate for CISM utilization on your unit? What will you change about your practice as a result of this training?
   Comments:

Appendix E

SECONDARY TRAUMATIC STRESS SCALE

The following is a list of statements made by persons who have been impacted by their work with traumatized clients. Read each statement then indicate how frequently the statement was true for you in the past **seven (7) days** by circling the corresponding number next to the statement.

NOTE: *"Client" is used to indicate persons with whom you have been engaged in a helping relationship. You may substitute another noun that better represents your work such as consumer, patient, recipient, etc.*

	Never	Rarely	Occasionally	Often	Very Often
1. I felt emotionally numb	1	2	3	4	5
2. My heart started pounding when I thought about my work with clients	1	2	3	4	5
3. It seemed as if I was reliving the trauma(s) experienced by my client(s)	1	2	3	4	5
4. I had trouble sleeping	1	2	3	4	5
5. I felt discouraged about the future	1	2	3	4	5
6. Reminders of my work with clients upset me	1	2	3	4	5
7. I had little interest in being around others	1	2	3	4	5
8. I felt jumpy	1	2	3	4	5
9. I was less active than usual	1	2	3	4	5
10. I thought about my work with clients when I didn't intend to	1	2	3	4	5
11. I had trouble concentrating	1	2	3	4	5
12. I avoided people, places, or things that reminded me of my work with clients	1	2	3	4	5
13. I had disturbing dreams about my work with clients	1	2	3	4	5
14. I wanted to avoid working with some clients	1	2	3	4	5
15. I was easily annoyed	1	2	3	4	5
16. I expected something bad to happen	1	2	3	4	5
17. I noticed gaps in my memory about client sessions	1	2	3	4	5

Intrusion Subscale (add items 2, 3, 6, 10, 13)	Intrusion Score _____
Avoidance Subscale (add items 1, 5, 7, 9, 12, 14, 17)	Avoidance Score _____
Arousal Subscale (add items 4, 8, 11, 15, 16)	Arousal Score _____
TOTAL (add Intrusion, Arousal, and Avoidance Scores)	Total Score _____

Bride, B.E., Robinson, M.R., Yegidis, B., & Figley, C.R. (2004). Development and validation of the Secondary Traumatic Stress Scale. *Research on Social Work Practice, 14,* 27-35.

Appendix F

CISM Post-Intervention Survey

1. If you desired, did you have an opportunity to share about your experience of the incident that occurred?
    - Yes
    - No
    - If no, why?

2. Did you feel heard and validated by the CISM facilitator?
    - 1-5 (1 not being heard, 5 was heard)
    - Comments

3. The information presented by the facilitators about emotional stress responses, support resources and self-care strategies was helpful.
    - 1-5 scale (1 being not helpful, 5 being extremely helpful)
    - Comments

4. Were the CISM facilitators effective in facilitating the group process?
    - Yes
    - No
    - If no, why?

5. The intervention helped me feel more connected to my coworkers.
    - 1-5 (1 completely disagree, 5 completely agree)
    - Comments

6. I felt supported and/validated by my coworkers.
    - 1-5 (1 completely disagree, 5 completely agree)
    - Comments

7. Did you find the CISM intervention beneficial to your ability to cope?
    - 1-5
    - Comments

8. Would you be willing to participate in a CISM in the future based on the experience you had in this CISM.
    - Yes
    - No
    - If no, why?

9. How could we improve the CISM process?

Appendix G

Pre-Post Intervention Survey: Perception of Support

1. Unit:

2. Role:
    a. Nurse
    b. Support Staff
    c. Physician
    d. Mid-Level Provider
    e. Other

3. In the last 3 months, were you involved in any event in the workplace that caused you emotional or physical distress?
    a. Yes
    b. No

4. If yes, did you receive support from anyone in the organization following the event? If yes, indicate the type of support that you received (select all that apply).

    a. Co-worker
    b. Leadership (Manager or Supervisor)
    c. Hospital Chaplain
    d. Critical Incident Stress Management (CISM) intervention/debriefing
    e. Encompass
    f. Other
    g. Comments:

5. Was this support helpful in your coping with this event?
    a. Yes
    b. No
    c. Comments: