

POST-RESUSCITATION DEBRIEFING IN THE EMERGENCY DEPARTMENT

by

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DEDICATION

This project is dedicated to all the emergency nurses, doctors, and support staff I have had the good fortune to work alongside the last two decades.

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ABSTRACT

Purpose: The purpose of this quality improvement project was to increase the number of post-resuscitation debriefings in the emergency department by educating charge nurses on the benefits and barriers to debriefing and the use of the STOP5 hot debriefing tool.

Background: Emergency medical providers are repeatedly exposed to stressful, disturbing, and traumatic events such as death and violence, which can lead to acute stress and burnout.

Debriefing is a method of defusing that promotes positive coping and provides peer support while improving future clinical performance in medical providers. Despite the known benefits and recommendation by the American Heart Association, debriefs are rare in emergency departments.

Methods: The Model for Improvement PDSA cycle design was utilized in this project.

Emergency department charge nurses were recruited by email to participate in a 20-minute education session on the benefits of debriefing, known barriers, and using the STOP5 debriefing tool. Pre- and post-surveys were administered evaluating familiarity with debriefing and the level of perceived benefits versus perceived barriers to debriefing in the emergency department.

Results: There were 10 participants, eight charge nurses and two nurse managers. The post-survey results showed an increase in familiarity and perceived benefits of debriefing while demonstrating a reduction in the perceived barriers. Participants also felt more comfortable with participating in and leading debriefings. At the end of four weeks, there was an increase in the percentage of resuscitations that were debriefed.

Conclusion: The implementation of charge nurse education on debriefing benefits and using the STOP5 debriefing tool was successful in increasing post-resuscitation debriefings.

INTRODUCTION

Emergency medical providers are repeatedly exposed to stressful, disturbing, and traumatic events such as death and violence, which can lead to maladaptive coping patterns, a form of secondary traumatic stress known as compassion fatigue (CF), and burnout (Cocker & Joss, 2016). Defusing immediately after potentially distressing critical incidents such as cardiopulmonary resuscitations can mitigate abnormal stress reactions in emergency medical staff (Cooper et al., 2020; Morrison & Joy, 2016; Schwab et al., 2016; Schmidt & Haglund, 2017; Cudmore, 1996). Debriefing is a method of defusing that promotes positive coping and provides peer support while improving future clinical and team performance in emergency medical providers.

Despite recommendations by the American Heart Association (AHA), debriefs are rare in emergency departments (ED) (Rose & Cheng, 2018; Zinns et al., 2020). Surveys of US and Canadian ED doctors and nursing staff found that debriefing occurred in less than one-quarter of resuscitations (Kessler et al., 2015). Often, debriefings occur on an ad hoc basis only and lack structure (Coggins et al., 2020). Several studies found that despite staff's receptiveness and desire for post-resuscitation debriefs, it remained an underutilized instrument (Zinns et al., 2020; Coggins et al., 2020; Allen & Palk, 2018; Colville et al., 2017; Cantu & Thomas, 2020). This project considers the benefits of and barriers to immediate debriefing following critical events in the ED and proposes a process for facilitating timely, routine debriefs.

Background Knowledge and Significance

Critical incident stress debriefing (CISD) is one of the earliest recognized methods of debriefing that emerged in the 1980s as a component of critical incident stress management

(CISM) programs designed to mitigate the adverse psychological effects associated with encountering traumatic events; CISD has been utilized in many fields, including law enforcement, firefighting, military combat, and victims of violent crimes (Clark et al., 2019). CISD is a formal and highly structured process that requires specially trained facilitators. This type of training typically comes through formal adoption of CISM programs, such as in law enforcement and military operations. Doctors and nurses are not routinely trained in CISD.

There has been controversy over the application of CISD to emergency and critical care settings. Mixed results were found on its efficacy in preventing post-traumatic stress disorder (PTSD) symptoms in this population. A 2002 Cochrane Review found a paradoxical increased risk of developing PTSD after formal CISD sessions (Rose et al., 2002). However, a more recent evaluation found several flaws in this review and suggested that psychological debriefing was prematurely rejected by the healthcare industry, leading to gaps in time and evidence on the matter (Tamraker et al., 2019). In the last decade, studies began to revisit psychological debriefing in emergency medical providers despite the findings of the Cochrane Review. A 2014 randomized control trial of volunteer firefighters found that CISD had no effect on PTSD symptoms versus the control groups; however, those that received CISD reported significantly less alcohol use and better quality of life (Tuckey & Scott, 2014). These findings suggest that the benefits of debriefing may be less straightforward, impacting positive coping skills rather than PTSD directly. Several studies found that ED staff desire an informal form of debriefing that ideally occurs immediately after a resuscitation (Twigg, 2020; Coggins et al., 2020; Spencer et al., 2019; Morrison & Joy, 2016). Newer terms have emerged that encompass a less traditional form of debriefing, including clinical debriefing, hot debriefing, post-resuscitation debriefing,

time-out, and post-code pause. For the purposes of this project, debriefing refers to a discussion of clinical performance and staff psychological well-being after a critical event such as cardiac arrest or significant resuscitation.

Emergency department (ED) clinical staff are at risk for compassion fatigue, a form of secondary traumatic stress resulting from repeated exposure to acute stress, death, and violence. Compassion fatigue (CF), as defined by Figley, is a state of exhaustion, depleted satisfaction, agitation, and negative coping brought on by continuously providing care for individuals who have themselves been traumatized (1995). Unchecked CF can lead to anxiety, PTSD, and burnout, leading to nursing resignations (Cocker & Joss, 2016). A 2015 systematic review found that 26% of ED nurses are experiencing burnout at any given time (Adriaenssens et al., 2015). Pre-pandemic, as high as 33% of emergency nurses, paramedics, physicians, and medical residents in the US screened positive for PTSD indicators (Luftman et al., 2016). A study of ED nurses in Iran found that nearly 83% screened positive for PTSD (Hosseininejad et al., 2019). A review of literature from 2006-2018 on factors that contribute to ED nurse turnover revealed that violence and critical incidents were the top two factors leading to attrition (McDermid et al., 2019). The evidence is clear; emergency medical providers are an at-risk population.

Recently, studies have aimed to determine the efficacy of specific interventions that target reducing CF, PTSD, and burnout symptoms. These range from mindfulness practice, self-care, and resiliency training to dance and movement therapy. While few studies have focused on the direct correlation between debriefing and CF or burnout in emergency medical providers, debriefing after critical incidents was frequently identified as a desired coping mechanism for ED staff (Allen & Palk, 2018; Rose & Cheng, 2018; Spencer et al., 2019; Twigg, 2020; Morrison

& Joy, 2016). A systematic review of the adverse emotional effects experienced by emergency medical workers and catharsis techniques found that debriefing was an effective method of release (Prieto-Callejero et al., 2020). One cohort study demonstrated that attending debriefings reduced burnout risk in intensive care doctors and nurses (Colville et al., 2017). However, barriers prevent debriefings from occurring regularly. Time, the need to immediately care for other patients, a lack of trained facilitators, and a desire not to return to work on a day off for formal CISM sessions were cited as obstacles to routine debriefing (Arriaga et al., 2020; Rose & Cheng, 2018; Morrison & Joy, 2016; Zinns et al., 2020). Debriefing enhances coping and resiliency in emergency providers (Rose & Cheng, 2018; Schmidt & Haglund, 2017). Moreover, timely and routine debriefing sessions provide opportunities for manager follow-up, real-time performance feedback, and mental health resource referral, which contribute to a reduced risk for CF and burnout symptoms (Arriaga et al., 2020; Azizoddin et al., 2020; Twigg, 2020; Cantu et al., 2020; Copeland & Liska, 2016).

Various debriefing tools have been developed in QI projects and individual organizations worldwide. But few have been fully validated or deemed generalizable to all settings. The American Heart Association (AHA) lists several scripted debriefing methods but does not endorse any specific tool. Among these are the Debriefing In Situ Conversation in Emergency Room Now (DISCERN), Target Analysis Learning points Key Actions (TALK), and the PEARLS debriefing tool.

The STOP5 (Summarize the case, Things that went well, Opportunities to improve, Points of action and responsibility, for 5 minutes) debriefing tool was developed in Edinburgh in 2018 and tracked for staff confidence in debrief participation and facilitation as well as hard

outcomes such as process and equipment modifications as a result of debriefing (Walker et al., 2020). At baseline, less than half of the respondents, including doctors, nurses, and support staff, had participated in a debrief in the last 12 months (Walker et al., 2020). At 18 months post-implementation, 70% of staff respondents reported participating in a debriefing in the last 12 months, and 100% rated the experience from good to excellent (32% good, 38% very good, 32% excellent) (Walker et al., 2020). A total of 10 process and equipment changes directly resulted from debriefing feedback and included solutions to drug stock and preparation issues, malfunctioning machines, and supply shortages (Walker et al., 2020). These positive findings, paired with the ease of use and accessibility of the STOP5 framework, make it an ideal tool for process improvement projects in emergency departments.

Local Problem

In the aftermath of the COVID-19 pandemic, critical incidents such as cardiopulmonary resuscitations occurred daily in emergency departments. The increased incidence and volume of critically ill patients, uncertainty, and increased moral distress, created heightened anxiety, and increased the risk for burnout in this population (Azizoddin et al., 2020). Measures to mitigate adverse psychological risks and support clinical operations in emergency departments were necessary. These measures should target improving team performance and providing psychological support to staff to promote a healthy workforce and positive patient outcomes during stressful situations.

Nationwide, emergency departments (EDs) saw an initial decrease in ED visits in early 2020, with the lowest acuity patients showing the sharpest decline (Ghaderi et al., 2022). After the second surge in the early months of 2021, EDs saw volumes return to pre-pandemic numbers;

however, the acuity and admission rate of ED patients was higher (Christopher & Christopher, 2021).

