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Effects of Postcode Debriefing on Nursing Burnout and Patient Survival in the Emergency Department: A Single-center Quality Improvement Project

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Abstract

Problem Statement: Emergency department (ED) nurses are routinely exposed to stressful events, including cardiac arrest codes. The American Heart Association stresses the importance of structured debriefing as a continuous quality improvement strategy for patient care. Furthermore, literature shows that debriefing after codes is associated with improved teamwork, decreased nursing burnout, and reduced staff turnover. **Purpose:** This quality improvement project implemented a structured postcode debriefing tool in the ED after codes to determine if it improved nurse burnout and patient survival rates. **Methods:** A structured postcode debriefing tool was administered after codes in the ED. All registered nurses employed in the ED at the project site were included in this project. Travel nurses were excluded from participating because they were not present for the entire eight weeks of the project. Participants voluntarily completed a self-reporting pre- and post-nursing survey. **Results:** No significant change was found in nursing burnout, as assessed by the CD-RISC-10 scale (matched t-test: 0.63337; Wilcoxon signed-rank test: 0.5314) and the non-proprietary single-item measure (matched t-test: 0.5816; Wilcoxon signed-rank test: 0.5816). There was no statical significance regarding code survival (Chi-Square test $p = .1596$, Fisher's exact test $p = .1374$). **Conclusion:** While implementing the postcode debriefing did not significantly change nursing burnout or patient survival rates, almost all (93.3%) participants reported finding value in the postcode debriefing intervention. Most importantly, nurses identified topics on which they needed more education due to the postcode debriefing presented in this study. Other key findings were, missing quick reference cards from pediatric code carts, sources of possible delays in transferring patients out of the ED, and staff needing quick access to clean scrubs.

Keywords: postcode debrief, nursing burnout, resilience, patient survival

Effects of Postcode Debriefing on Nursing Burnout and Patient Survival in the Emergency Department: A Single-center Quality Improvement Project

Healthcare providers working in the emergency department (ED) are exposed to high workloads and high levels of stress, as well as an increased prevalence of traumatic events, including cardiac arrests codes (Copeland & Liska, 2016; Gilmartin et al., 2020; Schmidt & Haglund, 2017). Moukarzel et al. (2019) highlighted that ED nurses experience significantly higher emotional exhaustion (15.8%) and burnout (34.6%) when compared to nurses in other hospital departments. High levels of burnout among ED nurses could be explained by exposure to repetitive traumatizing events, among other factors, such as the stressful environment in EDs, which directly affects healthcare providers, patients, and patient outcomes (Johnston et al., 2016; Schneider et al., 2019). The American Heart Association (AHA), Resuscitation Council UK, and the American Academy of Pediatrics all recommend debriefing after cardiac arrest events (i.e., postcode debriefing) as a method of mitigating stress on healthcare providers and maintaining a productive quality improvement environment (American Heart Association, 2021; AHRQ Patient Safety Network, 2019; Gilmartin et al., 2020; US Department of Health and Human Services, 2019).

Background

According to the Institute of Medicine (2015), cardiac arrest strikes around 600,000 people annually, with approximately 200,000 occurring in the hospital. In the hospital setting, a code blue, or code, is called when a patient goes into cardiac arrest to notify staff of the emergency. Hospitals typically require all nursing staff to have a minimal certification in Basic Life Support (BLS), which trains them to identify emergencies and provide basic high-quality CPR until staff with more advanced training arrives at the bedside to run the code. Nurses (RNs)

who can run and participate in codes are certified by the AHA in Advanced Cardiovascular Life support (ACLS) and Pediatric Advanced Life Support (PALS). ACLS and PALS are procedures and standardized treatment algorithms that immediately treat life-threatening conditions, including cardiac arrest, shock, stroke, and trauma, quickly and effectively to improve patient survival percentages and outcomes.

The unpredictability of patient-related life-threatening events such as cardiac events coupled with other stressors, including workflow, staff shortages, multitasking demands, workplace violence, and aggressive patients, make ED nurses susceptible to emotional exhaustion, burnout, and post-traumatic stress disorder (De Wijn & Van der Doef, 2020). A systematic review of 17 reports on nursing burnout in the ED over the past 25 years found that 26.0% of ED nurses suffer from burnout (Adriaenssens et al., 2015). The National Nursing Engagement Report reported that 15.6% of nurses experience burnout, and 41.0% feel unengaged in their workplace (King & Bradley, 2019). A study from 2018 reported that 31.5% of US nurses who left their employment did so due to burnout (Shah et al., 2021). High levels of nursing burnout were identified as a major contributor to the current trend of a significant nurse shortage, projected to increase by another 11.0% by 2030 (US Health and Human Services, 2017). Nationally in 2020, hospital staff nurse turnover was 18.7%, an increase of 2.8%, while the Southeast's turnover increased by 7.2% to 24.9%, and ED nursing staff turnover was 20.0% (NSI Nursing Solutions, 2021).

A nationwide survey reported that the average cost of nurse turnover is $40,038, with an average hospital cost of $3.6-6.5 million yearly (NSI Nursing Solutions, 2021). Chang and Shecter (2021) found that 4.0% of ED staff reported symptoms associated with acute stress. A study conducted during the COVID-19 pandemic found that 74.0% of participating first

responders (ED staff) suffered burnout (Shehan et al., 2021). These studies highlighted the need to address ED staff burnout, as it could cause long-term adverse outcomes for patients, providers, organizations, and the communities served.

Fortunately, studies showed that the perception of teamwork could offset the stress and demands on ED nurses (Johnston et al., 2016). A large organizational study showed that good teamwork positively relates to subjective reports of general and mental health (Schulz et al., 2017). Furthermore, the AHA (2021) and other existing literature reported that postcode debriefing is associated with improved teamwork and mental health and reduced staff turnover. Therefore, projects addressing ED nurses' psychological needs, including high-stress levels, are critically needed to prevent burnout and increase their resilience.

Problem Statement

Annually, the project site hospital admits over 100,000 patients. The COVID-19 pandemic has increased the project site's ED patient census, often treating more than 300 patients daily (C. Johnson, personal communication, June 9, 2021; Lexington Medical Center, 2021). The hospital ED saw an approximately 50% increase in cardiac arrests from 2019 to 2020 (B. Brucker, personal communication, August 30, 2022). During the first half of 2021, the project site had a 28.7% staff turnover rate compared to the national ED turnover rate of 20.0% (C. Johnson, personal communication, June 9, 2021; NSI Nursing Solutions, 2021). An increased number of patients, staff shortages, and stress levels among personnel likely affected the quality of care, stimulated burnout, and deteriorated personnel productivity. Additionally, the lack of a formal debriefing process for staff after codes (postcodes) may have contributed to nursing staff burnout. The clinical question was as follows:

For nurses caring for cardiac arrest patients presenting to the ED, what would be the impact of a structured postcode debriefing on ED nursing burnout and patient survival over eight weeks when compared to the hospital's current practice?

Literature Review

A literature review was conducted using PubMed, CINAHL Complete, Cochrane, Web of Science, ProQuest Dissertations & Theses Global databases, and the Google Scholar search engine to find relevant literature. The initial search focused on current practices, recommendations, guidelines, processes, and quality improvements related to cardiac arrest and post-resuscitation debriefing. Keywords searched together and individually included:

cardiac arrest, code, cardiopulmonary resuscitation, post code, postcode, post-code, resuscitation, post-resuscitation, debrief, debriefing tool, debriefing script, debriefing guide, interdisciplinary debriefing, emergency department nurse, nursing burnout, nursing resilience, teamwork, nursing stress.

Literature filters were applied to include only peer-reviewed articles written in English between 2015 and 2020. Relevant articles references identified other possible pertinent information and studies prior to 2015. Articles that only referred to simulation debriefing were excluded, while articles addressing aspects of debriefing in all hospital settings and all patient ages (geriatric, adult, pediatric) were considered. Lastly, articles that referred to burnout in healthcare providers other than nurses were excluded. Sixteen articles were selected to construct an evidence table (see Appendix A).

The 2020 AHA Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care stressed implementing a structured postcode debriefing tool to support continuous quality improvements in patient care and cardiac resuscitation (Berg et al., 2020).

Postcode debriefing is a form of communication among the interdisciplinary healthcare team following a code. It facilitates a conversation on an individual and team level about performance while identifying areas of strength and weakness during the event, thereby generating positive changes to improve subsequent performance (Gilmartin et al., 2020; Healy & Tyrrell, 2013; Sandhu et al., 2014; Tannenbaum & Cerasoli, 2013).

Integrating a structured postcode debriefing was a possible solution to address problems with nurse burnout, code performance, and teamwork. Literature indicated that debriefing after stressful events, like codes, improved nurse burnout levels, teamwork, and some studies reported slight increases in patient survival (Copeland & Liska, 2016; Dyregrov, 1997; Eppich et al., 2016; Gardner, 2013; Hirschinger et al., 2015; Mullan et al., 2017; Przednowek et al., 2021; Sawyer et al., 2016). Debriefing after cardiac arrests helped decrease burnout among frontline health workers by promoting improvements in teamwork and encouraging staff to examine the stressful event as a team (Copeland & Liska, 2016; Hill, 2019; Pollard, 2018; Przednowek et al., 2021). In two studies, postcode debriefing brought the medical team closer and improved teamwork (Copeland & Liska, 2016; Przednowek et al., 2021). Debriefing also improved performance and alleviated high burnout rates due to the work environment, promoting nurse resilience, especially in the ED (Copeland & Liska, 2016; Przednowek et al., 2021). Furthermore, postcode debriefing was determined to be an inexpensive way to address nursing burnout (Copeland & Liska, 2016; Di Giuseppe, 2021; Przednowek et al., 2021).

