Training to Needs or Checkboxes? An Evaluation of Critical Incident Response Training

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ABSTRACT

Research Summary. Assessing critical incident training outcomes assists law enforcement agencies in identifying areas of strength, deficiencies, and outdated response plans. This information is instrumental to informing training initiatives and developing evidence-based policies that align with the evolving needs of law enforcement agencies. The Federal Law Enforcement Training Center developed a Critical Incident Response Training course with objectives that go beyond threat mitigation, advancing into scene management, communication, and incident command. This study explored law enforcement performance during critical incident scenarios, including large-scale, multiagency responses to active aggressors. The study employed pre- and post-surveys and qualitative focus groups to evaluate the impact of the novel course on officer confidence and preparedness during critical incident response. Results indicated the course's impact on confidence and preparedness was statistically significant and meaningful.

Policy Implications. Findings suggest agencies should maintain clear communication protocols to streamline the information sharing process and aid efficient performance. They should also develop mandatory critical incident training for commanding officers to ensure preparedness for critical incident response and management. Finally, agencies should conduct regular scenario-based training to keep skills sharp and ensure readiness for real-world incidents.

Keywords: critical incidents, police training, incident command, active aggressor

Introduction

Critical incident training for law enforcement equips officers with the skills and knowledge necessary to effectively handle high-stakes and high-stress situations. The dynamic nature of law enforcement responsibilities requires constant adaptation of training methodologies for officer and community safety. Existing critical incident training is often limited to officers responding to and addressing immediate threats. The Federal Law Enforcement Training Center (FLETC) supplemented the learning objectives of their Active Shooter Threat Training Program in its novel Critical Incident Response Training (CIRT) that goes beyond threat mitigation and incorporates scene management, communication, medical intervention, and incident command. These curriculum additions expanded the tactical focus of the active shooter training course, providing additional knowledge on response to and management of critical incident scenes.

As law enforcement agencies explore progressive ways to enhance officer performance and provide relevant training to officers, departments have shifted to data-informed models of decision making. Assessing the impact of training identifies areas for improvement and highlights successes. This informs future training initiatives and develops evidence-based policies and practices that align with law enforcement's evolving needs. These initiatives have improved and expanded measures to improve officer performance and address operational deficiencies. Specifically, they provide data to inform departmental training and help develop courses based on performance measures generated from audits, peer review boards, internal investigations, and community responses. Moreover, they offer evaluative approaches to determine agency, unit, or individual needs. The development of the novel CIRT course was based on performance data from a large metropolitan police department that partnered with FLETC for updating the course, including reviews of the department's critical incident response and management. The reviews identified deficiencies in officer response. In these departmental performance reviews and for this study, a critical incident is identified as a mass casualty incident, active aggressor, hostage-involved situation, or officer-involved shooting. Following the large metropolitan police department's evidence-based approach, FLETC addressed multiple recommendations for officer training and updates in a way that extended beyond checking boxes, providing a crafted course to focus on critical incident response and management. The development of the novel CIRT training was centered on the deficiencies found, forming the course's main components and learning objectives.

The current study included an evaluation of the FLETC CIRT course to assess the impact on participants' perception of confidence in key critical incident response areas and preparedness in responding to, arriving at, and managing critical incident scenes. The aim was to fill the gap in the literature surrounding FLETC's critical incident response training to inform similar law enforcement training. The study also assessed participants' performance, determined areas for improvement (in participants' performance and for the novel training course), and identified future FLETC training needs.

Background

Several agencies provide courses in active shooter training, critical incident management, and other response skills. FLETC offers two versions of the active shooter training course—the basic training course and an instructor (i.e., train-the-trainer) version—that focuses on mass casualty incident response and addressing the initial threat.[1] The FLETC CIRT is an extension of these programs, closing the gap between threat mitigation and scene management, including training in medical intervention, communication, and scene preservation.

Evaluations ensure law enforcement training programs meet their objectives and contribute evidence to improve police response (International Association of Chiefs of Police, 2021; Klose, 2024). Particular to critical incidents, evaluations can be used to assess training's effect on officers' abilities to de-escalate situations, make sound judgments under pressure, communicate with internal and external partners, assess resource needs, and facilitate incident command responsibilities. Through the collection of participant feedback, the evidence goes beyond anecdotal approaches to incorporate participants' (i.e., officers) experiences (Jonathan-Zamir & Weisburd, 2023; Ratcliffe, 2022). The results can inform future training and enable participating law enforcement agencies to identify gaps in training curricula, ensuring officers are well-prepared for the complexities of the field.

