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Policy Development: Stress Management and Critical Incident Debriefing

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This doctoral project, directed and approved by the candidate's committee, has been accepted by the College of Graduate and Professional Studies of Abilene Christian University in partial fulfillment of the requirements for the degree

Doctor of Nursing Practice

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of the requirements for the degree of

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by

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Dedication

I would like to dedicate this work to my husband for his unwavering support and for sharing his computer expertise and statistical knowledge. I would also like to dedicate this work to my children for their “You can do this, Mom!” cheerleading. I could not have kept going without your support.

Acknowledgments

I would like to thank my family for their patience and understanding while I pursued my educational goals. It has been a long journey and a family effort of working plans around Mom's study schedule. I would also like to thank the faculty and staff at Abilene Christian University for their cheerful and positive support throughout this process. Feedback was always presented in a positive light, and assistance was always just a quick email away. Their genuine interest in student success was apparent in each communication.

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Abstract

Workplace stress and associated disorders (occupational burnout, compassion fatigue, secondary traumatic stress, critical incident stress, posttraumatic stress disorder, etc.) disproportionately affect healthcare workers, especially those working in critical care and emergency environments. The financial cost of stress related after-effects experienced by health care workers exceeds $191 billion each year and includes the cost of associated decreased quality of patient care, missed diagnoses, medical errors, and sentinel events leading to patient disablement or mortality. Mental health interventions such as stress management education and critical incident debriefings have been proven effective in reducing workplace stress and building personal resilience. A gap in practice was identified in the lack of a formal stress management education process in the participating facility. The purpose of this DNP project was to obtain consensus from a multidisciplinary panel of content experts to determine pertinent components for inclusion in a Stress Management and Critical Incident policy brief. The theoretical model guiding this project was the transactional model of stress and coping, which provides an interactive approach to developing coping skills and resiliency. This policy draft may be used to develop a formal program of stress management education for leadership and staff, critical incident debriefing, and institutional changes to promote a safe and effective work environment.

Keywords: stress, critical incident, debriefing, occupational burnout, compassion fatigue, secondary traumatic stress, posttraumatic stress disorder, coping, resilience

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Chapter 1: Introduction

Healthcare providers are exposed to many types of stressors while providing patient care. Some stressors, such as meeting routine care deadlines (e.g., delivering medications on time, completing ordered treatments, etc.), can help motivate individuals toward task completion or provide mental clarity (Moss et al., 2016). Chronic stress, though, mental and physical impairments that can impact a person's quality of life both at work and at home (Moss et al., 2016). Nurses and other healthcare professionals are regularly exposed to an array of work-related stressors while performing their patient care duties. Common stressors which affect nursing include high nurse-to-patient care ratios, increasingly complex patient acuity, extended shifts, and interpersonal incivility exhibited by interdisciplinary team members, patients, or their family members (Miller et al., 2019). Other factors healthcare workers attribute to occupational stress include limited resource accessibility to adequately complete tasks and concerns of personal safety in the workplace (Hotchkiss & Lesher, 2018).

According to Moss et al. (2016), persistent workplace stress with no clear conduit of relief may eventually lead to negative emotional, behavioral, and physical reactions, which can adversely affect an individual's professional performance and personal relationships. Ignoring or delaying interventions to address these reactions may lead to the development of work-related stress disorders such as occupational burnout, compassion fatigue, secondary traumatic stress disorder, or posttraumatic stress disorder (Mayer & Hamilton, 2018). Consequences associated with the development of these disorders have been attributed to low retention rates, increased staffing turnover, and increased numbers of nurses leaving the field (Brown et al., 2018). Stress related to exposure to traumatic events has been well documented as a significant source of emotional distress among nurses, other members of the medical care team, and first responders.

For example, various studies have explored traumatic event exposure to healthcare personnel and the development of posttraumatic stress disorder or PTSD (Boothroyd et al., 2019; Cho & Kang, 2017; Manning-Jones et al., 2016). Other studies have focused on the development of compassion fatigue, secondary traumatic stress syndrome, or occupational burnout as consequences of unacknowledged stress which affects personal relationships and patient care (Howard & Navega, 2018; Wilson et al., 2019; Zaidi et al., 2017). Stress management education may provide healthcare workers with the knowledge they need to recognize and address the effects of work-related stress disorders before professional and personal relationships are affected. Critical incident debriefings provide an additional level of care that facilities may utilize to counteract the emotional and physical effects of workplace stressors, such as providing care for or witnessing traumatizing events.

Statement of the Problem

Healthcare providers are particularly vulnerable to the development of the sequelae of chronic stress such as burnout syndrome, compassion fatigue, secondary traumatic stress, and posttraumatic stress disorder, and nursing professionals have been identified as experiencing higher levels of stress-related responses than other healthcare disciplines (Munnangi et al., 2018). Workplace stress in the healthcare setting, often associated with interpersonal communication breakdowns, unreasonable workloads, and limited resources, can be further exacerbated if significant stressors also occur in an individual's home life (Isa et al., 2019). A clear understanding of these phenomena is needed to understand the importance of developing proactive steps to support the development of good healthy responses to significant work-related stressors. Educating healthcare workers on the signs and symptoms of work-related stress

disorders, healthy coping strategies, and available mental health resources would provide such an understanding.

Critical incident stress is another type of workplace stressor that may lead to devastating quality of life changes for healthcare personnel and dangerously expensive failures in patient care (Silvinski & Hickey, 2019). Numerous studies have provided evidence that healthcare personnel, especially those working in critical areas such as the emergency department and intensive care units, are subject to a greater likelihood of developing work-related stress disorders resulting from critical incident exposure. For example, a study by Berg et al. (2016) postulated that critical care, emergency, and trauma nurses developed critical incident-related stress disorders at higher rates than nurses working in other specialty areas. A 2015 study by Adriaenssens et al. (2015) found that more than 25% of emergency department nurses reported symptoms of occupational burnout. Other studies found that emergency personnel were regularly exposed to critical incident stressors such as violence, severe injuries, sudden death, and mass casualties with expectations to continue work as usual (Clark et al., 2019; Elhart et al., 2019). Moss et al. (2016) found that more than 50% of critical care healthcare providers experienced burnout syndrome and associated manifestations. Critical incident debriefing is just one element that may be used to counter the effects of work-related stress reactions.

Critical incident and stress management policies were not in place at the participating acute care facility. Facility leaders reported low satisfaction ratings on this topic in annual employee surveys. The lack of a prescribed stress management and critical incident debriefing policy, therefore, fueled the intent of this doctoral-level project. Using a Delphi study approach, this project involved key personnel from a local acute care facility to develop a stress management and critical incident debriefing proposal for the purpose of mitigating harmful

effects of work-related critical incident stressors and encouraging the development of individual resiliency.

Background

Work-related stress disorders include occupational burnout, compassion fatigue, secondary stress, and posttraumatic stress disorder. Critical incident stress is a unique category of workplace stress associated with exposure to traumatizing events while providing patient care (Rushton et al., 2015). Healthcare workers, who routinely witness the suffering of others, are at great risk of developing negative emotional and physical responses related to work-related stressors. However, training and education on the warning signs can help healthcare workers develop positive coping strategies to counter those reactions.

For example, crisis intervention strategies such as formal and informal debriefing have been recognized as beneficial interventions when exercised in a timely manner with attendance strictly voluntary rather than mandated (Grundlingh et al., 2017). Resilience, an innate personal trait that allows some individuals to bounce back from exposure to workplace stressors with little to no negative consequences, can also be fostered through education (Mealer, Jones, & Meek, 2017). Positive coping strategies such as exercise, hobbies, and prayer also help individuals mitigate the emotional, behavioral, and physical effects of workplace stressors (Manning-Jones et al., 2016). Debriefing, resilience, and identifying positive coping strategies are foundational concepts for establishing a stress management policy.

Purpose of the Study

The purpose of this Delphi study was to obtain a consensus among chosen stakeholders to determine best practice recommendations for the development of a critical incident stress management and debriefing program. All members of a healthcare team are subject to physical,

emotional, and behavioral sequelae from critical incident stress (Manning-Jones et al., 2016). Therefore, expert consensus from a variety of interdisciplinary groups was sought to aid in the development of this vital protocol.

Significance of the Problem

Healthcare professionals are at increased risk of experiencing work-related stress disorders resulting from exposure to traumatic or critical incidents (Manning-Jones et al., 2016). Unresolved emotional trauma can result in significant tensions in an individual's personal and work life. Emotional, behavioral, and cognitive manifestations of these disorders can lead to decreased patient satisfaction, suboptimal care, and expensive staffing shortages (Miller et al., 2019). In the United States, the associated costs of nurses leaving the profession because of burnout and other work-related stress disorders exceed $191 billion annually (White et al., 2021). These expenses include the cost of covering missed shifts and recruiting and training new nurses. The Joint Commission (2019b) considers addressing critical incident stress and establishing effective coping strategies a patient safety standard. According to the Joint Commission (2019b), healthcare professionals working with the onus of unresolved stress-related concerns have been linked to increased adverse events, medical errors, and patient mortality.

Traditional thought has been that work-related stress disorders resulting from single or cumulative exposures to critical events are just occupational hazards to be expected, but newer studies of traumatization and critical stress management have proven that intervention and education can help build resilience through productive coping strategies (Brown et al., 2018; Mealer, Jones, & Meek, 2017). Critical incident debriefing, whether structured along with *Critical Incident Stress Debriefing* (CISD) guidelines or less formal interventions, can help

provide emotional support and education on stress reactions and help build resilience to minimize the effects of traumatic exposure.

Nature of the Project

This project's purpose was to determine best practice guidelines to be included in a critical incident stress management and debriefing program for use in a local community hospital. This quantitative study used the Delphi technique to obtain a consensus on qualified stakeholders' opinions regarding necessary components of a critical incident stress management and debriefing policy. The implementation stage consisted of a series of three questionnaires sent via the online survey platform SurveyMonkey.com to participating panelists (SurveyMonkey, 2020). Team members, suggested by the participating facility's administrative liaison, received letters of invitation to participate (see Appendix C) and statements of informed consent explaining the steps and purpose of the project (see Appendix D). Signatures were collected by the facility's education office and scanned to the recommended email account. Participation was voluntary, and panelists' identities remained anonymous, as well as other group members to preserve the integrity of the process. Questionnaire responses remained anonymous to prevent unintended influence on panelists' reactions, aided by the use of online polling software. The participating facility was apprised of project results for possible future use in policy development and staff training. Any information considered of a sensitive nature was handled according to the participating facility's guidelines.

Research Question

RQ1: Among facility leaders (population) who use the Delphi method to obtain survey data over a period of nine weeks result in panelist consensus of 70% or greater (outcome) on critical topics to be included in a Stress Management and Critical Incident policy draft

(intervention)? Further dissection of the individual components of this problem statement may include:

P (Population): A 12-member interdisciplinary panel of facility leadership chosen from emergency, intensive care, and medical-surgical units; respiratory and radiology departments; social services; administration; education and pastoral care.

I (Intervention): Development of expert consensus on required components and steps of a Stress Management and Critical Incident Debriefing policy.

C (Comparison): Not applicable to this project.

O (Outcome): Seventy percent or greater consensus of panelist opinions on required components and steps of a Stress Management and Critical Incident Debriefing policy.

T (Time): Two to three weeks per session iteration to send questionnaires, receive responses, aggregate data, and develop the next polling document based on previous data.

Theoretical Framework

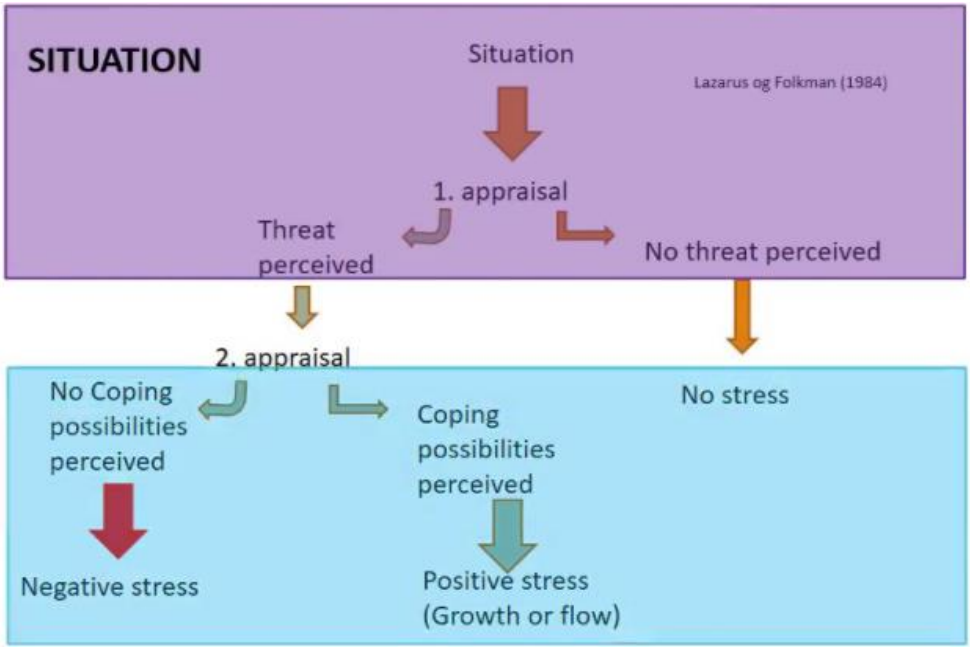
Lazarus and Folkman's transactional model of stress and coping served as the theoretical framework for this project. Lazarus and Folkman centered their theory on the innate process individuals use to determine the degree of impact on self after exposure to a stressful event (Biggs et al., 2017). This decision-making approach is further categorized into primary and secondary appraisal stages. During the primary appraisal, an individual must decide whether a precipitating event may cause personal distress (Gieselmann et al., 2020). According to the transactional model of stress and coping, whether an individual perceives a situation as threatening (triggering the stress response) is determined by that individual's personal set of internal values and available resources (Biggs et al., 2017). For example, individuals who possess strong spirituality may be less affected by a stressful event than an individual with no

internal means of succor. Individuals who have access to outside support such as family or organizational support may be better equipped to cope than an individual without access to those support systems.

Secondary appraisals refer to the initiation of coping mechanisms once a stressor has been identified (Ben-Zur, 2019). The initiation of coping mechanisms results in the individual either feel they are successfully coping, poorly coping, or escalating (Biggs et al., 2017). Continued failure to adapt to the effects of a stressful provocation may lead to maladaptive behaviors, which can negatively affect the quality of life, both personally and professionally (Boothroyd et al., 2019). The transactional model of stress and coping suggests that coping is a dynamic process of purposive decision-making based on cycles of appraisal and reappraisal (Biggs et al., 2017). The ability an individual has to cope with significant stressors can be augmented with interventions and education such as that provided in stress management and debriefing programs.

Figure 1

Transactional Model of Stress and Coping



Note. Lazarus and Folkman's transactional model of stress and coping. Easy Engineering. (2018, August 26). *Transactional stress model (Lazarus og Folkman)* [Video]. YouTube. (https://www.youtube.com/watch?v=L6E-exeNmf0). In the public domain.

Definition of Key Terms

Compassion fatigue. Compassion fatigue is a subdued emotional response to the plight of others that occurs after exposure to repeated stressors with no emotional outlet, which results in labile psychological responses and disruptions in sleep patterns (Howard & Navega, 2018).

Critical incident. Critical incidents are traumatic events that initiate some manner of intense psychological reaction by individuals, which may hinder their ability to perform role expectations during the immediate event or afterward (Mayer & Hamilton, 2018).

Critical incident stress debriefing (CISD). CISD is a multi-step component of the more comprehensive *Critical Stress Incident Management Program* which has been employed primarily for stress management in the healthcare setting (Miller et al., 2019).

Critical incident stress management (CISM). CISM is a prescribed method intended to help individuals manage emotional consequences after exposure to critical incidents in their workplace (Blacklock, 2012).

Defusing. Defusing is a brief, unstructured dialogue among individuals who have witnessed or responded to a critical incident (Burns, 2016). This informal sharing opportunity is held as soon as possible after an incident and before involved personnel are returned to their regular duties (Burns, 2016).

Occupational burnout. Occupational burnout is the response some individuals may develop after suffering repeated workplace stressors, often manifesting in emotional numbing, lack of compassion, and a reduced sense of pride in one's work and achievements (Howard & Navega, 2018).

Posttraumatic growth. Personal growth resulting from the experience of coping with a traumatic incident or series of incidents is defined as posttraumatic growth (Lenz et al., 2021).

Posttraumatic stress disorder (PTSD). PTSD is a psychological disorder triggered by exposure to a single or multiple traumatic events and causing emotional, behavioral, and physical manifestations which can severely alter an individual's ability to function normally (Johnson, 2017).

Resilience. Resilience is a characteristic that allows an individual to return to baseline behavior after a critical incident or extreme stressor, using positive coping strategies and resulting in personal growth (Mealer, Jones, & Meek, 2017).

Secondary traumatic stress. Emotional stress felt by individuals as a result of treating or assisting others in traumatic situations is defined as secondary traumatic stress (Howard & Navega, 2018).

Scope and Limitations of Project

The scope of this project involved seeking expert consensus in developing an institutional policy intended to provide psychological education and resources to facility employees to mitigate the negative effects of work-related stressors. Unsupported stress among healthcare workers creates a vicious cycle of emotional and financial consequences, including increased absenteeism, rising turnover rates, and the high organizational cost of hiring and training new staff (Miller et al., 2019; Moss et al., 2016). The effects of unsupported stress among healthcare providers on patient care have been well documented and include costly procedural and medication errors (Berg et al., 2016; Moss et al., 2016). Therefore, the goal of this Delphi study was to obtain information to guide the development of a Stress Management and Critical Incident Debriefing policy for a local acute care community hospital.

The setting for this project was a local acute care facility that provides in-patient and emergency services to approximately 30,000 residents of a small community located in Southeast Texas. The participating facility is the largest of three not-for-profit acute care organizations serving this region of the state. The development of this policy draft may help guide facility leaders in the preparation of a finalized program to address the work-related stress reactions of its employees. The two remaining acute care facilities in the region also identified a gap in providing stress-related care for their employees. Therefore, project outcomes could provide guidance for the development of similar policies for these institutions.

The sample for this study was delimited to include full-time interdisciplinary representatives from staffing and leadership roles. The initial request for a 12-person sample consisted of nursing representatives from critical care and medical-surgical units, a critical care physician, radiology, respiratory, education, social service, pastoral care, and administration. Employees in other patient care units of the facility were not considered necessary for the scope of this project and were therefore not recruited.

The project consisted of receiving expert input via panelists' secure online responses to three rounds of survey questions using the Secondary Traumatic Stress-Informed Organization Assessment (STSI-OA) tool (see Appendix H). Although developed to aid organizations in assessing their readiness to address the effects of secondary traumatic stress, this 40-item Likert response survey also provides information about institutional readiness regarding other stress-related concerns and critical incident debriefing (Sprang et al., 2017). The STSI-OA tool was used for each round of the Delphi study, with items eliminated from subsequent rounds based on panelists' input. Round three results were incorporated into a Stress Management and Critical Incident Debriefing policy draft. The scope of this research project did not include having the facility adopt and implement the policy draft, but information from the study may provide future guidance for the facility's later development of a pilot project.

Limitations of this project included: 1) a small pool of potential panelists within the setting of the participating community acute care facility, 2) the potential for a breach of anonymity related to the size and intimate nature of the facility's workspace, 3) the broad nature of the inquiry that encompasses several work-related stress disorders and critical incident debriefings, and 4) the use of one data collection tool. Narrowing the focus of the study to include just one category of stress response would allow for more concise data collection and the

use of more than one validated instrument. No special funding was needed for the completion of this DNP project, and an online format reduced time constraints for participating panelists.

Summary

Stress management programs, such as the CISM method developed by Jeffrey Mitchell in the late twentieth century, were developed in response to previously overlooked effects of traumatic events on the lives of frontline responders (Swab, 2020). Since its inception, CISM has received both praise and derision from experts in the field of traumatology. Participants of the CISM or similar programs offer differing opinions regarding its usefulness. A degree of stigma remains among healthcare providers regarding seeking help for what many consider job- related expectations (Swab, 2020). This chapter explored work-related stress disorders and their impact on the lives of healthcare workers. The need for effective stress management and debriefing protocols was discussed, and a theoretical framework was identified. Chapter 2 focuses on evidence-based information found in the literature to further strengthen the need for this project.

Chapter 2: Literature Review

The purpose of this Delphi study was to determine the expert consensus of 70% on the most essential elements to include in a critical incident stress management and debriefing protocol. A search of available literature was made to determine both need and best-practice guidelines for managing work-related critical incident stress among health profession workers. Various studies have discussed the deleterious effects of unresolved stress on employee health and retention, patient care, and institutional costs related to lower quality patient care (Arrogante & Aparicio-Zaldivar, 2017; Bridgeman et al., 2018; Gallotta et al., 2018). Bodenheimer and Sinsky (2014) suggested the best way to provide optimum care for patients is to provide optimum care for their providers. Recent world events (COVID-19 pandemic) have highlighted the importance of supporting all frontline workers and further emphasized the need for the development of a defined stress management protocol in healthcare settings.

Literature Search Methods

A variety of search terms were entered into three primary databases: CINAHL, PubMed/Medline, and Health Source: Nursing/Academic Edition. Inclusion criteria included scholarly or peer-reviewed journals from 2015-2020. Full-text articles were required to be written in English and based geographically in the United States. Exclusion criteria were minimal but included foreign journals and studies which did not include healthcare providers. Searches of key terms such as *critical incident stress debriefing*, *critical incident stress management*, *work-related stress disorders*, *burnout*, *compassion fatigue*, and *posttraumatic stress disorder* yielded vast numbers of articles. Using Boolean phrasing and techniques decreased search results to manageable levels. For example, a search of *critical incident stress debriefing and Delphi method* yielded 36 results (CINAHL, 30; Health Source, 6; Medline, 0)

compared to results located using just the key term *critical incident stress debriefing* (CINAHL, 425; Health Source, 96, Medline, 91).