Debriefs focused on team performance, including strengths and weaknesses, after codes were determined to use time effectively, benefiting both patient survival and participants' teamwork (Cheng et al., 2018; Couper et al., 2016; Wolfe et al., 2014). Also, postcode debriefing significantly enhanced medical personnel's communication and emotional well-being because it

improved teamwork and future patient survival/outcomes (Copeland & Liska, 2016; Gilmartin et al., 2020; Przednowek et al., 2021). One meta-analysis involving postcode debriefings reported an improved return of spontaneous circulation and quality chest compressions in future codes, leading to improved patient outcomes and possible increased survival percentages (Cheng et al., 2018; Couper et al., 2016; Wolfe et al., 2014). Research showed postcode debriefing using a checklist and scripts reminders was an effective debriefing tool, which was beneficial to future patient outcomes (increased survival percentages) and improved healthcare staff teamwork (Cheng et al., 2018; Couper et al., 2016; Wolfe et al., 2014). Nevertheless, while some studies show improvement in patient outcomes, studies conducted over shorter periods showed no significant change in patient outcomes with the addition of a postcode debriefing (Berg et al., 2020; Cheng et al., 2018; Couper et al., 2016; Wolfe et al., 2014). Overall, regular postcode debriefings were related to improved teamwork, decreased nurse burnout, improved survival percentages, and enhanced staff transitioning back to regular patient treatment (Copeland & Liska, 2016; Dyregrov, 1997; Eppich et al., 2016; Gardner, 2013; Mullan et al., 2017; Sawyer et al., 2016).

Theoretical Framework

The Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) Model was used as the central theoretical framework for the implementation of this project. Inspired by Dang et al. (2022), the JHNEBP Model is a practical problem-solving approach to clinical decision-making with an 18-step three-phase process for reviewing and employing evidence to implement changes into healthcare practice.

This model was developed initially for hospital setting use, which made it ideal for this hospital-based project. The JHNEBP allowed all levels and types of healthcare workers to

provide input in developing and implementing a structured postcode debriefing, which allowed for a teamwork focus from the beginning of this project.

Project Purpose, Objectives, and Expected Outcomes

This quality improvement project's purpose was to introduce a structured postcode debriefing process after codes in the ED. The postcode debriefing was intended to improve patient survival percentage and decrease the self-reported levels of burnout among ED nurses. The project aims were as follows:

- Implement a structured postcode debriefing tool with instructions and a script sheet for facilitators.
- Evaluate ED nurses' self-report burnout before and after the postcode debriefing tool implementation.
- After implementing the postcode debriefing tool, evaluate coded patient survival percentages.

One of the project's expected outcomes was that nurses would report improved overall resilience and reduced self-reported feelings of burnout. Due to the relatively short timeframe of eight weeks, any change in patient survival percentages was unlikely.

Project Design

This quality improvement project occurred in the ED of a major independent healthcare network hospital (557 beds) in the southeastern United States. The ~80-bed ED is a Level III Trauma Center and a Det Norske Veritas (DNV)-certified Primary Plus Stroke Center and is one of the busiest in its region, treating over 100,000 patients yearly (LMC, 2021). Furthermore, the hospital's cardiovascular program was the state's first American College of Cardiology

recognized HeartCARE Center, a national distinction of excellence for quality cardiovascular patient care (LMC, 2021; Quality Improvement for Institutions, 2022).

The ED, when fully staffed, employs approximately 150 registered nurses and, when needed, uses travel nurses to address nursing shortages. Travel nurses were contracted only for part of the project and therefore excluded from the nursing survey. All ED nurses at the project site were required to maintain ACLS and PALS certifications to work in the ED (S. McQuillan, personal communication, March 9, 2020).

Feasibility

The ED medical and administrative staff enthusiastically supported this project (M. Barwick, personal communication, January 24, 2022; B. Brucker, personal communication, August 30, 2021; S. McQuillan, personal communication, June 17, 2021). Furthermore, supporting this project, the ED Assistant Director conducted a preliminary meeting encouraging the ED personnel (ED physicians especially) to participate in the intervention and the DNP student's proposed project. The project leader worked with the ED Unit for Best Practice members to create the postcode debriefing process, script, and tool. The simplicity of training, a minimal investment of time and money, and the intervention's flexibility all contributed to the project's overall feasibility. Lastly, the pandemic increased the need to address staff burnout, increasing staff's willingness to participate and further increasing the project's feasibility.

Implementation Plan and Procedures

Project Method

The project's sample included registered nurses in the ED at a large hospital in the Southeast. The expected number of nursing participants was 20-50. The inclusion criteria were the following: working as a nurse in ED during the entire project period, having completed ED

orientation, current ACLS and PALS certifications, and taking part in postcode debriefings. Participation was voluntary and anonymous. Exclusion criteria included travel nurses due to short travel assignments. Lastly, nurses were excluded from participating in codes and postcode debriefings on family members.

All potential participants received information about the project, its goals, and its significance. The participants were informed that their participation was voluntary and that they could withdraw from participation without consequences. The project leader monitored the quality of the postcode debriefings by answering questions in person or by email, reviewing completed debriefing sheets, and addressing any issues that arose. The project leader assessed compliance with the tool throughout the project. The facility's Information Technology (IT) staff provided information on the number of codes that took place in the ED during the project allowing for the completeness and accuracy of data to be verified. The raw nursing survey data was collected and secured using the REDCap survey platform.

Measures and Tools

The electronic nursing survey created for this project included nurse demographic employment questions and two standardized and validated tools (CD-RISC-10 and a non-proprietary single-time burnout measure; Campbell-Sills & Stein, 2007; Dolan et al., 2015). The post-nursing survey also included follow-up questions about code participation and postcode debriefing.

The nurse demographic employment questions included years worked as an RN, years worked in ED, and average hours worked per week (see Appendix B). This part of the survey questionnaire was important for collecting basic information about the total sample and utilized multiple choice and Likert scale questions.

The CD-RISC by Connor and Davidson (2003) consisted of a 10-item scale that assessed nurse resilience. Permission to use this scale was received: see Appendix C. This scale is a validated and reliable self-reporting tool used to measure resilience within PTSD and those exposed to traumatic or stressful events (Campbell-Sills & Stein, 2007). Burnout was calculated as a function of five (personal competence, acceptance of change and secure relationships, trust/tolerance/strengthening effects of stress, control, spiritual influences) interrelated components. CD-RISC utilizes Likert scales for all questions, ranging from 0 (not true at all) to 4 (true nearly all the time; see Appendix D).

The non-proprietary single-item burnout measure is a validated and reliable instrument for assessing burnout in those working in a healthcare setting and is publicly available for use at no cost (Dolan et al., 2015). Dolan et al. found that the free non-proprietary single-item measure compared to the expensive, time-intensive, and gold-standard Maslach Burnout Inventory had a correlation value of 0.79, a sensitivity of 83.2%, a specificity of 87.4%, and an AUC of 0.93 (se= 0.004; 2015). The non-proprietary single-item burnout measure directs participants to define burnout for themselves and uses a 5-point Likert scale (see Appendix E).

Data was collected from the postcode debriefing tool and the hospital's electronic medical record. The postcode debriefing tool was developed based on the intervention aspect of Copeland's (2016) Post Code Pause and Post Event Debriefing Hot Form as provided by the AHA (2021) to address the facility's needs (see Appendix F). All patients remained anonymous.

Implementation

The project leader implemented the project after approval from the institutional review board (IRB) was obtained from the project site hospital and the project leader's university. The project leader was not directly involved in patient coding or postcode debriefings, allowing them

to be perceived as a leader, not a colleague. At the beginning of implementation, a group email was sent to all eligible ED nurses inviting them to complete the pre-nursing survey. This introductory email included a survey link, a description of the postcode debriefing project, and a notification that survey participation was anonymous and voluntary. All surveys utilized Research Electronic Data Capture (REDCap) platform. The survey did not link any personal identification information; all participants remained anonymous. Submitting the surveys was considered consent from the participants.

An educational PowerPoint and letter of explanation were emailed to all the ED staff before the project's start. The use of PowerPoint allowed all ED healthcare providers to be educated on the postcode debriefing tool, when to use it, and how to use the script to administer the debriefing tool. Staff could ask questions through email, shift meetings, or in person (clinical coordinators or the project leader).

The postcode debriefing took place for eight weeks in the ED. The project leader or ED educator collected all completed debriefing sheets. The ED administrators or nurse educators addressed any interests or concerns about education, missing supplies, or sources of delay identified during the debriefings. The staff was notified when needed. After eight weeks, the same survey with the addition of postcode participation questions was administered; the survey link was emailed.

Data Collection

The data collection procedures were conducted by developing a pre- and post-nursing survey constructed of two standardized and validated burnout scales and an employment demographic data survey. The post-survey also included questions about the postcode debriefing. The online survey platform REDCap was used to administer both surveys. The pre-and post-

nursing survey links were emailed to all the ED staff nurses at the determined times (see Figure 1). Participation was confidential and anonymous. After the respondents completed their survey, the project lead accessed the data.

Blank postcode debriefing tools (sheets) and scripts were stored in major ED areas (zones) in pink folders for easy access. The completed postcode debriefing sheets did not include the patient's name, date of birth, or medical record number. Once the postcode debriefing occurred, the facilitator filled out the postcode debriefing sheet and secured it in a pink folder at the ED charge nurse station. The ED educators or project lead collected the completed sheets. Over the weekends, charge nurses secured completed sheets after each 12-hour shift in the clinical coordinator's office for added safety. The project lead submitted any issues identified on the debriefing sheets to the ED assistant director and educators. Furthermore, data on ED code patient survival percentages for this project and from the past three years (during the same period) was obtained through IT staff and the facility's electronic medical record.

