Impact and Experiences Relative to Critical Incidents and Critical Incident Stress Management

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Abstract

Purpose: Typically, athletic trainers (ATs) have relied on external support networks to debrief after a critical incident (CI). ATs report focusing on improving work-related processes after a CI rather than their emotional response to the CI. The purpose of this study was to identify both the short-term emotional impacts of CIs and what coping strategies ATs use to address their emotional response to CIs. Methods: We used a cross-sectional, web-based survey, distributed to a random sample of NATA members to explore the perceived effects of CIs on ATs. Participants (n=73, 36±11y) were primarily women (n=53, 72.6%), working in the college/university practice setting (n = 40, 54.8%), with 7±3y of experience. All participants experienced a CI within the previous 12 months. The data were analyzed using descriptive statistics for demographic variables and multi-analyst inductive coding for the open-ended items amongst a 4-person team. We used a modified consensual qualitative research (CQR) process to review and analyze the open-ended questions and identify domains and core ideas. Trustworthiness was established with multi-analyst triangulation and auditing. Results: Participants most commonly reported feelings of thinking too much (71%, n=52), anxiety (63%, n=46), sadness (60%, n=44), fatigue (53%, n=39), and sleep disturbance (49%, n=36) resulting from CIs. Common coping strategies used were exercise (63%, n=46), humor (44%, n=32), interacting with pets (41%, n=30), expressing oneself through crying (40%, n=29), and peer support (34%, n=25). Sixty-two participants (86%) responded to open-ended questions related to the outcomes of CIs. Four domains were identified from the open-ended responses. Those domains included 1) dissociation, 2) deteriorated emotional state, 3) disruption of daily activities, and 4) improved event or post-event processes. Conclusion: Various strategies are used by ATs to cope with CIs; however, the only ways in which ATs expressed that coping helped was with care delivery, not the emotional impact of the CI. The lack of responses relative to coping strategies that improve quality of life is potentially alarming. To build resilience and persistence, organizations should consider requiring support beyond process improvement that addresses the emotional impact of CIs.

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ABSTRACT

Purpose: Typically, athletic trainers (ATs) have relied on external support networks to debrief after a critical incident (CI). ATs report focusing on improving work-related processes after a CI rather than their emotional response to the CI. The purpose of this study was to identify both the short-term emotional impacts of CIs and what coping strategies ATs use to address their emotional response to CIs. **Methods:** We used a cross-sectional, web-based survey, distributed to a random sample of NATA members to explore the perceived effects of CIs on ATs. Participants (n=73, 36±11y) were primarily women (n=53, 72.6%), working in the college/university practice setting (n = 40, 54.8%), with 7±3y of experience. All participants experienced a CI within the previous 12 months. The data were analyzed using descriptive statistics for demographic variables and multi-analyst inductive coding for the open-ended items amongst a 4-person team. We used a modified consensual qualitative research (CQR) process to review and analyze the open-ended questions and identify domains and core ideas. Trustworthiness was established with multi-analyst triangulation and auditing. **Results:** Participants most commonly reported feelings of thinking too much (71%, n=52), anxiety (63%, n=46), sadness (60%, n=44), fatigue (53%, n=39), and sleep disturbance (49%, n=36) resulting from CIs. Common coping strategies used were exercise (63%, n=46), humor (44%, n=32), interacting with pets (41%, n=30), expressing oneself through crying (40%, n=29), and peer support (34%, n=25). Sixty-two participants (86%) responded to open-ended questions related to the outcomes of CIs. Four domains were identified from the open-ended responses. Those domains included 1) dissociation, 2) deteriorated emotional state, 3) disruption of daily activities, and 4) improved event or post-event processes. **Conclusion:** Various strategies are used by ATs to cope with CIs; however, the only ways in which ATs expressed that coping helped was with care delivery, not the emotional impact of the CI. The lack of responses relative to coping strategies that improve quality of life is potentially alarming. To build resilience and persistence, organizations should consider requiring support beyond process improvement that addresses the emotional impact of CIs.