At the height of the first wave of COVID-19 in July 2020, EDs in Arizona treated 2,008 patients in a single day, with 970 ICU beds occupied and 671 ventilators in use (Arizona Department of Health Services [ADHS], 2022). The second wave, January 2021, peaked at over 2,300 COVID-19 patients evaluated in emergency departments in a single day, with 1,183 ICU beds occupied and 821 ventilators used (ADHS, 2022). At the time of this writing, the total number of deaths from COVID-19 in Arizona is over 30,000, with more than half of the deaths reported in Maricopa County (ADHS, 2022). Despite fluctuations in COVID-19 prevalence, community spread, and hospitalizations, emergency department bed usage had remained around 75% since November 2021, steadily increasing from 37% usage reported in March 2020, when the state of emergency was declared in Arizona. Prior to March 2020, ADHS did not collect ED bed usage data, so it is unclear what actual pre-pandemic capacity and usage were. It is clear, however, that emergency departments continue to feel the strain of extremely sick patients in unprecedented volumes.

Intended Improvement

Project Purpose

This quality improvement project aimed to educate charge nurses on the benefits of and barriers to post-resuscitation clinical debriefing, the use of the STOP5 hot debriefing tool, and to evaluate their familiarity and comfort in incorporating post-resuscitation debriefing into current practice.

Project Question

Will educating charge nurses on debriefing and the STOP5 tool increase familiarity and comfort with debriefing practice and the percentage of resuscitations that get debriefed at BUMCP ED?

Project Objectives

1. Educate ED charge nurses on debriefing, the potential benefits of debriefing, the known barriers to debriefing, and strategies to counter/address those barriers.
 - i) Pre-surveys were administered to charge nurses to assess familiarity with debriefing, comfort with leading a debrief, and knowledge of the STOP5 debriefing tool.
2. Educate ED charge nurses on the STOP5 tool, the potential benefits of the STOP5 tool, the known barriers to the STOP5 tool, and strategies to counter/address those barriers.
 - ii) A 20-minute educational intervention on debriefing and using the STOP5 tool was delivered in PowerPoint form, with a brief question and answer session.
 - iii) Post-education surveys were administered to charge nurses immediately following the education session.
3. The intervention was monitored at weeks 1-4 through audits of the printed debriefing tools.

Theoretical Framework

The term quality improvement (QI) suggests that a behavior change is necessary to increase the value of a product or service and must be sustainable (Hovlid et al., 2012). Change implementation within healthcare organizations is complex and contextual, and it is often difficult to predict which efforts will succeed (McDonald, 2013). A theoretical framework guides

QI projects through such complexities by identifying variables, detecting relationships between variables, and examining outcomes (Moran et al., 2020). Furthermore, in QI efforts, theoretical frameworks can provide insight into the elements that influence the sustainability of organizational or process change (Hovlid et al., 2012). Three key concepts were considered when selecting the theoretical framework to direct this QI project. These concepts include knowledge of debriefing practice, perceived benefits and barriers, and comfort in practice. Many ED staff lack understanding of when and how to debrief, creating a barrier to practice change.

Recognizing a knowledge deficit as a barrier to change can guide intervention selection. The first step in this project was an educational intervention for charge nurses. Charge nurse knowledge was measured through familiarity with and comfort in facilitation of debriefing sessions. Often associated with the health belief model, perceived benefits and perceived barriers have shown to be strong predictors of behavior change (Sulat et al., 2018). Perceived benefits refer to the cognitive motive behind performing a behavior or accepting a change (Leung, 2013).

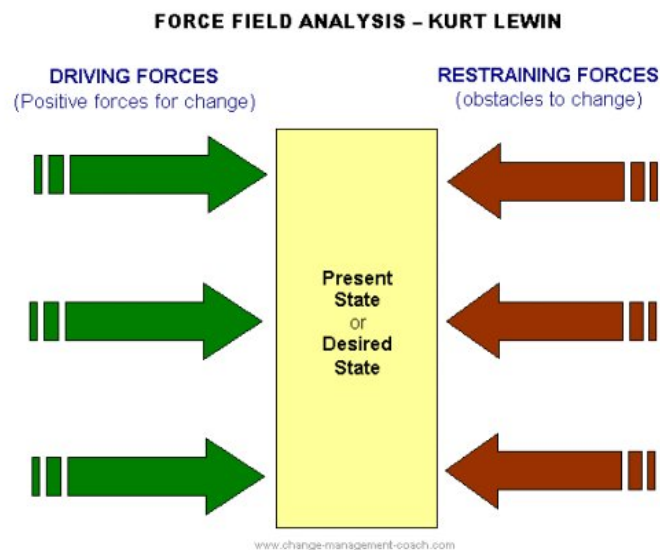
Conversely, the perceived barriers negatively impact motivation to change (Klein et al., 2006). An individual is most likely to change behavior when perceived benefits are high and perceived barriers are low (Sulat et al., 2018). Change facilitators and change inhibitors influence the perception of benefits and barriers, factors that drive change in a positive or negative direction from the desired state.

Lewin's force-field analysis (Figure 1) inspires the view that all situations are in a state of temporary equilibrium and have the potential to be changed (Ajimal, 1985). This framework centers around achieving change by increasing the driving forces and or reducing the restraining forces that act on a situation, making it a suitable framework for this project.

First, the actual state is described, while the optimal or desired state is clearly identified (Baulcomb, 2003). Lewin posited that in any given state, there is an equilibrium of driving and restraining forces that maintain the status quo (Connelly, 2020). Changing an individual or group's behavior from the status quo is necessary to change the balance of these forces (Burnes & Cooke, 2012). Change is promoted by increasing knowledge and restructuring perceptions, strengthening driving forces, and weakening restraining forces (Burnes & Cooke, 2012).

Figure 1

Kurt Lewin's Force Field Analysis



Force field analysis has been used to guide a wide range of change endeavors, from small-scale single-process change to full-capacity organizational action. As a tool, its versatility is in part due to its compatibility with survey methodology (Swanson & Creed, 2013). Despite the presumptive ease of use, academics and change managers should be cautious of oversimplifying force field analysis (Swanson & Creed, 2013). Organizations and even units within organizations are all indeed complex adaptive systems with intricate webs of driving and

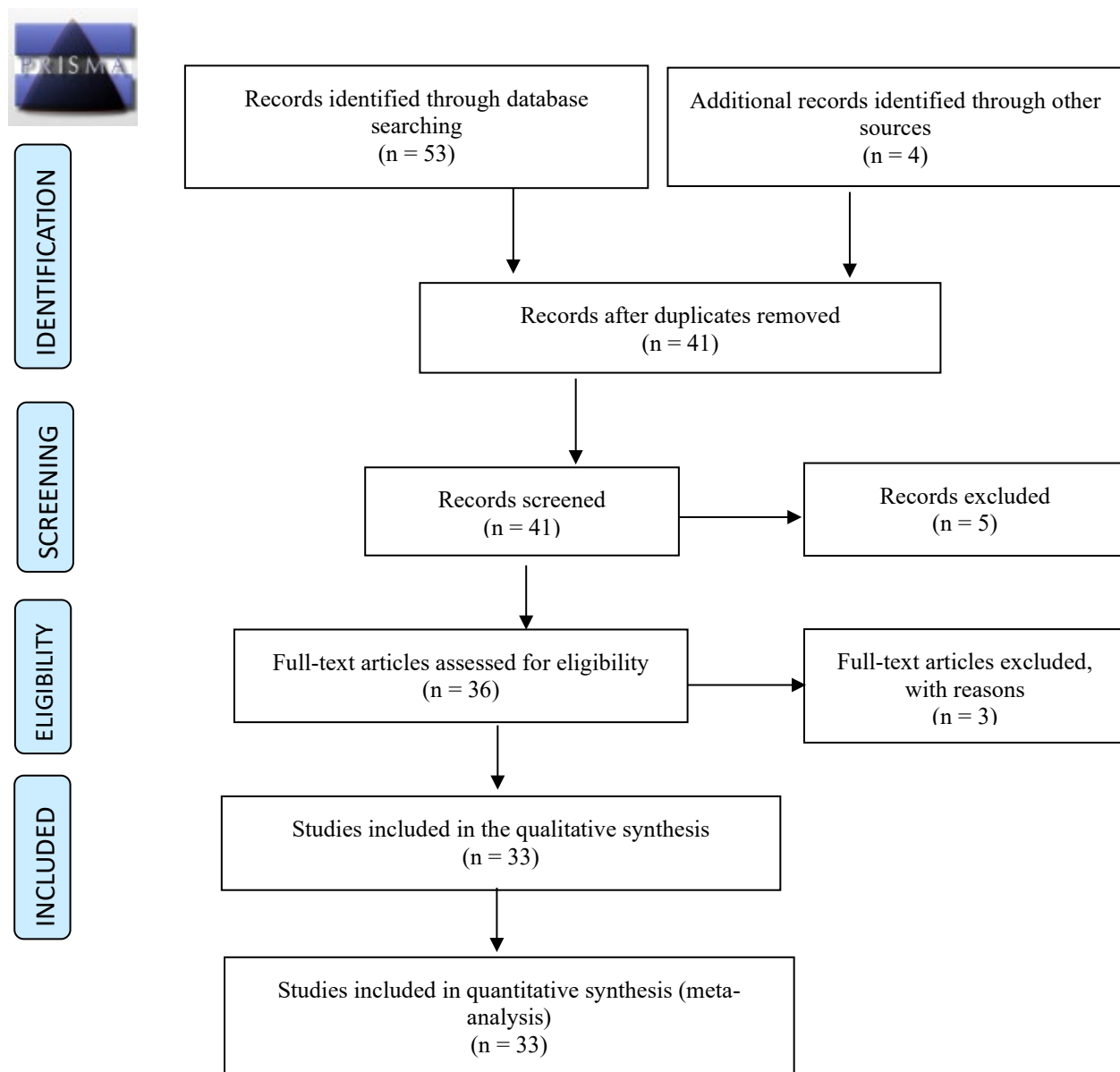
restraining forces. Forces can carry different weights at different times. It can sometimes be the case that a force is both enabling and constraining. For these reasons, it is necessary to analyze drivers and their strengths to find the precise forces to move change forward (Swanson & Creed, 2013).