Data Analysis

Project data was placed into SSPS Statistics and Microsoft Excel to analyze. Quantitative data was used to assess changes in nursing burnout and patient survival during the implementation of the structured postcode debriefing tool. Frequency distributions were calculated on the nursing employment demographic responses. The pre-and post-project nursing burnout results from the CD-RISC-10 scale and non-proprietary single-item measure were analyzed. The results means and standard deviations were calculated for both burnout assessment scales. Additionally, the statical matched t-test and Wilcoxon signed-rank test were conducted to assess for significant change in nursing burnout levels because of the postcode debriefing. Lastly, the code survival data was examined. The chi-square and Fisher's exact tests were

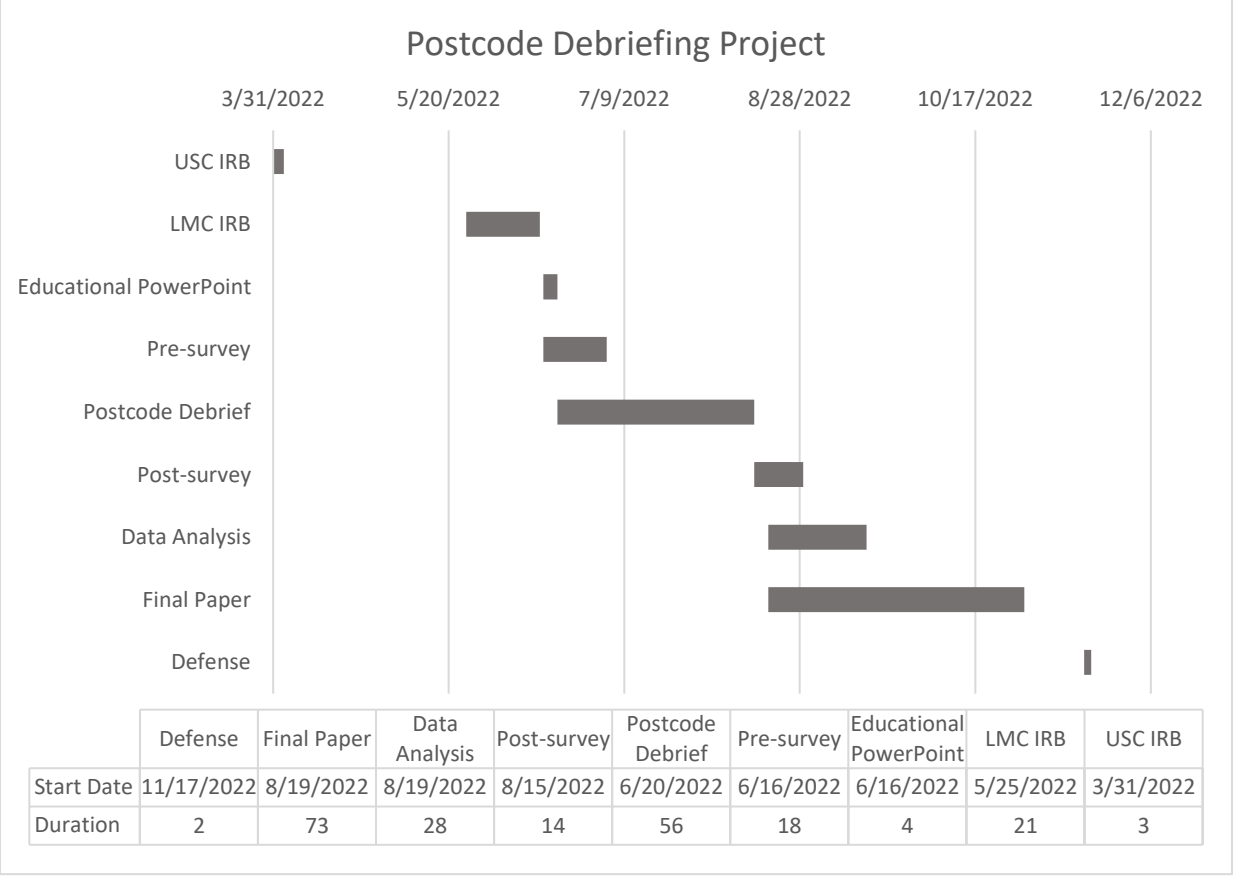
applied to assess project code survival data for statical significance. A two-proportion z-test was used to compare project code survival data three years prior, during the same period, to assess for statistical significance.

Research Timeline

Figure 1 shows the start date of the project implementation began after both the university and hospital IRB approval (June 16, 2022). The project was conducted from June 16, 2022, to August 15, 2022. Throughout the implementation period, quality monitoring of the intervention was applied to ensure adherence to the tool and procedure and that no violations occurred.

Figure 1

Gantt Chart for the Postcode Debriefing Project



	Defense	Final Paper	Data Analysis	Post-survey	Postcode Debrief	Pre-survey	Educational PowerPoint	LMC IRB	USC IRB
Start Date	11/17/2022	8/19/2022	8/19/2022	8/15/2022	6/20/2022	6/16/2022	6/16/2022	5/25/2022	3/31/2022
Duration	2	73	28	14	56	18	4	21	3

Budget and Resources

Overall, the project did not require significant investments as the cost of all tools for developing and completing the project were absorbed by this DNP student, the project leader. These tools included the development of the structured postcode debriefing tool, facilitator instructions and script, data collection, data analysis, and the final project document. The organization, by preliminary agreement, provided the setting for project implementation, which included staff's time for postcode debriefing sessions. Assessment of the structured postcode debriefing tool was delegated to the project leader or adviser assigned by the project lead and did not require sponsorship or investment.

Protection of Participants

Participation in this project was voluntary and anonymous. Before implementation, the quality improvement project received exemption status from the university and the facility's IRB. Participant data that could reveal their identities were not collected for this project. However, since the project lead operated in the clinical setting, the project leader's knowledge of the participants was considered. All participants knew they were not required to participate in nursing surveys or postcode debriefings. Participant risks were minimal. These risks included any psychological stress or discomfort a participant might feel speaking in front of others during the postcode debriefing process. Over time this feeling of stress would likely diminish as participants become accustomed to the debriefing process.

All raw and analyzed data was and will be stored securely and password-protected by the researcher for five years. After completing the project, the project lead disseminated the results to participants, including the hospital's ED Unit for Best Practice Board. All data collected from

the participants (surveys and observation notes) was protected, transparently reported, and assessed.

Results

A total of 15 nurses responded to both the pre-and post-nursing survey. Demographics were well distributed over years of nursing experience, ED experience, and hours worked per week. Table 1 shows the frequency distribution characteristic results of the nursing demographic employment questions.

Table 1

Frequency Distribution of Characteristics of RN Sample

Characteristics	n	%
RN years		
0-1 years	2	13.3
2-5 years	5	33.3
6-10 years	5	33.3
16 or more	3	20.0
RN years in ED		
0-1 years	2	13.3
2-5 years	6	40.0
6-10 years	4	26.7
11-15 years	1	6.7
16 or more	2	13.3
Hours worked per week		
12-24	2	13.3
25-36	4	26.7
26-36	2	13.3
37-48	7	46.7

Of the survey participants, 13.3% had one year or less experience as an RN, 33.3% had 2-5 years or 6-10 years, and 20.0% had more than 16 years. While 13.3% had 0-1 year or 16 more years of experience working in the ED, 40.0% had 2-5 years of ED experience, 26.67% had 6-10 years, and 6.7% had 11-15 years of ED experience. Of the 15 respondents, 46.7% worked 37-48 hours a week, 13.3% worked 12-24 or 26-36 hours, and 26.7% worked 25-36 hours a week. Also, 93.3% of the participants found value in participating in the postcode debriefing intervention and were still interested in participating in postcode debriefing after this project.

The CD-RISC-10 scores, assessing nursing burnout, results of matched t-test and Wilcoxon signed-rank test did not show any significant difference from pre- to post-nursing surveys (*p*-value= .6337 and .5314; see Table 2).

Table 2

RN Survey N, Means, standard deviation, matched and nonparametric matched t-test

Survey	Pre			Post			*p*-value
	N	Mean	SD	N	Mean	SD	Matched t-test/ Wilcoxon Signed- rank test
CD-RISC	15	28.73	4.27	15	28.53	3.60	0.6337/0.5314
Single-Item Measure	15	3.07	0.96	15	3.00	1.00	0.5816/0.5816

Similarly, the non-proprietary single-item measure, which assessed nursing burnout, results of matched t-test and Wilcoxon signed-rank test did not show any significant difference from pre- to post-nursing surveys (*p*-value = 0.5816 and 0.5816; see Table 2).

Code survival percentages during the same 8-week period from 2019-2022 are reported in Table 3.

Table 3

Code Survival Percentages During the Same Period

Year	Number of Codes	Survivors	Survival Percentage	*p*-value Z-test*
2022	51	11	21.6%	0.3512
2021	33	3	9.1%	0.0323
2020	36	10	27.8%	0.7429
2019	22	7	31.8%	

Note: *****Year compared to 2019.

A total of 51 codes occurred in the ED during the project, with 11 surviving, resulting in a 21.6% survival. In 2021, there were 33 codes during the same period, with three patients surviving (9.1% survival). In 2020 there were 36 codes, and 10 survived (27.7% survival). Finally, in 2019 there were 22 codes, with seven surviving (31.8% survival). The two-proportion z-test found no statistical difference in survival percentages for 2022 (p = .3512), 2021 (p = .0323), and 2020 (p

= .7429) when compared to 2019 (see Table 3). There was no statical significance regarding code survival (Chi-Square test p = .1596, Fisher's exact test p = .1374; see Table 4).

Table 4

Frequency of Code Survival by Year

Code Survival	Year				*p*-value Chi-Square/ Fisher Exact
	2019	2020	2021	2022	
No					
Frequency	7	10	3	11	
Percentage	68.18	72.22	90.91	78.43	
					.1596/
Yes					.1374
Frequency	15	26	30	40	
Percentage	31.82	27.78	9.09	21.57	

There were several strengths in this project. Both the postcode debriefing and nursing pre-and post-nursing surveys were cost-effective. The low cost of the postcode debriefing allowed the ED to address the national AHA CPR guideline recommendations of implementing a structured postcode debrief for continuous quality improvement. The standardized survey questions provided a reliable way to obtain burnout data from the ED RNs. Allowing survey participants to remain anonymous, participants could provide the most accurate answer without fear of judgment or retaliation. Furthermore, repeating the same surveys and comparing the participant's pre-and post-nursing survey responses allowed for the collection of reliable data on any effect the project intervention had on burnout in the ED RNs. Lastly, there was an almost 50% increase in the number of codes presented to the ED in 2022 during this project's time when compared to the previous three years. Therefore, no significant change in survival percentage with this dramatic increase in codes is a favorable result.

This study's small, matched response numbers (N = 15) for the pre-and post-nursing surveys were a limitation. There was an average of five nursing resignations weekly during the project (B. Brucker, personal communication, November 7, 2022). The cancelation of travel nurse contracts and nursing turnover over the project's 8-week period likely decreased the number of matched survey responses. Also, despite the minimal time it took to perform the postcode debriefing, staffing shortages and increased patient census made it harder to conduct the postcode debriefings than anticipated (B. Brucker, personal communication, August 19, 2022). Lastly, the project's short period did not allow for any possible assessment of the long-term effects the postcode debriefing intervention might have on RN burnout or patient survival.

Over the project period, there was one modification to how the postcode debriefing was administered. Due to increased ED patient census and staff shortages, the charge nurse performed 14.3% of the postcode debriefings individually with willing participants instead of as a group. No changes were made to the postcode debriefing script when performed separately. Also, a Quick Response (QR) code was added to the survey reminder email. The QR code was provided per RN requests to do the surveys quickly at home or on their cellphones after work. No modifications were made to the surveys or how they were administered through the REDCap platform. Additionally, the timeline for the post-nursing survey response was extended by seven days, allowing for a total of 14 days (September 15 to 30, 2022) to respond due to low response numbers.