Keywords: athletic trainers, critical incidents, emotional responses, coping responses

INTRODUCTION

Critical incidents are defined as "an unexpected event that sufficiently overwhelms an individual's coping skills, causing increased emotional or psychological stress."[1,2] Events such as these can include patients with severe injuries, a child victim, the way in which the situation was managed, response of the healthcare provider, and even patient death.[1,3] Catastrophic events are similar in its characteristics including injuries that could result in short term or permanent disability, serious injuries in which the patient was able to make a full recovery, as well as death.[4]

The emotional impact of traumatic events has been previously studied within healthcare professions such as pediatric nurses, physicians, EMT's, paramedics, as well as medical trainees.[1-3] Literature suggests that the emotional aftereffects following a critical incident are strongly associated with personal experiences, and the grieving process is a balance between avoidance and facing it.[3,5] Healthcare providers who have experienced events such as these are at higher risk of becoming a "second victim."[6] A second victim is identified as someone who feels as though they failed the patient or contributed in some way to the outcome of the unexpected event and who experiences trauma as a result.[6] The recovery of second victims has an identified trajectory and course of healing, with self-reflection, involvement with the institution, and seeking emotional support.[6] However, recovery did not necessarily indicate a return to work, where some individuals left their workplace or completely left the profession while others continued in their position with the event still playing in their mind.[6] Since the intensity and duration of the grieving process varies on the individual level, it is important for employers to offer emotional support and an opportunity to make meaning out of the event.[5-7] Coping with work-related stress to avoid burnout as well as compassion exhaustion may be achieved using critical incident stress management (CISM) and individual coping methods.[7,8]

CISM represents the continuum of services provided before and after the traumatic event to mitigate psychological distress.[8] Core elements of CISM that are seen within the healthcare profession include Critical Incident Stress Debriefing (CISD), individual acute crisis counseling, and follow-up procedures including one-on-one sessions, cell phone calls, and work site visits.[7,8] CISD was originally developed for use with emergency service professions, but has been adopted overtime by military services, hospitals, and community groups within their crisis management programs.[8] CISM and CISD have formally been introduced in the profession of athletic training, with the National Athletic Trainers' Association (NATA) development of ATs Care in 2014. ATs Care serves as a peer-to-peer support program for athletic training students and athletic trainers involved in critical incidents.[9] Those trained in CISM through the NATA use the *SAFER* model (stabilize, acknowledge the crisis, facilitate understanding, encourage effective coping, and referral to continued care) when engaging with fellow athletic trainers.[9]

In a study evaluating athletic trainers involvement in catastrophic incidents, it was reported that 51.4% of athletic trainers that responded provided care for an athlete exposed to a catastrophic event.[4] Individuals who provided care reported low personal accomplishment, while athletic trainers with and without catastrophic event exposure used more task-oriented coping strategies compared to emotion-oriented coping strategies.[4] Levels of low personal accomplishment can manifest to burnout, an issue that has been found to affect one-third of athletic trainers during their careers.[4] Manifestation of burnout aligns with athletic trainers engaged in critical incident debriefing and discussing their experience with critical incidents, where there was more focus on the logistical aspect of the critical incident they were involved with rather than their emotional response.[10] It is important that athletic trainers can take the necessary time to understand and create awareness of their emotional response following an incident. One way this can be accomplished is through the use of coping methods, which were found to provide comfort and support, from personal to professional strategies.[10] These strategies can include setting boundaries, engaging in reflection, showing emotion, and following a daily routine.[11]

Even with current literature, there is little research concerning the emotional impact that critical incidents have on the individual as well as how it has influenced their personal and professional life. Research on critical incident experiences by athletic trainers branches off previous literature concerning coping mechanisms and the characteristics of critical incidents that leave an emotional impact on healthcare providers.[1,3] The purpose of this study was to identify the short-term emotional impact on athletic trainers involved in critical incidents as well as identify athletic trainers that used critical incident stress management plans.