Individual stress-related conditions were searched using the terms *healthcare workers* and *burnout syndrome* (CINAHL, 541; Health Source, 135; Medline, 7), *secondary traumatic stress* (CINAHL, 1395; Health Source, 494; Medline, 7), *compassion fatigue* (CINAHL, 543; Health Source, 166; Medline, 5), and *posttraumatic stress disorder* (CINAHL, 917; Health Source, 418; Medline, 19). As evidenced by the numbers, Medline provided the most concise results. Further resources were identified through the examination of resource lists included with peer-reviewed studies. These yielded older but useful studies of the identified subject matter. Additionally, random searches of the Abilene Christian University databases using different word groupings and iterations of primary keywords yielded broader possibilities of viable studies. Each search included a careful perusal of a minimum of three pages of results before moving on to a new search.

Theoretical Framework Discussion

The transactional model of stress and coping served as the theoretical framework for this study. This seminal work by researchers Lazarus and Folkman has served to guide research efforts in the field of psychological stress since its inception in the early 1960s (Biggs et al., 2017). Lazarus and Folkman's theory centers upon an individual's emotional responses to environmental events interpreted as stressors with harmful potential (Biggs et al., 2017). An individual's perception of a stressor as harmful is determined by that individual's innate strengths, such as hope or optimism, and their internal evaluation of available coping strategies and resources (Biggs et al., 2017). Emotional responses may lead to an individual employing helpful or deleterious coping strategies to alleviate or eliminate the effects of the recognized

stressor (Biggs et al., 2017). This theory fits well with the concept of critical incident debriefing and its emphasis on educating individuals on stress reactions and healthy coping skills.

Cognitive Appraisal

The transactional model of stress and coping consists of two primary components: cognitive appraisal and coping. Cognitive appraisal refers to how an individual interprets a stressor within their environment, with the severity of the stress reaction dependent on the individual's internal and external placement at the time of the stress-inducing event (Biggs et al., 2017). This component offers an explanation of different reactions exhibited by individuals exposed to the same event. According to Lazarus and Folkman's theory, the impact a stress-inducing event may have upon an individual is affected by that individual's internal value system (i.e., faith, optimism, and hope) and external events such as other coexisting stressors and resources (Biggs et al., 2017). Other stressors in an individual's life may affect their responses to a new event by altering their emotional perception. Individuals' emotions in response to events that may parallel in some way to their own lives may result in more intense reactions to an event. The cognitive appraisal component of the transactional model of stress and coping is further delineated into primary and secondary appraisal categories. Primary appraisal refers to the degree of significance an individual places upon an incident, while secondary appraisal refers to the identification and evaluation of coping strategies and resources (Biggs et al., 2017). As coping strategies and resources are utilized, the individual's perceptions, or primary appraisal, are expected to change, resulting in a dynamic process of action versus reaction.

Coping

When an individual has deemed a situation severe enough to require the activation of coping strategies, the next phase of the process begins. Lazarus and Folkman's theory describes

the coping phase as purposeful actions taken by an individual to address the effects of the stress response (Biggs et al., 2017). Coping strategies are identified as problem-focused, which directly addresses the stress event, or emotion-focused, which addresses the emotional effects of the stress event (Biggs et al., 2017). As coping strategies are utilized, evaluated, and changed, individual perceptions of the severity of the stress event will change and affect further coping mechanisms, thus the transactional nature of the process.

The purposive and transactional nature of Lazarus and Folkman's theory, as described by Biggs et al. (2017), corresponded well with the methodology of this Delphi study. Within the constructs of this theory, an individual undergoes a dynamic process of constantly reevaluating the effectiveness of applied coping strategies (Biggs et al., 2017). The Delphi method, by design, is a transactional and dynamic process that evaluates data from one interaction to establish priorities for the next (Wilkes, 2015). The basic tenets of the transactional model of stress and coping include revising actions based on previous outcomes, and the methodology of a Delphi study includes basing subsequent iterations on data from preceding iterations. These similarities align well with the purpose of this study, which was to determine panel consensus regarding necessary elements for stress management and debriefing protocol.

Additionally, the transactional model of stress and coping developed by Lazarus and Folkman is based on the cognitive decision-making process individuals use to perceive and manage stress. Reactions to stress and the effectiveness of coping strategies are largely dependent upon both internal and external factors (Biggs et al., 2017). A stress management and debriefing plan was an appropriate partner for this theoretical framework because it augments those factors by providing knowledge of healthy coping strategies and assisting participants in locating additional resources.

Literature Review

A review of available literature divulged contrasting information on the safety and efficacy of formal critical incident debriefing. The harmful effects of work-related stress disorders remain undisputed, and experts agree that some type of intervention is necessary to alleviate those effects. While multiple studies examined the effects of critical incident stress, stress disorders, and formal intervention strategies, few studies outlining moderate stress intervention and debriefing strategies were located. The following sections provide an overview of critical incidents and stress-related work disorders and discussions of some current studies found on the topics of work-related stress disorders and critical incident debriefing strategies.

Critical Incidents and Stress Management

Critical incidents are defined by Wuthnow et al. (2016) as stress events that may initiate an individual's physical and emotional coping responses. The authors expound on this definition by describing critical incident events as any situation which causes an individual to experience profound physical or mental dysfunction (Wuthnow et al., 2016). Many types of occurrences may initiate an individual's stress response. Mayer and Hamilton (2018) listed several critical incident events that include illness, trauma, or death of someone known to the individual and any adverse event involving a child. Wuthnow et al. (2016) listed sudden death and mass casualty events amongst types of critical incidents which may result in physiologic or emotional disturbances in witnesses.

Critical Incident Stress and Stress Response

Critical incident stress is defined by Blacklock (2012) as functional disturbances of the psyche resulting from exposure to an identified incident or a compilation of incidents. Physical and emotional symptoms may occur immediately after an event or may be suppressed, allowing

individuals to complete their assigned tasks (Blacklock, 2012). For example, emergency personnel routinely move from one critical event to another within a single shift and are conditioned to put aside personal reactions to effectively move on to care for other patients. Physical manifestations of the stress response include tachycardia, tachypnea, palpitations, fatigue, and anxiety (Mayer & Hamilton, 2018). Emotional responses include fearfulness, depression, and anger, and cognitive manifestations include difficulty focusing or making decisions (Mayer & Hamilton, 2018). Behavioral manifestations are often the most disturbing and include alcohol or drug abuse, isolation, and relational conflicts (Mayer & Hamilton, 2018). Critical incident stress may be considered more devastating to an individual than physical injury. Blacklock (2012) posited this to be true because the "emotional costs" (p. 3) may continue to affect an individual's quality of life long after a physical injury has been addressed.

Crisis Intervention

Crisis intervention was defined by Pender and Anderton (2016) as a group process designed to offer insight and instruction to participants regarding existing and potential manifestations of the stress response after traumatic stimuli. Wuthnow et al. (2016) defined it as "psychological care" (p. 474) meant to help individuals manage current stress-related symptoms, avert or minimize the impact of future manifestations, and return to their pretrauma functional baseline. The goals of crisis intervention, as discussed by Wuthnow et al. (2016), included interruption of the stress response to prevent intensification, attenuation of manifestations, and reestablishment of pre-event levels of adaptation and functioning. Tarquinio et al. (2016) defined crisis intervention as mental reinforcement that assists participants in understanding and coping with stress reactions.

Critical Incident Stress Management

The Critical Incident Stress Management (CISM) program was developed by Jeffrey Mitchell in the early 1980s and was designed to address the psychological effects suffered by first responders after traumatic rescue encounters (Miller et al., 2019). Mitchell's observations of the effects of critical incidents on first responders resulted from his experiences as a paramedic and firefighter (Burns, 2016). While his program was initially conceptualized for use with first responders, such as emergency medical services, firefighters, and law enforcement, the Mitchell model has since been adopted for use in a wide array of healthcare and helper disciplines (Burns, 2016). Traumatic events may occur in all types of healthcare settings, and individuals from any of those settings have the potential to benefit from psychological debriefings and institutional support.

Mitchell's (n.d.) debriefing model is a highly structured process consisting of seven distinct stages of guided discussions and reflections designed to foster psychological recovery from events that have seemingly overloaded an individual's ability to cope. The CISM model has traditionally been reserved for providing emotional and psychological support to individuals in the aftermath of severe traumatic occurrences and is meant to be accompanied by other institutional crisis support services such as referrals to professional counseling (Mitchell, n.d.). Structured debriefing sessions are not meant to be the first-line response to trauma recovery. According to Burns (2016), CISM is not intended as a substitute for professional psychotherapy, nor is it meant to resolve long-standing issues resulting from collective work-related stressors. Typical debriefing sessions are designed to last from one to three hours, with most beneficial results occurring from meetings held within seven days post-incident (Mitchell, n.d.). Circumstances may not allow such timely organization, and affected personnel may not be ready

to accept debriefing so quickly. Therefore, critical incident debriefing sessions may also occur several weeks after a traumatic event (Mitchell, n.d.).

Stage 1 of Mitchell's process is described by Burns (2016) as the introduction of the session facilitators and overview of what participants can expect to occur during the session. Stage 2 allows participants to provide the group with a brief description of events from individual viewpoints. Stages 3 and 4 are designed to elicit discussions about emotional responses and reactions to the traumatic event (Burns, 2016). These two stages are considered the core of the debriefing and the most difficult portion for participants. Stages 5, 6, and 7 focus on discussing symptoms participants may be experiencing or may expect to occur, providing education on why symptoms may occur, and follow-up questions (Burns, 2016).

Critical Incident Debriefing

A critical incident, as defined by Wuthnow et al. (2016), is any precipitating factor that triggers an individual's stress response. Stress responses, according to Mayer and Hamilton (2018), may cause physiological (e.g., increased heart rate, extreme fatigue), psychological (e.g., depression, anxiety), cognitive (e.g., difficulty concentrating on tasks), and behavioral manifestations (e.g., isolating self from others). The potential for exposure to a critical or traumatic incident is a risk any healthcare provider faces while fulfilling patient care duties. Whether an event is considered a critical incident, therefore triggering the stress response, is dependent upon the individual's perception of the event (Rushton et al., 2015). Critical incidents may be extreme traumatic events such as mass casualties, suicides, pediatric traumas or deaths, or physical violence (Burns, 2016; Hammerle et al., 2017). Less intense occurrences, such as repeated work-related stressors, may also be perceived by affected individuals as threatening to their psyche and therefore categorized as a critical incident. Common work-related stressors

include bullying, interdisciplinary incivility, and lack of resources to provide proper patient care (Miller et al., 2019; Rushton et al., 2015).

Several studies on the benefits of critical incident debriefing were found in available literature. For example, one study by Clark et al. (2019) found that critical incident micro-debriefings (short informal debriefing sessions directly after traumatizing events) were well received by involved staff who reported feeling better prepared to deal with the next critical incident. Blacklock (2012) described critical incident stress debriefings as affirming experiences with favorable results for involved staff and participating facilities.

Critical incident debriefing involves providing an opportunity for formal or informal reflection of a critical event (Mitchell, n.d.). Debriefing includes educating participants to differentiate healthy versus unhealthy coping behaviors (Mitchell, n.d.). Depending upon facility interests, debriefing protocols may stand alone or be included as part of a stress management program. Stress management training refers to teaching participants to recognize the signs and symptoms of the stress response and build healthy coping strategies (Brown et al., 2018). Resiliency, or the ability for an individual to adapt constructively to adversity, is a characteristic that can be developed in individuals and is an integral component of stress management training (Brown et al., 2018).

Defusing and Distress Debriefing

Critical incident defusing refers to a brief team discussion held just after an incident has occurred and prior to releasing participants back to their duties (Burns, 2016). These nonstructured discussions allow team leadership to assess the immediate needs of the team members and begin organizing additional coping resources such as organized debriefing meetings. Distress debriefings are more structured sessions but similar to defusing sessions in

that they are held immediately after an incident (Rushton et al., 2015). The more structured format includes a facilitator (may be a chaplain, charge nurse, administrator, or any other personnel who have received stress debriefing training) and a three-stage format consisting of sharing the purpose of the meeting, discussing the incident, and information about available services (Rushton et al., 2015).

Positives. Researchers have expressed conflicting opinions regarding the positive and negative effects of structured critical debriefing protocols such as the CISM program. Critical incident debriefings were designed to alleviate stress reactions suffered directly after exposure to a traumatic incident and to forestall the development of severe psychological disturbances such as PTSD (Aucott & Soni, 2016). Positive effects of CISM include achieving some relief of the deleterious consequences associated with traumatic stress, such as emotional lability, feelings of isolation, social withdrawal, anger, and depression (U.S. Army Corps of Engineers, 2021). Other positive effects associated with CISM include recognizing early signs and symptoms of stress reactions, accepting what cannot be changed, and engaging in positive coping strategies such as exercising, maintaining a healthy diet, and seeking social support or professional counseling (U.S. Army Corps of Engineers, 2021).

These positive effects are supported in the literature. For example, Clark et al. (2019) suggested that individuals who talk over the events of a critical incident with others, whether in a formal or informal seeing, will feel some sense of stress relief. Positive effects of Critical Incident Stress Debriefing (CISD) sessions have been reported by various groups of crisis responders, such as law enforcement, emergency healthcare providers, and military personnel (Clark et al., 2019; Pender & Anderton, 2016; Wuthnow et al., 2016). Positive effects reported by these groups include decreased feelings of depression, decreased anxiety, and emotional

readiness to carry on with their work (Clark et al., 2019; Pender & Anderton, 2016; Wuthnow et al., 2016). Tuckey and Scott's (2014) study about the efficacy of debriefing among volunteer firefighters reported similar responses from those who had participated in debriefing sessions, as compared to less positive findings of those who did not participate. Pender and Anderton (2016) found that helper groups such as emergency services, combat personnel, law enforcement, and firefighters preferred the option of structured debriefings to other types of crisis counseling.

Negatives. Studies criticizing the use of CISM include complaints that it results in no change in expected outcomes, no effect on reducing the development of PTSD, causes increased or worsening symptoms of PTSD, and prevents the development of innate protective mechanisms (Tarquinio et al., 2016). Aucott and Soni's (2016) review of the literature found no reported differences in coping between groups participating in debriefings and groups not participating. Other studies, such as the Pia et al. (2011), found that structured debriefing not only failed to help individuals with crisis recuperation but also sometimes caused further harm in some individuals by interfering with innate methods of recovery. Several studies found that debriefing offered no relief of symptoms of posttraumatic stress disorder (PTSD) and was often deleterious to the recovery of those affected (Pia et al., 2011; Tarquinio et al., 2016; Tuckey & Scott, 2014).

According to Burns (2016), the effects of debriefing are highly individualized and not a process desired by everyone affected by traumatic events. Blacklock (2012) posited that individuals who do not normally share emotional thoughts might find the debriefing process cumbersome and ineffective. Burns (2016) found that others were reluctant to share personal feelings in front of colleagues, fearing they would be considered as weak links within the group or that comments might be used in retaliation at later dates. Others, according to Burns (2016),

were simply not at ease with “reliving” the traumatic incident and some study participants found the experience “voyeuristic” (p. 14).

Literature Studies Critical Incidents

Mayer and Hamilton (2018) conducted a descriptive qualitative study to examine the impact of critical incidents on multidisciplinary healthcare providers in a Level-2 trauma center located in the western United States. The researchers conducted face-to-face interviews with study participants using predetermined open-ended queries to drive discussions (Mayer & Hamilton, 2018). The study included 10 women and one male who were less than 40 years of age, and all but one had five years or more of experience as healthcare professionals (Mayer & Hamilton, 2018). Results of the discussions with study participants yielded several different types of critical incidents. The authors found that participants described the expected healthcare-related incidents such as unexpected or traumatic deaths and included workplace concerns such as bullying (Mayer & Hamilton, 2018).

Study results found that participants reported responding positively to both formal and informal stress management strategies. Informal strategies described by participants included talking with peers or engaging in outside activities with peer groups, and formal strategies included critical incident stress debriefings (Mayer & Hamilton, 2018). The authors determined that the study indicated strong motivation for employers to provide supportive work environments and opportunities for decompression and stress relief (Mayer & Hamilton). Limitations of the study include the small sample size of 11 participants and the use of only one facility to obtain those participants.

A 2017 study by Brazil investigated subjective findings of volunteer firefighters regarding critical incident exposures encountered in the course of their volunteer responsibilities.

The author's review of the literature uncovered evidence that volunteer firefighters developed posttraumatic stress in more significant numbers and with greater severity than their full-time counterparts (Brazil, 2017). This qualitative study used a convenience sample of 102 volunteer firefighters from one region in Canada (Brazil, 2017). A 16-question survey using a Likert scale was distributed to study participants, with a 100% response rate. Questions were focused on the number of critical incidents experienced by participants, types of stress management offered if any, and their familiarity with proper procedures for seeking help with coping after traumatic experiences (Brazil, 2017). Brazil (2017) also collected data from participants regarding elements they felt made dealing with traumatic incidents more difficult. Expected answers such as personal knowledge of the victims(s) were included, along with more mundane concerns such as weather conditions, lack of help, and equipment issues (Brazil, 2017).

A Spearman correlations examination of data found a statistically significant relationship between age, experience, and rank with voluntary attendance of available stress management sessions (Brazil, 2017). Statistical analysis using Spearman correlations indicate, according to Brazil (2017), that younger, less experienced firefighters were more apt to ignore stress management assistance than their older, more experienced compatriots ($p < .01$). The author concluded that posttraumatic care was neither consistently offered nor consistently used by firefighters (Brazil, 2017). Implications for the future include the importance of developing uniform posttraumatic care programs to preserve the mental health of volunteer firefighters (Brazil, 2017).

Pediatric emergency room nurse preferences for critical incident stress debriefing protocols were the focus of a 2019 study by Clark et al. This descriptive, qualitative study used a convenience sample of 18 pediatric emergency room nurses from one acute care facility to gather

information on perceptions of current stress relief practices and needs (Clark et al., 2019). A survey was completed by each participant, which consisted of a set of open-ended questions about critical incident stress debriefings (Clark et al., 2019). The questions were designed to gather information from participants about past stress mitigating strategies, their thoughts on the usefulness of formal debriefing programs, and what elements they thought would be of importance in a debriefing program (Clark et al., 2019). The researchers utilized Dedosse, a computerized data analysis system, to code and categorized data (Clark et al., 2019). Study respondents reported a variety of informal stress-relieving strategies involving self or others. Informal discussions with peers or mentors have frequently mentioned methods involving others, while self-stress mitigating strategies included prayer, exercise, or "becoming numb" (Clark et al., 2019, p. 405).

The study found that nurses were in favor of formal debriefing sessions but wanted them to be voluntary, held immediately after a critical incident, and brief (Clark et al., 2019). The results of this study led to the formation of a "micro debriefing" protocol, with nurse managers and charge nurses taking on the role of debriefing mediators (Clark et al., 2019, p. 408). Limitations of this study include the very small sample size of 18 pediatric emergency department nurses and the lack of other healthcare providers included as study participants. Data provided by the authors were limited to demographic information and vague descriptive terms such as a "majority of participants" or "most participants." These limitations could affect the generalizability of the study to other facilities and other healthcare provider groups.

Wilson et al. (2019) conducted a correlational study on the relationship of emotional responses of emergency room nurses recorded after shifts involving one or more traumatic events to emotional responses recorded prior to the beginning of the same shift. The Emotional

Stress Reaction Questionnaire (ESRQ) was provided to a convenience sample of 187 emergency room nurses from a single facility over a six-month period (Wilson et al., 2019). Study participants were asked to fill out the questionnaire before and after each of their shifts, and results were quantified using Spearman rank correlation coefficients (Wilson et al., 2019). The aim of the study was to determine whether ESRQ scores would reflect increased stress levels after a shift involving traumatic or critical events (Wilson et al., 2019). The authors stated an increase in stress levels was expected. Still, study results indicated significantly lower ESRQ scores and more stress ($p = 0.025$) than anticipated when a shift included just one traumatic incident. Statistical findings indicated that additional critical events further lowered the score, with a correlation coefficient of -0.31 and $p = 0.001$ (Wilson et al., 2019).

Limitations of this study include a nonrandom convenience sample of emergency room nurses from a single facility and an approximate response rate of only 50%. Not all nurses who filled out a before-shift questionnaire also completed the after-shift questionnaire, skewing before and after comparisons in some cases. Implementations for practice include the knowledge that any single incident can cause significant stress in an individual, potentially leading to compassion fatigue, occupational burnout, or PTSD.

Critical Incident Stress Debriefing efficacy was called into question in a study by Tarquinio et al. (2016), which compared CISD with a proposed psychotherapy treatment that the authors described as “within the field of curative treatment” (p. 2). Eye Movement Desensitization and Reprocessing (EMDR) is thought to be effective because the process of making prescribed eye movements while focusing on memories of the triggering event led to changes in memory which dull the most traumatic aspects (Tarquinio et al., 2016). In contrast, the CISD process has raised questions regarding the negative impact that recalling critical

incident events can have on participating individuals (Tarquinio et al., 2016). Using the Impact of Event Scale-Revised (IES-R) and the Posttraumatic Stress Disorder Checklist Scale, the authors compared the results of 60 individuals exposed to a violent workplace event (Tarquinio et al., 2016). The individuals were separated into three groups. The first two groups met within 48 hours of the event and participated in either the EMDE or the CISD process (Tarquinio et al., 2016). The third group participated in only the EMDE process, but the intervention was delayed for an additional 48 hours (Tarquinio et al., 2016).

The results of this randomized qualitative study by Tarquinio et al. (2016) found that CISD did not prove as effective in reducing posttraumatic stress symptoms within 48 hours of intervention as did the EMDE (p = .64). Results of a three-month follow-up found that no EMDE interventions group scored greater than 50 (indicative of PTSD on the Posttraumatic Stress Disorder Checklist Scale), while 19 of the CISD group and 11 of the EMDE-delayed group scored less than 50 (Tarquinio et al., 2016). Regarding the efficacy of CISD, the study found no notable benefits to the intervention nor notable negative sequelae (Tarquinio et al., 2016). Limitations of the study include the fragmented nature of participant eligibility which was restricted to violent events involving no more than two individuals per event. Another possible limitation of the study, as it relates to CISD, is the choice of using retail employees as participants rather than healthcare professionals or first responders.