An unintended benefit of this project was that it identified RNs want more education on pediatric code medication calculations and practice pediatric codes to gain more confidence. Another benefit was that the pediatric medication card on the code cart was missing and replaced due to the debriefing. The only missing data was the length of the codes. Identifying the exact

length of active codes could not be determined due to the project facility not having a standardized reporting method.

Discussion

The future direction or continuation of this evidence-based project is currently undetermined. The ED Unit for Best Practice members and ED leadership staff will revisit the intervention after dissemination is provided. The postcode debriefing intervention did not show statistical significance on nursing burnout or code survival percentages. The postcode debriefing did not have any statistically significant effect on nursing burnout or patient survival percentages. RN burnout could have been affected by other external variables such as staffing turnover, personnel shortages, travel nurses leaving, and increased patient census during the project, which could not have been anticipated. Lastly, there was an almost 50% increase in the number of codes presented to the ED in 2022, during this project's time, compared to the previous three years. Therefore, no significant change in survival percentage with this dramatic increase in codes is a favorable result.

However, the project did have clinical significance. Nurses indicated that due to the unpredictability of pediatric codes in the ED, they wanted more education and, ideally, possible simulation experience to increase their confidence. Also, the postcode debriefing aided in recognizing that the AHA pediatric quick reference card previously on the pediatric code cart was missing. Two major sources, central supply and registration, were identified as delaying some coded patients from being transferred quickly out of the ED. Lastly, nurses reported that when their scrubs got soiled during codes, the lack of quick access to clean scrubs delayed them from returning quickly to caring for their other patients.

In line with Copeland and Liska (2016), Healy and Tyrrell (2013), and Sandhu et al. (2014), this project found that staff supported postcode debriefing and found value in the process. As with Gilmartin et al. (2020), this project also identified educational opportunities because of the postcode debriefing intervention. Unlike Berg et al. (2020), Couper et al. (2016), Tannenbaum et al. (2013), and Wolfe et al. (2014), the present project did not find any statistically significant increase in patient survival. Contrary to Copeland and Liska (2016), Gilmartin et al. (2020), and Johnston et al. (2016), this project found no significant improvement in RN burnout levels. However, the studies that showed improvement in RN burnout (mental health) and patient survival took place over extended periods, at least one year (Berg et al., 2020; Couper et al., 2016; Tannenbaum et al., 2013; We et al., 2014).

Conclusion

Overall, this project is sustainable with staff and leadership support; postcode debriefing may create more clinical significance over time. Furthermore, based on research, implementing postcode debriefing over a longer project period is likely to have positive effects on nursing burnout and patient outcome.

The recommended next steps would be for the project site's ED to modify and maximize the postcode debriefing by developing a standardized process that considers the variability in workflow, staffing levels, and patient census. Furthermore, it may be beneficial to initiate a postcode debriefing on inpatient floors at this hospital site. Because most inpatient floors, other than intensive care units, at the hospital do not have many codes, postcode debriefing would be helpful.

In conclusion, this project successfully implemented the 2020 AHA recommended guideline for postcode debriefing, which was found to promote continuous quality improvements

in patient care and address ED nurses' mental health. While there was no statistically significant change to nursing burnout rates or patient survival percentage, this project revealed clinically significant findings. The project dissemination will occur with the project site’s ED Unit for Best Practice members and upon request to ED leadership staff.

References

Adriaenssens, J., De Gucht, V., & Maes, S. (2015). Determinants and prevalence of burnout in emergency nurses: A systematic review of 25 years of research. *International Journal of Nursing Studies*, *52*(2), 649-661. https://doi.org/10.1016/j.ijnurstu.2014.11.004

AHRQ Patient Safety Network. (2019). *Debriefing for clinical learning.* https://psnet.ahrq.gov/primer/debriefing-clinical-learning

American Heart Association. (2021). *Get with the guidelines: Resuscitation clinical tools.* https://www.heart.org/en/professional/quality-improvement/get-with-the-guidelines/get-with-the-guidelines-resuscitation/get-with-the-guidelines-resuscitation-clinical-tools

Berg, K. M., Cheng, A., Panchal, A. R., Topjian, A. A., Aziz, K., Bhanji, F., Bigham, B. L., Hirsch, K. G., Hoover, A. V., Kurz, M. C., Levy, A., Lin, Y., Magid, D. J., Mahgoub, M., Peberdy, M. A. Rodriguez, A. J., Sasson, C., & Lavonas, E. J. (2020). Part 7: Systems of care: 2020 American Heart Association guidelines for cardiopulmonary resuscitation and emergency cardiovascular care. *Circulation*, *142*(16), S580-S604. https://doi.org/10.1161/CIR.0000000000000899

Berger, J., Polivka, B., Smoot, E. A., & Owens, H. (2015). Compassion fatigue in pediatric nurses. *Journal of Pediatric Nursing*, *30*(6), E11-E17. https://doi.org/10.1016/j.pedn.2015.02.005

Boyle, D. A. (2015). Compassion fatigue: The cost of caring. *Nursing*, *45*(7), 48-51. https://doi.org/10.1097/01.NURSE.0000461857.48809.a1

Campbell-Sills, L., & Stein, M. B. (2007). Psychometric analysis and refinement of the Conner-Davidson resilience scale (CD-RISC): Validation of a 10-item measure of resilience.

Journal of Traumatic Stress, *20*(6), 1019-1028. https://pubmed.ncbi.nlm.nih.gov/18157881

Chang, B., & Shecter, A. (2021). Is working in the emergency department hazardous to your health? Psychological and physical features of emergency staff during the COVID-19 pandemic. *Annals of Emergency Medicine*, 78(4), S22. https://doi.org/10.1016/j.annemergmed.2021.09.061

Cheng, A., Nadkarni, V. M., Mancini, M. B., Hunt, E. A., Sinz, E. H., Merchant, R. M., Donoghue, A., Duff, J. P., Eppich, W., Auerbach, M., Bigham, B. L., Blewer, A. L., Chan, P. S., & Bhanji, F. (2018). Resuscitation education science: Educational strategies to improve outcomes from cardiac arrest: A scientific statement from the American Heart Association. *Circulation*, *138*(6), E82-E122. https://doi.org/10.1161/CIR.0000000000000583

Coetzee, S. K., & Klopper, H. C. (2010). Compassion fatigue within nursing practice: A concept analysis. *Nursing & Health Sciences*, *12*(2), 235-243. https://doi.org/10.1111/j.1442-2018.2010.00526.x

Copeland, D., & Liska, H. (2016). Implementation of a postcode pause. *Journal of Trauma Nursing*, *23*(2), 58-64. https://doi.org/10.1097/JTN.0000000000000187

Couper, K., Kimani, P. K., Davies, R. P., Baker, A., Davies, M., Husselbee, N., Melody, T., Griffiths, F., & Perkins, G. D. (2016). An evaluation of three methods of in-hospital cardiac arrest educational debriefing: The cardiopulmonary resuscitation debriefing study. *Resuscitation, 105,* 130-137. https://doi.org/10.1016/j.resuscitation.2016.05.005

Dang, D., Dearholt, S., Bissett, K., Ascenzi, J., & Whalen, M. (2022). *Johns Hopkins evidence-based practice for nurses and healthcare professionals: Model and guidelines* (4th ed.).

Sigma Theta Tau International. https://www.hopkinsmedicine.org/evidence-based-practice/ijhn_2017_ebp.html

De Wijn, A., & Van der Doef, M. (2020). Patient-related stressful situations and stress-related outcomes in emergency nurses: A cross-sectional study on the role of work factors and recovery during leisure time. *International Journal of Nursing Studies, 107*, 103579. http://doi.org/10.1016/j.ijnurstu.2020.103579

Di Giuseppe, M., Nepa, G., Prout, T. A., Albertini, F., Marcelli, S., Orrù, G., & Conversano, C. (2021). Stress, burnout, and resilience among healthcare workers during the COVID-19 emergency: The role of defense mechanisms. *International Journal of Environmental Research and Public Health, 18*(10), 5258. https://doi.org/10.3390/ijerph18105258

Dolan, E. D., Mohr, D., Lempa, M., Joos, S., Fihn, S. D., Nelson, K. M., & Helfrich, C. D. (2015). Using a single item to measure burnout in primary care staff: A psychometric evaluation. *Journal of General Internal Medicine, 30*(5), 582-587. https://doi.org/10.1007/s11606-014-3112-6

Dyregrov, A. (1997). The process in psychological debriefings. *Journal of Traumatic Stress, 10*(4), 589-605. https://doi.org/10.1023/A:1024893702747https://doi.org/10.1002/jts.2490100406

Edelson, D. P., Litzinger, B., Arora, V., Walsh, D., Kim, S., Lauderdale, D. S., Hoek, T. L. V., Becker, L. B. & Abella, B. S. (2008). Improving in-hospital cardiac arrest process and outcomes with performance debriefing. *Archives of Internal Medicine, 168*(10), 1063-1069. https://doi.org/10.1001/archinte.168.10.1063

Eppich, W. J., Mullan, P. C., Brett-Fleegler, M., & Cheng, A. (2016). "Let's talk about it": Translating lessons from health care simulation to clinical event debriefings and coaching

conversations. *Clinical Pediatric Emergency Medicine, 17*(3), 200-211. https://doi.org/10.1016/j.cpem.2016.07.001

Fereday, S., & Malbon, N. (2017). *A guide to quality improvement methods*. Healthcare Quality Improvement Partnership. https://www.hqip.org.uk/wp-content/uploads/2018/02/guide-to-quality-improvement-methods.pdf

Gardner, R. (2013). Introduction to debriefing. *Seminars in Perinatology, 37*(3), 166-174. https://doi.org/10.1053/j.semperi.2013.02.008

Gilmartin, S., Martin, L., Kenny, S., Callanan, I., & Salter, N. (2020). Promoting hot debriefing in an emergency department. *BMJ Open Quality, 9*(3), E000913. http://dx.doi.org/10.1136/bmjoq-2020-000913

Harris, C., & Griffin, M. T. Q. (2015). Nursing on empty: Compassion fatigue signs, symptoms, and system interventions. *Journal of Christian Nursing, 32*(2), 80-87. https://doi.org/10.1097/CNJ.0000000000000155