METHODS
Design
The research team used a sequential, explanatory, mixed-methods approach to explore athletic trainers' perceptions of their emotional well-being after experiencing a critical incident, and the effects of the critical incident on their personal and professional life. This project was deemed exempt from the Indiana State University Institutional Review Board before data collection.

Participants

In April of 2021, we conducted a cross-sectional survey of certified athletic trainers that were involved in a critical incident within the last 12 months (n=301 eligible participants). At the end of the survey, the participants provided their email address if they were interested in participating in a follow-up interview. From the initial data collection, we determined that interviews would be necessary to understand why self-coping methods identified through the survey were found to be ineffective as well as the role of counseling and group services in their recovery. The participants were certified athletic trainers that had experienced a critical incident in the last 12 months of their professional career. For the survey, participants consisted of 53 (72.6%) women, 18 (24.7%) men, and 2 (2.7%) who identified as a gender minority (age = 36 ± 11 years). Participants had an average of 12 ± 10 years of experience as a certified athletic trainer, with 7 ± 8 years with their current employer, and a majority of participants (54.8%, n=40) practicing in the college/university setting. Table 1 details the demographic data gathered from participants in the survey.

Table 1. Demographic Data

Variable	Frequency	Percent
Gender Identity		
Woman	53	72.6
Man	18	24.7
Gender Minority	2	2.7
Practice Setting		
College/University	40	54.8
Secondary School	32	43.8
Other	1	1.4
Route to Certification		
Internship	12	16.4
Professional Bachelor's degree	48	65.8
Professional Master's degree	13	17.8
Highest Degree Earned		
Professional Bachelor's degree	9	12.3
Professional Master's degree	30	41.1
Post-professional Master's degree	26	35.6
Clinical Doctorate (e.g., DAT)	3	4.1
Academic Doctorate (e.g., EdD, PhD)	5	6.8
Missing Data	3	3.9

Instrumentation

The survey was developed by the research team based on the goal of identifying the short-term emotional impact on athletic trainers involved in critical incidents as well as gaps in knowledge surrounding previous literature about emotional debriefing after a critical incident.[7,8] Three drafts of the survey were created prior to finalizing the instrument and were sent to the research team members to review the instrument prior to IRB submission. The instrument comprised of 2 sections: demographics and critical incident experiences. The demographics portion consisted of 7 demographic questions that inquired about age, gender identity, years of experience, years working for their current employer, practice setting, certification route, and degree status.

The largest portion of the survey, critical incident experiences section, contained questions related to the individual's critical incident and their experiences following the critical incident. The coping strategies included in the survey were supported by current literature in critical incident response assessing healthcare professions, as well as meta-analyses related to self-care and supporting emotional wellbeing.[2,5,6,11] There were also resources provided if at any point during the survey, the athletic trainer was uncomfortable and in need of support services through the ATs Care program. Questions concerning emotional distress/trauma symptoms were also included within the survey, and their effects on the athletic trainers' personal and professional life. Depending on the athletic trainer's answers and how many additional questions were prompted, the questionnaire consisted of 15 questions and took an average of 10 minutes to complete. The final instrument was developed and validated by two content experts who are

members of ATs Care program with experience in critical incident management response. Feedback was provided, synthesized, and implemented prior to distribution. The final survey was delivered via Qualtrics (Provo, UT) to allow maximum customization and ease of data collection.

Procedures
The NATA sent an initial recruitment email to potential participants who were certified athletic trainers in good standing (n = 5,556) in late-April 2021. After the initial email contact and distribution of the survey, bi-weekly follow-up emails were sent by the NATA research survey service for 4 weeks to increase the response rate of those who had not yet completed the survey. The initial and subsequent emails were sent to potential participants over a 5-week time span between April and May 2021.