Evidence-based approaches to program improvement are emerging in areas of public safety. A prominent example is Crisis Intervention Team (CIT) training, which aims to equip officers with the skills to handle situations involving individuals with mental illnesses. The goals are cost savings (e.g., civil litigation and incarceration expenses), keeping law enforcement's focus on crime by reducing the amount of time officers spend responding to calls for services involving mental health crises (i.e., officers become available again more quickly), and supporting officer safety and effectiveness in responding to persons experiencing mental illness (e.g., reductions in officer injuries; National Alliance on Mental Illness, n.d.). CIT training can lead to positive outcomes, including increased officer confidence in responding to persons experiencing mental illness, reduced use of force, and more diversion of individuals to mental health services rather than incarceration (Compton et al., 2014; National Alliance on Mental Illness, n.d.; Rogers et al., 2019). Evaluations of similar de-escalation training indicated changes in officer knowledge and behavior as well as decreased use of force and civilian injuries (Engel et al., 2020). By identifying areas for improvement, agencies can tailor training to meet specific needs and enhance officers' performance and professionalism. Although CIT and de-escalation training may differ in the course components and objectives, they share the goals of enhancing officer performance and improving confidence, preparation, and overall officer and community safety.

1 https://www.fletc.gov/active-shooter-threat-training-program

Current Study

The purpose of this study was to evaluate the impact of the novel CIRT course on officers' confidence in areas of critical incident response and preparedness in responding to, arriving at, and managing a critical incident scene. The study included the first two iterations of the novel CIRT course, which was completed in different locations. FLETC will continue using the novel CIRT course model to address law enforcement training needs related to critical incident response and management.

FLETC CIRT Course

The FLETC CIRT course is an addition to existing FLETC active shooter response training, enhancing the critical decision-making abilities of law enforcement officers during their response to, arrival at, and management of critical incident scenes. The training addresses the need to provide law enforcement officers with knowledge and skills that extend beyond threat assessment and mitigation. The training is delivered over four consecutive eight-hour training days and includes communications (internal and external), resource allocation, and incident management—all of which are not addressed in the existing active shooter response training. Table 1 provides the learning objectives for the course and the outcome measures to assess participant performance. The distribution of course hours include orientation and course evaluations (two hours), lectures (five hours), scenarios (23 hours), and debriefs (two hours).

TABLE 1. FLETC CIRT Learning Objectives and Outcome Measures

LEARNING OBJECTIVES	OUTCOME MEASURES
1. Demonstrate timely, decisive action to mitigate an active threat.	Situation assessment and immediate tactical response to locate and neutralize the threat.
2. Demonstrate the ability to mitigate intel and communication degradation during a critical incident.	Control radio traffic, move to a dedicated channel, provide complete known (not assumed) information, and manage resources based on intel.
3. Identify and assess resources, direct appropriate action for victim care, and coordinate designated casualty collection points and/or extrication.	Time and number of casualties provided care. Coordinated effort/response with other public safety personnel.
4. Facilitate a cohesive transfer of incident command.	Flow of accurate information and established priorities, objectives, and resources.

Research Questions

The study was guided by the following research questions:

1. What is the impact of the novel FLETC CIRT course on the confidence and preparedness of law enforcement officers responding to a simulated critical incident?
2. What performance and operational challenges do participants face in critical incident response and management?
3. What critical incident response training areas need additional training in future FLETC CIRT courses?

Research Question 1 was addressed using pre- and post-survey data. Research Questions 2 and 3—both qualitative in nature—were explored during focus group discussions.

Methods

Setting

The study was conducted at two different metropolitan sites. One was located on the West Coast and the other in the Midwest region of the United States.[2] Both sites were large-size police agencies; the West Coast site had approximately 400 sworn personnel and the Midwest had 1,000. At both sites, the training included short scenarios with participants along with classroom portions to prepare and reiterate the scenario focus. The final large scenario included personnel from public safety agencies—police, fire, and emergency medical services—to portray a realistic response to a critical incident and provide simulated interagency collaboration. The study only evaluated law enforcement officers who enrolled and attended the FLETC CIRT course in its entirety.