Through the lens of Lewin's force-field analysis framework, the concepts of knowledge and perceived benefits/barriers are viewed as driving or restraining forces exerting influence over the ability to change ED debriefing practices. Each perceived benefit represents a facilitator, while each perceived barrier denotes an inhibitor of change. By increasing charge nurse familiarity with debriefing facilitation, a driving force for change is strengthened. Additionally, altering the perception of barriers eliminates or reduces the weight carried by restraining forces.

Literature Synthesis

Evidence Search

A literature search of existing evidence was conducted using CINAHL and PubMed databases. The search terms "debriefing" and "emergency department." The CINAHL database generated 53 results, and 51 were obtained from the PubMed database. An additional search of PubMed using the terms "secondary traumatic stress" or "burnout" and "emergency department" returned four more results. There were 16 duplicate articles. The results were filtered with a timeframe between 2015 and 2020 to obtain the most recent articles and studies. Exclusion criteria included debriefing in simulated practice and debriefing with video, as these were the scope of this project. Five were eliminated based on the publication date, and an additional four were eliminated due to applications outside of the project's scope. A total of 32 articles were used. Figure 2 shows the PRISMA flow diagram of the literature included in the synthesis.

Figure 2*PRISMA 2009 Flow Diagram of Literature Search*

Comprehensive Appraisal of Evidence

Common Themes

Debriefing Promotes Coping Through Peer Support. Many emergency professionals found emotional support in informal discussions with colleagues rather than formal, organization-run critical incident stress debriefings (CISD) (Arriaga et al., 2020; Azizoddin et al., 2020; Allen & Palk, 2018). During the COVID-19 pandemic, a large academic medical center in Boston, Massachusetts, implemented weekly debriefing sessions for ED staff to facilitate discussion of fears and concerns, provide peer-peer support, and deliver resources for building resilience (Monette et al., 2020). Post-implementation surveys showed that 81% of participants attended the sessions to gain a sense of connectedness, and 75% attended to support their peers (Monette et al., 2020). A 2020 systematic review found that debriefing promotes a sense of catharsis through the provision of a peer support network (Prieto-Callejero et al., 2020). Debriefing allows for group reflection that aids ED nurses in processing emotions and gaining insight from shared experiences (Schmidt & Haglund, 2017).

Debriefing Improves Clinical Performance. Debriefing is a practical education tool that can improve team effectiveness and positively impact patient outcomes (Kessler et al., 2015). Debriefing is linked to higher-quality cardiopulmonary resuscitation by identifying knowledge deficits and process breakdowns (Zinns et al., 2020). Pediatric ED nurses preferred debriefing focused on clinical performance, praise, and constructive criticism (Clark, Polivka & Sanders, 2019). Debriefing for quality and process improvement is supported by both the American Heart Association (AHA) and the American Academy of Pediatrics Committee on Pediatric Emergency Medicine. Hot debriefings, which occur shortly after an event, elicit team

reflection, improvement recommendations, and insight for future resuscitations (Zinns et al., 2020). Furthermore, debriefing in the clinical setting creates interdisciplinary collaboration and aids in identifying underlying patient safety issues (Coggins et al., 2020).

Debriefing Presents an Opportunity to Refer to Mental Health Resources. Successful debriefing sessions focus on shared experiences and team performance and provide an integral opportunity to identify and refer individuals needing additional mental health support (Azizoddin et al., 2020; Pallas, 2020; Monette et al., 2020; Tuckey & Scott, 2014). During the COVID-19 crisis, two separate studies utilized regular debriefing sessions to provide employee assistance program (EAP) resources to individuals needing further mental health treatment (Azizoddin et al., 2020; Monette et al., 2020).

Mitigation of Negative Psychological Impact. Acute care providers are at risk for developing acute stress reactions (ASR), anxiety, and depression (Cooper et al., 2020; Pallas, 2020). Debriefing can assist staff in processing emotions following distressing events (Monette et al., 2020). Debriefing provides a level of peer support that positively impacts the psychological well-being of clinicians (Cantu & Thomas, 2020). Post-resuscitation debriefing is associated with reduced burnout in ED providers (Cooper et al., 2020; Eaton et al., 2020). Effective debriefing programs extenuate moral distress and prevent compassion fatigue (Hammerle et al., 2017). Structured debriefs that respect time are cost-effective, support personal and group reflection, promote resiliency, and reduce compassion fatigue (Schmidt & Haglund, 2017).

Lack of Trained Staff to Facilitate Debriefing. In multiple qualitative studies, the lack of qualified staff to lead debriefings was commonly identified as a barrier to routine debriefing.

Eaton et al. identified the lack of training and comfort in debriefing facilitation as the most significant barrier (2020). In a 2018 UK study, less than 12% of respondents had prior training in conducting debriefs, while 85.5% of participants reported that they would initiate a debriefing more frequently if they were provided more training (Spencer et al., 2019). Among Scottish emergency nurses, study participants reported that debriefings occurred infrequently, and staff needed to be more adequately prepared to lead sessions (Morrison & Joy, 2016). Often emergency departments (EDs) rely on physicians to facilitate debriefings; however, due to multiple competing priorities, physicians are not typically the ideal option to lead sessions (Rose & Cheng, 2018). Furthermore, they posited that charge nurses were more suitable to serve as facilitators due to their clinical knowledge, operational insight, and understanding of team roles (Rose & Cheng, 2018).

Strengths of Evidence

A total of four high-level evidence systematic reviews were included in the literature synthesis. Common themes suggest that burnout prevalence and the desire to debrief after critical incidents among ED staff are universal. One systematic review proposed mutual determinants of burnout, including repeated exposure to traumatic events (Adriaenssens et al., 2015). Fourteen moderate-level of evidence, individual qualitative studies included were published in Canada, the United States (US), Scotland, the United Kingdom (UK), and Australia, each indicating ED staff's expressed desire for debriefing.

A systematic review of debriefing frameworks concluded that six standardized debriefing tools were effective debriefing methods, improving quality of care, team performance,

communication, and participant anxiety (Hale et al., 2020). These findings indicate that debriefing tools have been successfully utilized in ED settings across the globe.

Weaknesses of Evidence

There is a dearth of meta-analyses and randomized-control studies on the effects of debriefing in emergency medical providers. Most studies relied on moderate-level evidence and qualitative data from surveys or interviews. There were three articles classified as expert opinion. There are mixed findings on the benefits of formal debriefings, which has triggered many EDs to redefine debriefing processes as well as the precise meaning of the term debriefing. Unfortunately, this has created more confusion around promoting or validating a universal terminology or process.

Gaps and Limitations

The chief limitation and greatest gap in the existing evidence is a need for more generalizability of study results. Most debriefing frameworks were created to meet the needs of individual EDs or a hospital network of EDs, making the findings specific to each setting. All studies that developed new debriefing tools saw positive outcomes from implementing novel programs. More studies are needed to validate these outcomes in other departments and different healthcare systems to corroborate these findings and improve the generalizability of the results.

METHODS

Project Design

Survey methodology is frequently used when applying Lewin's force-field analysis framework (Swanson & Creed, 2014). In this QI project, pre- and post-surveys were utilized to measure debriefing familiarity, perceived benefits and barriers, and comfort in debriefing

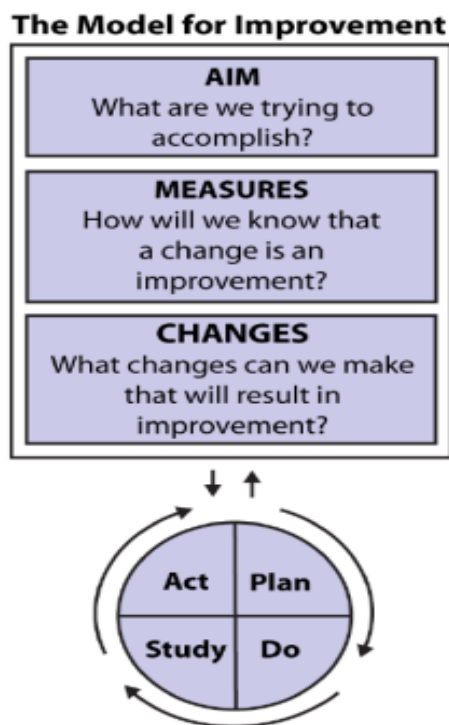
facilitation among charge nurses. Debriefing education was provided to charge nurses in one 20-minute session delivered via a PowerPoint presentation. The STOP5 tool was selected based on the aims of this project, including an emphasis on improving clinical performance and staff well-being. The authors of the STOP5 tool grant permission for its use at no cost, as per the Edinburgh Emergency Medicine website.

Model for Implementation

The Institute for Healthcare Improvement (IHI) Model for Improvement and plan-do-study-act (PDSA) component was chosen to steer the project implementation because it supports accelerated improvement and tests change on a small scale (IHI, 2021). The model was developed by Associates in Process Improvement and consists of two parts. The first part asks three fundamental questions regarding the aim, measures, and desired change (IHI, 2021).

The first question asks what is to be accomplished or the aim. The aim should focus on one or more of the Institute of Medicine's (IOMs) six dimensions, including safe, timely, effective, efficient, equitable, and patient-centered care. For this project, the aim to increase debriefings in the ED encompassed safe, timely, effective, and efficient care, as debriefings have been shown to improve team performance and patient outcomes (Hale et al., 2020).