Resilience and Coping

Resiliency. Several studies supported the notion that nurses and other healthcare personnel working in high acuity critical care areas such as emergency rooms and intensive care units are more at risk for the development of work-related stress disorders such as burnout, secondary traumatic stress, and posttraumatic stress disorder (Brown et al., 2018; Cho & Kang,

2017; Manning-Jones et al., 2016; Mealer, Jones, & Meek, 2017). Resilience, as defined by Brown et al. (2018), is the ability of an individual to recover from stress-inducing events by drawing on external and internally focused coping strategies. Harker et al. (2016) described resilience as an individual's potential to return to a balanced psychological state after a traumatic incident, while Cho and Kang (2017) described it as an adaptive process that can be taught and practiced.

Resilience, or personal characteristics of resilience, have been attributed to providing a protective buffer against the negative effects of traumatic situations. According to Mealer, Jones, and Meek (2017), healthcare workers who possess resilient characteristics are more likely to avoid the negative effects of workplace stressors and even experience personal growth resulting from those experiences. Some individuals naturally possess resilient characteristics. Some characteristics attributed to high levels of personal resilience include a sense of optimism, humor, adaptability, and effective critical thinking skills (Brown et al., 2018). Individuals with these innate abilities may be more likely to experience personal growth and satisfaction from their work environments than those individuals who do not possess such innate characteristics.

Coping Strategies. According to Manning-Jones et al. (2016), individuals who routinely utilize healthy coping strategies will be more likely to successfully recoup from the adverse effects of workplace stressors. Coping is defined by Manning-Jones et al. (2016) as actions and conscious thought processes that help individuals deal with stress. McMeekin et al. (2017) listed two broad types of coping strategies. Effective coping strategies minimize or remove the effects of stress, while ineffective coping strategies (denial, overeating, smoking, drugs, alcohol) increase and extend the effects (McMeekin et al., 2017). Healthy coping strategies vary widely. Some individuals lean heavily on faith and spiritual practices, while others develop hobbies and

interests that bring them pleasure (Manning-Jones et al., 2016). Caring for oneself is an important aspect of developing and maintaining positive coping strategies. According to Manning-Jones et al. (2016), positive self-care activities include a healthy diet, getting plenty of rest and exercise, and developing trusting relationships with friends, family, or mentors. For healthcare workers exposed to traumatic incidents during the course of their work, engaging in available social support such as group therapy and debriefings are useful strategies that may mitigate stress reactions (Manning-Jones et al., 2016).

Literature Studies Resilience and Coping

Factors affecting resilience and the effects of resilience on the development of posttraumatic stress manifestations were evaluated in a survey-based descriptive study by Mealer, Jones, and Meek (2017). The researchers, using randomly selected individuals from an established database of critical care nurses registered with the American Association of Critical-Care Nurses, mailed out 3,500 surveys (Mealer, Jones, & Meek, 2017). After exclusions, a sample size of 744 responses was included for data analysis (Mealer, Jones, & Meek, 2017). Mealer, Jones, and Meek (2017) utilized surveys consisting of a Posttraumatic Diagnostic Scale (PDS) and an abridged adaptation of the Connor-Davidson Resilience scale (CD-RISC). SPSS and Mplus computer software models were used to statistically analyze data from the surveys (Mealer, Jones, & Meek, 2017). The researchers found that personality traits such as confidence and perseverance were associated with 28% lower levels of adverse stress symptoms (Mealer, Jones, & Meek, 2017). Surprisingly, data from nurses in higher leadership roles showed a 21% greater likelihood of experiencing posttraumatic stress than those functioning in lower-level roles (Mealer, Jones, & Meek, 2017). Another significant factor affecting individual resilience,

determined by the Mealer, Jones, and Meek (2017) study, involved the level of education held by participating nurses.

Statistically significant data analysis results (95% CI, 0.50 to 1.1) indicated that nurses holding or working toward a graduate degree were also more likely to develop posttraumatic stress manifestations. Study limitations include the secondary analysis of an existing database approach which was used to guide the research, thus limiting the control of extraneous variables. Implications for practice include the realization that unexpected cohorts of caregivers may be more affected by critical incidents than previously thought. Therefore, the development of debriefing protocols or resilience training would be beneficial in maintaining the emotional and physical health of nurses working in high-stress environments.

The phenomenon of mental stress experienced by healthcare personnel after unsuccessful cardiopulmonary resuscitation, known as postcode stress, was studied by McMeekin et al. (2017). The aim of this descriptive correlational study was to determine whether a relationship could be found between coping behaviors of healthcare providers, postcode stress, and the development of symptoms of posttraumatic stress disorder (McMeekin et al., 2017). The author's categorized coping behaviors into two categories. Coping strategies were either effective and resulted in preventing, minimizing, or alleviating postcode stress, or ineffective and promoted or furthered existing stress (McMeekin et al., 2017). The BCOPE (a modified form of the COPE inventory tool) was used to gather data about coping strategies, while the Post-Code Stress Scale and the Impact of Event Scale-Revised were used to gather data about stress levels and PTSD symptoms (McMeekin et al., 2017). The researchers advertised the study to active members of the Critical Care Nurses Association and offered a $5 gift card to Starbucks to the first 100

respondents (McMeekin et al., 2017). Of the 490 respondents, 68% completed all the forms and were included in the study (McMeekin et al., 2017).

A variety of statistical tests were used to examine data from the returned questionnaires and included *t*-tests, ANOVA, Cronbach alpha, and linear regression models (McMeekin et al., 2017). Respondents who reported positive coping skills and behaviors reported less stress and no PTSD symptoms, while those who reported less positive coping behaviors complained of postcode stress and at least some PTSD symptoms (McMeekin et al., 2017). Study data examined by McMeekin et al. (2017) indicated that critical care nurses who had access to debriefing sessions reported fewer signs of postcode stress but more symptoms of PTSD (t = 2.91; p = .001). It is possible that these findings could be affected by such variables as the severity of associated traumas and the length of exposure to the trauma. Limitations of the study include the method of data collection. The use of a convenience sample via online questionnaires left room for bias, while asking respondents to recall their feelings of past events also may have led to skewed responses. The strengths of the study were the use of recognized data collection tools and a large sample size of respondents.

The relationship between resilience and mindfulness characteristics and the development of work-related stress disorders was studied by Harker et al. (2016). Harker et al. utilized a series of voluntary questionnaires distributed to 133 healthcare workers who specialized in psychology and counseling services. The authors used validated collection instruments which included the General Well-Being Scale, the Professional Quality of Life Scale, the Freiburg Mindfulness Inventory, and the Resilience Factor Inventory (Harker et al., 2016). Descriptive statistics testing included Pearson's Correlation Coefficients and regression analysis, and Harker et al. (2016) discovered a statistically significant relationship between resilience and the development of

work-related stress symptoms and burnout (R^2 change = 0.37, F change = (1,130) = 78.43, p = < 0.001). The more resilient characteristics reported by respondents, the less likely they were to report the development of stress symptoms, while those respondents who reported less resilient characteristics also reported greater levels of stress (Harker et al., 2016).

This study included a healthy convenience sample of 133 participants and used validated collection tools. Limitations of the study include the voluntary nature of data collection. Biased results were possible if only those respondents experiencing work-related stress completed questionnaires and vice versa. Resilience can be taught, and offering resilience training to employees could prove beneficial to healthcare facilities by reducing staff turnover and burnout (Harker et al., 2016).

Work-Related Stress Disorders

Burnout Syndrome. Burnout (BO), occupational burnout (OB), and burnout syndrome (BOS) are all terms used to describe feelings of "emotional exhaustion, depersonalization, and reduced personal accomplishment" related to work responsibilities and stressors (Harker et al., 2016, p. 632). Physical manifestations of BOS are varied and may include feelings of extreme fatigue, headaches, digestive maladies, anorexia, and difficulty sleeping (Berg et al., 2016). Emotional manifestations may include emotional lability, feeling unable to complete tasks in a timely and effective manner, and a decreased ability to empathize with others in personal and work environments (Berg et al., 2016). Members of certain professions seem more likely to develop symptoms of BOS. The American Thoracic Society published a multi-collaborative study discussing the increasing incidence of BOS in high-stress professions, including teachers, healthcare providers, and first responders such as emergency medical personnel, firefighters, and law enforcement (Moss et al., 2016). The most vulnerable subset of healthcare professions for

the development of BOS is nursing, especially those working in high acuity settings, such as intensive care units, oncology, and emergency care (Adriaenssens et al., 2015; Wolf et al., 2020).

A greater percentage of nurses working in critical care areas, such as intensive care units (ICUs), critical care units (CCUs), and pediatric intensive care units (PICUs), report at least some symptoms of BOS compared to nurses in any other specialty areas, including emergency and trauma care (Moss et al., 2016). Other studies found evidence that emergency department nurses evidenced higher levels of work-related stress, which were attributed to the everchanging and volatile nature of emergency care (Adriaenssens et al., 2015; Berg et al., 2016; Isa et al., 2019). Burnout rates among nurses vary within the literature. According to Moss et al. (2016), about 33% of critical care nurses report struggling with at least some symptoms associated with BOS, whereas Adriaenssens et al. (2015) determined the percentage of similar complaints by emergency department nurses to be around 25%. In contrast, Adriaenssens et al. (2015) and Green et al. (2020) evidenced a higher burnout percentage rate of approximately 50% among nurses.

Burnout occurs in these high-stress areas for a variety of reasons. In critical care settings such as the ICU, CCU, and PICU, nurses are providing care in a rigidly contained environment and are subjected to many of the same environmental stressors as their patients. For example, synthetic lighting, lack of fresh air, and constant noise work synergistically with other work stressors and can contribute to the development of BOS (Isa et al., 2019). In addition, nurses in these areas face a challenging number and variety of critical tasks necessary for providing competent care for their patients (Isa et al., 2019). Factors leading to stress and burnout in emergency nurses are similar, though the environment tends to be more chaotic and fast-paced (Adriaenssens et al., 2015; Wolf et al., 2020). Because of the nature of emergency care, nurses

must deal effectively with high patient loads and are often subjected to multiple traumatic events per shift (Roden-Foreman et al., 2017).

Critical care and emergency department personnel often work strenuous hours and schedules. Some care providers work fluctuating day and night shifts, such as work shifts that end at 0300 or 0400, and some work straight day or night shifts. Twelve-hour shifts can easily become 14–16 hours away from home, depending upon end-of-shift responsibilities and commute time. The 2016 study by Moss et al. found that a major contributor to stress for critical care nurses was a lack of input in scheduling their work hours. A lack of control over work hours can quickly lead to discontent and burnout, particularly when providers are forced to choose between family and work. Disrupted sleep patterns and working against normal circadian rhythms also lead to emotional and physical exhaustion and the development of BOS (Moss et al., 2016). Adapting to shift-work sleep disturbances and demanding scheduling leads to difficulties in balancing work and personal life, further increasing the likelihood of triggering burnout.

Burnout Syndrome has been associated with increased staffing turnover, increased numbers of nursing professionals leaving the field, and escalating the cost of medical care (Adriaenssens et al., 2015). Nursing professionals working in highly demanding areas such as critical, emergency, and trauma care are more prone to developing BOS and subsequently leaving their work areas (Brown et al., 2018). The financial burden of recruiting and training new nurses is considerable, and that cost is often passed on to the healthcare consumer. For example, the 2020 National Healthcare Retention & RN Staffing Report, published by Nursing Solutions Incorporated (2021), determined it cost healthcare institutions approximately $33,300 to $56,000 to replace a single bedside care nurse. According to the report, nursing turnover replacement

costs were responsible for $3.6 million to $6.1 million in annual healthcare losses (Nursing Solutions Incorporated, 2021).

A brutal cycle occurs when poor staffing related to nursing shortages leads to overwork and burnout from those left behind. Disproportionate turnover of qualified and experienced nurses decreases the morale of the department and places an extra burden upon those remaining to train new employees (Moss et al., 2016). Low morale, loss of experienced workers, and the pervasive nature of BOS lead to less productive patient care, decreased patient satisfaction, and an increased number of preventable adverse occurrences such as hospital-acquired infections (HAI) and medication errors (Moss et al., 2016). An injurious cycle occurs in which BOS leads to errors and errors lead to BOS (Moss et al., 2016). Therefore, it is imperative to provide training and interventions to help high-risk employees develop healthy adjustment strategies to alleviate the symptoms of BOS.

Compassion Fatigue. Compassion fatigue (CF), secondary traumatic stress (STS), and posttraumatic stress disorder (PTSD) are all terms used to describe the phenomenon of the "cost of caring" (Missouridou, 2017, p. 110). Compassion fatigue is a condition characterized by a reduced sense of empathy and emotional exhaustion (Griffith, 2019). This insidious condition is defined by Roden-Foreman et al. (2017) as a form of burnout resulting from a lack of professional disengagement and greatly internalized empathy for patient suffering. Wilson et al. (2019) defined it as a lack of empathy developed as a result of caring for individuals experiencing traumatic events, while Berg et al. (2016) referred to it as a detrimental form of emotional fatigue. Symptoms of CF are similar to those of burnout syndrome. Healthcare professionals may complain of feelings of sadness, impaired sleep, and anxiety (Berg et al., 2016). If not recognized or left untreated, individuals may progress to more severe feelings of

depression, harmful behaviors such as indulging in excessive alcohol intake, or developing suicidal ideations (Berg et al., 2016).

Secondary Traumatic Stress. Secondary traumatic stress is a condition that is categorized by researchers in a somewhat contradictory fashion. Some studies refer to compassion fatigue and secondary traumatic stress as essentially the same condition and use the terms interchangeably (Berg et al., 2016; Howard & Navega, 2018; Zaidi et al., 2017). Others categorize it as a subset of posttraumatic stress disorder (Carey et al., 2019; Roden-Foreman et al., 2017), while some researchers consider it a distinct entity among the work-related stress syndromes (Cieslak et al., 2014; Sprang et al., 2014). Compassion fatigue and secondary traumatic stress syndrome refer to emotional and physical manifestations experienced by the care provider as a result of cumulative or extreme exposure to the suffering of others (Roden-Foreman et al., 2017). Howard and Navega (2018) differentiated the two conditions by describing CF as a "process that occurs over time to unsupported workers" and STS as a "condition" that can negatively affect the caregiver's quality of life (p. 33).

The severity of symptoms professional caregivers experience may be increased if the care provider correlates the traumatic event with personal events (Harker et al., 2016). For example, a nurse responding to a pediatric trauma may experience more intense reactions if that nurse has a child of similar age at home. STS symptoms tend to be more severe than those seen in compassion fatigue and often mimic those experienced by people with PTSD. These symptoms arise from highly internalized emotional reactions to the triggering event or events and include debilitating flashbacks, nightmares, intrusive thoughts, and clinical depression (Hotchkiss & Lesher, 2018). These sequelae can be debilitating and severely hamper an individual's ability to

function at work and home. Psychological counseling, support groups, and perhaps medications may be needed to help the professional manage their symptoms (Griffith, 2019).

Posttraumatic Stress Disorder. PTSD is a disorder first recognized during the time of the Vietnam Conflict and is commonly associated with survivors of military combat situations (Missouridou, 2017). Today, it is understood that anyone may develop PTSD after exposure to an emotional or physically harmful event. The National Institute of Mental Health (2019) lists possible events that may lead to the development of PTSD, which include sexual assault, physical assault, natural disasters, and severe life-altering sequela from accidental injuries. PTSD is defined by the American Psychiatric Association as a "severe, life-disrupting disorder" that may occur after single or multiple exposures to a traumatic event and is comprised of a cluster of symptoms that can negatively affect an individual's ability to function in everyday life (Johnson, 2017, p. 26).

Symptoms of PTSD include suffering repeated episodes of reliving the traumatic event or events through intrusive thoughts, flashbacks and nightmares, and severe emotional distress after seemingly innocuous events trigger such memories (Johnson, 2017). Other symptoms, according to the *Statistical Manual of Mental Disorders* (DSM-5), include irritability, aggressive or destructive behavior, loss of concentration, and sleep disturbances (Johnson, 2017). In healthcare, a relatively high percentage of critical care providers develop symptoms of STS or PTSD (Cho & Kang, 2017; Missouridou, 2017). According to Moss et al. (2016) and Cho and Kang (2017), about 29% of critical care nurses are diagnosed with PTSD. Of these, 98% also experienced symptoms of BOS sometime before their diagnosis (Moss et al., 2016).

Literature Studies Work-Related Stress Disorders

Work-related stress disorders include burnout syndrome, compassion fatigue, secondary traumatic stress, and posttraumatic stress disorder. A search of available literature resulted in several studies of these topics, which support stress management measures of some type. For example, Munnangi et al. (2018) conducted a cross-sectional survey to determine the extent of burnout and stress experienced by critical care nurses working in a Level I trauma "safety-net" or charity care center (p. 5). A series of questionnaires were distributed among nurses caring for patients in three high-acuity areas: emergency department, surgical ICU (SICU), and medical ICU (MICU). These established survey tools included the Maslach Burnout Inventory, Job Description Index, and the Perceived Stress Scale (Munnangi et al., 2018, p. 5). Participation was voluntary, and surveys were returned in preordained drop-off areas to preserve anonymity. A variety of descriptive statistical tests were used to analyze data. These included a *t*-test to examine differences between groups, a Tukey variance test to compare data across multiple categories, and a Pearson correlation to determine relationships among the various categories (Munnangi et al., 2018).

Munnangi et al. (2018) reported that a total of 83 questionnaire packets were distributed, with 75 nurses returning completed packets and providing the study with a satisfactory 90% response rate. Participant ages ranged from 20–69 years of age, more than 80% were females, and a variety of ethnicities and work experiences were represented (Munnangi et al., 2018). The authors found that approximately 44% of the respondents reported chronic health problems such as high blood pressure and arthritis, while others complained of being plagued by sleep disturbances and headaches. Statistical analysis (17.03 ± 4.33 vs. 14.52 ± 6.12, $p = < 0.5$) provided evidence of a correlation between high perceived stress levels and preexisting health

issues (Munnangi et al., 2018). The study, according to Munnangi et al. (2018), found that nurses scoring higher levels of perceived stress also reported higher levels of emotional exhaustion and depersonalization associated with burnout (32.09 ± 13.27 vs. 16.17 ± 14.81, $p = < 0.5$).

The authors concluded the study by discussing the importance of providing supportive measures to assist nurses with coping strategies to maintain healthy lifestyles and minimize the effects of work-related stressors (Munnangi et al., 2018). Strengths of the study included the use of well-established survey tools, the anonymity of the respondents, and a healthy sample size. Using a sample size from only one institution restricts the possibility of generalizability and the discovery of other possible factors associated with the development of burnout and perceived stress.

A systematic literature review by Adriaenssens et al. (2015) revealed 17 applicable studies which examined the extent of burnout among emergency department nurses and its contributing factors. Most of the studies followed a cross-sectional design which included surveys such as the Maslach Burnout Inventory and Compassion, Satisfaction, and Fatigue Subscales. Several contributing factors to the development of burnout were found among the studies, including coping strategies, job demands, administrative and personal support, and exposure to traumatic events (Adriaenssens et al., 2015).

Statistical data were analyzed using percentages, standard deviations, and measures of central tendency. Prevalence rates of burnout among emergency department nurses were calculated by means of reverse statistics. The authors determined that about 26% of emergency nurses experienced some symptoms of professional burnout, and recurring exposure to critical incidents was found to be of statistical interest ($r = 0.16$ to $r = 0.30$, $p = \leq 0.01$) in several of the studies (Adriaenssens et al., 2015). Conclusions drawn by the authors of this literature review

include the need for developing methods to reduce the injurious effects of burnout. According to Adriaenssens et al. (2015), resilience building through stress management training and opportunities for counseling were among the recommendations made by the authors.

Information regarding signs and symptoms of stress disorders was found lacking among Level 1 trauma centers (Guess et al., 2019). This study examined the amount of education provided to staff to recognize signs and symptoms of posttraumatic stress disorders in patients, informal caregivers, and formal caregivers. A total of 279 adult and pediatric trauma centers were contacted for the survey, with a 78.6% response rate from the pediatric adult facilities and a 58.4% from adult facilities. According to the study, only 10.87% of the participating adult care trauma centers had standing protocols for stress management and recognition of symptoms of posttraumatic stress disorder and other stress disorders. Assessment rates of stress and trauma-related sequelae for caregivers, healthcare providers, and patients were minimal. The study also concluded that no recognized uniform tool for assessment was available to assist recognition and diagnosis of these disorders.

Summary

A review of the literature revealed a common thread supporting the need for structured protocols to address work-related stress disorders. While methods and recommendations differed, each study and literature review concluded with a discussion of the importance of providing measures to assist employees in recognizing and managing work-related stress disorders. For example, Mayer and Hamilton (2018) recommended a supportive work culture, time for affected employees to reboot before moving on with their duties, and education on positive stress relief activities. Other studies stressed the need for providing education in coping skills and resilience building (Adriaenssens et al., 2015; McMeekin et al., 2017). Others focused

on the need for either regimented or unregimented protocols for critical incident debriefings (Brazil, 2017; Clark et al., 2019). Most studies used convenience samples and surveys to obtain their data. One survey used a face-to-face format and open-ended questions (Mayer & Hamilton, 2018), but others distributed surveys through a variety of methods. Sample sizes varied from very small to quite large. For example, Clark et al. (2019) used a sample of 18 emergency room nurses from one facility while Mealer, Jones, and Meek (2017) sent 3,500 surveys but received only 744 responses. Common limitations found among the studies included convenience sampling, sample size, use of only one facility, and a lack of generalizability. Regardless of methodology, sample size and limitations, a clear necessity for addressing the mental health needs of healthcare providers were identified.