Participants

The study included 64 participants: 35 from the West Coast PD and 29 from the Midwest PD. The participants included civilians, front line personnel (i.e., officers, deputies, detectives), sergeants, and lieutenants. As presented in Table 2, most of each site's participants were front line personnel, approximately 57% of West Coast PD's and 72% of Midwest PD's. The average law enforcement experience for the West Coast sample was 13.67 years and 14.63 years for the Midwest sample. Regarding participants who had received specialized training in critical incident response, West Coast had 20 and Midwest had 19.

2 West Coast PD and Midwest PD will be used as pseudonyms.

TABLE 2. Participant Demographics

	WEST COAST (*n* = 35)	MIDWEST (*n* = 29)
Rank		
Civilian	0	2
Officer/deputy/detective	20	21
Sergeant/corporal	14	5
Lieutenant	1	1
Law enforcement experience (average)	13.67 years	14.63 years
Time in current position (average)	4.29 years	5.78 years
Received specialized training in critical incident response	20 participants	19 participants

Instrumentation

Data were collected using pre- and post-surveys and focus groups. The surveys provided standardized means to measure participants' perceived critical incident response preparedness and confidence prior to and following the FLETC CIRT instruction. Participant confidence was assessed with the Likert scale in the following specific areas of critical incident response: tactics in approaching scene, recognizing and addressing the threat, intelligence gathering, scene management, mass casualty triage response, incident command, team or agency coordination, resource management, documentation, internal communication, and external communication. A Likert scale was also used to assess participants' preparedness in responding to, arriving at, and managing a critical incident scene.

Focus groups explored performance and operational challenges faced by law enforcement using a semistructured protocol, including experiences, perspectives, and contextual nuances (e.g., word choice, departmental culture) surrounding their engagement with the CIRT instruction. The key areas of the focus group protocol were incident overview, communication and coordination, decision making, resource allocation, incident command, training and preparedness, post-incident analysis, legal and ethical considerations, community engagement, continuous improvement, and well-being.

The key areas of the focus group discussions and the measured areas and actions in the surveys were developed using the newly developed FLETC CIRT learning objectives. Each key area and measure was directly related to one of the four learning objectives. Table 3 provides the structured mapping and interconnectedness of each item. Some key areas and measures were connected to more than one learning objective. For example, incident overview was a key area for the focus group discussions. Incident overview included participants discussing the scenario and detailing the nature of the incident, location, and key timeline events. This key area was connected

to all four learning objectives, which are delineated in Table 1. Incident command and decision making were also key discussion group areas connected to each of the four learning objectives.

TABLE 3. CIRT Course Learning Objectives and Instrumentation Alignment

	LEARNING OBJECTIVE 1	LEARNING OBJECTIVE 2	LEARNING OBJECTIVE 3	LEARNING OBJECTIVE 4
Focus group key areas	• Incident overview • Decision-making • Incident command	• Incident overview • Communication and Coordination • Decision-making • Resource allocation • Incident command	• Incident overview • Decision-making • Resource allocation • Incident command	• Incident overview • Decision-making • Incident command
Measured areas/ actions in surveys	• Tactics in approaching scene • Recognizing and addressing the threat • Responding to a critical incident scene • Arriving at a critical incident scene • Managing a critical incident scene	• Intelligence gathering • Scene management • Incident command • Team or agency coordination • Resource management • Internal communication • Managing a critical incident scene	• Scene management • Mass casualty triage response • Incident command • Team or agency coordination • Resource management • Internal communication • External communication • Managing a critical incident scene	• Scene management • Incident command • Team or agency coordination • Resource management • Internal communication • External communication • Arriving at a critical incident scene • Managing a critical incident scene

Note. The focus groups contained additional key areas that were not aligned with the FLETC CIRT course learning objectives, with the intent of using the gathered data to inform future training and CIRT course iterations. Additional areas included training and preparedness, post-incident analysis, legal and ethical considerations, community engagement, and responder well-being.

Data Collection

Data from the West Coast PD and Midwest PD sites were collected at three points during the 4-day training period using consistent models. Initially, participants completed a 20-item presurvey that captured demographic data, including job classification/assignment, rank, experience in service, and training. The presurvey also explored participants' experience with critical incidents; preparedness in responding to, arriving at, and managing critical incidents; recommendations for their respective agencies' training protocols; and expectations for the critical incident response training/assessment associated with this study. Participants completed the presurvey before the critical incident training.