The next question asks how it will be determined that the change was successful. Process and outcome measures provide quantitative data that can be used to evaluate if the steps in the process suited the desired change and if the change was effective in reaching the aim (IHI, 2021). This project used pre- and post-survey feedback to evaluate the process, including use of the STOP5 tool. The outcome measure was the number of debriefings before and after the intervention as a percentage of the total resuscitations performed.

Figure 3*The Model for Improvement*

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Retrieved from <http://www.ihl.org/education/ihopenschool/Courses/Documents/QI102-FinalOnePager.pdf>

The third question asks what changes are possible to drive the desired outcomes. The IHI identifies five ways of developing change which include critical and creative thinking, benchmarking, use of technology, and change concepts (IHI, 2021). Change concepts branch further into methods of yielding change, including improving the workflow, eliminating waste, altering the environment, improving time management, and reducing errors (IHI, 2021). This project used the change concepts of time management and changing the environment. Providing education on using a debriefing tool, such as the STOP5 tool designed to be completed in 5-10 minutes, aimed to reduce the perception of not having enough time. The concept of changing the

work environment does not refer to the physical environment of the ED in this project but rather the metaphysical environment, or culture of the ED, surrounding beliefs about the benefits and barriers to debriefing.

Setting and Stakeholders

The setting for this project was the emergency department at Banner University Medical Center Phoenix (BUMCP), a 720-bed hospital and level I trauma center in downtown Phoenix. The emergency department (ED) has 60 beds and a 6-bed trauma bay. This facility's specialties include comprehensive stroke care, transplant, mechanical circulatory device care, cardiothoracic surgery, and extracorporeal membrane oxygenation (ECMO). This adds up to a high volume, high acuity ED at baseline due to the populations served.

This project focused on the ED and medical resuscitations. Due to the complexities of the Level I trauma program in a large teaching facility, traumatic resuscitations were outside this project's scope. The current ED process for debriefing is minimal, occurring on an ad hoc basis and less than three times per year in the last five years. BUMCP ED leadership identified improvement of the current debriefing process as a goal for 2022. The project's stakeholders were the team leader, the ED director, and author, additional ED leaders, hospital administrators, and the subject matter experts: the charge and staff nurses, physicians, ED technicians, and additional ED support staff.

Planning the Intervention

Before implementing a debriefing process, the events that trigger a debriefing must be clearly defined. Determining which clinical events to debrief should be established to promote staff anticipation and increase the frequency of debriefing (Kessler et al., 2014). Unexpected

death and death/resuscitation of a child were identified as the most distressing events in emergency departments (Clark et al., 2019; Lavoie, Talbot & Mathieu, 2011; Morrison & Joy, 2016). For this project, any cardiopulmonary arrest and major resuscitation that occurred prehospital or within the emergency department triggered a debriefing.

Participants and Recruitment

The target population for this project was charge nurses in BUMCP ED. The inclusion criteria were all nurses that functioned in the charge nurse role regardless of time in the role or clinical experience. Two senior ED leaders were included as they often function in the charge nurse role when needed. Exclusion criteria included leaders and nurses that did not function in the charge nurse role, ED technicians, ED doctors and physician assistants, and students. A letter of recruitment was emailed to 14 charge nurses and three senior leaders using their work email addresses. Voluntary participation in the education session and debrief episodes was requested but never mandated.

Consent and Ethical Considerations

Principles of ethical consideration evident in this project include informed consent, autonomy, and respect for privacy. Consent was obtained through emailed responses to the letter of recruitment, indicating acknowledgment of the project objectives and willingness to participate. The letter also informed participants that employment with Banner University Medical Center was independent of participation in the project. Ongoing consent and autonomy were implied through attendance of the education intervention and participation in the debriefing process. Participant privacy and confidentiality were maintained through the deidentification of

surveys. The Banner Health Institutional Review Board approved this project on October 11, 2022 (Appendix A).

Data Collection

Microsoft Word was utilized to create pre- and post-Likert-type surveys to assess participants' familiarity and comfort with facilitating the debriefing process. The pre-survey contained four questions pertaining to participants' experience and familiarity with debriefing. The post-survey was identical to the pre-survey. The surveys were administered to the charge RNs immediately before and after the education session. Survey responses were recorded in a Microsoft Excel spreadsheet immediately following the intervention, and then they were shredded.

Copies of the modified STOP5 hot debriefing worksheet was kept at the charge nurse desk. The second page of the worksheet contained the original STOP5, as required per the conditions of use. The expectation was that a debrief would be conducted using the STOP5 process following any resuscitation. Debrief worksheets were completed in real-time. No protected health information, staff identifiers, or charge RN information was included on the worksheet. Worksheets were placed in a folder and stored in a locked manager's office. The project lead collected the worksheets from the locked office and recorded only a notation of debriefed or not debriefed. The total number of debriefed incidents was compared to the total number of cardiopulmonary resuscitations that occurred in the timeframe of reference. The BUMCP ED quality RN routinely collects resuscitation data from events within the ED. Only the number of resuscitations per week was shared with the project lead via a secure Microsoft Teams site.

All worksheets, surveys, and folders were shredded on March 20, 2023. The Excel spreadsheet and Teams site was deleted on April 1, 2023.

Data Analysis

Survey data were exported and analyzed as ordinal data in Stata 17.0. Descriptive statistics were generated, and frequencies of score responses for each question were displayed in a bar chart to compare pre- and post-survey responses. The medians of each data set were examined as the measure of central tendency rather than the means; means can be indistinct in non-normal distributions of data such as Likert scale data (Sullivan & Artino, 2013). The one-sided nonparametric sign test for the test of equality of matched pairs was run in Stata to analyze the data, where the null hypothesis assumes that both pre- and post-survey responses are equal, with $\alpha = 0.05$.

The number of resuscitations debriefed during the four-week implementation phase was divided by the total number of resuscitations that occurred. This data was compared to established data of resuscitations and debriefs.

RESULTS

The *Post Resuscitation Debriefing in the ED* project was implemented on January 23, 2023, at 4:30 p.m. in the BUMCP ED conference room. At the conclusion of the regularly scheduled charge nurse meeting, voluntary participation was again confirmed. Staff opting out of participation were dismissed. There were ten participants that included two RN managers and eight charge nurses. The pen-and-paper pre-survey was administered to participants, followed by the PowerPoint debriefing education presentation. To ensure anonymity and match pre- and post-responses, participants labeled the paper surveys with the first three letters of their mother's

maiden name and the month of their mother's birth. No additional demographic information was collected. The post-survey was administered immediately following the education. Surveys were placed in a file folder and kept in the manager's locked office.

Outcomes

The first question queried the number of post-resuscitation debriefings participants had experienced in the last 12 months. Responses were provided in Likert-type scale selections ranging from "zero" to "4 or more." The mean was 0.8, the median was 0.5, and the mode was 0. The minimum was zero, and the maximum was three debriefings. Figure 4 shows a histogram of the distribution of responses to the number of debriefings that participants had experienced in the last 12 months. Table 1 summarizes descriptive statistics for all survey responses in all areas.

Familiarity

The first objective of this project was to increase charge nurse familiarity with debriefing. There was a single question on the survey assessing familiarity with post-resuscitation debriefing: How familiar are you with post-resuscitation debriefing? Participants selected answers from a Likert-type scale from "1" (not at all familiar) to "5" (extremely familiar). Figure 5 shows the results of the pre- and post-survey response medians. Before the educational intervention, the median level of familiarity was 2.5, indicating slight to moderate familiarity with post-resuscitation debriefing, with a minimum of "1" and a maximum of "4." The median response after the intervention was "4," indicating very familiar on the scale, with a minimum of "3" and a maximum of "5." The one-way sign test analysis showed statistical significance in the increased median, with a p -value of $p = 0.0039$.