Healy, S., & Tyrrell, M. (2013). Importance of debriefing following critical incidents. *Emergency Nurse, 20*(10). 32-37. https://doi.org/10.7748/en2013.03.20.10.32.s8

Hesselink, G., Straten, L., Gallee, L., Brants, A., Holkenborg, J., Barten, D.G., & Schoon, Y. (2021). Holding the frontline: A cross-sectional survey of emergency department staff well-being and psychological distress in the course of the COVID-19 outbreak. *BMC Health Services Research, 21*(1). https://soi.org/10.1186/s12913-021-06555-5

Hill, J. (2019). *Standardized code blue process* [Doctoral dissertation, University of Missouri]. MO Space. https://mospace.umsystem.edu/xmlui/handle/10355/67986

Hinderer, K. A., VonRueden, K. T., Friedmann, E., McQuillan, K. A., Gilmore, R., Kramer, B., & Murray, M. (2014). Burnout, compassion fatigue, compassion satisfaction, and

secondary traumatic stress in trauma nurses. *Journal of Trauma Nursing*, *21*(4), 160-169. https://doi.org/10.1097/JTN.0000000000000055

Hirschinger, L. E., Scott, S. D., Hahn-Cover, K. (2015). *Clinician support: Five years of lessons learned*. Patient Safety & Quality Healthcare. https://www.psqh.com/analysis/clinician-support-five-years-of-lessons-learned

Hunsaker, S., Chen, H. C., Maughan, D., & Heaston, S. (2015). Factors that influence the development of compassion fatigue, burnout, and compassion satisfaction in emergency department nurses. *Journal of Nursing Scholarship*, *47*(2), 186-194. https://doi.org/10.1111/jnu.12122

Institute of Medicine. (2015). *Strategies to Improve Cardiac Arrest Survival: A Time to Act*. National Academies Press. https://doi.org/10.17226/21723

Jenkins, B., & Warren, N. A. (2012). Concept analysis: Compassion fatigue and effects upon critical care nurses. *Critical Care Nursing Quarterly*, *35*(4), 388-395. https://doi.org/10.1097/CNQ.0b013e318268fe09

Johnson, C. (2021, June 9). *June emergency department staff meeting* [Oral presentation]. Lexington Medical Center.

Johnston, A., Abraham, L., Greenslade, J., Thom, O., Carlstrom, E., Wallis, M., & Crilly, J. (2016). Staff perception of the emergency department working environment: Integrative review of the literature. *Emergency Medicine Australasia*, *28*(1), 7-26. https://doi.org/10.1111/1742-6723.12522

King, C., & Bradley, L.A. (2019, March). *Trends and implications with nursing engagement: PRC national nursing engagement report, utilizing the PRC nursing quality assessment inventory*. PRC Custom Research. https://prccustomresearch.com/wp-

content/uploads/2019/PRC_Nursing_Engagement_Report/PRC-NurseReport-Final-031819-Secure.pdf

Lexington Medical Center. (2021). *Emergency care*. https://www.lexmed.com/locations-directions/main-campus/emergency-care

Lexington Medical Center. (2022). *"Topping Out" Lexington Medical Center's Clinical Expansion.* https://www.lexmed.com/about/media-news/detail/359/topping-out-lexington-medical-centers-clinical-expansion

Li, A., Early, S. F., Mahrer, N. E., Klaristenfeld, J. L., & Gold, J. I. (2014). Group cohesion and organizational commitment: Protective factors for nurse residents' job satisfaction, compassion fatigue, compassion satisfaction, and burnout. *Journal of Professional Nursing*, *30*(1), 89-99. https://doi.org/10.1016/j.profnurs.2013.04.004

Mullan, P. C., Cochrane, N. H., Chamberlain, J. M., Burd, R. S., Brown, F. D., Zinns, L. E., Crandall, K. M., & O'Connell, K. J. (2017). Accuracy of post-resuscitation team debriefings in a pediatric emergency department. *Annals of Emergency Medicine, 70*(3), 311-319. https://doi.org/10.1016/j.annemergmed.2017.01.034

Nielsen, K. J., Pedersen, A. H., Rasmussen, K., Pape, L., & Mikkelsen, K. L. (2013). Work-related stressors and occurrence of adverse events in an ED. *American Journal of Emergency Medicine*, *31*(3), 504-508. https://doi.org/10.1016/j.ajem.2012.10.002

NSI Nursing Solutions. (2021). *2021 NSI National Health Care Retention & RN Staffing Report*. https://www.nsinursingsolutions.com/Documents/Library/NSI_National_Health_Care_Retention_Report.pdf

Peters, E. (2018). Compassion fatigue in nursing: A concept analysis. *Nursing Forum*, *53*(4), 466-480. http://doi.org/10.1111/nuf.12274

Pollard, M.A. (2018, July 19-23). *Engaging nurses in code skills to promote interdisciplinary teamwork* [Conference paper abstract]. Sigma's 29th International Nursing Research Congress. https://sigma.nursingrepository.org/bitstream/handle/10755/624558/Pollard_91592_Info.pdf

Przednowek, T., Stacey, C., Baird, K., Nolan, R., Kellar, J., & Corser, W. D. (2021). Implementation of a rapid postcode debriefs quality improvement project in a community emergency department setting. *Spartan Medical Research Journal*, *6*(1), 21376. https://dx.doi.org/10.51894/001c.21376

Quality Improvement for Institutions. (2022). *HeartCARE Center Recognition Program*. https://cvquality.acc.org/accreditation/heartcare-center-recognition-program

Sandhu, N., Eppich, W., Mikrogianakis, A., Grant, V., Robinson, T., & Cheng, A. (2014). Postresuscitation debriefing in the pediatric emergency department: A national needs assessment. *Canadian Journal of Emergency Medicine*, *16*(5), 383-392. https://doi.org/10.2310/8000.2013.131136

Sawyer, T., Loren, D., & Halamek, L. P. (2016). Post-event debriefings during neonatal care: Why are we not doing them, and how can we start? *Journal of Perinatology*, *36*(6), 415-419. https://doi.org/10.1038/jp.2016.42

Schmidt, M., & Haglund, K. (2017). Debrief in emergency departments to improve compassion fatigue and promote resiliency. *Journal of Trauma Nursing*, *24*(5), 317-322. https://doi.org/10.1097/JTN.0000000000000315

Schneider, A., Wehler, M., & Weigl, M. (2019). Effects of work conditions on provider mental well-being and quality of care: A mixed-methods intervention study in the emergency

department. *BMC Emergency Medicine*, *19*(1), 1-12. https://doi.org/10.1186/s12873-018-0218-x

Schulz, H., Zacher, H., & Lippke, S. (2017). The importance of team health climate for health-related outcomes of white-collar workers. *Frontiers in Psychology, 8,* Article 74. https://doi.org/10.3389/fpsyg.2017.00074

Shah M.K., Gandrakota N., Cimiotti J.P., Ghose N., Moore M., & Ali M.K. (2021). Prevalence of and factors associated with nurse burnout in the US. *JAMA Network Open*, *4*(2), e2036469. http://doi.org/10.1001/jamanetworkopen.2020.36469

Sheppard, K. (2016). Compassion fatigue: Are you at risk? *American Nurse Today*, *11*(1), 53-55. http://doi.org/10.1188/09.ONF.24-28

Tannenbaum, S. I., & Cerasoli, C. P. (2013). Do team and individual debrief enhance performance? A meta-analysis. *Human Factors*, *55*(1), 231-245. https://doi.org/10.1177/0018720812448394

US Department of Health and Human Services. (2021). *Debriefing for clinical learning*. https://psnet.ahrq.gov/primer/debriefing-clinical-learning

Weigl, M., Müller, A., Holland, S., Wedel, S., & Woloshynowych, M. (2016). Work conditions, mental workload, and patient care quality: A multisource study in the emergency department. *BMJ Quality & Safety*, *25*(7), 499-508. https://qualitysafety.bmj.com/content/25/7/499.short

Wolfe, H., Zebuhr, C., Topjian, A. A., Nishisaki, A., Niles, D. E., Meaney, P. A., Boyle, L., Giordano, R. T., Davis, D., Priestley, M., Apkon, M., Berg, R. A., Nadkarni, V. M., & Sutton, R. M. (2014). Interdisciplinary ICU cardiac arrest debriefing improves survival

outcomes. *Critical Care Medicine*, *42*(7), 1688-1695. https://doi.org/10.1097/ccm.0000000000000327

Zippia. (2021). *Emergency room nurse statistics and facts in the US*. https://www.zippia.com/emergency-room-nurse-jobs/demographics

Appendix A: Postcode Debriefing Evidence Table

Reference and Quality	Methods	Validity and reliability	Findings	Conclusion
Article 1: Wolfe, H., Zebuhr, C., Topjian, A. A., Nishisaki, A., Niles, D. E., Meaney, P. A., Boyle, L., Giordano, R. T., Davis, D., Priestley, M., Apkon, M., Berg, R. A., Nadkarni, V. M., & Sutton, R. M. (2014). Interdisciplinary ICU cardiac arrest debriefing improves survival outcomes. **Evidence Level**: II **Quality**: High	**Design**: Prospective interventional study **Sample**: 119 events Children in ICU that received CPR **Setting**:1 hospital **Framework**: n/a **Measures:** survival, survival to go home **Analysis Plan:** univariate analysis of data over an 8-year period, neurological outcome, CPR period, survival **Procedure**: analysis of data over an 8year period to compare if debriefing after CPR improved patient survival in ICUs.	**Conclusion Validity**: Good: Long period of time study was conducted over and covered a large age group. Sample size moderate for intervention. **Internal Validity**: Fair: Not a controlled study. There could be variables not detected or mentioned that could be affecting the results. **External Validity**: Fair to good. The large span of age makes this study more likely to apply to other settings. **Construct Validity**: Good, they measured what was hypothesized. **Reliability**: Good, long period and large population inclusion. **Precision**: Good, strong statistical findings.	intervention was associated with a trend toward improved survival to hospital discharge on both univariate analysis (52-0% vs 33.0%, p = 0.054) and after controlling for confounders (adjusted odds ratio, 2.5; 95% CI, 0.91–6.8; p = 0.075), and it significantly increased survival with favorable neurologic outcome on both univariate (50.0% vs 29.0%, p = 0.036) and multivariable analyses (adjusted odds ratio, 2.75; 95% CI, 1.01–7.5; p = 0.047). Cardiopulmonary resuscitation epochs for patients who are 8 years old or older during the debriefing period were 5.6 times more likely to meet targets of excellent	Implementation of an interdisciplinary, post-event quantitative debriefing program was significantly associated with improved cardiopulmonary resuscitation quality and survival with favorable neurologic outcome.