Chapter 3: Research Method

This project employed the Delphi method to develop consensus on primary elements necessary for the development of a critical incident stress management and debriefing program. Recognition of the damaging effects of work-related stress disorders has become more prevalent over the past several decades. Work-related stress disorders have been associated with the development of harmful mental and physical manifestations that can adversely affect the daily life of healthcare workers (Berg et al., 2016). Stress disorders have also been associated with decreased patient satisfaction, errors in care, and high staff turnover rates (Berg et al., 2016). A study by Bridgeman et al. (2018), for example, found that 64% of medical residents admitted to having had lapses of medical judgment, which they attributed to the effects of occupational stress reactions.

The crisis cascade of the stress response may result from a single incident or from an accumulation of stressors (McMeekin et al., 2017). Unresolved issues related to the crisis cascade can result in the adaptation of maladaptive coping mechanisms that negatively impact an individual's quality of life (McMeekin et al., 2017). Many individuals working in the healthcare field may avoid seeking help resolving issues related to traumatic events and other workplace stressors. The stigma of seeking help for work-related exposure to stress events has lessened with increased acknowledgment of the harmful sequelae of these disorders (Griffith, 2019). The outdated "suck it up" mentality is slowly veering toward understanding the importance of mental health care for healthcare providers (Bodenheimer & Sinsky, 2014).

Project Design

The research design for this quantitative project followed the construct of the Delphi method. The Delphi technique may involve a mixed process using both qualitative and

quantitative data for achieving consensus or may only use a quantitative approach (Fink-Hafner et al., 2019). In a qualitative/quantitative approach, the initial survey often consists of open-ended questions, but researchers seeking only quantitative data may choose to use a more finite option, such as a Likert scale (Fink-Hafner et al., 2019). This scholarly study utilized surveys composed of Likert scales for the collection of quantitative data.

The Delphi technique is flexible and, therefore, suited to a wide range of research topics (Fink-Hafner et al., 2019). Key features of a Delphi study give rise to an atmosphere of open and unbiased discovery. For example, a Delphi study may be conducted entirely online. This methodology assures anonymity of panelist responses and minimizes biased decision-making by panelists. According to Fink-Hafner et al. (2019), this complete anonymity allows the group to focus on the topic at hand rather than on group dynamics.

Delphi Survey

The Delphi technique was developed in the 1950s by a representative of the RAND corporation as part of a military strategic planning project (Fink-Hafner et al., 2019). Since its inception, this technique has been widely adopted for use by other disciplines, including the field of healthcare (Pezaro & Clyne, 2015; Shariff, 2015). According to studies by Gallotta et al. (2018) and Shariff (2015), this research method is suitable for problem identification, examination, and policy development. This is particularly useful when there is a readily available and sufficient supply of baseline information about the concern in question (Xiaorong et al., 2020). A wide variety of studies on the topics of work-related stress disorders, stress reactions, and critical incident debriefings are available in scholarly literature to provide necessary guidance in developing a Stress Management and Critical Incident policy.

The Delphi method is described by Fink-Hafner et al. (2019) as an "iterative" process designed to obtain consensus about a topic or problem from a group of chosen experts (p. 3). In a Delphi study, expert opinion is obtained by issuing a series of surveys or "rounds" to the participating panelists, with subsequent rounds based on responses from the previous version or iteration (Gallotta et al., 2018, p. 232). For the purposes of this project, three questionnaires were sent via the online survey platform SurveyMonkey.com over a series of several weeks. Data were aggregated from questionnaire responses and used to develop the next iteration of polling. Each questionnaire followed a Likert-scale format.

One foundational feature of a Delphi study is that of anonymity (Gallotta et al., 2018). The panel composition is not released to panel members, and though I knew the identities of the panelists, their individual responses remain anonymous to preserve process integrity. Another feature of a Delphi study is seeking a specified level of expert consensus (Gallotta et al., 2018). No prescribed percentage for consensus was identified in available literature, but recommended guidelines varied from 51%–80% (Gallotta et al., 2018; Hasson et al., 2008; Pezaro & Clyne, 2015). General agreement, though, is that the higher the percentage, the more difficult it will be to obtain consensus (Taylor, 2020). Several Delphi studies identified in the literature search chose the 70% level for consensus agreement (Diamond et al., 2014; Vogel et al., 2019), indicating its suitability as the target goal for this project. Once a minimum 70% consensus was reached on survey items, information from panelist polling was assembled in a single document draft to provide facility leadership with guidance and rationale for building a critical incident debriefing policy (see Appendix J).

Panel Selection

Panel Size. Suitable panel size is based on research needs and objectives, with no prescribed number signifying the perfect number of participants (Fink-Hafner et al., 2019; Taylor, 2020; Thangaratinam & Redman, 2011). Panel size can vary from quite small (at least three) to quite large (the number is limited only by the researcher's resources and resolve), but a panel of 10–15 is considered satisfactory in most cases (Fink-Hafner et al., 2019; Taylor, 2020). Researchers must consider the logistics of coordinating panelists, data collection, and data analysis when choosing appropriate sample size. The larger the panel size, the more cumbersome and time-consuming the project steps may become (Thangaratinam & Redman, 2011).

Attrition rates with larger groups may also become troublesome. It is not uncommon for panelists to drop out after completing only the first few rounds of a Delphi project (Toepoel & Emerson, 2017). The larger the sample size, the greater the likelihood that response rates will drop (Taylor, 2020). According to Taylor (2020), an expert panel of at least 10 participants is a sufficient size to obtain reliable consensus results, providing the panel is composed of individuals with similar experience and training. Therefore, this project involved the recruitment of 12 expert panelists with similar backgrounds and experience in healthcare and social counseling.

Panel Criteria. Panelist selection for a Delphi study is purposive in nature (Taylor, 2020). The panelists are chosen based on the knowledge and experience they can bring to the research topic. An expert is defined by Taylor (2020) as someone who is generally considered by others in their field to have sufficient knowledge or experience to speak on behalf of their profession, while Thangaratinam & Redman (2011) more broadly defined an expert as an

individual with knowledge applicable to the research topic. Criteria for panelist selection for this project were based on the research topic and needs of the researcher.

Baseline criteria for panelist inclusion should be considered prior to panel selection (Fink-Hafner et al., 2019). For the purposes of this Delphi study, panelist selection criteria were broadly defined as departmental leadership from high-stress patient care units and departments responsible for employee health and safety. Invited panelists included leadership representatives from nursing and ancillary services such as radiology and respiratory care. Representatives from pastoral care, social services, administration, and education were also included as these departments directly or indirectly deal with the aftermath of critical incident stress incidents and work-related stress disorders.

Panel Composition. The breakdown of the 12-panel members and four alternates invited for this Delphi study included the unit director and one charge nurse from the emergency department, the unit director for the intensive care and medical-surgical floors, one charge nurse from intensive care, and one charge nurse from the medical-surgical unit. Remaining panelists receiving invitations to participate included the emergency department medical director and department heads of the radiology, respiratory, social services, education, and pastoral care services. The chief nursing officer rounded out the panel invitations as an administrative representative.

Instrument and Measurement Tool

This project employed the Secondary Traumatic Stress-Informed Organization Assessment tool for data collection. The Secondary Traumatic Stress-Informed Organization Assessment tool (see Appendix H) is a validated instrument developed to help organizations assess their resource readiness to help employees manage the effects of secondary traumatic

stress (Sprang et al., 2017). Secondary traumatic stress is one of several recognized stress-related disorders and, as such, shares similar manifestations ranging in severity from cognition changes to the more life-altering invasiveness of PTSD (Sprang et al., 2017). Therefore, it segued nicely as a tool to seek expert consensus for a Stress Management and Critical Incident policy.

This 40-item survey was developed by a panel of more than 600 experts representing a variety of disciplines and geographical regions (Sprang, 2018). Rigorous testing of the tool achieved a reported internal consistency of 0.97 and test-retest reliability of 0.813 (Sprang, 2018). Organizations may use this tool to determine their baseline standing regarding institutional policies governing the care of employees exposed to vicarious traumatic stress. The instrument may also serve as a living document allowing institutions to plan, track, and evaluate their employee support policies and actions (Sprang et al., 2017). This instrument focuses on organizational actions and policies to support employees exposed to institutional stressors, aligning well with the aim of this study.

The survey is divided into six primary categories with corresponding items ranked according to a Likert scale of "Not at All, Rarely, Somewhat, Mostly, Completely, and Not Applicable" (Sprang, 2018, p. 263). Each category asks for the respondent to rank the degree to which the organization promotes resilience-building activities (7 items); promotes physical and psychological safety (7 items); has developed policies related to STS (6 items); has leadership practicing in STS-informed manner (6 items); has routine organizational practices based in STS knowledge (7 items); and monitors and evaluates STS policies and procedures (Sprang, 2018).

Itemized responses can be used to establish an organization's current level of traumatic stress care provided to its employees and serve as a starting point to establish concrete policies and procedures for improvement (Sprang et al., 2017). Itemized scoring from the tool can be

used along the process continuum to develop, track, and evaluate institutional changes (Sprang, 2018). The focus and flexibility of this tool, which is a product of a modified Delphi study, made it an ideal instrument for this Delphi survey.

Data Collection and Management

Data Collection

This scholarly study used a series of three survey rounds to pursue the goal of obtaining a 70% or greater expert consensus on essential topics to include in a Stress Management and Critical Incident Debriefing policy. According to Fink-Hafner et al. (2019), three rounds is a typical number used for Delphi studies. Each survey round used the Secondary Traumatic Stress-Informed Organization Assessment tool, which has responses arranged in a six-point Likert scale.

Once panel selection was completed, and letters of invitation to participate in the study were sent via individual email communications (see Appendix C). Participants were provided a deadline for returning their responses to the facility representative. Those choosing to participate then received and returned statements of informed consent (see Appendix D) in the same manner.

The initial survey was distributed via SurveyMonkey, and a copy of the survey was supplied to the facility liaison via email. Panelists were sent individual notifications that the survey was available on SurveyMonkey.com. These notifications included a brief statement of the purpose of the survey, instructions for panelists, and my contact information in the event of questions or concerns (see Appendix E).

Response time for survey returns was limited to one week per cycle. Mid-week reminder notifications were sent to facilitate timely completion (see Appendix F). One to two weeks were

allowed between surveys to provide sufficient time for data analysis and creation of the subsequent survey based on that analysis. Panelists received a breakdown of statistical results of the initial round along with the second survey. The same process of sending a reminder and analyzing data was applied prior to sending out the third and final survey.

Responses from each iteration of surveys were analyzed using descriptive statistics, and compiled results were returned to panelists via email communication for review and comment. Each subsequent survey was prepared based on information gathered from the previous round. All communications sent to the expert panel were sent to the facility liaison to retain transparency. The endpoint for this study was the completion of the third survey. Where consensus was not achieved, an analysis of results pinpointed weaknesses that may be addressed in further exploration. A prototype policy for a critical incident stress management and debriefing plan was completed using the data obtained from the surveys and distributed to facility leadership for review.

Data Management

Anonymity is a key aspect of data collection in a Delphi study (Taylor, 2020). Anonymity eliminates pitfalls of group dynamics that may occur during face-to-face interactions. Individual responses will not be influenced by overbearing personalities, peer pressure, the introduction of unrelated discussions, or fear of retribution (Fink-Hafner et al., 2019; Taylor, 2020). Sending communications to participants via individual email notices aided in maintaining the necessary anonymity and preventing the adulteration of results. A further level of protection was achieved by using an online survey and data collection software tool. This project utilized SurveyMonkey, a popular polling software often used in academia (SurveyMonkey, 2020).

Analysis Plan

The Delphi technique uses multiple rounds of data collection to develop expert consensus on the topic of concern (Fink-Hafner et al., 2019). Each subsequent iteration of survey content is based on information from the previous round (Fink-Hafner et al., 2019). Data analysis for this project was conducted on responses from the initial survey. That information was used to develop the survey for the second iteration. No prescriptive statistical testing has been identified by experts as ideal for determining consensus, but measures of central tendency are routinely used (Holey et al., 2007). This study analyzed the mean, median, and range of each survey response. Standard deviation was calculated for each result, as well as variation and the percentage of responses for each statement on the survey tool.

Data confidentiality was maintained through anonymous responses and the use of the online survey tool SurveyMonkey.com. The facility liaison received copies of all survey questions. Disposal of sensitive or confidential information such as panelist names followed facility policy, and I deleted any confidential information from study records.

Methodology

This study followed the customary steps of a Delphi research method. The Delphi method is a methodical approach to ascertaining information on a stated topic by seeking a consensus on expert opinions through a series of iterative survey rounds and controlled feedback (Shariff, 2015). Initial actions for conducting this research project began with determining the research problem statement, conducting a thorough review of available literature, and obtaining required facility and Abilene Christian University permission forms. The following steps for conducting this Delphi study included: Step 1) selection of an expert panel based on inclusionary and exclusionary criteria of the project; Step 2) obtain signed statements of intent to participate and

informed consent; Step 3) disseminate Round 1 survey using the online survey platform SurveyMonkey; Step 4) analyze panelist responses and use the information to prepare the next survey round; Step 5) disseminate analysis results to panelists with next survey round, leaving room for narrative discussion and comments; Step 6) repeat the process for a total of three rounds; and Step 7) develop policy draft based on data collected in survey rounds.

Feasibility and Appropriateness

Feasibility for this Delphi study and protocol development project was grounded on discussions with facility leadership from critical care departments and employee education. The facility lacked a stress management or critical incident debriefing protocol, though individuals were sometimes referred for follow-up counseling per private physician recommendations. Leadership expressed interest in the development of such a protocol and extended an offer to support this Delphi study (see Appendix A).

Internal and External Validity

Panel selection for Delphi studies is based on the needs and subject matter of the research project. The degree of validity is correlated to how well the researcher follows the research design of the study (Cuncic, 2020). In a Delphi study, anonymity is key to receiving unbiased input. This project preserved anonymity by educating panelists on the importance of not discussing the project with others or disclosing that they were serving as a panelist for a research study. The information and consent forms sent to panelists contained this information (see Appendices C & D). Email communications were sent individually to panelists rather than using a group email. This step minimized the possibility of panelists discovering the names of other members. The use of an online survey tool (SurveyMonkey) further minimized the risk of accidental exposure and helped preserve the anonymity of the panel.

Panel selection and attrition concerns may threaten the internal validity of a Delphi study. Panelist selection must adhere to the aims of the individual research study, and panelists should possess a reasonable level of knowledge of the research topic so that their selection cannot be disputed (Taylor, 2020). This Delphi study did not require panelist expertise on the topic of stress management and critical incident debriefing. Rather, it required panelists whose work responsibilities placed them in a position to have been or be affected in some manner by work-related or critical incident stress. Panelists for this study were selected from leadership positions in patient care areas considered high risk for these types of stressors, such as the emergency department and intensive care units.

Attrition can be problematic in some Delphi studies, with panelists dropping out before completing all survey rounds (Fletcher & Marchildon, 2014). Dropouts affect the final result of a study, and efforts should be made to minimize attrition rates. This project recruited a maximum number of 12 participants. This number was intended to simplify the process of tracking responses and sending follow-up reminders. The participating facility's moderate size allowed for a careful selection of participants likely to follow through with survey requests. For example, employees already heavily involved in other committees were not considered ideal candidates for study panelists.

The process of a Delphi study involves deductive reasoning to examine topics from a broader viewpoint and using respective iterations to move to a narrow viewpoint (Skulmoski et al., 2007). This deductive process minimizes researcher bias and includes space for narrative suggestions from panelists, which further minimizes this risk. Group dynamics should not be a concern with a Delphi study as panelists, and their responses are anonymous, and survey results are presented to panelists in a controlled fashion (Taylor, 2020).

External validity refers to the ability to replicate a study in other settings (Chism, 2016). Some concerns towards assuring generalizability include biased survey items or sample selection and group or location dynamics (Cuncic, 2020). The researcher may knowingly or unknowingly present survey items that are predisposed toward intended results, panelists may inadvertently be chosen for the likelihood that their responses will fall into line with study aims, and group dynamics may affect survey results even though anonymity is a central concept of the Delphi study (Cuncic, 2020). The possibility of bias in panelist selection was be minimized by facility input and collaboration.

IRB Approval and Process

Internal Review Board (IRB) approval was needed prior to implementing the data collection stage of this project. Abilene Christian University (ACU) guidelines provided a specific process for obtaining IRB approval. Requirements for applying for board approval included proof of completion of an assigned course in ethics and human rights in research. Core ethical values of human rights included obtaining informed consent, clearly stated expectations of benefits and risks associated with the research, and adherence to maintaining privacy for participants and data management (ACU Office of Research & Sponsored Programs, 2019). IRB approval was obtained from the participating facility prior to seeking university approval (see Appendix B). The participating facility chose to relinquish an internal IRB process and provided a statement agreeing to accept the decision of the university IRB (see Appendix A).

Informed Consent

Proposed panelists had the opportunity to accept or decline to participate in this study. A letter of invitation explaining the purpose and process of the study was sent to potential panelists (see Appendix C), and a statement of informed consent was sent once participants returned their

agreement to participate (see Appendix D). According to the Abilene Christian University Office of Research and Sponsored Programs (2019), informed consent is an essential right of research participants and should include information about potential risks and benefits and an explanation of how the researcher will maintain participant confidentiality. Anonymity is a key feature of the Delphi study, and panelists were asked not to discuss their participation with coworkers. To preserve the confidentiality of survey answers and minimize the possibility of researcher bias, panelists' survey responses were returned anonymously via SurveyMonkey. Panelists agreeing to participate in the study were asked to print and complete the demographic section and provide a signature for consent. The printed forms were turned in to the facility liaison, who scanned and sent the forms electronically to me.

Collaboration

A Delphi study is, by definition, an interdisciplinary collaboration. Panelists for this study were drawn from various disciplines throughout the healthcare facility. These included leadership representatives from critical care areas such as intensive and emergency care, and from ancillary departments such as respiratory, radiology, education, pastoral care, and social services. Leadership from employee health and education acted as a liaison between the researcher, panelists, and facility administration. A letter of facility support was provided by the education department liaison (see Appendix A). Continuous support from leadership was imperative for obtaining panel responses and participation.

Practice Setting

The participating facility for this project was a 154-bed acute care organization that serves its surrounding rural communities through a partnership with a larger healthcare conglomerate. A broad range of services is offered, including in-patient, emergency, and critical

and surgical care. Healthcare provision for the community is augmented by several local supplementary clinics and access to the parent company's wide array of healthcare specialty services. The facility did not have a policy for a structured critical incident stress management and debriefing plan in place.

Target Population

The target population for this Delphi study was healthcare providers employed by a local acute care community hospital. Studies have shown that healthcare workers are at a high risk of developing work-related stress disorders, especially those working in critical care areas (Adrienssens et al., 2015). The participating facility lacked a stress management or critical incident debriefing plan and expressed interest in developing such a program. This scholarly Delphi study aimed to include a broad leadership representation of critical care departments throughout the facility.

Risk/Benefits of Project

There were no discernible risks to participants of this study. Participation was entirely voluntary and consisted of anonymously answering a series of three surveys sent via an online survey tool. Potential benefits of participating included achieving consensus on important components needed to develop a stress management and debriefing protocol. Such a protocol may offer a means to mitigate employee responses to stressors within the workplace, benefitting participants by leading to better patient care, lower operational costs, and improved mental health.

Timeline

Panel selection and data collection began once IRB approval from Abilene Christian University was received. See Table 1 for the project timeline.

Table 1

Timeline for Delphi Study Panel Selection and Data Collection

Week	Goal
Week 1	Request panelist recommendations from facility liaison
Week 2	Send letters of invitation to participate in research study
Week 3	Send statements of informed consent
Week 4	Send notification of survey availability on SurveyMonkey.com
	Midweek reminder letter
Week 6	Send evaluation of data from Round 1 survey and notify of availability of Round 2 on SurveyMonkey.com
	Midweek reminder letter
Week 8	Send evaluation of data from Round 1 survey and notify of availability of Round 3 on SurveyMonkey.com
	Midweek reminder letter
Week 9	Complete evaluation of data and send final report to panelists

Summary

This scholarly project utilized the Delphi method to discover priority topics to be included in a Stress Management and Critical Incident policy draft to be disseminated to the leadership of a local community acute care facility. This research method was chosen for its ability to be conducted online and its unique characteristics of anonymity and bias control. The Delphi method uses interactive iterations of surveys or questionnaires to obtain a predetermined level of expert consensus (Fink-Hafner et al., 2019). Panel size and composition for this study followed common criteria guidelines for the Delphi method. Sixteen invitations to participate in

the study were distributed with the goal of achieving a final panel size of 12. Panelists were chosen from facility leadership and met expert criteria based upon their work ad leadership experience. The Secondary Traumatic Stress-Informed Organization Assessment tool was used for each of the three rounds of this Delphi study. Subsequent rounds were based on data received from the previous iteration, as determined by the stated study criteria. Surveys were sent using SurveyMonkey, which also aggregated and stored the anonymous responses. Data analysis involved basic statistical measures of central tendency, standard deviation, and variance. Results of the study will be discussed in detail in Chapter 4, and a timeline of the completed project is outlined in Appendix J.

Chapter 4: Results

The detrimental effects of work-related stress disorders such as occupational burnout, compassion fatigue, secondary stress disorder, and posttraumatic stress disorder have been well documented in the available literature. Studies have shown that these conditions may cause significant emotional and physiological damage to healthcare providers, ultimately affecting patient care (Fitzpatrick et al., 2019; Grant et al., 2020; Magtibay et al., 2017). As presciently explained by Dzau et al. (2020), the "cost for clinicians will become a cost for patients" (p. 514).