Figure 4

Frequency of Debriefing Participation

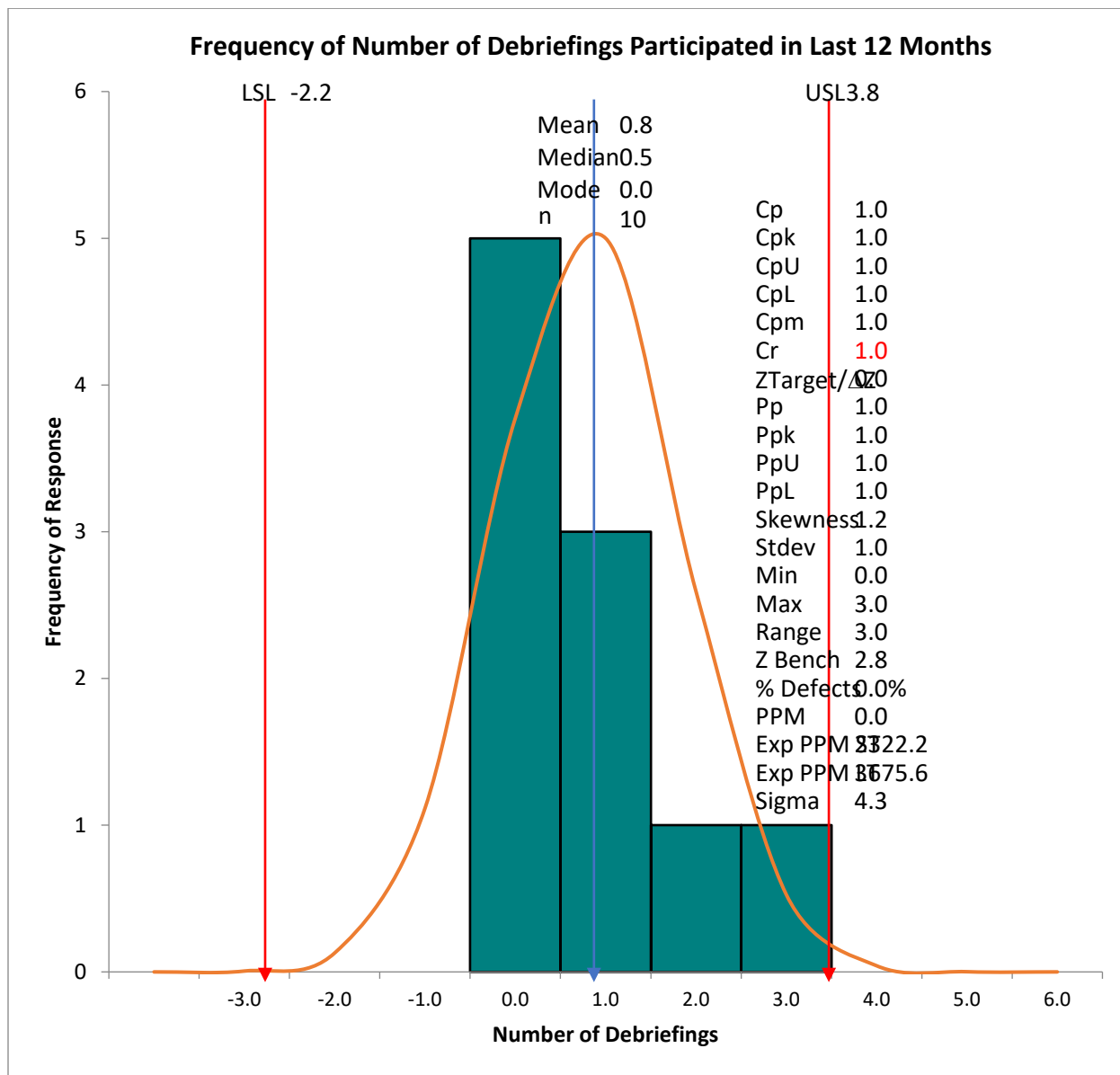


Table 1*Descriptive Statistics Summary*

Survey Question/Variable	Before n=10		After n=10		p-value
	Mean (sd)	Median (min, max)	Mean (sd)	Median (min, max)	
How familiar are you with post-resuscitation debriefing?	2.6 (0.97)	2.5 (1,4)	4.1 (0.57)	4 (3,5)	0.0039
To what degree do you agree: There are many benefits to post-resuscitation team debriefing.	3.5 (0.71)	3 (3,5)	4.4 (0.52)	4 (4, 5)	0.0078
To what degree do you agree: In this ED, people are not trained to perform debriefings?	4.4 (0.70)	4.5 (3,5)	1.8 (0.63)	2 (1,3)	0.0010
To what degree do you agree: In this ED there is not enough time to perform debriefings?	4.7 (0.48)	5 (4,5)	2.1 (0.74)	2 (1,3)	0.0010
How comfortable are you with participating in a post-resuscitation debriefing?	3.7 (0.67)	4 (3,5)	4.6 (0.52)	5 (4,5)	0.0156
How comfortable are you with leading a post-resuscitation debriefing?	2.6 (1.67)	3 (1,4)	4 (0.67)	4 (3,5)	0.0020

*One-sided sign test *p*-value for comparison of medians

Perceived Benefits and Barriers

The second objective of this project was to increase the perceived benefits of debriefing among charge nurses while reducing the perceived barriers. Participants answered three questions on perceived benefits and barriers to debriefing. Likert-type scale responses ranging from “1” (Strongly disagree) to “5” (Strongly Agree) were indicated. For the question “To what degree do you agree with this statement: I understand the many benefits to post-resuscitation team debriefing,” the median before the response was three while the after median was “4.” The one-way sign test analysis showed statistical significance in the increased median, with a *p*-value of $p = 0.0156$.

Concerning debriefing barriers, participants answered two questions “To what extent do you agree with this statement: In this ED, staff are not trained to perform debriefings,” and “In this ED, there is not enough time to perform debriefings.” The median response before the intervention was “4.5” for lack of staff training, indicating moderate to solid agreement, and the median after was “2,” indicating disagreement with the statement. One-way sign test analysis showed statistical significance in the other direction, with $p=0.0010$. For the perceived barrier of time, the before median was “5,” and the after was “2,” also showing statistical significance when analyzed using the one-way sign test with $p = 0.0010$ (Figure 5).

Two additional questions related to participation and facilitation of debriefings before and after the intervention. Participants rated their comfort level in each from 1-5, with “1” being *extremely uncomfortable* and “5” being *extremely comfortable*. For comfort in participation, the median before was “4,” and after was “5,” with a p -value of $p = 0.0156$. The median score for comfort in leading a debriefing before was “3,” and after was “4,” with a p -value of $p = 0.0020$. Both showed statistical significance in the sign test for a change in median score after the intervention (Figure 5).

The final objective of this project was to increase the number of debriefings that occur after resuscitations in BUMCP ED. In the first week after implementation, there were seven resuscitations and zero debriefings. In the second week, there were six resuscitations, and one team debriefing was performed. There were five resuscitations in week 3, with two debriefings performed. In the final week, there were six resuscitations and two debriefings. Over the four weeks, there were 24 resuscitations and four debriefings. Overall, the percentage of resuscitations that were debriefed was 20.8%. In the same 4-week period of 2022, 29

resuscitations and zero debriefings were recorded, equal to 0%. Table 2 shows the number and percentage of resuscitations debriefed by week (Figure 5).

Figure 5

Median Debriefing Survey Results Before and After Education

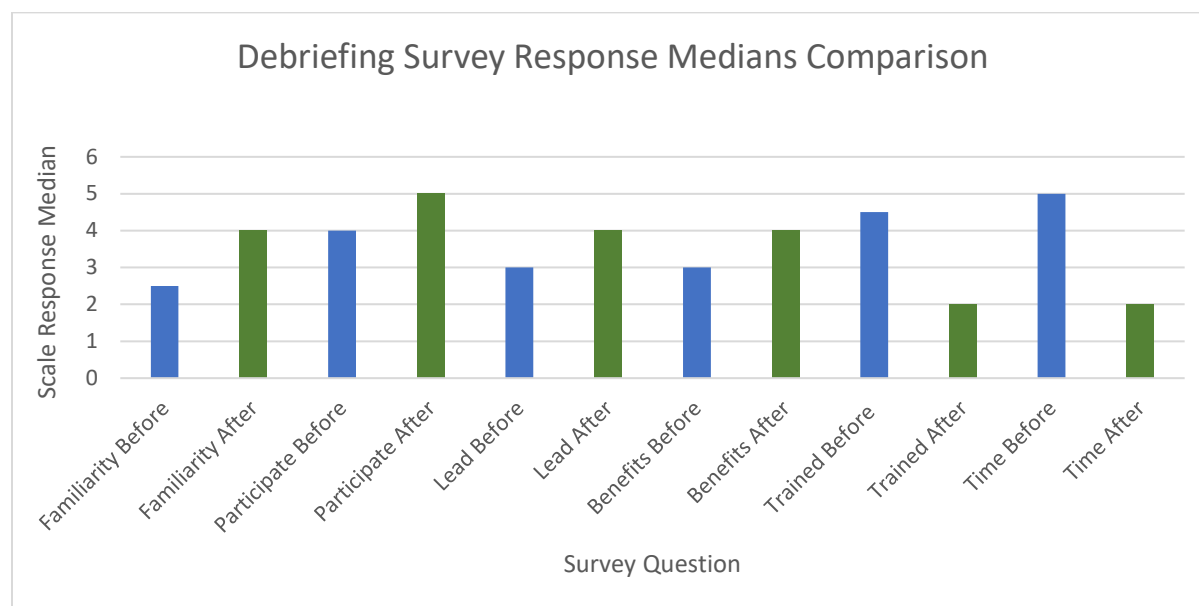


Table 2

Number and Percentage of Resuscitations Debriefings by Project Week

	Number of Resuscitations	Number of Debriefings	Percentage of Resuscitations Debriefed
Week 1	7	0	0%
Week 2	6	1	16.6%
Week 3	5	2	40%
Week 4	6	2	33.33%
Total	24	5	20.88%

DISCUSSION

Summary

This project aimed to increase charge nurse familiarity with debriefing, to increase the perceived benefits and reduce the perceived barriers to debriefing, and ultimately to increase the percentage of resuscitations that are debriefed at BUMCP ED. These objectives were met utilizing the educational intervention and pre- and post-survey format. This project utilized Lewin's force field analysis to guide the intervention to ultimately shift group behaviors towards performing more debriefings. A pre- and post-survey design was utilized with a 20-minute in-person PowerPoint presentation on debriefing and the STOP5 debriefing tool. Increases in familiarity and perceived benefits were demonstrated, while perceived barriers were reduced after the intervention.

The increased median score for familiarity and understanding the benefits of debriefing demonstrated statistical significance, signifying an increase in responses associated with greater familiarity and increased perception of the benefits after receiving the education. The barriers of lack of time and training showed decreased median responses with statistical significance, indicating less agreement with the statements "In this ED, there is not enough time to perform debriefings" and "In this ED, staff are not trained to perform debriefings" after the education was received. There was also statistical significance in median responses to feeling comfortable participating in a debriefing and leading a debriefing. Finally, there was an increase in the percentage of resuscitations that were debriefed.

Interpretation

Based on the findings, this DNP project engendered a shift in participants' perceptions of post-resuscitation debriefing, leading to an increase in the number of resuscitations debriefed at BUMCP ED. Several strengths were evident in this project. Findings for each question on the surveys showed statistical significance and the percentage of resuscitations that were debriefed did increase. Additionally, the education was well received, and participants asked clarifying questions during the delivery of the debriefing education. Participants also shared instances where they wished the team would have debriefed. Furthermore, the two nurse managers reported they felt as leaders, facilitating a debriefing was a way positive way to support staff. Several charge nurses said they wished they had the training as part of the onboarding process. Finally, this project demonstrated an overall cost-effective model for implementing debriefing practice in the emergency setting due to the brief education session and PowerPoint presentation method.