			cardiopulmonary resuscitation (95% CI, 2.9–10.6; $p < 0.01$).	
Article 2: Couper, K., Kimani, P. K., Davies, R. P., Baker, A., Davies, M., Husselbee, N., Melody, T., Griffiths, F., & Perkins, G. D. (2016). An evaluation of three methods of in-hospital cardiac arrest educational debriefing: The cardiopulmonary resuscitation debriefing study. **Evidence Level**: III **Quality**: High/Good	**Design**: qualitative study meta-synthesis **Sample**:191 clinicians **Setting**:3 different hospital sites **Framework**: n/a **Measures**: comparison of CPR quality and patient outcome data. **Analysis Plan:** comparison of average and Pearson's Chi-Square correlation **Procedure**: Using 3 different post-cardiac debriefing structures at 3 different hospitals, compare same data measure from all three site at during the same period.	**Conclusion Validity**: Good, large sample size, over multiple locations. **Internal Validity**: Good, no controlled study, could have unknown variables. **External Validity**: Good, might be some issues applying to different levels of resources. **Construct Validity**: Good, quality study, measure what they intended to. **Reliability**: Strong with the multiple locations and sample size. **Precision**: Strong, good math and procedures. Other locations with poor	All 3 methods of post-cardiac arrest debriefing strategies were feasible but did not have a large effect on CPR quality.	The importance of debriefing after cardiac arrest is more important than the method of use for the debriefing.

		performance may have more patient survival changes. This may be attributable to the high-quality of CPR being delivered in study hospitals at baseline		
Article 3: Healy, S., & Tyrrell, M. (2013). Importance of debriefing following critical incidents. **Evidence Level**: III **Quality:** Good	**Design:** qualitative study meta-synthesis **Sample**: 137 **Setting**:3 Ireland EDs **Framework**: n/a **Measures**: opinion survey **Analysis Plan:** average of responses and comparisons **Procedure**: Sent out surveys to three different EDs to assess for mental stress endured and what providers felt would be of benefit.	**Conclusion Validity**: Good, strong data analysis, multiple locations. **Internal Validity** Good, not a controlled study. There are variables that could be the cause of the results: **External Validity**: Good, some limitation of being a different country and different cultures **Construct Validity**: Good, measured what they intended to. **Reliability**: Good to areas of similar resources and cultures. **Precision**: Good for their study.	Study found that healthcare providers are in support of debriefing after stressful events.	Increased workload and lack of trained facilitators or established guidelines are major barriers identified to why debriefing isn't taking place.

Article 4: Hirschinger, L. E., Scott, S. D., Hahn-Cover, K. (2015). Clinician support: Five years of lessons learned. **Evidence Level**: III **Quality:** High	**Design**: EBP, exploratory **Sample**: different for different interventions. (mentor=47, group debrief= 632, one-on-one=396, total= 1075) **Setting**: University of Missouri Health Care 6 hospital healthcare system **Framework**: The Theory of Transpersonal Caring and the Critical Incident Stress Management Model **Measures**: data collection and comparison **Analysis Plan:** average of responses, percentages **Procedure:** 2 types of groups, surveys, and assessment forms, over a 5-year period.	**Conclusion Validity**: Strong, large population and number of locations over a long period of time. **Internal Validity**: Strong, examined different styles and over a long period of time. **External Validity**: Strong, for similar medical environments. **Construct Validity**: Strong, they measure the concept they set out to. **Reliability**: Good, large number of locations over a long period of time. **Precision**: Good, The data had a relationship with the conclusion since majority found code debriefing helpful. five-year experience	Second victim phenomenon: suffered in silence from anxiety, stress, shame, and guilt because of adverse clinical events strongly encourage healthcare facilities to develop a comprehensive plan and provide accessible, effective support for all clinicians experiencing the second victim phenomenon Interventional support should begin the moment the unanticipated/adverse event is recognized	Organizational awareness of the second victim phenomenon and an institutional response plan are critical steps in minimizing the suffering of the institution's healthcare clinicians.
Article 5: Tannenbaum, S. I., & Cerasoli, C. P. (2013). Do team and individual	**Design**: quantitative meta-analysis **Sample**:46 samples (n = 2,136) **Setting**: hospital	**Conclusion Validity**: Good, large overall sample size. Reasonable limitations,	46 samples (*N* = 2,136) indicate that on average, debriefs improve effectiveness over a control group by ~25% (*d* =	Organizations can improve individual and team performance by ~20%-25% by using properly conducted debriefs.

debrief enhance performance? A meta-analysis. **Evidence Level**: III **Quality**: High	**Framework**: random-effects meta-analytic methos of Hunter and Schmidt **Measures**: comparisons of results and analysis of patterns **Analysis Plan:** Reported statistics (e.g., *t* values, *F* te sts, means and standard deviations) were converted to Cohen's *d*, a standardized estimate of the difference between debrief and control conditions in standard deviation units. **Procedure**: literature review, quality studies, analysis of data, report findings	**Internal Validity**: Good, but due to no control this limits the internal validity. **External Validity**: Good, similar resources and cultures would be needed. **Construct Validity**: Good, they measure the concept they set out to. **Reliability**: Good **Precision**: Good, statistically significant analysis results from many studies.	.67). Average effect sizes were similar for teams and individuals, across simulated and real settings, for within- or between-group control designs, and for medical and nonmedical samples. Meta-analytic methods revealed a bolstering effect of alignment and the potential impact of facilitation and structure	
Article 6: Berg, K.M., Cheng, A., Panchal, A. R., Topjian, A. A., Aziz, K., Bhanji, F., Bigham, B. L., Hirsch, K. G., Hoover, A. V., Kurz, M. C., Levy, A., Lin, Y., Magid, D. J., Mahgoub, M.,	**Design**: National guideline **Sample**: different for each study. **Setting**: multiple setting (in and outside hospital) **Framework**: n/a **Measures**: review of literature **Analysis Plan:** evaluate literature **Procedure**: extensive evidence evaluation performed in	**Conclusion Validity**: Good, based conclusions over expert analysis of literature. **Internal Validity**: Good, identifies areas of weakness. **External Validity**: guidelines are designed primarily for	3 prospective observational studies of post-code debriefing with multidisciplinary team members show mixed results, but none showed decrease in patient outcomes. Meta-analysis of these studies demonstrated	Debriefing, quality improvement strategy, now emphasized. "Team feedback matters. Structured debriefing protocols improve the performance of resuscitation teams in subsequent resuscitation events."

Peberdy, M. A. Rodriguez, A. J., Sasson, C., & Lavonas, E. J. (2020). Part 7: Systems of care: 2020 American Heart Association guidelines for cardiopulmonary resuscitation and emergency cardiovascular care. **Evidence Level:** IV **Quality:** High Quality	conjunction with the International Liaison Committee on Resuscitation (ILCOR) and affiliated ILCOR member councils. Three different types of evidence reviews (systematic reviews, scoping reviews, and evidence updates) were used in the 2020 process.	North American healthcare providers who are looking for an up-to-date summary for clinical care and the design and operation of resuscitation **Construct Validity**: Good, statistically interpretation and reasonable conclusions **Reliability**: Good **Precision:** Good, reliable	improved ROSC and mean chest compression depth in the period after implementation of debriefing. 2 studies: improvement in quality of resuscitation and survival outcomes and 1 study found no improvement in patient or process-focused outcomes. debriefings were facilitated by healthcare professionals familiar with the recommended debriefing structure, sometimes supported using cognitive aids.	
Article 7: Cheng, A., Nadkarni, V. M., Mancini, M. B., Hunt, E. A., Sinz, E. H., Merchant, R. M., Donoghue, A., Duff, J. P., Eppich, W., Auerbach, M., Bigham, B. L., Blewer,	**Design**: National guideline committee **Sample**: multiple studies reviewed **Setting**: different sites **Framework:** n/a **Measures**: review of current literatures **Analysis Plan:** evaluate literature **Procedure**: (1) developing a	**Conclusion Validity**: Good, based conclusions over expert analysis of literature. **Internal Validity**: Good, identifies areas of weakness **External Validity**: Good, similar resources and cultures would be needed.	Clinicians have a poor ability to self-assess, and even experienced clinicians need external feedback to maintain and advance clinical skills. Learners have a difficult time using feedback if it threatens their self-esteem or	Although feedback and debriefing are effective educational interventions, one third of studies in a meta-analysis of feedback demonstrated negative impacts on learning. In general, effective feedback should be specific,

A. L., Chan, P. S., & Bhanji, F. (2018). Resuscitation education science: Educational strategies to improve outcomes from cardiac arrest: A scientific statement from the American Heart Association. **Evidence Level**: IV **Quality:** High quality	steering committee; (2) defining the scope of the scientific statement; (3) selecting topics, working group leads, and writing group members; (4) selecting working group members; (5) reviewing the literature; (6) holding an AHA Education Summit; and (7) drafting and revising a scientific statement.	**Construct Validity**: Good, statistically interpretation and reasonable conclusions **Reliability**: Good/Strong, large committee of national experts **Precision**: Good	conflicts with their perceptions of self, even if educators give feedback according to established guidelines.	timely, actionable, and tailored to learners, and it should identify aspects done well and those needing improvement.
Article 8: Copeland, D., & Liska, H. (2016). Implementation of a postcode pause. **Evidence Level**: V **Quality**: High/Good	**Design**: quality improvement **Sample**:155 nurses **Setting**: 1 hospital ED **Framework**: n/a **Measures**: satisfaction surveys **Analysis Plan:** average of responses **Procedure**: Staff developed a debriefing Tool. Surveys administered at 6 months and 1 year.	**Conclusion Validity**: good, large sample but only one location. **Internal Validity**: good, the timing of staff members accessing the survey in relation to their last code event response may have affected results **External Validity**: Fair/Good, this project was limited to the ED, and as with all surveys, responses include only the	Staff reported increase in the sense of support from all staff. Improvement support in how returning to assignment Decrease in thoughts and feelings 24 hour after event for responders	Responders found benefit from an opportunity to express reverence for patients involved in code and trauma events.

		perceptions of those who participated**.** **Construct Validity**: Good, statistically interpretation and reasonable conclusions **Reliability**: Good **Precision**: Good		
Article 9: Gilmartin, S., Martin, L., Kenny, S., Callanan, I., & Salter, N. (2020). Promoting hot debriefing in an emergency department **Evidence Level**: V **Quality**: High/Good	**Design**: quality improvement **Sample**: 108 **Setting**: 1 ED **Framework**: **Measures**: outcome measure recorded was the number of debriefs performed and documented per month as compared with the number of cardiac arrests treated in the emergency department. process measures focused on involved looking at the practice changes made because of the hot debriefing process. -Qualitative feedback **Analysis Plan:** Comparison of response averages, percentages of hot debriefs to number of cardiac arrests **Procedure**:	**Conclusion Validity**: Good, identifies areas of weakness **Internal Validity**: Strong, for similar resources, settings, and cultures. **External Validity**: Fair/Good, ED setting is more stressful than other settings and nurses have different skill sets. **Construct Validity**: Good, statistically interpretation and reasonable conclusions **Reliability**: good **Precision**: good for type of study	During the 6-month study period, 42.0% of all cardiac arrest cases were followed by a hot debrief. Practice changes were made to resus room equipment, practitioners' non-technical skills and the department's educational activities. 95.0% of participants felt the hot debriefing tool was of 'just right' duration, 100.0% felt the process helped with their clinical practice, and 90.0% felt they benefited psychologically from the process.	Introduction of a hot debriefing tool in our department has led to real-world changes to cardiac arrest care. The process benefits participants' clinical practice as well as psychological well-being.