The second data collection occurred after the FLETC CIRT instruction and simulated incident response (i.e., scenario). At the conclusion of the simulated incident, participants completed an 11-item post-survey that examined their perceptions of the training content's effectiveness, anticipated application of training content, and measured the same areas of preparedness and confidences as the presurvey.

The third data collection point included focus group discussions after participants completed post-surveys. There were five focus groups at the West Coast site and seven at the Midwest site. Each lasted approximately 90 minutes. Focus group moderators directed discussions using discussion prompts and open-ended questions. These group discussions mimicked tabletop exercises for the participants and trained them in incident debriefing, which provides insight to guide performance during real-world incidents (Police Executive Research Forum [PERF], n.d.; U.S. Department of Homeland Security, 2020; U.S. Federal Bureau of Investigation, 2024). Each discussion was audio-recorded for subsequent transcription and thematic analysis.

Data Analysis

Pre- and post-survey data were analyzed to develop descriptive statistics (i.e., demographic data) and trends in participants' responses regarding confidence and preparedness in critical incident response. For each confidence area and preparedness measurement, mean Likert scores were computed for pre- and post-surveys, along with percent changes for each site. Then, focus group discussions were transcribed and coded thematically to provide a comprehensive understanding of participants' unique perspectives.

Results

Pre- and Post-Surveys

Results indicated participants' confidence for each of the analyzed critical incident responses increased after participation in the FLETC CIRT course, as shown in Table 3. For the West Coast PD, the most notable changes involved mass casualty triage response (up 65.4%), incident command (up 35.9%), and resource management (up 33.7%). West Coast PD participants also increased in confidence regarding team or agency coordination (up 38.5%), resource management (up 31.8%), and mass casualty triage response (up 29.2%).

TABLE 4. Confidence in Areas of Critical Incident Response — Mean Scores (Pre- and Post-Surveys)

AREA	WEST COAST PRE-SURVEY	WEST COAST POST-SURVEY	WEST COAST % CHANGE	MIDWEST PRE-SURVEY	MIDWEST POST-SURVEY	MIDWEST % CHANGE
Tactics in approaching scene	3.4	4.25	25%	3.6	4.3	18%
Recognizing and addressing the threat	3.6	4.55	25.4%	3.8	4.7	21.6%
Intelligence gathering	3.3	4.2	28.9%	3.5	3.9	11.9%
Scene management	3.0	3.9	27.1%	3.4	3.8	11.1%
Mass casualty triage response	2.6	4.3	65.4%	3.1	4.0	29.2%
Incident command	2.7	3.7	35.9%	2.8	3.4	22.2%
Team or agency coordination	3.1	4.0	30%	3.1	4.3	38.5%
Resource management	3.0	4.0	33.7%	3.0	4.0	31.8%
Documentation	3.1	3.9	26.2%	3.3	3.6	9.5%
Internal communication	3.3	4.1	24.8%	3.4	4.2	21%
External communication	3.1	3.9	23.6%	3.1	3.7	18.9%

Comparing the changes between levels of preparedness before and after participating in the FLETC CIRT course, the data show an increase (see Table 4). Both groups reported increases when responding to, arriving at, and managing a critical incident scene. The West Coast PD had a 31% change from pre-training to post-training and the Midwest PD showed a 37.4% change. The largest changes varied between agencies, with the West Coast's action being *responding to a critical incident* (47.8% pre-post change) and for the Midwest agency showing the greatest increase in *managing a critical incident* (39.1% pre-post change).

TABLE 5. Preparedness Pre- and Post-FLETC Critical Incident Training — Mean Scores

ACTION	WEST COAST PRE-TRAINING	WEST COAST POST-TRAINING	WEST COAST % CHANGE	MIDWEST PRE-TRAINING	MIDWEST POST-TRAINING	MID-WEST % CHANGE
Responding to a critical incident scene	2.3	3.4	47.8%	2.6	3.6	38.5%
Arriving at a critical incident scene	2.3	3.3	43.5%	2.6	3.5	34.6%
Managing a critical incident scene	2.1	2.9	38%	2.3	3.2	39.1%

A paired *t* test was conducted to further compare the pre- and post-survey results and determine if the changes were statistically significant as well as find the effect size (i.e., the impact) of the FLETC CIRT course (see Table 6). The results for confidence and preparedness are presented separately. They indicate statistically significant improvement in each for both samples. The *p* values for confidence and preparedness for each sample was < 0.05. Moreover, Cohen's *d* for confidence and preparedness for each sample was > than 0.8, indicating a large effect size.