Data Analysis
Quantitative
We analyzed the data using descriptive statistics, where measures of central tendency (mean, mode, and frequency) of the data were evaluated. All descriptive statistical analysis of data collected were performed using Excel (version 16.16.14; Microsoft Corp, Redmond, WA) and SPSS (version 26; IBM Corp, Armonk, NY). This analysis was applied to all demographic and "select all that apply" questions of the survey.

Qualitative
The data analysis team began the data analysis process with multi-analyst inductive coding by reviewing a percentage (30%) of the three open-ended questions in the survey. These open-ended questions included the impact of symptoms of emotional distress or trauma on their personal life as well as their professional life, and effectiveness of coping strategies in managing the critical incident. The data analysis team consisted of the PI (PNH) and three other individuals (ERN, JPY, LEE) with various levels of CQR experience and behavioral health content expertise. The senior researchers (PHN and LEE) are experts in both CQR and behavioral health. One additional member (MJD) also served as the auditor. Each team member independently read the responses to develop a list of themes and sub-themes for these identified questions.[12,13] The team then met to compare these lists and came to an agreement on the themes identified within the responses to develop a consensus codebook. [12,13] After this development, each reviewer assessed old and new responses to ensure that the data was reflective of the codebook and the codebook was adjusted as needed.[12,13] Within the next stage, the PI applied the consensus codebook to the remaining responses and the data analysis team audited all responses and met to discuss any discrepancies. Following the data analysis process, the auditor (MJD) reviewed the responses and consensus codebook and confirmed the findings. The PI then used cross analysis to ensure accuracy and conducted a frequency count for each sub-theme.

RESULTS
Quantitative
Of the 73 responses for symptoms of emotional distress or trauma, over 70% of participants reported thinking too much (71%, n=52), anxiety (63%, n=46), and/or sadness (60%, n=44) (Table 2). The least reported symptoms of emotional distress or trauma included avoidance (30%, n=22), depression (30%, n=22), and PTSD (12%, n=9) (Table 2). Expressing oneself through crying (40%, n=29) and humor (44%, n=32) as well as exercise (63%, n=46) and peer support (34%, n=25) were common coping strategies (Table 3). The least reported coping strategies included counseling (was also going before) (5.5%, n=4), policy debriefing (5.5%, n=4), emotional debriefing (4.1%, n=3), employee assistance programs (4.1%, n=3), and bereavement support services (0%, n=0) (Table 3).

Table 2. Emotional Distress and Trauma Symptoms **(***Select all that apply)

Coping Methods	Count	Percent
Thinking too much	52	71.2
Anxiety	46	63
Sadness	44	60.3
Fatigue	39	53.4
Sleep disturbance	36	49.3
Frustration	34	46.6
Anger	33	45.2
Detachment from others	33	45.2

Persistent negative emotional state	32	43.8
Burnout	31	42.5
Fear	28	38.4
Lack of support/feeling that no one understands	26	35.6
Alienation/isolation	23	31.5
Avoidance	22	30.1
Depression	22	30.1
PTSD	9	12.3
Other (please describe)	9	12.3
None	0	0

Table 3. Coping Methods (Select all that Apply)

Coping Methods	Count	Percent
Exercise	46	63.0
Humor	32	43.8
Interacting with pets	30	41.1
Crying	29	39.7
Peer support	25	34.3
Self-Reflection	22	30.1
Spiritual or religious	22	30.1
Reading	18	24.7
Peer emotional debriefing	16	21.9
Mindful eating	14	19.2
Meditation	13	17.8
Setting boundaries	12	16.4
Counseling (this prompted my going)	11	15.1
Journaling	11	15.1
Other (please describe)	10	13.7
None	8	11.0
ATs Care	7	9.6
Counseling (was also going before)	4	5.5
Policy debriefing	4	5.5
Emotional debriefing	3	4.1
Employee assistance program	3	4.1
Bereavement support services	0	0