	A hot debriefing tool (debriefing that should occur there and then) was designed for simulated cardiac arrests scenarios and feedback			
Article 10: Hill, J. (2019). Standardized code blue process **Evidence Level**: V **Quality:** High/Good	**Design**: EBP quality improvement; retrospective charge review (observational) and cross-sectional survey. **Sample**:122 code events, 100 nurse managers **Setting**: Veteran/s Health Care System of the Ozarks **Framework**: The theory of self-efficacy, The theory of organizational and behavioral change **Measures**: **Analysis Plan:** descriptive approach, one-way ANOVA. **Procedure**: Put a standardized leader-driven Postcode debriefing, pre- and post-surveys of nurse managers	**Conclusion Validity**: Good, Large event size with representation of diverse Veterans population **Internal Validity**: Good, considered the accuracy of the evidence-based interventions used in standardizing code blue processes at location **External Validity**: Good, for locations with similar resources available. **Construct Validity**: Good, measured what they set out to measure. **Reliability**: Good **Precision**: Good for this type of study.	-reduction is documentation errors, and increase in completion of code event charts -increase in consistency of debriefing following codes. Awareness of variability in code blue documentation and debriefing led to consideration for the overall team dynamic during code blue events, resuscitation practices, and STANDARDIZED CODE BLUE PROCESS 32 nursing self-efficacy in performance.	Emphasizing the strengths of standardized code blue processes for documentation and debriefing brought awareness to the facility's stakeholders on the value of sustainable change and the impact on overall Veteran outcomes.

Article 11: Johnston, A., Abraham, L., Greenslade, J., Thom, O., Carlstrom, E., Wallis, M., & Crilly, J. (2016). Staff perception of the emergency department working environment: Integrative review of the literature. **Evidence Level**: V **Quality**: High	**Design**: Literature, integrative review **Sample**: review of 31studies **Setting**: ED's in US and UK **Framework**: multi-stage process based on the model of Pluye and Hong **Measures**: comparison of reported data **Analysis Plan:** means of findings, summations **Procedure**: literature review, evaluation of evidence, comparison of results and strength of findings	**Conclusion Validity**: Good, large number of studies reviewed. **Internal Validity**: Strong with the number of studies. **External Validity**: good/fair, limited to industrial countries with strong healthcare providers. **Construct Validity**: Good, they did what they intended. **Reliability**: good **Precision**: good	differences between ED staff and those working in other clinical areas, with ED staff consistently reporting higher levels of stress. One of the major factors consistently noted within the literature as a stressor was staff workload Several studies suggest debriefing can help reduce ED staff stress, some even suggest debriefing should be mandatory following stress-evoking incidents however, some evidence suggests that coping strategies around venting were related to greater staff anxiety and distress	Regular assessment of staff perception of ED working environment allowing local, national, and international comparisons is essential to inform and support ED development. The data should be used to evaluate the effects of training and practice interventions. The evidence base provided by this integrative review can be used to assist retention of professional capital in the workspace, enhancing hospital ED practice and patient management.

Article 12: Mullan, P. C., Cochrane, N. H., Chamberlain, J. M., Burd, R. S., Brown, F. D., Zinns, L. E., Crandall, K. M., & O'Connell, K. J. (2017). Accuracy of post-resuscitation team debriefings in a pediatric emergency department **Evidence Level**: V **Quality**: High/Good	**Design**: quality improvement **Sample**: 100 resuscitations **Setting**: ED **Framework**: n/a **Measures**: debriefing teams' self-assessments of performance measures. Data compared with actual video performance **Analysis Plan: comparison in** self-assessment and actual performance of set measures. **Procedure**: Standardized debriefing structure, video code, compare reported and actual data	**Conclusion Validity**: Good, quality sample size, proper statistical analysis, reliable measures. **Internal Validity**: Good, no controlled group. Limited only type of study. **External Validity**: limited to similar setting: ED, and similar resources available. **Construct Validity**: Good, they measured what was hypothesized. **Reliability**: Good **Precision**: Good	The accuracy of debriefing answers was 87.0%, increasing from 83.0%-91.0% between the first and second halves of the study period (7.7% difference: 95% confidence interval 0.2% to 15.0%).	Teams in post-resuscitation debriefings had a higher degree of debriefing answer accuracy in the final 50 debriefings than in the first 50. Teams also distinguished various degrees of resuscitation performance.
Article 13: Przednowek, T., Stacey, C., Baird, K., Nolan, R., Kellar, J., & Corser, W. D. (2021). Implementation of a rapid postcode debriefs quality improvement project in a community emergency department setting.	**Design**: quality improvement **Sample**: 178 surveys **Setting**: ED **Framework**: **Measures**: pre- and post-survey results. Structure postcode debriefing process **Analysis Plan:** Means and comparison **Procedure**: rapid postcode debriefing form, pre- and post-	**Conclusion Validity**: Good, adequate sampling and procedures. **Internal Validity**: The data collected is in line with the finding and the conclusion **External Validity**: Limited to similar settings, ED; and resources. **Construct Validity**: Good, they measured	79 (44.4%) were pre-protocol response surveys. The post-protocol responses were comprised of 51 (51.5%) six month and 48 (48.5%) 12-month surveys. The average overall satisfaction with code-response performance increased significantly following the implementation	Implementation of a postcode debriefing increased satisfaction and significant change in how staff felt regarding code team leaders and an expectation of returning to work. overall decrease in perceptions of feeling supported by other staff involved during the code. Further

Evidence Level: V **Quality:** High	surveys implemented	what was hypothesized. **Reliability**: Good **Precision**: Good	of the debriefing protocol, from M=6.661, SD=2.028 to M=7.90, SD=1.359 (independent t-test = 5.069, $p < 0.001$).	studies in both community and academic-based ED settings are needed to further explore these complex relationships.
Article 14: Sandhu, N., Eppich, W., Mikrogianakis, A., Grant, V., Robinson, T., & Cheng, A. (2014). Postresuscitation debriefing in the pediatric emergency department: A national needs assessment. **Evidence Level**: V **Quality**: High/Good	**Design**: national survey **Sample**:183 participants **Setting**: Canada ED **Framework**: n/a **Measures**: survey questionnaire **Analysis Plan:** comparison of responses on returned surveys **Procedure**: Creation of questions, analysis of survey data returned	**Conclusion Validity**: Good, good sample size, reasonable procedures. **Internal Validity**: Strong, they were consistent with their findings. **External Validity**: Likely some limits. Similar settings, ED; and resources, possible cultural limitations also **Construct Validity**: Good, they measured what was hypothesized. **Reliability**: good **Precision**: good	88.8% of the participants believed that debriefing is an important process 52.5% indicated that debriefing after real resuscitations occurs less than 25.0% of the time 68.3% indicated that no expectation exists for PRD at their institution. 72.0% felt that medical and crisis resource management issues are dealt with adequately when PRD occurs 90.4% indicated that ED workload and time shortages are major barriers to	PRD in Canadian pediatric EDs occurs infrequently, although most health care providers agreed on its importance and the need for skilled facilitators.

			effective debriefing	

Appendix B: Nurse Demographic and Burnout Survey

How many years have you been a nurse?

0-1 2-5 6-10 11-15 16 or more

How many years have you worked as a nurse in the ED (all EDs)?

0-1 2-5 6-10 11-15 16 or more

How many years have you worked in the LMC ED?

0-1 2-5 6-10 11-15 16 or more

Are you thinking about leaving the ED to work in a different area of the hospital (not due to education)?

1	2	3	4	5	6
Yes, Definitely	Probably	Possibly	Probably	Not Definitely	Not, N/A (education reason)

How many hours do you typically work a week?

12-24 25-36 37-48 60 or more

Overall, based on your definition of burnout, how would you rate your level of burnout? (Dolan et al., 2015)

1 I enjoy my work. I have no symptoms of burnout.

2 Occasionally, I am stressed, and I don't always have as much energy as I once did, but I don't feel burned out.

3 I am definitely burning out and have one or more symptoms of burnout, such as physical and emotional exhaustion.

4 The symptoms of burnout that I'm experiencing won't go away. I think about frustration at work a lot.

5 I feel completely burned out and often wonder if I can go on. I am at the point where I may need some changes or may need to seek some sort of help.

Appendix C: Signed Agreement and Email for CD-RISC Use

Dear Mar,

Thank you for your interest in the Connor-Davidson Resilience Scale (CD-RISC). We are pleased to grant permission for use of the CD-RISC- in the project you have described under the following terms of agreement:

1. You agree (i) not to use the CD-RISC for any commercial purpose unless permission has been granted, or (ii) in research or other work performed for a third party, or (iii) provide the scale to a third party without permission. If other colleagues or off-site collaborators are involved with your project, their use of the scale is restricted to the project described, and the signatory of this agreement is responsible for ensuring that all other parties adhere to the terms of this agreement.