Implications (Practice, Education, Research and Policy)

The outcomes of this project bear implications for nursing practice, education, research, and policy. In the post-COVID era, supporting the psychological well-being of nurses, providers, and support staff is more critical than ever. Debriefing can be used as a means of diffusion and acute stress management following major resuscitations but is presently underutilized in the ED setting. It is necessary to normalize this practice, and leaders have the opportunity to tailor debriefing processes to their departments. There is an apparent deficit in debriefing training on the job and nursing education. Just as new nurses learn and rehearse assessment and phlebotomy skills, debriefing should be taught and simulated throughout nursing educational programs to

lead to earlier mastery and ingrained practice. Moreover, further research is indicated to evaluate what impact earlier training may have on the adverse psychological effects and burnout levels in ED staff. In turn, doctoral-level advanced practice nurses should develop and advocate for nursing education policy to include debriefing training.

Limitations

There were minor limitations to this project. The small n size is the primary limitation. After the first week without a debriefing conducted, the project lead sent an email reminder to charge nurses of the ongoing project status and where to locate the debriefing worksheets. Furthermore, the potential for bias exists as participants had an established work relationship with the project lead. Even though it was clearly stated that employment was not based on participation and that participants should answer honestly, the possibility of partiality in survey responses remains. These minor limitations are not as significant in QI projects as in genuine research.

Given the marginal limitations, there would be value in expanding this debriefing model to EDs without affiliation with the project lead to compare outcomes. Extending the debriefing education to all ED staff would also be valuable before implementation. Collecting survey data on general staff perceptions and burnout before and after implementing a debriefing process, and measuring over time, could strengthen the acumen of findings.

Additional qualitative feedback from the charge nurses and staff participating in the debriefings could provide valuable insight and guide a second PDSA cycle; however, time constraints prevented this from occurring.

DNP Essentials Addressed

The Essentials of Doctoral Education for Advanced Nursing Practice (DNP Essentials) equip graduates with the competencies necessary to perform at the highest level of their scope and role (Moran et al., 2020). These concepts guide doctoral education curriculum, especially the DNP project. The DNP Essentials addressed in this project include DNP Essentials I, II, III, and VII.

DNP Essential I: Scientific Underpinnings for Practice

DNP Essential I asserts that DNP-prepared advanced practice nurses draw upon the scientific foundations of physical, psychosocial, and organizational sciences in developing their practice approach to assess and address health care delivery phenomena (AACN, 2006). This project conceptually arose from the observation of the increased risk for psychological harm and burnout among ED staff and drew from the body of existing body of knowledge to create an intervention based on scientific evidence. It examined the organizational processes within BUMCP ED, evaluated change theories, and applied an accepted framework for implementation.

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

DNP Essential II underlines the criticality of leading quality improvement initiatives and tailoring care to target populations in advanced practice nursing (AACN, 2006). This project demonstrated this essential through collaboration with organizational leaders in identifying a deficiency and target population and evaluating the quality and safety within the initiative.

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

DNP Essential III holds that DNP-prepared advanced practice nurses not only possess scholarship and research skills but, additionally, the ability to translate research into practice. This project exemplifies DNP Essential III through an extensive literature search, QI project design, and evaluation of outcomes.

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

Finally, DNP Essential VII prepares the DNP to implement population health and clinical prevention interventions to improve the overall health of status within the United States (AACN, 2006). This project focused on supporting the psychological well-being of healthcare workers in the emergency department as a dimension of community health.

Conclusions

Healthcare workers continue to face unprecedented challenges. Emergency medical providers, who already have a heightened risk for negative psychological effects, are particularly vulnerable. There is no one panacea intervention proven to protect emergency staff from susceptibility to the impact of repeated exposure to traumatic events. However, a growing body of evidence supports targeted interventions for incremental improvements, such as post-resuscitation debriefing. Likely, the most significant impact will be seen with a combination of interventions designed to support the well-being of this population. Additional studies are needed to support these goals further.

Plan for Sustainability

To ensure a DNP project persists into the future, a sustainability plan should delineate what actions are necessary to support its endurance (Moran et al., 2020). Feedback from the charge nurses and nurse managers indicated they found value in the debriefing education and in conducting debriefings with staff. They would like to incorporate debriefing education into the standard charge nurse training. The electronic PowerPoint file was provided to the nurse managers. Additionally, informational posters for the STOP5 debriefing process will be placed in the ED code rooms as a visual cue for staff.

Plan for Dissemination

The findings of this project will be shared with the BUMCP ED staff at the general staff meeting in April 2023. The following month, these findings will also be presented to the BUMCP Quality Improvement Council at the Q2 Quality and Safety meeting.

APPENDIX A

BANNER UMC PHOENIX SITE APPROVAL/PERMISSION FOR USE OF STOP5
FRAMEWORK/BANNER HEALTH RDC REVIEW AND APPROVAL LETTER

Banner University Medical Center Phoenix
1111 E. McDowell Road
Phoenix, AZ 85006

5/22/2022

University of Arizona Institutional Review Board
c/o Office of Human Subjects
1618 E Helen St
Tucson, AZ 85721

Please note that Ms. Kelly Laughlin, UA Doctor of Nursing Practice student, has the permission of the Banner University Medical Center Phoenix Emergency Department to conduct a quality improvement project at our facility for her project, "Post-Resuscitation Debriefing in the Emergency Department."

Ms. Laughlin will conduct a survey of charge nurses at BUMCP ED. She will recruit providers through email. The email will provide a description of the project, what they will be asked to do, and the time involved. Ms. Laughlin's activities will be completed by December 7, 2022.

Ms. Laughlin has agreed to provide my office with a copy of the University of Arizona Determination before she recruits participants. She will also present aggregate results to the providers at their monthly staff meeting.

If there are any questions, please contact my office.

Sincerely,



Charlotte Cuidad, RN, MSN-L, NEA-BC
Associate Chief Nursing Officer
Banner University Medical Center Phoenix

Permission for use of STOP5 framework as stated by authors on website

<https://www.edinburghemergencymedicine.com/blog/2018/11/1/stop-5-stop-for-5-minutes-our-bespoke-hot-debrief-model>

We are keen for Hot Debriefs to become more commonplace in Emergency Departments. Many departments have already contacted us to ask if they can use our STOP5 model in their own settings. Our answer is always 'Yes!' If doing so, please ensure that our STOP5 framework is referenced on any materials and, if adaptations are made, ensure our original model is referenced on any posters, presentations, manuscript and publications, etc. Thank you. We are very happy to provide pdf and editable text versions so that you can customise criteria and storage locations, etc. for your own departments. Contact craigawalker@nhs.net. We are keen for your feedback and hope you experience as much success with Hot Debriefs in your departments as we have in ours.

Drs Craig Walker, Laura McGregor & Sara Robinson



FWA #00002630
IORG #0004299

October 12, 2022

Kelly Laughlin, RN
1111 E McDowell Rd
Phoenix, AZ 85006

RE: RDC Project # -22-0032: Promoting Post Resuscitation Clinical Debriefing in the Emergency Department Through Charge Nurse Education
IRIS Reference # 021647

RDC Review and Approval: Project Review Application (Version 3.0 dated 10/12/2022), Letter of Voluntary Recruitment (Appendix F; Version 2.0 dated 9/22/2022), STOP5 Debriefing Tool and Modified STOP5 Debriefing Worksheet (Appendix H; Version 3.0 10/12/2022), Pre Intervention Survey (Appendix C; Version 2.0 dated 9/09/2022, Post Intervention Survey (Appendix D; Version 2.0 dated 9/9/2022), Post Code Debriefing in the ED PowerPoint (Appendix G), Data Collection Form (Appendix A; Version 2.0 dated 9/28/2022)

Research Determination Committee Evaluation: Not Research, No IRB Review and Approval Required

Dear Kelly Laughlin,

Thank you for your submission of your project. The project information you provided was reviewed and approved on October 11, 2022 by the Non-Research Data Use Committee (NRDUC) and Research Determination Committee (RDC) on behalf of the Banner Health Institutional Review Board (IRB) Chair pending requested changes to your application and supporting documents. The committee is now in receipt of those changes and has approved the project.

The RDC determined this project is not research per 45 CFR 46.102. As such, this project does not require IRB review and approval.

PLEASE NOTE

The RDC/NRDUC determination is based on the information you provided to the committee on your application version 3.0 and supporting documents. If the project is modified in any way, such as, but not limited to, re-analysis of data, adding/revising data sheets, changing team members or the addition of new information, the determination is no longer valid. If any changes are required, please reach out to the IRB Manager for further direction as to how to submit the revisions. IRB Manager contact information can be located on the HRPP employee website at <https://bannerhealth.sharepoint.com/sites/Connect/Banner-Research/Human-Research-Protection-Program>, under the Our Leaders tab.

Please note: As part of continuing process improvement, random audits are conducted to assess compliance and adherence with submitted/approved applications.

Kelly Laughlin, RN
RDC Project # -22-0032
IRIS Reference # 021647
October 12, 2022
Page 2

A copy of this letter will be retained electronically.

Sincerely,

Susan Colvin, MHSA, BSN, CCRP, CHRC
Human Research Protection Program Director
Banner Health



APPENDIX B

RECRUITMENT MATERIAL (RECRUITMENT EMAIL AND CONSENT)

6/10/2022

The University of Arizona
Company Address
Emergency Department Charge Nurses
Banner University Medical Center Phoenix
1111 E. McDowell Rd, Phoenix, AZ 85006

623-695-9204
kellylaughlin@email.arizona.edu

Greetings,
In order to meet the requirements for the Doctor of Nursing Practice degree through the University of Arizona, I am conducting a process improvement project in the emergency department at BUMCP. This project aims to improve the process and incidence of debriefings following critical incidents such as cardiopulmonary resuscitations.