Qualitative
We analyzed open-ended responses, related to post-critical incident outcomes, from 62 participants (86%, n=62/73) and identified four domains which included 1) dissociation, 2) deteriorated emotional state, 3) disruption of daily activities, and 4) improved event or post-even processes (Table 4). Participants described *dissociation* as feelings or actions of intentional avoidance and disconnection of oneself from their workplace, family, or friends (43.5%, n=27). One participant noted, "I have isolated myself from others and hidden how I am feeling because I do not want to be a burden, when interaction with other people is what I have really

needed." *Deteriorated emotional state* is represented as negative feelings or emotions towards themselves, their workplace, or the critical incident (75.8%, n=47). A lack of motivation as well as energy was also described by participants, negatively affecting their engagement with others and personal relationships. *Disruption* was also identified with participants describing a lack of trust with their employer or workplace, seeking other employment; or questioning their role and worth as an athletic trainer. Participants often described straying from their normal daily tasks, relationships, and feelings of fulfillment as an outcome of the critical incident (93.5%, n=58). Relative to how coping strategies have helped, the only common thematic response was how coping *improved event and post-event processes*, not the emotional state of the athletic trainers (19.4%, n=12). Evidence of coping strategies helping with process improvement following the critical incident was identified as well, with one participant indicating "They have allowed me to process through the situation, accept the decisions that I made in the midst of the situation, learn for future situations, and have opened my eyes to the potential for worse case scenarios in the future."

Table 4. Impact of Critical Incidents on Personal and Professional Life

Domains	Count	Percent
Dissociation	27	43.5%
Deteriorated emotional state	47	75.8%
Disruption	58	93.5%
Improved event and post-event processes	12	19.4%

DISCUSSION

Our aims were to identify the care strategies that athletic trainers are using to address their emotional response to critical incidents as well as identify any barriers to their individual healing. We found that most athletic trainers who engaged in coping strategies primarily used methods that did not include a support system. Self-reliance was common in our study, with only 34% reporting the use of peer support. Community resources may be less available within the traditional athletic training setting, where a majority (98%) of participants reported working. In the nursing profession, community services, such as bereavement services, are paired with grief counseling to aid in debriefing following a patient death particularly in children with life-threatening conditions.[14] These services are comparable to critical incident stress debriefing (CISD) with the emphasis on providing emotional support and management of grief.[14] Although these services are offered for students and faculty within colleges and universities, they may not be as well suited for healthcare professionals hence the lack of use or awareness surrounded by this resource.

Healthcare professions such as emergency medical responders also have identified that coping methods are helpful when recovering from a critical incident.[1] Self-coping mechanisms such as keeping thoughts or feelings to oneself were used but claimed it to be unhelpful.[1] However, defensive coping to protect the individual from their emotional state following trauma has been reported and is related to actions of withdrawal or denial following the critical incident.[2] Hospital administrators as well as hospital-based health professionals including medical students have struggled with the development of post-traumatic stress symptoms and dissociative symptoms due to this.[2] These symptoms are representative of subgrouping for diagnostic criteria within the DSM-V for PTSD.[15,16] When identifying likelihood for PTSD from traumatic events in ambulance personnel, the Impact of Event Scale (IES-15) results indicated distress related to intrusion, avoidance, and hyperarousal.[15] In dealing with the stress of a traumatic event, social support as well as active problem focused coping have been useful in treating these post-traumatic stress symptoms.[2] Similar themes were recognized through the perceived effectiveness of coping methods used within our study, shown in statements such as "Talking to my friends has helped some, but I know I need more help." Post-traumatic stress symptoms such as persistent negative emotional state (43.8%, n=32) and detachment (45.2%, n=33) were reported in both the quantitative and qualitative data. Less individuals may have reported these symptoms as well as PTSD (12.3%, n=9) due to its multifaceted definition, and prioritized self-coping methods compared to peer-support after underestimating the aftereffects of the critical incident.