The current pandemic has highlighted the importance of recognizing the effects of work-related stress disorders and providing appropriate preventive and coping strategies for healthcare workers. Prior to the onset of the current COVID-19 pandemic, work-related stress disorders were recognized as a significant cause of concern among healthcare institutions (Craigie et al., 2016; Dzau et al., 2020). According to Dzau et al. (2020), 45%–55% of healthcare workers reported some form of occupational burnout or stress-related disorder. Studies since the onset of the pandemic have reported concerns of the development of a "parallel pandemic" with spikes in reported rates of negative sequelae associated with work-related stress disorders, such as alcohol and drug abuse, suicidal ideations or attempts, depression, and anxiety (AHC MEDIA, 2020; Dzau et al., 2020, p. 513). A 2020 survey conducted by Mental Health America (MHA) found that 93% of healthcare workers experienced significant levels of stress, 76% complained of exhaustion and burnout, and 39% felt their organizations were not providing adequate emotional support (MHA, 2021).

Research provides evidence that the use of stress management training techniques such as teaching positive coping techniques, resilience training, and debriefing can have a positive impact on employees' mental health (Magtibay et al., 2017). The development of interventions to

address employee mental health has become an increasingly significant topic for healthcare organizations such as the Joint Commission as they correlate to patient safety concerns (The Joint Commission, 2019b). As such, several studies and organizations have included recommendations for healthcare institutions to develop mental well-being programs or to maintain or enhance current programs (Dzau et al., 2020; Grant et al., 2020; Haas et al., 2020; The Joint Commission, 2019b). In accordance with these findings, the leadership of a community hospital located in the Texas Gulf Coast area identified a gap in practice in which no formal employee education was offered to address work-related stress disorders.

Purpose of the Project

This Delphi study was conducted with the purpose of obtaining expert consensus among key facility stakeholders for use in drafting an organizational policy for the development of a Stress Management and Critical Incident Debriefing program. The Secondary Traumatic Stress Informed Organization Assessment (STSI-OA) tool was used for three rounds of data collection. This tool was designed to help organizations from a variety of service industries evaluate their readiness to address and manage secondary trauma (Sprang, 2018). Three rounds of surveys were distributed to panelists via the secure online data collection service, SurveyMonkey. Panelist responses and inclusionary study criteria dictated changes to subsequent rounds.

Discussion of Demographics

A total of 16 letters of invitation (see Appendix C) and statements of consent (see Appendix D) were sent from a recommended list of participants provided by the participating facility with the goal of securing a 12-person panel. Potential panelists met the requested criteria of directors and charge nurses from the emergency room, intensive care, and medical-surgical units, as well as department heads from radiology, respiratory social services education, pastoral

services, and administrative representation. Eight consent forms were returned, and those panelists received Round 1 of the STSI-OA survey via SurveyMonkey. Six responses were received after dissemination of survey mid-week reminders, resulting in a total sample size of six participants for Round 1 (6/8, 75%). Of the consenting experts, 5/8 responded to Survey Rounds 2 and 3 (response rate 5/8, [62.5%]). Table 2 relates frequency counts of participants for the variables of gender and age, while Table 3 provides information on years of work experience, role, and primary work setting ($N = 6$).

Table 2

Frequency Counts: Gender and Age

Demographic variables	*n*	%
Gender		
Female	4	66.7
Male	2	33.3
Age		
25 to 34	1	16.7
35 to 44	4	66.7
45 to 54	1	16.7

Table 2 displays gender and age percentages of participants who responded to Round 1 of the survey. Panelists for this round were comprised of four (66.7%) females and two (33.3%) males. A majority of four (66.7%) of the Round 1 respondents reported their ages falling between 34 and 44 years. Five out of six (83.3%) of the panelists who returned Round 1 also returned responses to Rounds 2 and 3. Of these, three out of five (60%) were female, and two out of five (40%) were male. Percentage changes in the variables for age were undetermined for Rounds 2 and 3 as the panelists' responses were anonymous.

Table 3 relates information pertinent to panelist expertise. Of the six panelists who responded to the Round 1 survey, 33.3% categorized themselves as having either six to 10 years (*n* = 2), 11 to 20 years (*n* = 2), or 21+ years (*n* = 2) of experience. Further, 83.3% of panelists reported their roles as supervisory in their primary work setting of healthcare. One participant self-described their primary role as a clinician, and one participant checked first responder as their primary work setting, while three out of six panelists (50%) described their role as a senior manager.

Table 3

Frequency Counts: Years of Experience, Role, Primary Work Setting

Demographic variables	*n*	%
Years of Experience		
6 to 10	2	33.3
11 to 20	2	33.3
21 +	2	33.3
Role		
Clinician	1	16.7
Supervisor	1	16.7
Manager	1	16.7
Senior Manager	3	50
Primary Work Setting		
Healthcare	5	83.3
First Responder	1	16.7

Data Analysis

Data for this Delphi project were collected using the Secondary Traumatic Stress Informed Organization Assessment (STSI-OA) tool. A product of a modified Delphi project, the STSI-OA is a widely tested and validated tool designed to test organizational readiness to

address secondary trauma in a variety of service fields (Sprang, 2018). A search of available literature found no specific guidelines for statistical analysis of data obtained using the Delphi technique. Taylor (2020) found that commonly used methods of ascertaining consensus included the use of median scores and percentages.

Survey Round 1

Data analysis for Round 1 included measures of central tendency. The mean (*M*), Median (Med), Range (Min, Max), standard deviation (*SD*), and variance were calculated for each itemized response of Sections 1–6 of the STSI-OA survey (see Tables 5, 7, 9, 11, 13, and 15). The percentage of individual responses for each item of Sections 1–6 are shown in their corresponding tables (see Tables 4, 6, 8, 10, 12, and 14). Panelists were asked to rate each item using a 6-point Likert scale with the following responses: Not at all, Rarely, Somewhat, Mostly, Completely, and N/A. Study criteria called for the removal of all line items achieving a 70% or greater panel consensus. As shown in the percentage of individual item responses tables (see Tables 4, 6, 8, 10, 12, and 14), no such consensus was reached. Therefore, all survey items were advanced to Round 2.

Section 1 of the STSI-OA survey tool addressed organizational strategies designed to build employee resilience. Section 1 contained seven queries related to this topic. Table 4 indicates that Item 1c reached a consensus of 66.7% (n = 4). Four of the six panelists agreed that the institution “Mostly” maintained a positive focus of the organizational mission. Three items (Item 1d, Item 1f, Item 1g) achieved a 50% panel consensus. Three of the six panelists felt the institution “Completely” provided a sense of hope (Item 1g) and strong peer support (Item 1f) to facilitate trauma recovery. When asked to address organizational readiness to promote healthy coping strategies to meet employees’ psychological health (Item 1g), three panelists chose the

option of "Somewhat," while the remaining panelists chose "Mostly" (*n* = 1) and "Completely" (*n* = 2).

Table 4

Percentage of Individual Item Responses, Round 1, STSI-OA Section 1

Item	% of individual item response					
	NA	Not at all	Rarely	Somewhat	Mostly	Completely
Section 1						
1a	0.00	16.67	16.67	33.33	16.67	16.67
1b	0.00	0.00	50.00	16.67	16.67	16.67
1c	0.00	0.00	0.00	0.00	66.67	33.33
1d	0.00	0.00	0.00	0.00	50.00	50.00
1e	0.00	0.00	16.67	33.33	16.67	33.33
1f	0.00	0.00	0.00	0.00	50.00	50.00
1g	0.00	0.00	0.00	50.00	16.67	33.33

Statistical analysis (see Table 5) indicated a wide range in responses for the remaining items of Section 1. Item 1a asked about organizational promotion of basic knowledge of Secondary Traumatic Stress (STS). One panelist responded with "Not at all" while another felt the organization addressed this issue "Completely" (Min = 0.0000; Max = 4.000; *SD* = 1.414). Similarly, one respondent felt the organization "Rarely" addressed monitoring employee well-being (Item 1b) or provided education on coping skills (Item 1e). In contrast, Item 1b (Min = 1.0000; Max = 4.000; SD = 1.265) and Item 1e (Min = 1.000; Max = 4.000; *SD* = 1.211) were rated "Completely" by one panelist. Standard deviations of greater than 1.000 for these items corresponded with the wide response range and a lesser degree of consensus.

Table 5

Descriptive Statistics Round 1, STSI-OA Section 1

Item	Responses from Survey						Avg	Med	Min	Max	*SD*	Var
Section 1												
1a	0	1	2	2	3	4	2.000	2.000	0.000	4.000	1.414	2.000
1b	1	1	1	2	3	4	2.000	1.500	1.000	4.000	1.265	1.600
1c	3	3	3	3	4	4	3.333	3.000	3.000	4.000	0.516	0.267
1d	3	3	3	4	4	4	3.500	3.500	3.000	4.000	0.548	0.300
1e	1	2	2	3	4	4	2.667	2.500	1.000	4.000	1.211	1.467
1f	3	3	3	4	4	4	3.500	3.500	3.000	4.000	0.548	0.300
1g	2	2	2	3	4	4	2.833	2.500	2.000	4.000	0.983	0.967

Note. "Not at all" = 0. "Rarely" = 1. "Somewhat" = 2. "Mostly" = 3. "Completely" = 4.

Section 2 of the STSI-OA tool provided queries to address organizational promotion of safety. Results revealed that 50% of panelists felt the organization "Rarely" provided educational forums focused on psychological or physical safety (Table 6, Item 2c, Item 2d). A wide range of differences among panelist thoughts was seen in items that examined organizational strategies to promote risk reduction (Item 2), discouraged sharing of graphic stories (Item 2b), and organizational provision of anger management training (Item 2f). Table 7 indicates that one panelist (16.67%) ranked the organization's use of risk reduction strategies as "Not at all," while two out of six panelists (33.3%) chose the option of "Completely" (Min = 0.000; Max = 4.000; *SD* = 1.633). Institutional promotion discouraging sharing of traumatic stories with coworkers was ranked as "Not at all" by two of the six panelists (33.33%) and "Completely" by two of the six (33.33%) panelists (Min = 1.500; Max = 3.000; *SD* = 1.378). The degree to which the organization addressed anger management training was labeled as "Rarely" by one panelist (16.67%), while three of the six panelists (50%) chose "Completely" (2f, Min =1.000; Max = 4.000; *SD* = 1.265).

Table 6

Percentage of Individual Item Responses, Round 1, STSI-OA Section 2

Item	% of individual item response					
	NA	Not at all	Rarely	Somewhat	Mostly	Completely
Section 2						
2a	0.00	16.67	16.67	16.67	16.67	33.33
2b	0.00	33.33	16.67	16.67	33.33	0.00
2c	0.00	16.67	50.00	33.33	0.00	0.00
2d	0.00	16.67	50.00	33.33	0.00	0.00
2e	0.00	0.00	0.00	66.67	16.67	16.67
2f	0.00	0.00	16.67	16.67	16.67	50.00

Table 7

Descriptive Statistics Round 1, STSI-OA Section 2

Item	Responses from Survey						Avg	Med	Min	Max	*SD*	Var
Section 2												
2a	0	1	2	3	4	4	2.333	2.500	0.000	4.000	1.633	2.667
2b	0	0	1	2	3	3	1.500	1.500	0.000	3.000	1.378	1.900
2c	0	1	1	1	2	2	1.167	1.000	0.000	2.000	0.753	0.567
2d	0	1	1	1	2	2	1.167	1.000	0.000	2.000	0.753	0.567
2e	2	2	2	2	3	4	2.500	2.000	2.000	4.000	0.837	0.700
2f	1	2	3	4	4	4	3.000	3.500	1.000	4.000	1.265	1.600

Note. "Not at all" = 0. "Rarely" = 1. "Somewhat" = 2. "Mostly" = 3. "Completely" = 4.

Section 3 of the STSI-OA tool addressed how well organizational policies recognized and addressed STS. Table 8 demonstrates that 50% of respondents felt the organization "Rarely" addressed strategies to enhance employee safety (3d), and 50% felt its strategic plan "Somewhat" provided specific practices to support the psychological and physical safety of its employees (3a, 3b). Opinions regarding how well the organization's strategic plan addressed practices to enhance resilience (3d) and safety (3e) varied widely among the panelists (see Table 9). Three

panelists thought the organization “Rarely” addresses resilience, while one panelist thought it “Mostly” addressed the issue (Min = 0.000; Max = 3.000; *SD* = 1.033). Two panelists thought the organization “Rarely” addressed safety practices, while three felt it “Mostly” addressed them (Min = 0.000; Max = 3.000; *SD* = 1.329).

Table 8

Percentage of Individual Item Responses, Round 1, STSI-OA Section 3

Item	% of individual item response					
	NA	Not at all	Rarely	Somewhat	Mostly	Completely
Section 3						
3a	0.00	16.67	33.33	50.00	0.00	0.00
3b	16.67	0.00	0.00	50.00	33.30	0.00
3c	0.00	16.67	33.33	50.00	0.00	0.00
3d	0.00	16.67	50.00	16.67	16.67	0.00
3e	0.00	16.67	33.33	50.00	0.00	0.00
3f	0.00	0.00	0.00	50.00	33.33	16.67

Table 9

Descriptive Statistics Round 1, STSI-OA Section 3

Item	Responses from Survey						Avg	Med	Min	Max	*SD*	Var
Section 3												
3a	0	1	1	2	2	2	1.333	1.500	0.000	2.000	0.816	0.667
3b	2	2	2	3	3	4	2.667	2.500	2.000	4.000	0.816	0.667
3c	0	1	1	2	2	2	1.333	1.500	0.000	2.000	0.816	0.667
3d	0	1	1	1	2	3	1.333	1.000	0.000	3.000	1.033	1.067
3e	0	1	1	3	3	3	1.833	2.000	0.000	3.000	1.329	1.767
3f	2	2	2	3	3	4	2.667	2.500	2.000	4.000	0.816	0.667

Note. “Not at all” = 0. “Rarely” = 1. “Somewhat” = 2. “Mostly” = 3. “Completely” = 4.

Section 4 of the STSI-OA tool examined leadership awareness of STS and its impact on employee health. Table 10 shows that 50% of panelists indicted facility leadership “Somewhat”

promoted self-care (Item 4a), sought employee input on improving policies addressing STS (Item 4c), promoted the building of resilience through dialogue, and minimized trauma exposure through management of caseload assignments (Item 4f, Item 4h). Table 11 provides statistical data indicating a wide range in responses 8/9 of the items in this section. Panelist responses ranging from "Not at all" to "Completely" were chosen for items examining staff input on organizational policies (4c), supervisory referrals for professional help (4e), leadership dialogue on effects of trauma (4f), supervisory promotion of safety and resilience through extra support and case load management (4g, 4 h), and leadership attitude toward STS (4i). Standard deviations for these items ranged from 1.329 to 1.602. Supervisory modeling of good self-care (4b) and attention to the signs of secondary trauma (4d) received rankings ranging from "Rarely" to "Completely" with respective standard deviation results of *SD* = 1.049 and *SD* = 1.169.

Table 10

Percentage of Individual Item Responses, Round 1, STSI-OA Section 4

Item	% of individual item response					
	NA	Not at all	Rarely	Somewhat	Mostly	Completely
Section 4						
4a	0.00	0.00	0.00	50.00	33.33	16.67
4b	0.00	0.00	16.67	33.33	33.33	16.67
4c	0.00	33.33	0.00	50.00	0.00	16.67
4d	0.00	0.00	33.33	33.33	16.67	16.67
4e	0.00	33.33	0.00	33.33	16.67	16.67
4f	0.00	16.67	16.67	50.00	0.00	16.67
4g	0.00	16.67	50.00	0.00	16.67	16.67
4h	0.00	16.67	16.67	50.00	0.00	16.67
4i	0.00	16.67	16.67	33.33	16.67	16.67

Table 11

Descriptive Statistics Round 1, STSI-OA Section 4

Item	Responses from Survey						Avg	Med	Min	Max	*SD*	Var
Section 4												
4a	2	2	2	3	3	4	2.667	2.500	2.000	4.000	0.816	0.667
4b	1	2	2	3	3	4	2.500	2.500	1.000	4.000	1.049	1.100
4c	0	0	2	2	2	4	1.667	2.000	0.000	4.000	1.506	2.267
4d	1	1	2	2	3	4	2.167	2.000	1.000	4.000	1.169	1.367
4e	0	0	2	2	3	4	1.833	2.000	0.000	4.000	1.602	2.567
4f	0	1	2	2	2	4	1.833	2.000	0.000	4.000	1.329	1.767
4g	0	1	1	1	3	4	1.667	1.000	0.000	4.000	1.506	2.267
4h	0	1	2	2	2	4	1.833	2.000	0.000	4.000	1.329	1.767
4i	0	1	2	2	3	4	2.000	2.000	0.000	4.000	1.414	2.000

Note. “Not at all” = 0. “Rarely” = 1. “Somewhat” = 2. “Mostly” = 3. “Completely” = 4.

Section 5 of the STSI-OA tool addressed organizational practices related to knowledge of secondary trauma. Table 12 provided data that three out of six (50%) panelists chose “Somewhat” in response to organization provision of training to enhance psychological safety and resilience training (5a, 5c). Additionally, 50% of participants felt the organization “Mostly” provided formal training promoting physical safety (5b), and 50% felt the organization “Rarely” provided team and peer support to employees exposed to trauma (5f). Panelist responses ranging from “Not at all” to “Mostly” were noted for items 5c and 5d (see Table 13). These items addressed the organizational provision of formal training and activities to promote resilience. Two out of six respondents (33.33%) felt the organization never provided these actions, while one of the six respondents (16.67%) felt the facility “Mostly” fulfilled this topic (*SD* = 1.225; *SD* = 1.169).

Table 12

Percentage of Individual Item Responses, Round 1, STSI-OA Section 5

Item	% of individual item response					
	NA	Not at all	Rarely	Somewhat	Mostly	Completely
Section 5						
5a	0.00	16.67	16.67	50.00	16.67	0.00
5b	0.00	0.00	0.00	33.33	50.00	16.67
5c	0.00	33.33	0.00	50.00	16.67	0.00
5d	0.00	33.33	33.33	16.67	16.67	0.00
5e	16.67	33.33	33.33	16.67	0.00	0.00
5f	0.00	16.67	50.00	16.67	16.67	0.00
5g	0.00	16.67	33.33	33.33	16.67	0.00

Table 13

Descriptive Statistics Round 1, STSI-OA Section 5

Item	Responses from Survey						Avg	Med	Min	Max	*SD*	Var
Section 5												
5a	0	1	2	2	2	3	1.667	2.000	0.000	3.000	1.033	1.067
5b	2	2	3	3	3	4	2.833	3.000	2.000	4.000	0.753	0.567
5c	0	0	2	2	2	3	1.500	2.000	0.000	3.000	1.225	1.500
5d	0	0	1	1	2	3	1.167	1.000	0.000	3.000	1.169	1.367
5e	0	0	1	1	2		0.800	1.000	0.000	2.000	0.837	0.700
5f	0	1	1	1	2	3	1.333	1.000	0.000	3.000	1.033	1.067
5g	0	1	1	2	2	3	1.500	1.500	0.000	3.000	1.049	1.100

Note. “Not at all” = 0. “Rarely” = 1. “Somewhat” = 2. “Mostly” = 3. “Completely” = 4.

Section 6 of the STSI-OA tool examined secondary trauma evaluation practices of the institution. As seen in Table 14, 50% (three out of six) of respondents chose “Somewhat” in response to organizational assessment practices of secondary trauma (6a) and organization response to evaluation feedback (6c). Responses for each of the four items in this category

ranged from “Not at all” or “Rarely” to “Mostly” and “Completely” (see Table 15). One panelist chose “Not at all” and one panelist chose “Mostly” for inquiries about (6a) organizational assessment practices (Min = 0.000; Max = 3.000; *SD* = 1.033), (6c) organizational response to evaluation results (Min = 0.000; Max = 3.000; *SD* = 1.033), and (6d) organizational actions to remain current on psychosocial trends that may affect STS (Min = 0.000; Max = 3.000; *SD* = 1.049). In response to an inquiry about organizational monitoring of workforce trends which might indicate a rise in secondary trauma, two panelists chose “Rarely,” while another two chose “Completely” (Min = 1.000; Max = 4.000; *SD* = 1.366).

Table 14

Percentage of Individual Item Responses, Round 1, STSI-OA Section 6

Item	% of individual item response					
	NA	Not at all	Rarely	Somewhat	Mostly	Completely
Section 6						
6a	0.00	16.67	16.67	50.00	16.67	0.00
6b	0.00	0.00	33.33	33.33	0.00	33.33
6c	0.00	16.67	16.67	50.00	16.67	0.00
6d	0.00	16.67	33.33	33.33	16.67	0.00

Table 15

Descriptive Statistics Round 1, STSI-OA Section 6

Item	Responses from Survey						Avg	Med	Min	Max	*SD*	Var
6a	0	1	2	2	2	3	1.667	2.000	0.000	3.000	1.033	1.067
6b	1	1	2	2	4	4	2.333	2.000	1.000	4.000	1.366	1.867
6c	0	1	2	2	2	3	1.667	2.000	0.000	3.000	1.033	1.067
6d	0	1	1	2	2	3	1.500	1.500	0.000	3.000	1.049	1.100

Note. “Not at all” = 0. “Rarely” = 1. “Somewhat” = 2. “Mostly” = 3. “Completely” = 4.

Survey Round 2

Among survey items from Round 1, 40/40 (100%) did not meet the study criteria of 70% consensus and were moved on to Round 2. In the second iteration of this Delphi study, panelists were asked to rank each item on a scale of 1–6, with 1 being the least important and 6 being the most important. Five (5/8, 62.5%) panelists returned surveys after dissemination of the mid-week reminder. Measures of central tendency were calculated and analyzed for Round 2 responses. The mean (Avg), Median (Med), Range (Min, Max), standard deviation (*SD*), and variance were calculated for each itemized response of Sections 1–6 of the STSI-OA survey (see Tables 20, 22, 25, 26, 28, 30, and Appendix I). The percentage of individual responses for items in Sections 1–6 are shown in corresponding tables for each section (see Tables 19, 21, 23, 25, 27, 29, and Appendix I). All responses ranked at 4 or greater and achieving 70% consensus were included in Round 3. All other items were removed from the survey.