As charge nurses, your participation in a brief education session on the benefits and barriers to debriefing and utilization of a debriefing tool is requested but voluntary. Should you choose to participate, you will join a 20-minute education session and be asked to complete a pre and post-education survey. Your responses will be coded for anonymity and confidentiality. By completing the surveys your consent for participation is implied.

Please respond to this email indicating your preference for participation.

Sincerely,

Kelly Laughlin
DNP Student
University of Arizona CON

APPENDIX C

EVALUATION INSTRUMENTS (CHARGE NURSE PRE-SURVEY AND POST-SURVEY)

Charge Nurse Pre-Survey

Participation in this survey and this project is voluntary. Completion of this survey confirms your voluntary consent to participate in this project and the understanding that participation is not a condition of employment with Banner Health. You may complete this survey at work; however, if you choose to complete the survey on your own time, you will not be paid by Banner Health for the time spent completing the survey.

Participation Code: Write the first three letters of your mother's maiden name and the month of your mother's birth date.

Participation Code _____

How many post-resuscitation/code debriefings have you participated in over the last 12 months?

- 0
- 1
- 2
- 3
- 4 or more

How familiar are you with post-resuscitation debriefing?

- Not familiar at all
- Slightly familiar
- Moderately familiar
- Very familiar
- Extremely familiar

To what degree do you agree with this statement: I understand the many benefits of post-resuscitation team debriefing.

- Strongly Disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly Agree

To what degree do you agree with this statement: In this ED people are not trained to perform debriefings?

- Strongly Disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly Agree

To what degree do you agree with this statement: In this ED there is not enough time to perform debriefings?

- Strongly Disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly Agree

How comfortable are you with participating in a post-resuscitation debriefing?

- Extremely uncomfortable
- Somewhat uncomfortable
- Neither comfortable nor uncomfortable
- Somewhat comfortable
- Extremely comfortable

How comfortable are you with leading a post-resuscitation debriefing?

- Extremely uncomfortable
- Somewhat uncomfortable
- Neither comfortable nor uncomfortable
- Somewhat comfortable
- Extremely comfortable

Charge Nurse Post-Survey

Participation Code _____

How familiar are you with post-resuscitation debriefing?

- Not familiar at all
- Slightly familiar
- Moderately familiar
- Very familiar
- Extremely familiar

To what degree do you agree with this statement: There are many benefits to post-resuscitation team debriefing.

- Strongly Disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly Agree

To what degree do you agree with this statement: In this ED, people are not trained to perform debriefings.

- Strongly Disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly Agree

To what degree do you agree with this statement: In this ED, there is not enough time to perform debriefings.

- Strongly Disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly Agree

How comfortable are you with participating in a post-resuscitation debriefing?

- Extremely uncomfortable
- Somewhat uncomfortable
- Neither comfortable nor uncomfortable
- Somewhat comfortable
- Extremely comfortable

How comfortable are you with leading a post-resuscitation debriefing?

- Extremely uncomfortable
- Somewhat uncomfortable
- Neither comfortable nor uncomfortable
- Somewhat comfortable
- Extremely comfortable

APPENDIX D

PARTICIPANT MATERIAL (EDUCATIONAL POWERPOINT SLIDES)

Post Code Debriefing in the ED

GUIDE FOR CHARGE NURSES



1

Debriefing - Significance

- Emergency department clinical staff are at risk for compassion fatigue, burnout, and PTSD secondary to repeated exposure to acute stress, death, and violence (Cador & Joss, 2016).
- Pre-pandemic, as high as 33% of emergency nurses, paramedics, physicians, and residents in the US screened positive for PTSD indicators (Lofman et al., 2016).
- 2006-2018 literature review on factors that contribute to ED nurse turnover revealed that violence and critical incidents were the top two factors leading to attrition (McDermid et al., 2019).




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2


Debriefing - Background

Critical Incident Stress Debriefing (CISD) emerged in the 1980s as a component of critical incident stress management (CISM) programs designed to mitigate the negative psychological effects associated with extraordinary traumatic events. CISD is a 90-minute formal process that has been used in many fields including law enforcement, firefighting, military operations, and victims of violent crimes (Clark et al., 2020).

There is controversy over the application of CISD to emergency and critical care settings and mixed results as an efficacy.

Recent studies indicate that ED staff desire an informal form of debriefing that directly results immediately after a resuscitation (Trigg, 2020; Coghlan et al., 2020; Spencer et al., 2018; Morrison & Jay, 2020).

Is there a place in modern healthcare for CISD?





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3

Benefits of Debriefing

- Debriefing promotes positive coping and resiliability through peer support (Jung et al., 2020; Schell et al., 2020; Williams et al., 2020; Allen & Park, 2018).
- Debriefing improves clinical performance, team effectiveness, and patient safety (Jung et al., 2020; Dine et al., 2020).
- Debriefing is supported by the American Heart Association and the American Society of Trauma.
- Debriefing mitigates negative psychological stress, burnout, and anger associated with critical care (Coghlan et al., 2020; Trigg, 2020).
- Debriefing promotes the opportunity to reflect on mental health resources (Johansen et al., 2020; Park, 2020; Morrison et al., 2020; Taylor & Ross, 2014).
- Debriefing services in coping and resilience in critical care providers (Schell et al., 2020; Dine & Cheng, 2020; Schell & Cheng, 2020).
- Debriefing is a desired by ED staff (Dine & Cheng, 2020; Dine & Cheng, 2020; Morrison et al., 2020; Trigg, 2020; Morrison & Jay, 2020).

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4

Perceived Barriers to Debriefing

- Lack of trained staff
- Usually rely on physicians with competing priorities
- Need to immediately care for other patients
- No time




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5

Break Down the Barriers

- Availability of debriefing tools
- Simplified training
- Charge RNs suitable facilitators
- Lack of time is only a misconception. In the time it takes to complete a cycle of CPR an ED team can perform a debriefing immediately following an event.



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6

STOP5

SUMMARISE THE CASE, THINGS THAT WENT WELL, OPPORTUNITIES TO IMPROVE, POINTS OF ACTION AND RESPONSIBILITY FOR 5 MINUTES

7

STOP5

<p>Background</p> <ul style="list-style-type: none"> Developed in Edinburgh in 2018 Baseline < 50% of staff participated in a debrief in the last 12 months 	<p>Outcomes</p> <ul style="list-style-type: none"> At 18-months >70% staff participation 100% of staff rated debrief experience as "good" or "excellent" 10 process and equipment changes resulted
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8

STOP5 Tool and Modification

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9

- Debriefing after clinical events improves patient outcomes and staff well-being.
- Charge RNs are an ideal choice to perform debriefs.
- Providing education and tools to charge RNs to facilitate rapid, immediate debriefing can improve comfort with leading a debrief.

www.s-o-b.co.uk/2022

10

References

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APPENDIX E
ORIGINAL STOP5 TOOL

**** ORIGINAL STOP5 TOOL FOR REFERENCE ONLY****

STOP for 5 Minutes

Thank the full team and ask **“Is everyone ok?”**

If **YES** then continue as below and **STATE FIRST:**

- We are going to have a 5 minute team debrief
- Purpose is to improve quality of patient care; it is not a blaming session
- Your participation is welcomed but not compulsory
- All information discussed during this debrief is confidential

S Summarise the case

T Things that went well

O Opportunities to improve

P Points to action and responsibilities

Current Case Criteria:

EDINBURGH
EMERGENCY
MEDICINE



****USE THIS SIDE****

****Do NOT place in patient chart** **Do NOT include patient information****

STOP for 5-Minutes

- Thank the team and ask, **“Is everyone okay?”**
- If **YES**, continue next steps
- **STATE FIRST:** We are going to have a 5-minute team debrief
- The purpose is to decompress and improve patient care, not to place blame
- Your attendance is encouraged but not mandatory
- All information discussed in this debrief is confidential.

DEBRIEF

Week of: _____

Total time in minutes _____

Number of RNs present: _____

Number of EDTs present:

Number of providers present:

Summarize the case:

Things that went well:

Opportunities to improve:

Points to actions and responsibilities:

APPENDIX F
PROJECT TIMELINE

Project Timeline

Action	Date Began	Date Completed
Planning	December 2021	December 2022
Implementation	January 23, 2023	February 19, 2023
Analysis	February 25, 2023	March 12, 2023
Results	March 12, 2023	March 25, 2023

APPENDIX G
LITERATURE REVIEW GRID

Project Question: Will educating ED charge nurses on debriefing benefits, strategies to reduce barriers, and use of the STOP5 debriefing tool increase the number of post resuscitation debriefings?