A previous study identified avoidance-oriented coping strategies being used by athletic trainers involved in catastrophic events through the Coping Inventory for Stressful Situations (CISS) tool.[4] Although avoidance was not as commonly reported as a coping mechanism within our "select all that apply" question within the survey, it was identified within our CQR analysis of our open-ended responses. One individual reported "focusing on another aspect of life helps me avoid my feelings," which is an example of avoidance coping methods being an effective strategy following this participant's critical incident. This response and similar responses to this were identified as "dissociation" within our codebook. Other responses also identified some form of active or passive dissociation, such as using the coping mechanisms as distractors or outright identifying that they are avoidance methods. This aligns with healthcare professionals such as physicians, nurses, and other disciplines where 32% of participants experienced

psychosocial symptoms of avoidance of the patient care area in which the critical incident occurred.[6] Support structures are in place to help healthcare professionals return to work through formal debriefing programs, tranquility rooms, as well as peer support groups.[7] However, the athletic training profession does not have these typical support structures in place. ATs Care is available for individual management following crisis but there is a lack of consistency and education regarding resources such as debriefing and employee assistance programs for athletic trainers. [10]

Psychosocial symptoms have previously been explored in healthcare workers that have worked during times of illness outbreaks such as SARS in eastern countries. General feelings of anxiety and depression were common amongst healthcare providers both in individuals that had early exposure to providing care during this time, as well as months after the initial outbreak.[2] The effect sizes comparing anxiety, depression, and post-traumatic stress symptoms was higher in the population of healthcare workers treating SARS patients compared to those treating terror victims or patients in the critical care unit.[2] de Boer et al[2] suggests that this may be due to the uncertainty that came with the SARS outbreak and treatment of patients, as well as the risk to the healthcare workers themselves as well and their families. It is evident that there are negative associations with work related tasks as well as higher emotional exhaustion both within athletic training as well as allied health professions working through the pandemic.[17] Our research team saw similar themes with uncertainty and concern for individuals that reported COVID-19 as their critical incident within the past year. When asked about how their symptoms of emotional distress or trauma impacted their professional life, one participant responded that they are "bringing these emotions to work. There is a loss of passion for the profession, feeling overworked and underappreciated, and general worry and concern over the impact of the COVID-19 pandemic". Another participant attempted to use their coping methods to manage their symptoms and said "I have tried to pick up working out and running again, but I have no desire to do them. I am exhausted, both physically and mentally from all the extra work associated with COVID this year."

With the presence of COVID-19, it is important to consider the pandemic in terms of a critical incident where a traumatic event that was unexpected with potentially negative health outcomes has been experienced by an individual while working.[17] Acknowledging the experiences of COVID-19 as a critical incident as well as resources to provide these individuals physical and emotional support is necessary moving forward. Current strategies for the management of fatigue in healthcare workers can be found on the CDC website, such as maintenance of social support and relationships as well as tips for sleep improvement.[18] However, additional research must be completed to appropriately address and support allied healthcare professionals experiencing chronic trauma and chronic workplace fatigue from the COVID-19 pandemic. This may be accomplished by viewing COVID-19 through a complex trauma lens, as individuals impacted by the pandemic may experience disorders in response to it and may also compile with previous traumas and disorders such as depression, anxiety, and PTSD.[19] Similar symptoms of PTSD, as well as the lack of safety and security due to the pandemic, can alter meaningful connections with others as well as oneself.[19] Connecting healthcare institutions and individuals affected by COVID-19 to social workers and mental health providers who have experience with trauma-responsive practice to prioritize healing at the individual and community level, through the establishment of resilience, safety, and validation of feelings and experiences related to the pandemic.[19]