Analysis of the measures of central tendency and standard deviation for Round 2 further underscored a wide divide in responses of the panelists. Table 20 (see Appendix I) provides data showing that Section 1, Item 1a responses ranged from least important (n = 1) to most important (n = 1). One panelist ranked the institutional promotion of activities to educate employees with a basic understanding of building resilience as least important, while another felt it was of most importance (Min = 1.00; Max = 6.00; *SD* = 1.924).

Table 22 (see Appendix I) provides statistical information on Section 2 item responses. Section 2 items (2a, 2c, 2d) indicating one response as least important and one response as most important (Min = 1.000; Max = 6.000) focused on safety strategies offered by the institution (*SD* = 1.949; SD = 2.074; *SD* = 1.949). In Section 3 (see Table 24, Appendix I), items 3a and 3e continued this trend. These items covered organizational policies to address the psychological

physical safety of staff (SD = 2.074; *SD* = 2.074). Section 4 items related to facility leadership (see Table 26, Appendix I). In this section, 8/9 items presented with standard deviations of 1.924 or greater, with the exception of 4b. This item, asking about the importance of modeling leadership self-care, was the only section 4 item to meet study criteria for inclusion in the final survey round (*SD* = 1.304). Additionally, 6/7 responses from Section 5 (see Table 28, Appendix I) and 3/4 responses from Section 6 (see Table 30, Appendix I) included rankings ranging from least important to most important.

All Section 1 items (see Table 19, Appendix I) of the Round 2 survey achieved consensus of 70% or greater and moved on to Round 3 (7/7, 100%). Of the items from Section 2 (see Table 21, Appendix I), 2/7 (28.5%) met next iteration inclusion criteria, including organizational strategies and education for risk reduction (Item 2a) and importance of institutional leadership offering appropriate risk management measures (Item 2e). The remaining item to meet the criteria for moving on to the final survey round, Item 4b (see Table 25, Appendix I), focused on the importance of leadership modeling good self-care (1/9, 11.1%). A total of 10 items were included in the third and final round of the Delphi study (10/40, 25%).

Survey Round 3

Data analysis for Round 3 included measures of central tendency. The mean (Avg), Median (Med), Range (Min, Max), standard deviation (*SD*), and variance were calculated for each itemized response of Round 3 survey questions. The purpose of this Delphi study was to determine an expert consensus on important topics to include in a Stress Management and Critical Incident Policy. Results indicate that 8/40 (20%) of items found in Survey Rounds 1 and 2 achieved a 70% expert consensus, ensuring these topics will be addressed in the policy draft

submitted to the participating institution. Table 30 lists the survey statements meeting inclusion criteria.

Table 16

Percentage of Individual Item Responses, Round 3

Item	% of individual item response						Total	Consensus
	1 (least important) to 6 (most important)							1 = Yes 2= No
Section 1								
1a	0.00	0.00	0.00	60.00	20.00	20.00	100.00	1
1b	20.00	0.00	0.00	20.00	40.00	20.00	80.00	1
1c	0.00	0.00	0.00	40.00	40.00	20.00	100.00	1
1d	0.00	0.00	20.00	60.00	0.00	20.00	80.00	1
1e	0.00	0.00	0.00	60.00	20.00	20.00	100.00	1
1f	0.00	0.00	40.00	0.00	40.00	20.00	60.00	2
1g	20.00	0.00	20.00	0.00	40.00	20.00	60.00	2
Section 2								
2a	20.00	0.00	0.00	0.00	40.00	40.00	80.00	1
2e	20.00	0.00	0.00	0.00	40.00	40.00	80.00	1
Section 4								
4b	0.00	0.00	0.00	40.00	40.00	20.00	100.00	1

Table 17

Descriptive Statistics Round 3

Item	Responses from Survey					Avg	Med	Min	Max	*SD*	Var
Section 1											
1a	4	4	4	5	6	4.600	4.000	4.000	6.000	0.894	0.800
1b	1	4	5	5	6	4.200	5.000	1.000	6.000	1.924	3.700
1c	4	4	5	5	6	4.800	5.000	4.000	6.000	0.837	0.700
1d	3	4	4	4	6	4.200	4.000	3.000	6.000	1.095	1.200
1e	4	4	4	5	6	4.600	4.000	4.000	6.000	0.894	0.800
1f	3	3	5	5	6	4.400	5.000	3.000	6.000	1.342	1.800
1g	1	3	5	5	6	4.000	5.000	1.000	6.000	2.000	4.000
Section 2											
2a	1	5	5	6	6	4.600	5.000	1.000	6.000	2.074	4.300
2e	1	5	5	6	6	4.600	5.000	1.000	6.000	2.074	4.300
Section 4											
4b	4	4	5	5	6	4.800	5.000	4.000	6.000	0.837	0.700

Note. “Not at all” = 0. “Rarely” = 1. “Somewhat” = 2. “Mostly” = 3. “Completely” = 4.

Question Guiding the Inquiry

The PICOT question directing this scholarly research project was: Among facility leaders (population) who use the Delphi method to obtain survey data over a period of nine weeks result in panelist consensus of 70% or greater (outcome) on critical topics to be included in a Stress Management and Critical Incident policy draft (intervention)?

Table 18

Selected Items for Policy Inclusion

Item	Statement
Section 1	The organization promotes resilience-building activities that enhance the following:
1a	Basic knowledge about STS
1b	Monitoring the impact of STS on professional well-being
1c	Maintaining positive focus on core mission of organization
1d	A sense of hope (a belief in client's potential for trauma recovery, healing, and growth)
1e	Specific skills to enhance worker's sense of professional competency
Section 2	To what degree does the organization promote a sense of safety?
2a	The organization protects the physical safety of staff using strategies or techniques to reduce risk
2e	Organizational leaders manage risk appropriately and protect workers as much as possible from dangerous clients and situations
Section 4	How STS-informed are practices of leadership?
4b	Leadership models good self-care

Reliability/Validity

Study reliability and validity were contingent upon the use of a validated data collection tool and process. The STSI-OA was confirmed to be a reliable tool for determining organizational readiness to address the prevention and management of secondary trauma (Sprang, 2018). Delphi studies rely on anonymity among panelists and their responses to preserve the reliability and validity of results (Fink-Hafner et al., 2019). This was achieved using an online survey service, SurveyMonkey, which collected and collated survey responses (SurveyMonkey, 2020). Data displayed by SurveyMonkey did not reveal ownership of

individual responses, further promoting anonymity. SurveyMonkey provided a list of which participants had completed each survey, allowing me to track response completion.

Delphi studies seek to obtain consensus among experts to reach an understanding or solution to a proposed problem (Fink-Hafner et al., 2019). Determination of expert status is based upon researcher needs and study criteria (Fink-Hafner et al., 2019). For this Delphi study, the facility was asked to provide names of employees serving in administrative or leadership positions within their departments. By virtue of their leadership roles, expert status was implied.

Factors that may have impacted the reliability and validity of the project include the small sample size (6/16, 37.5% response rate) and the limitation of using only email communication. Due to COVID-19 restrictions, no onsite visits were allowed by the facility. Communication and panelist cooperation were dependent on effective email communications. Some potential panelists never responded to invitations to participate in the project. Others responded to decline participation due to time constraints. Anonymity was stressed, and panelists were asked to maintain anonymity and not divulge participation in the project with coworkers in the letter of invitation (see Appendix C). I was unable to monitor panelist compliance with this request.

Conclusion

This scholarly project sought to determine expert consensus on relevant topics to include in a Stress Management and Critical Incident policy. Employing a Delphi technique, data were collected in a series of three survey rounds using the 40-item STSI-OA tool. Consensus was reached on 8/40 times (20%) based on a percentage agreement of 70% or greater. Primary topics considered significant included safety training, monitoring of secondary stress, professional feelings of hope and competency, and leadership as role models of self-care.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this scholarly project was to gather data to determine expert consensus on crucial topics to be included in a Stress Management and Critical Incident policy draft. Utilizing the Delphi technique, data were collected from participating panelists in a series of three survey rounds using the validated STSI-OA tool. Subsequent rounds of the survey were based on expert feedback from the previous round, resulting in a final consensus of 70% or greater on eight topics presented in the surveys. Sixteen potential panelists were chosen by the facility and invited to participate in the survey. Potential panelists met the project criteria of leadership from select patient care areas. Eight consent forms were returned. Panel composition with these eight participants included unit directors and charge nurses from the emergency department, intensive care unit, and medical-surgical unit. Also included on the panel were the chief nursing officer and the facility medical director. This chapter will recount survey findings and panelist consensus results as they apply to leadership, the eight essentials of the Doctor of Nursing Practice, and future organizational policies.

Interpretation and Inference of the Findings

This scholarly project sought to determine whether expert consensus could be reached to determine relevant items for incorporation into a Stress Management and Critical Incident policy. Using the STSI-OA tool, expert panelists were first asked to rank organizational readiness in the following six categories: promotion of resilience-building activities; promotion of a sense of safety; policy and knowledge related to STS; STS-related leadership practices; STS-related organizational practices and training activities; and organization assessment, evaluation, and monitoring of STS.

Using a scale of 1–6 (1 = Least Important, 6 = Most Important), experts were then asked to assign levels of importance to items meeting inclusion criteria for Round 2. Study criteria called for any items achieving a consensus of 70% or greater to be dropped from the subsequent survey. No items achieved this level of consensus and were thus incorporated into Round 2. Round 3 included any items achieving a total of 70% on rankings 4, 5, or 6. Ten items were included in the final round of the surveys, and experts were again asked to rank them in order of importance. Based on the same criteria as Round 2, eight items achieved the required consensus for inclusion in the Stress Management and Critical Incident policy draft.

Most items (5/8, 62.5%) meeting study criteria for inclusion in the Stress Management and Critical Incident policy draft were chosen from Section 1. This section focused on resilience-building activities provided by the organization. Panelists agreed that requiring activities to promote organization-wide knowledge of secondary trauma would be an essential component of the policy draft. Other essential components for draft inclusion included procedures to monitor for signs and symptoms of secondary trauma and subsequent changes to employee physical and mental well-being, in addition to training to enrich employee job satisfaction and feelings of professional accomplishment. Activities to help employees maintain a sense of hope for themselves and for the recovery and well-being of their clients were also included in the list of important topics, as were activities designed to support the institution's core mission. Individual resilience allows care providers to maintain compassion and a sense of hope while caring for clients. According to Baker-Armstrong (2020), mindfulness techniques to promote coping and self-care are vital elements in building resilience. Self-care is important for providers' well-being and professional performance because it is "not possible to give to patients what nurses do not themselves possess" (Baker-Armstrong, 2020, p. 31).

Data from this scholarly project add to current knowledge about workplace conditions and their effect on employee physical and psychological health by illustrating expert panel consensus on topics pertinent to employee well-being. A search of available literature uncovered evidence of a clear relationship between employee well-being and work performance (Harker et al., 2016; Mealer, Hodapp, et al., 2017; Schmidt & Haglund, 2017). Topics achieving expert panel consensus, such as safety, self-care, and resilience, support the timeliness of this topic as it applies to the healthcare environment and patient outcomes.

The Institute for Healthcare Improvement (IHI) first introduced the Triple Aim initiative in 2007 (IHI, 2021). The Triple Aim initiative called for improvement in patient care, improving population health, and reducing the cost of healthcare (Fitzpatrick et al., 2019). Since that time, advocates have lobbied for a fourth component of the improvement initiative, the Quadruple Aim. This component would address improvements in the work environment to reduce occupational stress disorders and improve the physical and psychological well-being of healthcare workers (Fitzpatrick et al., 2019). Organizational policies designed to educate employees about work-related stress disorders and effective coping strategies meet Quadruple Aim standards for workplace improvement. The Joint Commission, a national healthcare accreditation agency, also addressed work-related stress disorders in its *Quick Safety!* monthly publication and called for healthcare institutions to provide policies pertaining to work-related burnout and resilience training (The Joint Commission, 2019b).

Other topics panelists agreed upon for inclusion in the policy draft centered on physical safety. Panel consensus supported training designed to reduce the risk of physical harm to employees and clients. Training to help facility leadership develop good risk management skills

to help protect staff and clients from harmful situations was also chosen for inclusion. Finally, the panel of experts felt it was important to address leadership modeling of good self-care.

The theoretical framework guiding this scholarly project was Lazarus and Folkman's transactional model of stress and coping. Items chosen for inclusion in the Stress Management and Critical Incident policy draft align well with this theory. For example, Lazarus and Folkman's theory emphasized the development of behavioral and intellectual coping skills to manage stress and build resilience (Manning-Jones et al., 2016). According to the transactional model of stress and coping, at any point in time an individual will react to stressors in accordance with their current level of coping resources (Ben-Zur, 2019). Strategies to help employees build coping resources include resilience training, development of positive coping strategies and self-care, education on signs and symptoms of work-related stress disorders, and procedures to manage traumatic exposure.

Implications of Analysis for Leaders

The aim of this scholarly project was to obtain consensus on topics experts considered essential for inclusion in a Stress Management and Critical Incident policy draft. Percentage agreement was used to determine this consensus. As discussed in Chapter 4, other statistical data (e.g., range, standard deviation, etc.) illustrated a wide disparity of opinions among panel experts regarding organizational standards and policies on many items of the STSI-OA tool. As individual responses were anonymous, no correlation could be determined between this disparity and panelist roles. The large number of responses (Round 1 = 60%; Round 2 = 67.5%, Round 3 = 40%) indicating a wide gap in viewpoints merits further investigation to determine whether institutional leaders are truly in tune with employee well-being.

Today's nursing leaders are expected to model good self-care and build resilience against adverse work situations while simultaneously fostering the same in their care delivery team members (Clausen et al., 2019). The expert consensus from this Delphi study supports the need for organizational leadership to assume responsibility for their own and others' well-being. In light of the traumatic stressors incurred by healthcare workers in the current COVID-19 pandemic, leadership and organizational commitment to support employee psychological and physical well-being are particularly apropos.

The Stress Management and Critical Incident policy draft comply with contemporary recommendations for healthcare organizations to address the impact of work-related stress disorders on employees' well-being (see Appendix J). To fulfill project guidelines, a policy draft will be submitted to facility leadership for review. However, presenting facility leadership with a policy recommendation with the goal of institutional adoption is beyond the purpose and scope of this scholarly project.

Experts reached a consensus agreement on eight essential elements to be included in a Stress Management and Critical Incident policy draft. The overriding theme of the eight essential items was safety and well-being. Nurse leaders today are expected to guide care providers toward achieving positive patient outcomes and to promote positive work environments for staff to accomplish that goal (Adams et al., 2018). For nurse leaders, this means lobbying for and endorsing policies and procedures which facilitate the establishment of improved work environments (Adams et al., 2018). The development and implementation of a Stress Management and Critical Incident policy would meet these leadership standards as well as Quadruple Aim and The Joint Commission recommendations for patient safety.

The scope of this project does not include institution-wide dissemination of study outcomes, nor does it include developing and initializing an official Stress Management and Critical Incident policy. Steps to establishing such a policy based on study findings include: (a) sharing study outcomes with key administrative personnel (Chief Executive Officer and Chief Nursing Officer) for permission and support in moving forward, (b) holding an informational meeting with the quality improvement team to present results of the three rounds of surveys and final outcomes, and (c) presenting the policy draft (see Appendix J) derived from study data for review and discussion.

Using the policy draft as a basis for establishing this new institutional policy, the quality improvement committee would be tasked with the following steps: (a) work together to refine language, steps, and responsibilities, (b) review and choose policy tools and reporting procedures, (c) conduct a cost analysis, and (d) present the new policy to administration for review. Once administrative approval has been obtained, policy facilitators would receive formal training from an approved source in stress management and critical incident debriefing and defusing. The facilitators would then use that training to develop education sessions for leadership and staff for use in the pilot run.

EBP Findings and Relationship to DNP Essentials

Data derived from this scholarly project determined that expert consensus was achieved to fulfill the goal of identifying essential aspects of a Stress Management and Critical Incident policy. Guidelines outlined in The Essentials of Doctoral Education for Advanced Nursing Practice, as published by the American Association of Colleges of Nursing (AACN) in 2006, provide the foundation of practice for the DNP prepared nurse. Information derived from project

data will be discussed as it applies to nursing practice and the eight Essentials of Doctoral Education for Advanced Nursing Practice.

DNP Essential I: Scientific Underpinnings for Practice

As stated in the Essentials of Doctoral Education for Advanced Nursing Practice (2006), the DNP prepared leader is expected to utilize evidence-based knowledge and theories to affect and evaluate change. This scholarly project utilized a Delphi model and a validated data collection tool (SSTI-OA) to obtain data from a panel of experts, while Lazarus and Folkman's transactional model of stress and coping provided the theoretical framework. Model elements of stress perception, evaluation, and coping resources guided the steps of this research. A review of available literature was conducted to gather information on work-related stress disorders, resilience, coping strategies, and interventions such as critical incident debriefing. This review formed the scientific basis of this Delphi study and its research query. The Delphi technique is a recognized scientific form of inquiry widely used in many disciplines, including healthcare.

The DNP nurse is prepared to influence organizational change using scientific methods of inquiry and knowledge from a variety of disciplines (Doctor of Nursing Practice, n.d.). Effecting changes to institutional policies governing work-related stress disorders requires a thorough understanding of how negative consequences can impact an institution's bottom line. Undiagnosed or undertreated stress disorders have been linked to significant financial losses related to poor job satisfaction and performance, increased staff turnovers, medical errors, and subpar patient care and outcomes (Miller et al., 2019; Moss et al., 2016). Data derived from this scholarly inquiry will be used to create a Stress Management and Critical Incident policy draft. This draft, if adopted in part or whole by the participating institution, could affect significant

change in the way the institution and its leaders acknowledge and manage work-related stress disorders.

DNP Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking

The DNP graduate is prepared to identify gaps in care and develop strategies to address those gaps as they affect specific populations (AACN, 2006). The DNP nurse is also prepared to develop and promote personal wellness and self-care strategies, including counseling methods (AACN, 2020). Outcomes from this scholarly inquiry have illustrated a need for the participating facility to address certain aspects of traumatic stress management. The dominant themes identified by expert panelists included the need for interventional activities to build resilience, safety training, and self-care.

The need for policy development on this topic is further substantiated by recent literature exploring the prevalence of traumatic stress among healthcare workers since the onset of the COVID-19 pandemic. Benfante et al. (2020), for example, conducted a literature review of studies examining variants of traumatic stress (traumatic stress response, acute stress symptoms, vicarious traumatization) among healthcare workers during the COVID-19 pandemic. The authors concluded that strategies to alleviate negative consequences of traumatic stress were needed, as well as strategies to help healthcare workers build resilience and achieve posttraumatic growth (Benfante et al., 2020). The policy draft developed using data from this scholarly inquiry addresses these concerns by including suggestions for interventional techniques (see Appendix J).

DNP Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice

Evaluating available literature for evidence-based information and implementing that found knowledge to guide scholarly research is an essential task for the DNP nurse engaged in such pursuits (AACN, 2006). The DNP prepared nurse is trained to apply and translate research outcomes to develop or improve clinical policies and the healthcare practice setting (AACN, 2006). Scholarly studies have found a correlation between negative work environments and the development of work-related stress disorders (Griffith, 2019; Schmidt & Haglund, 2017). Perceptive leadership plays a key role in promoting a healthy work environment by role modeling self-care techniques and promoting training in stress reduction and resilience-building activities. The Stress Management and Critical Incident policy draft was developed using data derived from a three-round Delphi study (see Appendix J). Topics of concern meeting expert panelist consensus included maintaining a positive and safe work environment and monitoring for effects of traumatic stress.

DNP Essential IV: Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Healthcare

DNP nurses are prepared to use information technology to provide education, monitor outcomes, participate in policy development and quality improvement plans, and improve patient care (AACN, 2006). This scholarly project used an online survey generator, SurveyMonkey, to disseminate and collate data from three rounds of the STSI-OA tool. Surveys were sent to panelists via email from SurveyMonkey. Panelists received communications such as the letter of invitation (see Appendix C), statement of consent (see Appendix D), statement of survey availability (see Appendix E), and mid-week reminder (see Appendix F) via email. Data analysis

using Excel Version 2103 required technical knowledge of program operations and formulas to achieve accurate results.

DNP Essential V: Health Care Policy for Advocacy in Health Care

Advocating for changes in healthcare policy on the institutional through federal levels is an essential expectation of the DNP prepared nurse (AACN, 2006). This Stress Management and Critical Incident policy draft project required advocating for the need for change with a variety of stakeholders on the institutional level. The scope of this scholarly project did not support advocating for policy change on a higher level.

DNP Essential VI: Interprofessional Collaboration for Improving Patient and Population Health Outcomes

COVID-19 restrictions resulted in interprofessional communication via email messages. The "Four Cs" of communication techniques for the professional nurse enables effective interdisciplinary collaboration, including "collaboration, credibility, compassion, and coordination" (Chism, 2016, p. 90). Providing timely and regular notifications of survey availability and reminders served to meet collaboration expectations. Credibility was achieved using brief, well-structured, and easily read communications. Credibility was further enhanced by offering proof of administrative approval of the project. Compassion was demonstrated by maintaining a respectful and thankful tone in all communications with facility stakeholders. Finally, coordination was achieved through organizing survey dissemination dates according to the schedule indicated in email communications to panelists.

DNP Essential VII: Clinical Prevention and Population Health for Improving the Nation's Health

The DNP is prepared to develop and promote policies advocating health promotion and illness prevention in general and specialized patient populations (AACN, 2006). A review of the literature reveals several studies advocating the prevention of work-related stress disorders through employee evaluation for early signs and symptoms, employee education, and monitoring of the work environment (Grant et al., 2020; Moss et al., 2016; Schmidt & Haglund, 2017). Data obtained from this Delphi study illustrated a need for policy development to address the prevention of work-related stress disorders. Panelists agreed education strategies were needed to prepare employees for possible stress reactions, and monitoring was needed to prevent or alleviate negative consequences.