Pub. Year; Author's Last Name	Title of Publication	Type of Study	Main Outcomes of Findings	Support for and or Link to Project
2014 Adriaenssens, J, DeGucht, V, Maes, S	Determinants and prevalence of burnout in emergency nurses: a systematic review of 25 years of research	Systematic review	26% of the emergency nurses suffered from burnout. Exposure to traumatic events is a determinant of burnout.	Burnout prevalence is high in ED nurses. Organizations need to implement targeted interventions to combat burnout and turnover.
2018, Allen, R.C. & Palk, G.	Development of recommendations and guidelines for strengthening resilience in emergency department nurses	Qualitative	They reported on the effects of secondary with identified themes that include emotional and physical reactions and support seeking from peers and family. Debriefing was the most commonly expressed need for developing coping.	Validates that debriefing could have a positive impact on compassion fatigue based on what nurses reportedly desire
2020, Arriaga	Real-time debriefing after critical events: exploring the gap between principle and reality	Qualitative	Despite the evidence, gaps remain between the theory and practice of debriefing in high-risk clinical areas.	Shows evidence of the benefits to individuals, teams, and patients from debriefings.
2020 Azizoddin, D. R., Vella Gray, K., Dundin, A., &N Szyld, D.	Bolstering clinician resilience through an interprofessional, web-based nightly debriefing program for emergency departments during the COVID-19 pandemic	Qualitative	an Interprofessional group of ED providers led nightly optional debriefings during the COVID-19 pandemic. Benefits showed in improved QI initiatives and mental health support for staff.	Debriefing provides mental health support for ED staff during critical events.
1993, Burns & Harms	Emergency nurses' perceptions of critical incidents and stress debriefing	Qualitative	Canadian ED nurses' perceptions of end-of-life issues in Eds. Need for more support from nurses.	88% of those that participated in debriefing after a critical event found it beneficial.
2020 Cantu, L., & Thomas, L.	Baseline well-being, perceptions of critical incidents, and openness to debriefing in community hospital emergency department clinical staff	Cross-sectional	Death frequently occurred during the COVID-19 pandemic, threatening provider well-being. There are high levels of receptiveness to post-event debriefing, but it is underutilized. Almost half of the staff scored borderline,	Debriefing is used as a method to protect the well-being of frontline emergency department staff, with high levels of support from staff.

Pub. Year; Author's Last Name	Title of Publication	Type of Study	Main Outcomes of Findings	Support for and or Link to Project
	before COVID-19, a cross-sectional study		burnout, and secondary traumatic stress at baseline; therefore, peer support measures should be implemented to protect frontline providers' well-being.	
2020 Cheng, A., Eppich, W., Kolbe, M., Meguerdichian, M., Bajaj, K., & Grant, V.	A conceptual framework for the development of debriefing skills: A journey of discovery, growth, and maturity	Qualitative	Debriefing skills develop over time; however, gaps in the literature for honing such skills/proposed framework for shaping debriefing skills.	Barriers to routine debriefing include a lack of trained facilitators. Proposed methods of training could reduce barriers.
2017 Chinnock, B., Mullan, P. C., Zinns, L. E., Rose, S., Brown, F., Kessler, D., Grock, A., & Mason, J.	Debriefing: An expert panel's how-to guide	Qualitative observational	Many barriers prevent clinical debriefing. Guide to defining events, utilizing debriefing tools, and setting culture.	Shifting perceptions that there is no time to debrief can aid in increased participation.
2019 Clark, Polivka, Zwart, & Sanders	Pediatric emergency department staff preferences for a critical incident stress debriefing	Cross-sectional	The themes identified were answered seeking, "clearing the air," constructive critique, and voluntary participation in debrief focused on clinical performance, not an emotional response.	Identifies what debriefings should NOT be: formal, mandatory, and involve returning to work on a day off
2020 Coggins, A., Santos, A. L., Zaklama, R., & Murphy, M.	Interdisciplinary clinical debriefing in the emergency department: An observational study of learning topics and outcomes	Observational	Clinical debriefing (CD) following events in the ED has the potential to enhance learning and improve performance. STOP" structure (Summarize the case; things that went well; opportunities for improvement; points of action). A debriefing aid assisted. No harm and improved protocols	Clinical debriefing improves performance and team response.
2017 Colville, G. A., Smith, J. G., Brierley, J., Citron, K., Nguru, N. M., Shaunak, P. D., Tam, O., & Perkins-Porras, L.	Coping with staff burnout and work-related post-traumatic stress in intensive care	Qualitative	10% + screening for PTSD in respondents. Less than 18% of cardiac arrest resuscitation events had debriefing afterward, and >12% had debriefing training	Burnout can be mitigated by debriefing in a high stress, critical care areas such as ICU and ED

Pub. Year; Author's Last Name	Title of Publication	Type of Study	Main Outcomes of Findings	Support for and or Link to Project
2020 Cooper, S., Winton, M., & Farrington-Exley, J.	Fifteen-minute consultation: Time out as an alternative to toxic debrief	Mixed method study	Debriefing has been shown to improve clinical performance; however, the psychological benefits to teams still need to be studied.	A model that promotes improving clinical performance and supporting the psychological needs of staff is most beneficial.
2016 Copeland, D., & Liska, H.	Implementation of a post-code pause: Extending post-event debriefing to include silence	Case study	The post-code pause incorporates a moment of silence, and two simple questions to a traditional operational debrief. Staff members reported increased feelings of peer and leader support, the ability to pay homage to patients, and having time to regroup before returning to their assignments.	Debriefing is feasible despite the fast-paced nature of the department.
2020 Eaton, P., Mullan, P., Papa, L., Chen, J., Cramm, K., Buning, B., Vazifedan, T., & Zinns, L. E.	Evaluation of an online educational tool to improve postresuscitation debriefing in the emergency department	Systematic review	Implementing a video-based educational tool on PRD in the emergency department was associated with increased provider reports of PRD frequency, knowledge, and comfort level.	Providing education to prospective facilitators of debriefing increases incidence.
2020 Hale, S., Parker, M., Cupido, C., & Kam, A. J.	Applications of post resuscitation debriefing frameworks in emergency settings: A systematic review	Qualitative/descriptive	All six identified frameworks are effective methods of debriefing.	Validation of STOP5 Tool
2017 Hammerle, A., Devendorf, C., Murray, C., & McGhee, T.	Critical incidents in the ED	Qualitative/descriptive ⁴	Debriefing allows for increased team performance through “group reflection and shared experience”	Validates debriefing as means to support ED staff
2015 Hogan, Fothergill-Bourbonnais, Brajtman, Phillips, S., & Wilson	When someone dies in the emergency department: Perspectives of emergency nurses	Qualitative	Perceptions that ED staff support is enhanced through debriefing programs	Methods to support ED RNs after the end-of-life
2015, Kessler	Debriefing in the emergency department after clinical events: A practical guide	Qualitative/descriptive	Importance of well-trained facilitators and clear roles in debriefings.	Practical guide to overcoming identified barriers and implementation of debriefing.

Pub. Year; Author's Last Name	Title of Publication	Type of Study	Main Outcomes of Findings	Support for and or Link to Project
2003, Laposa, Alden, & Fullerton	Work stress and post-traumatic stress disorder in ED nurses/personnel	Cross-sectional	The accidental death of children was perceived as the most critically stressful event. Only 32% of respondents ever partook in debriefings	PTSD screenings at any given time show positive among ED staff. Debriefing is recognized as a means of coping but rarely occurs.
2011, Lavoie, Talbot, & Mathieu	Post-traumatic stress disorder symptoms among emergency nurses: Their perspective and a 'tailor-made' solution	Cross-sectional	High levels (67%) responded that insufficient manager support was received after critical/stress events, and less than 18% received debriefing/stress counseling.	Debriefing 'in situ' can serve as a coworker and manager support.
2020 Monette, D. L., Macias-Konstantopoulos, W., Brown, D., Raja, A., & Takayesu, J. K.	A video-based debriefing program to support emergency medicine clinician well-being during the COVID-19 pandemic	Cross-sectional	Debriefing can help clinicians process these emotions. Emergency clinicians reported most common reasons to participate in the debriefings were "to enhance my sense of community and connection" (81%), followed by "to support colleagues," which were considered to be helpful aspects of the debriefing structure.	Debriefing supports the emotional needs of ED clinicians- can occur in various forms
2016 Morrison & Joy	Secondary traumatic stress in the emergency department	Qualitative/PI project	Three-quarters of respondents reported experiencing a minimum on one secondary traumatic stress symptom within the past seven days	Debriefing was identified as a means of coping: however, barriers to regular use of debriefing include time and proficiency.
2017 Nadir, Bentley, Papanagnou, Bajaj, Rinnert, & Sinert, R.	Characteristics of real-time, non-critical incident debriefing practices in the emergency department	Qualitative/descriptive	In general, real-time debriefing is perceived to be valuable in sim education, systems, and performance improvement; although it is practiced by clinicians, most report no formal training in actual debriefing.	Training is needed for debriefing to be successful
2020 Pallas	The acute incident response program: A framework guiding multidisciplinary responses to acutely traumatic or stress-inducing incidents in the ED setting	RCT/qualitative	The acute incident response program is an accessible and meaningful model to guide a functional, clinician-led response to critical incidents in the ED setting. The model could feasibly be applied in a wide variety of clinical contexts.	Programs specific to sites/organizations

Pub. Year; Author's Last Name	Title of Publication	Type of Study	Main Outcomes of Findings	Support for and or Link to Project
2018 Rose & Cheng	Charge nurse facilitated clinical debriefing in the emergency department	Qualitative	The most commonly reported need was an immediate discussion with coworkers, support from social networks, and management	Charge RNs best suited to facilitate; the more it is performed, the more routine it becomes
2017, Schmidt & Haglund	Debrief in emergency departments to improve compassion fatigue and promote resiliency.	Cross-sectional	Personal debriefing contributes to decreased compassion fatigue and increased resilience.	Instituted debriefing, readily available to staff, helps to identify and combat compassion fatigue in emergency nurses. The article addresses methods to provide debriefing.
2019, Spencer, Nolan, Osborn, & Georgiou	The presence of psychological trauma symptoms in resuscitation providers and an exploration of debriefing practices	Qualitative/descriptive	Nurse-facilitated debriefing is feasible, can be successfully implemented in diverse Eds, and can be performed by relatively inexperienced debriefers. A structured approach means that debriefings are more likely to take place and become routine	A low incidence of debriefing occurs, despite the desire from RNs. Perceived barriers include time and the need to care for other patients immediately.
2014, Tuckey & Scott	Group critical incident stress debriefing with emergency services personnel: A randomized control trial.	RCT/qualitative	High levels and significant alcohol use were found among the control group, not receiving CISD, and no correlation between PTSD symptoms and CISD.	Maladaptive coping mechanisms are frequent in EMS personnel. Debriefing can be a way to identify those in need of additional support.

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