Limitations
It is important to acknowledge that due to the multiple definitions that exist surrounding critical incidents, it can broaden or narrow an individual's perception of what a critical incident is. More exploration on what a critical incident is in healthcare and relation to catastrophic events is necessary moving forward to appropriately support individuals who experience chronic trauma versus an acute critical incident. Increasing education on what burnout and languishing are can also aid in how we support healthcare professionals experiencing these negative feelings related to personal accomplishment and exhaustion. For burnout, it is necessary to specify the type of burnout being experienced as there are multiple characterizations that exist. Even though COVID-19 being categorized as a critical incident was not the intended reach of the study, there were participants that reported COVID-19 as their critical incident due to its effect on coping skills and emotional or psychological stress. With the inclusion criteria being a critical incident experienced within the past 12 months and our survey being distributed in late April of 2021, we understand that many individuals were working through the height of COVID-19 within that period of time.

The authors anticipated conducting follow-up interviews and including those responses within the results section of this study. However, we found ourselves limited in availability of individuals participating due to self-selection and willingness to discuss their experiences. Out of the 25 athletic trainers that expressed interest in completing a follow-up interview with the research team, only 7 athletic trainers engaged in a semi-structured interview script with the primary investigator.

Although saturation was not reached with the number of participants that engaged in interviews, we wanted to identify key themes and concepts that emerged from the interviews. These include emotional and physical exhaustion, frustrations with organizational support, thoughts of leaving the profession, self-care strategies, development of long-term boundaries, physiological effect of the

critical incident, and utilization of peer support for reassurance. Leah identified that due to the time of the semester as well as the current event schedule, it was "really tough and draining" as she was the only athletic trainer on campus at the time of the critical incident. She also noted feelings of discomfort as it was the first time she had experienced that kind of situation in her professional career. When asked about coping strategies used to recover from the critical incident, Jo stated that she did not feel comfortable asking for support from the administration in her workplace "because we didn't think we're going to get it" and relied heavily on the athletic training department only. Teddy felt similarly with administration not understanding her role as an athletic trainer and taking on additional responsibilities within the department due to staffing shortages, causing her to leave that institution. She reported "this experience really taught me to say no and set boundaries" and shared that separating work from home life aided in her self-care journey. Self-care strategies led to the creation of long-term boundaries including counseling (was also going before), interacting with pets, and mindful eating. Two individuals, Maggie and Stephanie, reported feelings of shock and a moment where it set in that they responded to a traumatic event, and experienced an adrenaline rush and subsequent physical and psychological crash. Reassurance was also commonly sought out with 4/7 participants seeking peer-support to confirm their process was considered safe and accurate, as well as to relate to other individuals' experiences. Leah stated, "Because a lot of athletic trainers have experienced a situation, maybe similar or maybe on the same scale of being emergent or life-threatening, um so when they can relate or reassure me that I made the correct decisions or choices was helpful at the time" regarding why she engaged in group services.

Recommendation for Future Research
Future research is needed to assess the long-term implications of athletic trainers' emotional health and well-being for those who have experienced acute critical incidents. A universal critical incident debriefing script or tool could also be beneficial for use across practice settings in athletic training. This would create a built-in support structure to allow for emotional processing and return to a safe physical environment.

CONCLUSION
Self-care coping mechanisms were highly reported but proven to be unhelpful and leading to individuals wanting more out of their emotional recovery from a critical incident and treating the emotional and physical exhaustion. Athletic trainers identified that coping mechanisms were helpful for care delivery, but they lacked coping strategies that improved quality of life raising some alarm for personal health and well-being. Frustration with organizational support can lead to withdrawal from the profession itself if athletic training organizations are unable to create these support systems for athletic trainers to have and engage in their emotional response from their critical incident. To build resilience and persistence, organizations should consider requiring support beyond process improvement that addresses the emotional impact of critical incidents.