DNP Essential VIII: Advanced Nursing Practice

DNP nurses are equipped with the knowledge to develop, execute, and evaluate therapeutic interventions grounded in nursing and other sciences (AACN, 2006). To fulfill the directive of this DNP essential, a scholarly research project was developed and implemented with the goal of the development of a Stress Management and Critical Thinking policy draft. Upon completion, the policy draft will be disseminated to key leadership within the participating facility. While the scope of this project does not support policy implementation, it does allow for sharing of evidence-based information to support favorable policy practice changes and health promotion.

Limitations

Limitations for this study began with sample selection and size. A convenience sample from one facility was obtained from a list of possible panelists supplied by the participating

facility and based on researcher criteria. A return of eight consent forms did not meet the desired number of 12 panelists. Attrition was evident in all rounds of the survey (Round 1 = 6/8; Rounds 2 & 3 = 5/8), resulting in a much smaller sample size than anticipated. The small sample size may have limited statistical power and negatively affected the reliability of statistical results. Anonymity is a key feature of a Delphi study, and participants were asked to neither disclose their participation nor discuss the project with coworkers. Panelist compliance in maintaining anonymity was dependent upon individual integrity and was not measurable. COVID-19 restrictions prevented face-to-face interactions with panelists, possibly affecting participation and attrition rates. Finally, several potential panelists cited heavy workloads and stressors related to the pandemic as reasons not to participate in the study.

Recommendations for Future Research and Clinical Practice

The negative effects of work-related stress disorders such as occupational burnout, compassion fatigue, secondary traumatic stress, and posttraumatic stress disorder are well documented in the literature. Many studies explore interventional strategies that might prevent or alleviate negative consequences associated with stress disorders. Healthcare organizations can improve the health and wellness of healthcare workers by providing education to help staff and leadership recognize early signs and symptoms of work-related stress disorders and training to develop positive coping strategies and resilience. Staff exposed to traumatic situations can benefit from interventional strategies such as critical incident debriefing. Despite the array of strategies and interventions available, policies addressing their incorporation into organizational practice are often nonexistent. The development of policies to address employee mental health issues related to stress is particularly important in light of concerns over the effects of the current pandemic on the psychological wellbeing of healthcare workers. DNP nurses are prepared to

identify practice gaps, develop and implement new policies, and advocate for better mental health care to prevent or alleviate the development of work-related stress disorders.

The development of a Stress Management and Critical Incident policy draft is an early step toward practice change. Recommendations for future clinical practice include implementing a trial run of educational and interventional strategies proposed in the policy draft. Other recommendations for practice include providing training to those in leadership positions to develop and maintain positive work environments. The implementation of just one or two steps of the Stress Management and Critical Incident policy has the potential to positively impact the psychological well-being of healthcare workers.

This scholarly project was conducted with a small convenience sample from one community healthcare facility. Recommendations for future research include distributing the STSI-OA and other validated tools to provide baseline data on the prevalence of stress-related disorders within the organization and using the data to promote change. Other recommendations include conducting targeted studies to identify and address breaches of thought between administration, leadership, and employees.

Conclusion

The goal of this scholarly research project was to obtain expert consensus on essential topics to include in a Stress Management and Critical Incident policy draft. A Delphi study comprising three rounds of surveys was conducted, and the expert consensus was achieved on eight topics. Expert panelists agreed the organization needed to increase its knowledge of stress-related disorders to aid in providing employees appropriate education and training. Experts also concurred that regular monitoring for early signs and symptoms of stress disorders should be included in organizational practice guidelines. Attention to increasing job satisfaction was

identified with the need to promote a positive work environment, which included offering skills to support professional competency and foster a sense of hope in the care provided. Physical safety was a concern for panelists, and agreement was reached to include measures and training to reduce the risk of harm. The role of leadership was considered an important factor in safety and stress management, and expert panelists felt leadership needs to model actions and decisions that promote safety and self-care.

Outcomes from this study align with evidence-based findings which support interventional strategies to prevent or lessen negative consequences of stress disorders. Recommendations from healthcare accreditation agencies such as the Joint Commission further support the use of education, interventions, and promotion of employee wellbeing to increase staff job satisfaction and improve patient outcomes (The Joint Commission, 2019a). Panelist concerns for improving the work environment also align with evidence-based information linking a negative work environment to increased levels of stress-related disorders (Grant et al., 2020; The Joint Commission, 2019a).

Data derived from three rounds of surveys were used to develop a Stress Management and Critical Incident policy draft (see Appendix J). The scope of the project involved draft development and dissemination to facility leadership for review. Further research and collaborative efforts are needed to implement the policy and evaluate its effectiveness and feasibility.

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Appendix A: Letter of Support

CHI St Luke's Health

Brazosport
100 Medical Drive
Lake Jackson, TX 77566

P 979.297.4411
CHIStLukesBrazosport.org

December 12, 2019

To Whom It May Concern:

This letter is written confirmation of our intended support for the project for Karen Rowland. Her project is creating a debriefing protocol/program/policy for nurses involving traumatic events.

Abilene Christian University's mission is dedicated educating students for leadership and service throughout the world. For this reason, it is my personal pleasure to support this project which supports the university's mission along with benefiting our facility's nursing department in a positive manner. CHI St. Luke's Health Brazosport will accept Abilene Christian University's IRB process.

It is the pleasure of CHI St. Luke's Health Brazosport and my personal pleasure to support Ms. Rowland in her initiative to engage and develop this capstone project. If you have any questions of concerns, please do not hesitate to contact me.

Sincerely,

Appendix B: IRB Approval Letter

ABILENE CHRISTIAN UNIVERSITY
Educating Students for Christian Service and Leadership Throughout the World

Office of Research and Sponsored Programs
320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103
325-674-2885

December 17, 2020

Karen Rowland
Department of Nursing
Abilene Christian University

Dear Karen,

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled "Policy Development: Stress Management and Critical Incident Debriefing."

(IRB# 20-212) is exempt from review under Federal Policy for the Protection of Human Subjects.

If at any time the details of this project change, please resubmit to the IRB so the committee can determinewhether or not the exempt status is still applicable.

I wish you well work.

Sincerely,

Megan Roth, Ph.D.

Director of Research and Sponsored Programs

Megan Roth

Appendix C: Letter of Invitation

Dear (Name to be included),

You have been recommended as a participant in a research study conducted by Karen Rowland, a student in the Doctor of Nursing Practice program at Abilene Christian University. The purpose of the proposed research project is to conduct a Delphi study to determine expert consensus on requisite components to be included in a Stress Management and Critical Incident Policy.

The Delphi study consists of three rounds of surveys sent to panelists via a confidential online survey tool (SurveyMonkey) over a period of nine weeks. Responses from Survey 1 will be analyzed by the researcher and used to formulate Survey 2. The process is repeated for Survey 3. The project will culminate in a policy proposal for the development of a Stress Management and Critical Incident Policy.

Anonymity is a key feature of a Delphi study. Participants are encouraged not to discuss the project with others or to disclose their participation on the research panel. This ensures complete anonymity and confidentiality of responses. To prevent researcher bias, all responses will be coded to protect panelist identities.

This research poses no anticipated risks to participants. No direct benefit is associated with your participation, though your expert opinions might benefit you and other employees indirectly should the facility use the research to develop and implement a Stress Management and Critical Incident Policy.

Please indicate below whether you choose or decline to participate in this study and return via email to Karen Rowland at xxxxxx@acu.edu.

Upon your acceptance to participate, you will receive a statement of informed consent via email. After reading, please print and sign the statement of consent and return to the education department.

Once your informed consent is received, you will be sent an email ink to SurveyMonkey to access and complete the survey.

I look forward to your participation in this research study.

Respectfully, Karen Rowland

Statement of Consent to Participate

I accept (Please initial here): _____
the invitation to participate in the proposed Delphi study to determine essential components for the development of a Stress Management and Critical Incident Debriefing Protocol, conducted by Abilene Christian student Karen Rowland

I do not accept (Please initial here): _____
the invitation to participate in the proposed Delphi study to determine essential components for the development of a Stress Management and Critical Incident Debriefing Protocol, conducted by Abilene Christian student Karen Rowland

Appendix D: Statement of Informed Consent

Dear (Name to be included),

Thank you for agreeing to participate in my research study entitled Policy Development: Stress Management and Critical Incident Debriefing.

This form provides important information about that study, including the risks and benefits to you as a potential participant. Please read this form carefully and ask the researcher any questions that you may have about the study.

Purpose: The purpose of this quantitative research study using the Delphi method is to determine expert consensus on key components needed for developing a Stress Management and Critical Incident protocol.

Procedures: You will be asked to complete three rounds of surveys using the online survey tool SurveyMonkey. This survey tool is well known and provides a secure platform for data collection and analysis. Your responses will be anonymous.

To prevent researcher bias, your identities will be coded so that responses cannot be attributed to a specific individual. To further preserve anonymity, other panel members will not know the names of other panelists. It is therefore essential that you do not discuss the study or your participation on the panel with others.

You will receive a notification from SurveyMonkey.com when the first survey is available. Please complete the survey within one week of receiving the notification. A reminder letter will be sent to your email account midway through this time period.

Data from round one will be analyzed the second survey completed within two weeks. The second survey will then be made available, and you will receive notification from SurveyMonkey.com. This process will be repeated for a third survey round.

A final analysis of survey results will be completed after round three and results sent to panelists for review. Total time commitment for this project is approximately nine weeks.

Data: All data collected will be secured through the SurveyMonkey website and will remain confidential. Analysis of data will be disseminated to the group of panelists and to the education department. Storage or destruction of this data will follow facility policy.

Any information you provide will be confidential to the extent allowable by law. Some identifiable data may have to be shared with individuals outside of the study team, such as members of the ACU Institutional Review Board. Otherwise, your confidentiality will be protected by use of an online data collection tool (SurveyMonkey.com).

The results of this study may be published.

The primary risk with this study is a breach of confidentiality. However, we have taken steps to minimize this risk. We will not be collecting any personal identification data during the survey. However, Survey Monkey may collect information from your computer. You may read their privacy statements here: https://www.surveymonkey.com/mp/policy/privacy-policy/.

Risks/Benefits: This research poses no anticipated risks to participants. No direct benefit is associated with your participation, though your expert opinions might benefit you and other employees indirectly should the facility use the research to develop and implement a Stress Management and Critical Incident Policy.

Payment/Compensation: You will not be paid for participating in this research project.

Participation: Your participation in this research is entirely voluntary. You may refuse to participate or stop your participation at any time and for any reason without any penalty or loss of benefits to which you are otherwise entitled

Contacts: If you have questions about the research study, the lead researcher is Karen Rowland and may be contacted at XXXXX

If you are unable to reach the lead researcher, or wish to speak to someone other than the lead researcher, you may contact XX XXXXXX XXXXXXXXX (Project Chairperson) at (XXX) XXX-XXXX or XXXXXX@acu.edu.

If you have concerns about this study, believe you may have been injured because of this study, or have general questions about your rights as a research participant, you may contact ACU's Chair of the Institutional Review Board and Executive Director of Research, XXXXX XXXX, Ph.D.

Dr. XXXX may be reached at
(XXX) XXX-XXXX
XXXXXXXXX@acu.edu
320 Hardin Administration Bldg., ACU Box 29103
Abilene, TX 79699

Consent Signature Section

Please click the button below if you voluntarily agree to participate in this study. Click only after you have read all the information provided and your questions have been answered to your satisfaction. If you wish to have a copy of this consent form, you may print it now. You do not waive any legal rights by consenting to this study.

_____	_____	_____
Printed Name of Participant	Signature of Participant	Date
_____	_____	_____
Printed Name of Person Obtaining Consent	Signature of Person Obtaining Consent	Date

Appendix E: Statement of Survey Availability

Dear (Name to be included),

Thank you for consenting to participate in my research project entitled Policy Development: Stress Management and Critical Incident Debriefing.

Survey 1 is now available on SurveyMonkey.com.

Please click on the following link to access and complete the survey.

Link (TBA)

You will be asked to rank individual items as “Not at All,” “Rarely,” “Somewhat.” Mostly,” “Completely,” or “Not Applicable.”

The survey will include space for a narrative comments or questions.

Thank you for your participation in this survey. Your input is valued and appreciated.

If you have any questions, please contact me at xxxxxxxx@acu.edu.

Respectfully,

Karen Rowland

Doctoral Candidate, Abilene Christian University

Appendix F: Reminder of Survey Letter

Dear (Name to be included),

Thank you for consenting to participate in my research project entitled Policy Development: Stress Management and Critical Incident Debriefing.

Your input is a valuable addition to this research study.

The survey for Round ___ of this Delphi study is ready for completion. Please go to SurveyMonkey.com to access and complete the survey.

I look forward to seeing the panel's responses regarding essential components for a Stress Management and Critical Incident Debriefing Policy.

If you have any questions, please contact me at xxxxxx@acu.edu.

Respectfully,

Karen Rowland

Doctoral Candidate, Abilene Christian University

Appendix G: Statement of STSI-OA Availability for Public Use

Thank you for your interest in the Secondary Traumatic Stress Informed Organization Assessment (STSI-OA) tool. Please complete the registration form below to receive a copy of the STSI-OA to use free of charge. The authors grant permission to use it in your project with the proviso that they are acknowledged in any communication, including publication, in which the tool is used.

In accordance with US copyright law we would be grateful if you would refer anyone else interested in using the STSI-OA to us, rather than distribute copies of the questionnaires to third parties yourself. This will also help the authors gauge the level of interest in the tool and its application in the clinical/research/educational setting.

Suggested citation: Sprang, G., Ross, L., Blackshear, K., Miller, B., Vrabel, C., Ham, J., Henry, J., & Caringi, J. (2014). *The Secondary Traumatic Stress Informed Organization Assessment (STSI-OA) tool.* University of Kentucky Center on Trauma and Children, #14-STS001, Lexington, Kentucky.

(Sprang et al., 2014)

Appendix H: STSI-OA The Secondary Traumatic Stress-Informed Organization Assessment

The Secondary Traumatic Stress-Informed Organization Assessment (STSI-OA)

Secondary Traumatic Stress (STS) affects our personnel, organizational structure, policies and procedures in both subtle and overt ways. Although many organizations working with individuals exposed to trauma acknowledge that STS is present in their workforce, they may need guidance on how to reduce risk and promote staff wellness and resilience. This assessment tool will give organizations an opportunity to engage in self-assessment to determine the impact of STS in their organization and, combined with an overall trauma-informed organizational change framework, support strategic planning in specific areas of need.

Secondary Traumatic Stress refers to the trauma symptoms caused by indirect exposure to traumatic material, transmitted during the process of helping or wanting to help a traumatized person.

Resilience is an individual's ability to adapt to stress and adversity in a healthy manner.

Organization, as used in this context, refers to the workplace setting that will be the target of this assessment.

Next to each assessment item in these domains are choices based on the degree to which the organization is addressing the specified practice or protocol, including "Not at All,"Rarely", "Somewhat," "Mostly" and "Completely".

After reading each item, place a check mark under the appropriate choice as to how the organization performs on that indicator. These indicators can provide you with a map or framework to guide organizational change.

Center on Trauma and Children

Evidence in Action

1/6

The Secondary Traumatic Stress Informed Organization Assessment (STSI-OA)

1. The organization promotes resilience-building activities that enhance the following:

	Not at all	Rarely	Somewhat	Mostly	Completely	N/A
a. Basic knowledge about STS	◯	◯	◯	◯	◯	◯
b. Monitoring the impact of STS on professional well-being.	◯	◯	◯	◯	◯	◯
c. Maintaining positive focus on the core mission for which the organization exists	◯	◯	◯	◯	◯	◯
d. A sense of hope (e.g., a belief in a clients' potential for trauma recovery, healing and growth)	◯	◯	◯	◯	◯	◯
e. Specific skills that enhance a worker's sense of professional competency	◯	◯	◯	◯	◯	◯
f. Strong peer support among staff, supervisors and staff and/or outside consultants	◯	◯	◯	◯	◯	◯
g. Healthy coping strategies to deal with the psychological demands of the job	◯	◯	◯	◯	◯	◯

2. To what degree does the organization promote a sense of safety?

	Not at all	Rarely	Somewhat	Mostly	Completely	N/A
a. The organization protects the physical safety of staff using strategies or techniques to reduce risk (e.g. panic buttons, security alarms, multiple staff, etc.)	◯	◯	◯	◯	◯	◯
b. Staff in the organization are encouraged to not share graphic details of trauma stories unnecessarily with co-workers	◯	◯	◯	◯	◯	◯
c. Periodically, the organization conducts a safety survey or forum that assesses worker perceptions of psychological safety	◯	◯	◯	◯	◯	◯
d. Periodically, the organization conducts a safety survey or forum that assesses worker perceptions of physical safety	◯	◯	◯	◯	◯	◯
e. Organizational leaders manage risk appropriately and protect workers as much as possible from dangerous clients and/or situations	◯	◯	◯	◯	◯	◯
f. The organization provides training on how to manage potentially dangerous situations (e.g., angry clients)	◯	◯	◯	◯	◯	◯
g. The organization has a defined protocol for how to respond to staff when critical incidents occur	◯	◯	◯	◯	◯	◯

The Secondary Traumatic Stress-Informed Organization Assessment (STSI-OA)

3. How STS-informed are organizational policies?

	Not at all	Rarely	Somewhat	Mostly	Completely	N/A
a.The organization has defined practices addressing the psychological safety of staff	◯	◯	◯	◯	◯	◯
b. The organization has defined practices addressing the physical safety of staff	◯	◯	◯	◯	◯	◯
c. The organization has defined procedures to promote resilience-building in staff (e.g. self-care workshops)	◯	◯	◯	◯	◯	◯
d. The organization's strategic plan addresses ways to enhance staff resiliency	◯	◯	◯	◯	◯	◯
e. The organization's strategic plan addresses ways to enhance staff safety	◯	◯	◯	◯	◯	◯
f. The organization has a risk management policy in place to provide interventions to those who report high levels of STS	◯	◯	◯	◯	◯	◯

4. How STS-informed are the practices of leaders (executive directors, CEOs, COOs, administration, etc..)?

	Not at all	Rarely	Somewhat	Mostly	Completely	N/A
a. Leadership actively encourages self-care	◯	◯	◯	◯	◯	◯
b. Leadership models good self-care	◯	◯	◯	◯	◯	◯
c. Staff provides input to leaders on ways the organization can improve its policies and practices regarding STS.	◯	◯	◯	◯	◯	◯
d. Supervisors promote safety and resilience to STS by routinely-attending to the risks and signs of STS	◯	◯	◯	◯	◯	◯
e. Supervisors address STS by referring those with high levels of disturbance to trained mental health professionals	◯	◯	◯	◯	◯	◯
f. Supervisors promote safety and resilience to STS by offering consistent supervision that includes discussion of the effect of the work on the worker	◯	◯	◯	◯	◯	◯
g. Supervisors promote safety and resilience to STS by offering additional supervision during times of high risk for STS	◯	◯	◯	◯	◯	◯
h. Supervisors promote safety and resilience to STS by intentionally managing caseloads and case assignments with the dose of indirect trauma exposure in mind	◯	◯	◯	◯	◯	◯
i. Leadership responds to STS as an occupational hazard and not a weakness	◯	◯	◯	◯	◯	◯

The Secondary Traumatic Stress-Informed Organization Assessment (STSI-OA)

5. How STS-informed are other routine organizational practices?

	Not at all	Rarely	Somewhat	Mostly	Completely	N/A
a. The organization provides formal trainings on ways to enhance psychological safety	◯	◯	◯	◯	◯	◯
b. The organization provides formal trainings on ways to enhance physical safety	◯	◯	◯	◯	◯	◯
c. The organization provides formal trainings on enhancing resilience to STS	◯	◯	◯	◯	◯	◯
d. The organization offers activities (besides trainings) that promote resilience to STS	◯	◯	◯	◯	◯	◯
e. The organization discusses STS during new employee orientation	◯	◯	◯	◯	◯	◯
f. The organization has regular opportunities to provide team and peer-support to individuals with high levels of exposure	◯	◯	◯	◯	◯	◯
g. The organization provides release time to allow employees to attend trainings focused on reslience building or STS management	◯	◯	◯	◯	◯	◯

6. How well does the organization evaluate and monitor STS policies and practices?

	Not at all	Rarely	Somewhat	Mostly	Completely	N/A
a. The organization assesses the level of STS in the workplace	◯	◯	◯	◯	◯	◯
b. The organization routinely monitors workforce trends (e.g. attrition, absenteeism) that may signify a lack of safety or an increase in STS	◯	◯	◯	◯	◯	◯
c. The organization responds to what it learns through evaluation, monitoring and/or feedback in ways that promote safety and resilience	◯	◯	◯	◯	◯	◯
d. The organization routinely seeks feedback from the workforce regarding psychosocial trends that may signify an increase in STS (e.g. increased conflict, social isolation)	◯	◯	◯	◯	◯	◯

7. What is your gender?

◯ Female

◯ Male

8. What is your age?

◯ 18 to 24

◯ 25 to 34

◯ 35 to 44

◯ 45 to 54

◯ 55 to 64

◯ 65 to 74

◯ 75 or older

The Secondary Traumatic Stress-Informed Organization Assessment (STSI-OA)

3. How STS-informed are organizational policies?

	Not at all	Rarely	Somewhat	Mostly	Completely	N/A
a.The organization has defined practices addressing the psychological safety of staff	◯	◯	◯	◯	◯	◯
b. The organization has defined practices addressing the physical safety of staff	◯	◯	◯	◯	◯	◯
c. The organization has defined procedures to promote resilience-building in staff (e.g. self-care workshops)	◯	◯	◯	◯	◯	◯
d. The organization's strategic plan addresses ways to enhance staff resiliency	◯	◯	◯	◯	◯	◯
e. The organization's strategic plan addresses ways to enhance staff safety	◯	◯	◯	◯	◯	◯
f. The organization has a risk management policy in place to provide interventions to those who report high levels of STS	◯	◯	◯	◯	◯	◯