2 You may use the CD-RISC in written form, by telephone, or in **secure electronic format whereby the scale is protected from copying, downloading, alteration, repeated use, unauthorized distribution or search engine indexing. In all use of the CD-RISC, including electronic versions, the full copyright and terms of use statement must appear with the scale. The scale should neither be distributed as an email attachment, nor appear on social media, nor in any form where it is accessible to the public and should be removed from electronic and other sites once the activity or project has been completed. The RISC can only be made accessible in electronic form after subjects have logged in through a link, password or unique personal identifier.**

3 Further information on the CD-RISC can be found at the www.cd-risc.com website. The scale's content may not be modified, although in some circumstances the formatting may be adapted with permission of either Dr. Connor or Dr. Davidson. If you wish to create a non-English language translation or culturally modified version of the CD-RISC, please let us know and we will provide details of the standard procedures.

4 Three forms of the scale exist: the original 25 item version and two shorter versions of 10 and 2 items respectively. When using the CD-RISC 25, CD-RISC 10 or CD-RISC 2, whether in English or other language, please include the full copyright statement and use restrictions as it appears on the scale.

5. A **student-rate** fee of $ 30 US is payable to Becky Williams at 210 Nicklin Drive, Chattanooga, TN 37421, USA either by PayPal (www.paypal.com, account beckytolme@gmail.com), cheque or bank wire transfer (in US $$). Money orders are not accepted.

6. Complete and return this form via email to beckytolme@gmail.com. **The scale will only be sent after the signed agreement has been returned.**

7. In any publication or report resulting from use of the CD-RISC, you do not publish or partially reproduce items from the CD-RISC without first securing permission from the authors.

If you agree to the terms of this agreement, please email a signed copy to the above email address. Upon receipt of the signed agreement, we will email a copy of the scale. For questions regarding use of the CD-RISC, please contact Becky Williams at beckytolme@gmail.com. We wish you well in pursuing your goals.

Sincerely yours,

Becky Williams.

Agreed to by:

Margaret Anne Lee Margaret Anne Lee 5/27/2021

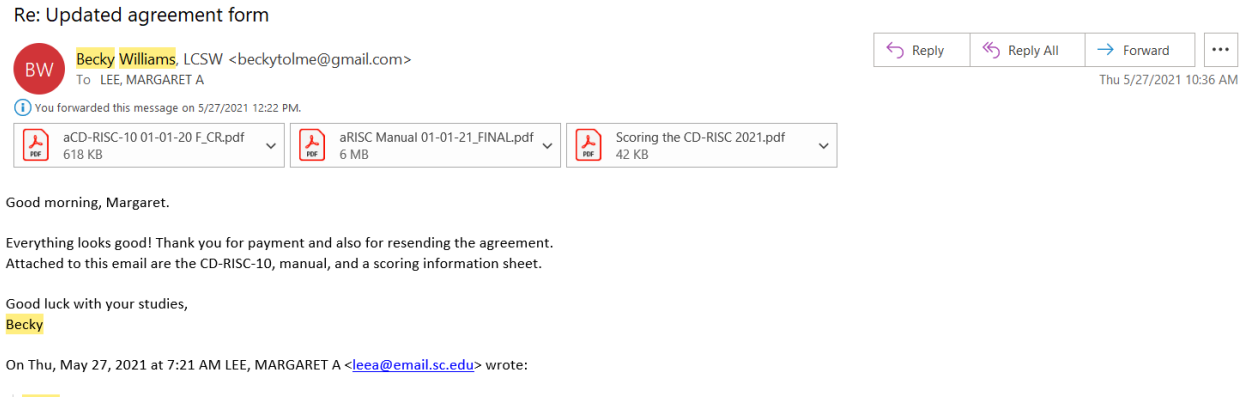
Signature (printed) Date

USC DNP Student

Title

University of South Carolina

Organization



Re: Updated agreement form

BW

Becky Williams, LCSW <beckytolme@gmail.com>
To LEE, MARGARET A

Reply | Reply All | Forward

Thu 5/27/2021 10:36 AM

You forwarded this message on 5/27/2021 12:22 PM.

aCD-RISC-10 01-01-20 F_CR.pdf 618 KB

aRISC Manual 01-01-21_FINAL.pdf 6 MB

Scoring the CD-RISC 2021.pdf 42 KB

Good morning, Margaret.

Everything looks good! Thank you for payment and also for resending the agreement.
Attached to this email are the CD-RISC-10, manual, and a scoring information sheet.

Good luck with your studies,
Becky

On Thu, May 27, 2021 at 7:21 AM LEE, MARGARET A <leea@email.sc.edu> wrote:

Appendix D: Conner-Davidson Resilience Scale

Please indicate how much you agree with the following statement as they apply to you over the last month. If a particular situation has not occurred recently, answer according to how you think you would have felt. Your answers are anonymous.

1. I am able to adapt when changes occur.

0	1	2	3	4
Not true at all	rarely true	sometimes true	often true	true nearly all the time

2. I can deal with whatever comes my way.

0	1	2	3	4
Not true at all	rarely true	sometimes true	often true	true nearly all the time

3. I try to see the humorous side of things when I am faced with problems.

0	1	2	3	4
Not true at all	rarely true	sometimes true	often true	true nearly all the time

4. Having to cope with stress can make me stronger.

0	1	2	3	4
Not true at all	rarely true	sometimes true	often true	true nearly all the time

5. I tend to bound back after illness, injury, or other hardship.

0	1	2	3	4
Not true at all	rarely true	sometimes true	often true	true nearly all the time

6. I believe I can achieve my goals, even if there are obstacles.

0	1	2	3	4
Not true at all	rarely true	sometimes true	often true	true nearly all the time

7. Under pressure, I stay focused and think clearly.

0	1	2	3	4
Not true at all	rarely true	sometimes true	often true	true nearly all the time

8. I am not easily discouraged by failure.

0	1	2	3	4
Not true at all	rarely true	sometimes true	often true	true nearly all the time

9. I think of myself as a strong person when dealing with life's challenges and difficulties.

0	1	2	3	4
Not true at all	rarely true	sometimes true	often true	true nearly all the time

10. I am able to handle unpleasant or painful feelings like sadness, fear, and anger.

0	1	2	3	4
Not true at all	rarely true	sometimes true	often true	true nearly all the time

Appendix E: Non-proprietary single-item burnout measure:

Overall, based on your definition of burnout, how would you rate your level of burnout?

1	2	3	4	5
I enjoy my work. I have no symptoms of burnout.	Occasionally I am under stress, and I don't always have as much energy as I once did, but I don't feel burned out.	I am definitely burning out and have one or more symptoms of burnout, such as physical and emotional exhaustion.	The symptoms of burnout that I'm experiencing won't go away. I think about frustration at work a lot.	I feel completely burned out and often wonder if I can go on. I am at the point where I may need some changes or may need to seek some sort of help.

Appendix F: Postcode Debriefing Tool

NOT PART OF PATIENT CHART/DO NOT SCAN

POSTCODE DEBRIEFING

Date: _____

Time Code Started _____

Time Code Completed _____

If Debriefing not Done

- ☐ Too many Urgent Patients
- ☐ Did not Feel it was Needed
- ☐ Other: _____

Interventions Done

- ☐ CPR
- ☐ Intubation
- ☐ Defibrillation
- ☐ IV meds
- ☐ Art/Central line

Patient information

Age: _____

Gender: **M/F**

Survived: **yes/no**

LifePoint:

Contacted: **yes/no**

Organ Donation: **yes/no**

Staff Present in Debriefing

- ☐ Charge Nurse
- ☐ Resource Nurse
- ☐ Other Nurses____(number)
- ☐ Code Leader
- ☐ Physician
- ☐ Respiratory Therapist
- ☐ Tech/Nurse Assistant
- ☐ Radiology
- ☐ Pastor
- ☐ _____

Was anyone confused at any time during the resuscitation who the team leader was? **Yes/No**

Was the Physician Team leader the only doctor calling out orders? **Yes/No**

*****Start Debriefing with a 10 second pause of silence *****

What went well (patient care and teamwork)?

Opportunities to grow and improve (patient care and teamwork)?

Are you satisfied with epic code tracker options, equipment, supplies and medication available?

Any delays we need to address to help with future codes?

How is everyone doing after this event?

Is there anything anyone needs prior to going back to your work assignments?

Appendix G: Postcode Debriefing Tool Instructions and Script for Facilitator

Get responders together	Announce to those in the code or associated with the code you will be holding a Postcode debriefing: **when and where**. *(The patient room or best location with privacy **(closed door)** away from any family members **(we do not want them to accidently overhear the debriefing)**).*
Postcode Debrief Form	Please take the time to fill out the top portion of the Postcode Debriefing Tool. *(No Names).* If you are unable to hold the Postcode Debriefing, fill out the top of form, make sure to put reason debriefing wasn't held and turn in form. ***(See Turn in Form below for location)***
Beginning of Script: Start of Debrief Session	Once group of those participating is gathered start debriefing: (***script below***): Thank you all for taking the time to gather. My name is _____ (***your name***), and I will be conducting the structured Postcode debriefing for the code of _____ (***patient's name***). The purpose of this debriefing is to improve the ED's quality of patient care during codes, improve our teamwork, and to address staffs' emotional & mental wellbeing. It is not a blaming session. • All input is voluntary & anonymous. • This should take no more than 3 min.
***Pause of Silence**	**Now we will have a *10 second* pause of silence __** *(wait 10 sec.)* **Thank you**
Q1	Question 1: What went well (for both patient care and teamwork)? ***Write ideas discussed on debrief form/tool.***
Q2	Question 2: Any Opportunities to grow and improve (for both patient care and teamwork)? ***Write ideas discussed on debrief form/tool.***
Q3	Question3: Are you satisfied with epic code tracker options, equipment, supplies and medication available? ***Write anything that is brought up so it can be addressed.***
Q4	Question 4: Any delays we need to address to help with future codes? ***Write anything this is brought up so it can be addressed.***
Q5	Question5: How is everyone doing after this event? ***No need to write anything.***
Q6	Question 6: Is there anything anyone needs prior to going back to your work assignments? ***No need to write anything.***
Lastly	If there are issues you did not feel comfortable discussing in this setting you can anonymously submit it in writing. Just place your written submissions in the pink debriefing folder outside the ED Educators office.
Thanks: **End of script**	Thank you all for your hard work and taking the time to come to the Postcode Debrief. Go team!
Turn in form	**Placed the filled-out Postcode Debrief form in the pink folder at the charge nurse station (zone 1) or give to Charge or Resource nurse.** **This is not part of a patient's chart. **