REFERENCES
1. Alexander DA, Klein S. Ambulance personnel and critical incidents: impact of accident and emergency work on mental health and emotional well-being. *Br J Psychiatry.* 2001;178(1):76-81.
2. de Boer JC, Lok A, van't Verlaat E, Duivenvoorden HJ, Bakker AB, Smit BJ. Work-related critical incidents in hospital-based health care providers and the risk of post-traumatic stress symptoms, anxiety, and depression: A meta-analysis. *Soc. Sci. Med.* 2011;73(2):316-326.
3. Halpern J, Maunder RG, Schwartz B, Gurevich M. The critical incident inventory: Characteristics of incidents which affect emergency medical technicians and paramedics. *BMC Emerg. Me.* 2012;12:10.
4. Estock P, Simon JE. Prevalence and outcomes of exposure to catastrophic events among athletic trainers. *J. Athl. Train.* 2018;53(11):1098-1102.
5. Durall A. Care of the caretaker: managing the grief process of health care professionals. *Pediatr. Ann.* 2011;40(5):266-273.
6. Scott SD, Hirschinger LE, Cox KR, McCoig M, Brandt J, Hall LW. The natural history of recovery for the healthcare provider "second victim" after adverse patient events. *Qual Saf Health Care.* 2009;18(5):325-330.
7. Maloney C. Critical incident stress debriefing and pediatric nurses: an approach to support the work environment and mitigate negative consequences. *Pediatr. Nurs.* 2012;38(2):110-113.
8. Everly GS, Flannery RB, Eyler VA. Critical incident stress management (CISM): A statistical review of the literature. Human Sciences Press: *Psychiatr Q.* 2002;73(3):171-182.
9. ATs Care. NATA. https://www.nata.org/membership/about-membership/member-resources/ats-care. Published December 8, 2020. Accessed April 29, 2021.
10. Holmes KL, Neil ER, Granger KC, Eberman LE. Access, engagement, and experiences with critical incident response resources in athletic training. *Internet J Allied Health Sci Pract.* 2022 Mar 31;20(2), Article 17.
11. Zheng R, Lee SF, Bloomer MJ. How nurses cope with patient death: A systematic review and qualitative meta-synthesis. *J. Clin. Nurs.* 2018;27(1-2):e39-e49.

12. Hill CE, Knox S, Thompson BJ, et al. Consensual qualitative research: an update. J Couns Psychol. 2005;52(2):196.
13. Hill CE, Thompson BJ, Williams EN. A guide to conducting consensual qualitative research. *J Couns Psychol.* 1997;25(4):517-572.
14. Keene EA, Hutton N, Hall B, Rushton C. Bereavement debriefing sessions: an intervention to support health care professionals in managing their grief after the death of a patient. *Pediatr Nurs.* 2010;36(4):185-190.
15. Jonsson A, Segesten K, Mattsson B. Post-traumatic stress among Swedish ambulance personnel. Emerg Med J. 2003;20(1):79-84.
16. Center for Substance Abuse Treatment (US). Trauma-Informed Care in Behavioral Health Services. Rockville (MD): Substance Abuse and Mental Health Services Administration (US); 2014. (Treatment Improvement Protocol (TIP) Series, No. 57.) Exhibit 1.3-4, DSM-5 Diagnostic Criteria for PTSD. Available from: https://www.ncbi.nlm.nih.gov/books/NBK207191/box/part1_ch3.box16/
17. Caldas MP, Ostermeier K, Cooper D. When helping hurts: COVID-19 critical incident involvement and resource depletion in health care workers. *J Appl Psychol.* 2021;106(1):29-47.
18. Wong I, O'Connor MB. Covid-19 and workplace fatigue: Lessons learned and mitigation strategies. Centers for Disease Control and Prevention. https://blogs.cdc.gov/niosh-science-blog/2021/01/13/covid-19-fatigue/. Published January 13, 2021. Accessed January 30, 2022.
19. Alessi EJ, Hutchison C, Kahn S. Understanding COVID-19 through a Complex Trauma Lens: Implications for Effective Psychosocial Responses. *Soc Work.* 2021;67(1):79-87.