4. How STS-informed are the practices of leaders (executive directors, CEOs, COOs, administration, etc..)?

	Not at all	Rarely	Somewhat	Mostly	Completely	N/A
a. Leadership actively encourages self-care	◯	◯	◯	◯	◯	◯
b. Leadership models good self-care	◯	◯	◯	◯	◯	◯
c. Staff provides input to leaders on ways the organization can improve its policies and practices regarding STS.	◯	◯	◯	◯	◯	◯
d. Supervisors promote safety and resilience to STS by routinely-attending to the risks and signs of STS	◯	◯	◯	◯	◯	◯
e. Supervisors address STS by referring those with high levels of disturbance to trained mental health professionals	◯	◯	◯	◯	◯	◯
f. Supervisors promote safety and resilience to STS by offering consistent supervision that includes discussion of the effect of the work on the worker	◯	◯	◯	◯	◯	◯
g. Supervisors promote safety and resilience to STS by offering additional supervision during times of high risk for STS	◯	◯	◯	◯	◯	◯
h. Supervisors promote safety and resilience to STS by intentionally managing caseloads and case assignments with the dose of indirect trauma exposure in mind	◯	◯	◯	◯	◯	◯
i. Leadership responds to STS as an occupational hazard and not a weakness	◯	◯	◯	◯	◯	◯

The Secondary Traumatic Stress-Informed Organization Assessment (STSI-OA)

5. How STS-informed are other routine organizational practices?

	Not at all	Rarely	Somewhat	Mostly	Completely	N/A
a. The organization provides formal trainings on ways to enhance psychological safety	◯	◯	◯	◯	◯	◯
b. The organization provides formal trainings on ways to enhance physical safety	◯	◯	◯	◯	◯	◯
c. The organization provides formal trainings on enhancing resilience to STS	◯	◯	◯	◯	◯	◯
d. The organization offers activities (besides trainings) that promote resilience to STS	◯	◯	◯	◯	◯	◯
e. The organization discusses STS during new employee orientation	◯	◯	◯	◯	◯	◯
f. The organization has regular opportunities to provide team and peer-support to individuals with high levels of exposure	◯	◯	◯	◯	◯	◯
g. The organization provides release time to allow employees to attend trainings focused on reslience building or STS management	◯	◯	◯	◯	◯	◯

6. How well does the organization evaluate and monitor STS policies and practices?

	Not at all	Rarely	Somewhat	Mostly	Completely	N/A
a. The organization assesses the level of STS in the workplace	◯	◯	◯	◯	◯	◯
b. The organization routinely monitors workforce trends (e.g. attrition, absenteeism) that may signify a lack of safety or an increase in STS	◯	◯	◯	◯	◯	◯
c. The organization responds to what it learns through evaluation, monitoring and/or feedback in ways that promote safety and resilience	◯	◯	◯	◯	◯	◯
d. The organization routinely seeks feedback from the workforce regarding psychosocial trends that may signify an increase in STS (e.g. increased conflict, social isolation)	◯	◯	◯	◯	◯	◯

7. What is your gender?

◯ Female

◯ Male

8. What is your age?

◯ 18 to 24

◯ 25 to 34

◯ 35 to 44

◯ 45 to 54

◯ 55 to 64

◯ 65 to 74

◯ 75 or older

The Secondary Traumatic Stress-Informed Organization Assessment (STSI-OA)

9. Within which of the following service systems do you do the majority of your work with traumatized clients?

- ◯ Child welfare
- ◯ Community Mental Health
- ◯ Juvenile Justice
- ◯ Educational or School Setting
- ◯ Healthcare
- ◯ First Responder Groups (e.g. police, fire, paramedics)
- ◯ Tribal settings

Other (please specify)

10. What is your job role?

- ◯ Volunteer
- ◯ Intern
- ◯ Front Line Worker
- ◯ Clinician
- ◯ Supervisor
- ◯ Manager
- ◯ Senior Manager
- ◯ C-Level- CEO, Executive Director, COO, etc..
- ◯ Other

The Secondary Traumatic Stress-Informed Organization Assessment (STSI-OA)

11. Roughly how many full-time employees currently work for your organization?

- ◯ 1-10
- ◯ 11-50
- ◯ 51-200
- ◯ 201-500
- ◯ 501-1,000
- ◯ 1,001-5,000
- ◯ 5,001-10,000
- ◯ 10,000+
- ◯ I am currenlty not employed

12. How many years have you worked as a professional helper

- ◯ 0-2 years
- ◯ 3-5 years
- ◯ 6-10 years
- ◯ 11-20 years
- ◯ 21+ years

6/6

Appendix I: Tables 19–30

Table 19

Percentage of Individual Item Responses, Round 2, STSI-OA Section 1

Item	% of individual item response 1 (least important) to 6 (most important)						Total	Consensus 1 = Yes 2= No
Section 1								
1a	20.00	0.00	0.00	20.00	40.00	20.00	80.00	1
1b	0.00	0.00	20.00	0.00	60.00	20.00	80.00	1
1c*	0.00	25.00	0.00	25.00	25.00	25.00	75.00	1
1d	0.00	0.00	20.00	0.00	40.00	40.00	80.00	1
1e	0.00	0.00	0.00	20.00	20.00	60.00	100.00	1
1f	0.00	0.00	0.00	0.00	40.00	60.00	100.00	1
1g	0.00	0.00	0.00	0.00	40.00	60.00	100.00	1

Table 20

Descriptive Statistics Round 2, STSI-OA Section 1

Item	Responses from survey					Avg	Med	Min	Max	*SD*	Var
Section 1											
1a	1	4	5	5	6	4.200	5.000	1.000	6.000	1.924	3.700
1b	3	5	5	5	6	4.800	5.000	3.000	6.000	1.095	1.200
1c	2	4	5	6		4.250	4.500	2.000	6.000	1.708	2.917
1d	3	5	5	6	6	5.000	5.000	3.000	6.000	1.225	1.500
1e	4	5	6	6	6	5.400	6.000	4.000	6.000	0.894	0.800
1f	5	5	6	6	6	5.600	6.000	5.000	6.000	0.548	0.300
1g	5	5	6	6	6	5.600	6.000	5.000	6.000	0.548	0.300

Note. “Not at all” = 0. “Rarely” = 1. “Somewhat” = 2. “Mostly” = 3. “Completely” = 4.

Table 21

Percentage of Individual Item Responses, Round 2, STSI-OA Section 2

Item	% of individual item response						Total	Consensus
	1 (least important) to 6 (most important)							1 = Yes 2= No
Section 2								
2a	20.00	0.00	0.00	0.00	60.00	20.00	80.00	1
2b	40.00	0.00	20.00	0.00	40.00	0.00	40.00	2
2c	20.00	20.00	20.00	0.00	20.00	20.00	40.00	2
2d	20.00	0.00	40.00	0.00	20.00	20.00	40.00	2
2e	0.00	20.00	0.00	40.00	20.00	20.00	80.00	1
2f	0.00	0.00	40.00	0.00	20.00	40.00	60.00	2

Table 22

Descriptive Statistics Round 2, STSI-OA Section 2

Item	Responses from survey					Avg	Med	Min	Max	*SD*	Var
Section 2											
2a	1	5	5	5	6	4.400	5.000	1.000	6.000	1.949	3.800
2b	1	1	3	5	5	3.000	3.000	1.000	5.000	2.000	4.000
2c	1	2	3	5	6	3.400	3.000	1.000	6.000	2.074	4.300
2d	1	3	3	5	6	3.600	3.000	1.000	6.000	1.949	3.800
2e	2	4	4	5	6	4.200	4.000	2.000	6.000	1.483	2.200
2f	3	3	5	6	6	4.600	5.000	3.000	6.000	1.517	2.300

Note. “Not at all” = 0. “Rarely” = 1. “Somewhat” = 2. “Mostly” = 3. “Completely” = 4.

Table 23

Percentage of Individual Item Responses, Round 2, STSI-OA Section 3

Item	% of individual item response						Total	Consensus
	1 (least important) to 6 (most important)							1 = Yes 2= No
Section 3								
3a	20.00	20.00	20.00	0.00	20.00	20.00	40.00	2
3b	0.00	0.00	40.00	0.00	40.00	20.00	60.00	2
3c	40.00	0.00	20.00	0.00	20.00	20.00	40.00	2
3d	40.00	0.00	20.00	0.00	20.00	20.00	40.00	2
3e	20.00	20.00	0.00	20.00	20.00	20.00	60.00	2
3f	40.00	0.00	0.00	0.00	40.00	20.00	60.00	2

Table 24

Descriptive Statistics Round 2, STSI-OA Section 3

Item	Responses from survey					Avg	Med	Min	Max	*SD*	Var
3a	1	2	3	5	6	3.400	3.000	1.000	6.000	2.074	4.300
3b	3	3	5	6	6	4.600	5.000	3.000	6.000	1.517	2.300
3c	1	1	3	5	6	3.200	3.000	1.000	6.000	2.280	5.200
3d	1	1	3	5	6	3.200	3.000	1.000	6.000	2.280	5.200
3e	1	2	4	5	6	3.600	4.000	1.000	6.000	2.074	4.300
3f	1	1	5	5	6	3.600	5.000	1.000	6.000	2.408	5.800

Note. “Not at all” = 0. “Rarely” = 1. “Somewhat” = 2. “Mostly” = 3. “Completely” = 4.

Table 25

Percentage of Individual Item Responses, Round 2, STSI-OA Section 4

Item	% of individual item response						Total	Consensus
	1 (least important) to 6 (most important)							1 = Yes 2= No
Section 4								
4a	40.00	0.00	0.00	20.00	20.00	20.00	60.00	2
4b	0.00	0.00	20.00	20.00	20.00	40.00	80.00	1
4c	20.00	0.00	20.00	20.00	20.00	20.00	60.00	2
4d	20.00	0.00	20.00	20.00	20.00	20.00	60.00	2
4e	40.00	0.00	20.00	0.00	20.00	20.00	40.00	2
4f	20.00	0.00	20.00	20.00	20.00	20.00	60.00	2
4g	40.00	0.00	0.00	20.00	20.00	20.00	60.00	2
4h	40.00	0.00	0.00	20.00	20.00	20.00	60.00	2
4i	20.00	20.00	0.00	0.00	40.00	20.00	60.00	2

Table 26

Descriptive Statistics Round 2, STSI-OA Section 4

Item	Responses from survey					Avg	Med	Min	Max	*SD*	Var
4a	1	1	4	5	6	3.400	4.000	1.000	6.000	2.302	5.300
4b	3	4	5	6	6	4.800	5.000	3.000	6.000	1.304	1.700
4c	1	3	4	5	6	3.800	4.000	1.000	6.000	1.924	3.700
4d	1	3	4	5	6	3.800	4.000	1.000	6.000	1.924	3.700
4e	1	1	3	5	6	3.200	3.000	1.000	6.000	2.280	5.200
4f	1	3	4	5	6	3.800	4.000	1.000	6.000	1.924	3.700
4g	1	1	4	5	6	3.400	4.000	1.000	6.000	2.302	5.300
4h	1	1	4	5	6	3.400	4.000	1.000	6.000	2.302	5.300
4i	1	2	5	5	6	3.800	5.000	1.000	6.000	2.168	4.700

Note. “Not at all” = 0. “Rarely” = 1. “Somewhat” = 2. “Mostly” = 3. “Completely” = 4.

Table 27

Percentage of Individual Item Responses, Round 2, STSI-OA Section 5

Item	% of individual item response						Total	Consensus
	1 (least important) to 6 (most important)							1 = Yes 2= No
Section 5								
5a	40.00	0.00	20.00	0.00	20.00	20.00	40.00	2
5b	20.00	0.00	20.00	60.00	0.00	0.00	60.00	2
5c	40.00	0.00	20.00	0.00	20.00	20.00	40.00	2
5d	40.00	0.00	20.00	0.00	20.00	20.00	40.00	2
5e	40.00	0.00	0.00	20.00	20.00	20.00	60.00	2
5f	40.00	0.00	20.00	0.00	20.00	20.00	40.00	2
5g	40.00	0.00	0.00	20.00	20.00	20.00	60.00	2

Table 28

Descriptive Statistics Round 2, STSI-OA Section 5

Item	Responses from survey					Avg	Med	Min	Max	*SD*	Var
5a	1	1	3	5	6	3.200	3.000	1.000	6.000	2.280	5.200
5b	1	3	4	4	4	3.200	4.000	1.000	4.000	1.304	1.700
5c	1	1	3	5	6	3.200	3.000	1.000	6.000	2.280	5.200
5d	1	1	3	5	6	3.200	3.000	1.000	6.000	2.280	5.200
5e	1	1	4	5	6	3.400	4.000	1.000	6.000	2.302	5.300
5f	1	1	3	5	6	3.200	3.000	1.000	6.000	2.280	5.200
5g	1	1	4	5	6	3.400	4.000	1.000	6.000	2.302	5.300

Note. “Not at all” = 0. “Rarely” = 1. “Somewhat” = 2. “Mostly” = 3. “Completely” = 4.

Table 29

Percentage of Individual Item Responses, Round 2, STSI-OA Section 6

Item	% of individual item response						Total	Consensus
	1 (least important) to 6 (most important)							1 = Yes 2= No
Section 6								
6a	40.00	0.00	20.00	0.00	20.00	20.00	40.00	2
6b	20.00	20.00	0.00	0.00	40.00	20.00	60.00	2
6c	40.00	0.00	20.00	0.00	20.00	20.00	40.00	2
6d	40.00	0.00	20.00	20.00	20.00	0.00	40.00	2

Table 30

Descriptive Statistics Round 2, STSI-OA Section 6

Item	Responses from survey					Avg	Med	Min	Max	*SD*	Var
6a	1	1	3	5	6	3.200	3.000	1.000	6.000	2.280	5.200
6b	1	2	5	5	6	3.800	5.000	1.000	6.000	2.168	4.700
6c	1	1	3	5	6	3.200	3.000	1.000	6.000	2.280	5.200
6d	1	1	3	4	5	2.800	3.000	1.000	5.000	1.789	3.200

Note. “Not at all” = 0. “Rarely” = 1. “Somewhat” = 2. “Mostly” = 3. “Completely” = 4.

Appendix J: Stress Management and Critical Incident Policy Draft

Purpose and Scope

a. The purpose of this policy is to promote good physical and mental health of our employees through the creation of a positive work environment and organizational culture of support (National Institute for Health and Care Excellence, 2016).

b. This policy supports maintaining a positive focus on the core mission of this institution.

c. This policy applies to all full and part-time employees of this institution.

d. This policy applies to allied health associates required to undergo an orientation process prior to beginning on-campus duties (i.e., students, scribes, volunteers).

Background

a. Healthcare workers encounter many stressful situations related to work responsibilities. Healthcare workers may experience stress related to direct patient care, witnessing a traumatic event, or from personal experiences which affect professional performance (Occupational Safety & Health Administration, n.d.-b).

b. Stress can negatively affect an individual's physical, mental, and behavioral state and result in harmful personal and professional consequences (Occupational Safety & Health Administration, n.d.-b).

c. Stress management education provides information on causes and consequences of stress and provides learning opportunities for employees to develop resilience through positive self-care and coping mechanisms (The National Institute for Occupational Safety and Health, 1999).

Definitions

a. Critical Incident**:** Any incident which overwhelms an individual's coping resources (Critical Incident Stress Management, n.d.).

b. Critical Incident Stress Management: A multi-step approach to provide information on causes and signs and symptoms of critical incident stress, preventive tactics, and available treatment resources (Occupational Safety & Health Administration, n.d.-a).

c. Critical Incident Stress Debriefing: A multi-step component of the more comprehensive *Critical Stress Incident Management program* which has been employed primarily for stress management in the healthcare setting (Miller et al., 2019).

d. Defusing: A brief, unstructured dialogue among individuals who have witnessed or responded to a critical incident, usually held as soon as possible after an incident and before involved personnel are returned to their regular duties (Burns, 2016).

e. Post-Traumatic Stress Disorder (PTSD): Severe, life-altering mental health illness occurring after a single or series of traumatizing events, such as combat, natural disaster, or violent crime (U.S. Department of Veterans Affairs (2021).

f. Resilience: A characteristic which allows an individual to return to baseline behavior after a critical incident or extreme stressor, using positive coping strategies and resulting in personal growth (Mealer, Jones, & Meek, 2017).

g. Secondary Traumatic Stress (STS): Emotional stress felt by individuals as a result of treating or assisting others in traumatic situations (Howard & Navega, 2018).

h. Stress: A subjective state which elicits an emotional and physical response to external triggers (American Psychological Association, 2020).

i. Traumatic Incident: A tragic event involving devastating trauma, disability, or death

(The National Institute for Occupational Safety and Health, 2013).

j. Work-Related Stress: Harmful physical, emotional, and behavioral responses resulting from a misalliance between role responsibilities and worker needs, abilities and personal or professional resources (The National Institute for Occupational Safety and Health, 1988).

Causes of Work-Related Stress (Miller et al., 2019)

Include, but are not limited to:

a. Shift work

b. Multiple 12- hour shifts in succession

c. High patient acuity

d. Lack of autonomy

e. Limited resources

f. Bullying

g. Violence and safety concerns

Critical Incident Examples (Clark et al., 2019; Elhart et al., 2019)

Include, but are not limited to:

a. Violent incidents in workplace

b. Severe injures

c. Mass casualties

d. Sudden death

e. Pediatric traumas, death

Signs and Symptoms of Stress

(The National Institute for Occupational Safety and Health, 2013)

Physical	Cognitive	Emotional	Behavioral
Fatigue	Confusion	Depression	Anger
Headaches	Difficulty Making Decisions	Anxiety	Drug or Alcohol Use
General Malaise	Difficulty Concentrating	Sense of Failure	Increased or Loss of Appetite
Abdominal Upset	Decreased Ability to Problem-Solve	Feeling Overwhelmed	Insomnia
Chest Pain	Memory Problems	Tearfulness	Loss of Sexual Libido
Shortness of Breath	Poor work Performance	Irritability	Withdrawal

Employee Responsibilities (Occupational Safety & Health Administration, n.d. -b).

a. Practice self-care to maintain optimal physical and mental health.

b. Attend stress management education in-services.

c. Seek assistance if experiencing feelings of physical or emotional distress.

d. Collaborate with management to seek ways to alleviate stressors.

Management Responsibilities (Occupational Safety & Health Administration, n.d. -b).

a. Model good self-care behaviors.

b. Recognize signs of stress in employees and initiate actions to address employee concerns.

c. Provide referrals to trained counseling professionals, if needed or requested.

d. Foster a non-judgmental and safe work environment through open communication

e. Maintain documentation of reported critical incidents and subsequent actions.

f. Eliminate or minimize stress factors (adequate staffing, space, resources).

g. Managers will manage safety risks appropriately and protect workers from dangerous situations by regularly assessing the work environment for safety gaps (unlocked doors, outdoor lighting, escorts to parking) and ensuring identified gaps are reported and addressed.

Organization Responsibilities (Occupational Safety & Health Administration, n.d. -b).

a. Address environmental workplace stressors (lack of resources, poorly working or unsafe equipment, lack of space, noise).

b. Address workplace safety and provide employees with education to defuse or prevent dangerous situations (i.e., violence prevention training, violent person protocols).

c. Address operational workplace stressors (i.e., workload, staffing, scheduling).

d. Establish protocols to address workplace stress, build resilience, and establish a sense of hope for patient recovery and well-being.

e. Establish policy to educate employees on work-related stress disorders, such as secondary traumatic stress, post-traumatic stress, and burnout.

f. Establish protocols to address critical incident stress.

g. Conduct employee risk assessment upon hire and annually.

h. Monitor the impact of work-related stress disorders (STS, PTSD, Burnout) by conducting an organizational risk assessment every five years.

i. Provide opportunities for employee input and decision-making.

j. Provide regularly scheduled in-service training to enhance employees' skills specific to their work responsibilities.

Operational Procedures: Stress Management

a. Employees seeking help with work-related stress may request a confidential meeting with department manager or Stress Management Facilitator.

b. Managers recognizing sign and symptoms of work-related stress in staff are expected to notify Stress Management Facilitator.

c. Stress Management Facilitator will contact individuals for confidential follow-up.

d. Stress Management Facilitator will provide/refer individual for stress management training or professional counseling.

e. Stress Management Facilitator will, as needed, address individual concerns with management for follow-up.

f. Managers will report and/or address complaints of environmental stressors, such as extreme work assignments, scheduling issues, equipment, and resource issues.

Operational Procedures: Critical Incident

a. Employees will report to in a timely manner involvement in or witnessing of any critical incident related to their work. Report may be made to direct supervisor or to Stress Management Facilitator.

b. Employees may also report involvement in or witnessing of any critical incident outside of the workplace.

c. Managers receiving employee reports will refer to Stress Management Facilitator for follow-up.

d. Immediately following a critical event (or as soon as situation allows), department manager, house supervisor, or Stress Management Facilitator will perform a brief defusing session.

e. Defusing should only be initiated by management or personnel who have received appropriate training.

f. Second shift defusing will be managed by the house supervisor.

g. If affected personnel are unable to continue with assigned duties, department manager or house supervisor will arrange for replacement staff.

h. Affected staff will be referred for further counseling and clearance prior to returning to duty.

i. In case of a severe incident, debriefing may be initiated. Debriefing should be scheduled to occur within 48- 72 hours of the critical incident

k. Critical incident debriefing will be voluntary

l. Critical incident debriefing may be conducted by Stress Management Facilitator or may involve contracting a specially trained mediator.

Appendix K: Project Timeline

Action	Year	Month
Secure committee chairperson	2018	December
Secure project topic and research question with committee chairperson	2018	December
Secure clinical site and Letter of Support	2019	December
Complete literature review	2020	January - March
Complete Chapters 1, 2, 3	2020	March-October
Secure permission to schedule proposal defense	2020	October
Schedule and complete proposal defense	2020	November
Secure IRB approval from ACU and clinical site	2020	December
Send Letters of Invitation and Informed Consent	2021	February
Send Surveys 1- 3 and mid-week reminders	2021	April - May
Analyze final data from Survey	2021	May
Complete Chapters 4 and 5	2021	May
Develop Stress Management and Critical Incident policy draft	2021	May
Secure permission to schedule final defense	2021	June
Schedule and complete final defense	2021	June
Complete publication requirements	2021	July - August