TABLE 6. Paired *t*-Test Result for Confidence and Preparedness Measures

MEASURE	PRE-TRAIN-ING MEAN (*SD*)	POST-TRAIN-ING MEAN (*SD*)	*t*-STAT	*p*-VALUE	COHEN'S *d*	95% CI (LOWER)	95% CI (UPPER)
Confidence (West Coast)	3.1 (0.5)	4.0 (0.6)	-12.53	<0.001*	1.93	-1.23	-0.95
Confidence (Midwest)	3.3 (0.4)	4.2 (0.5)	-8.37	<0.001*	1.42	-1.05	-0.76
Prepared-ness (West Coast)	2.2 (0.3)	3.2 (0.4)	-10.96	0.008*	1.93	-1.40	-1.06
Prepared-ness (Midwest)	2.5 (0.4)	3.5 (0.5)	-28.00	0.001*	1.87	-1.50	-1.25

Note. * Statistically significant < 0.05

The presurvey examined participants' views on whether their agency provided them with the necessary equipment to respond to a critical incident (see Figure 1). Approximately 62% of

Midwest PD participants felt (i.e., responded *strongly agree* or *agree*) their agency provided the necessary equipment, and 41% of West Coast PD participants felt similarly. Moreover, roughly 17% of Midwest PD responded that their agency had not provided them with what they perceived as necessary, and 26% of West Coast PD felt the same.

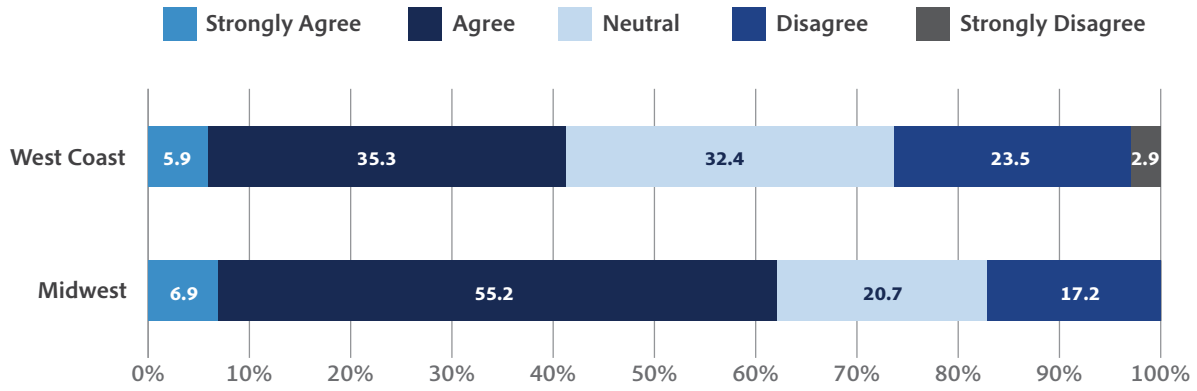

FIGURE 1. Participant Views on Whether Necessary Equipment was Provided by Agency (for Critical Incident Response)

Focus Groups

Thematic analysis of over 18 hours of focus group audio recordings resulted in six overarching themes: communication challenges, training gaps, coordination among multiple agencies, ego and leadership dynamics, incident command structure, and resource allocation. Additionally, focus group discussions were analyzed to determine successes, deficiencies, and recommendations for improvement from the perspective of the participants as these were major components of the focus group protocol.

Thematic Analysis

COMMUNICATION. Participants emphasized significant communication challenges during the incident. Challenges included the use of incompatible radio systems by different agencies that typically respond to large scale critical incidents, leading to confusion and the inability to share and receive pertinent information. One participant stated, "We were all on different channels, and it was chaos trying to coordinate." Similarly, one participant acknowledged radio communication was garbled and overwhelmed with nonpriority chatter, stating, "it was hard to hear anything important over the noise on the radio." Another offered, "We need a dedicated channel for tactical communication to keep things clear," suggesting different radio channels should be used for different types of communication. Finally, the use of acronyms and agency- or job-specific jargon emerged as an issue. One participant noted, "Not everyone knows what the acronyms meant, which led to misunderstanding."

TRAINING GAPS. Participants identified notable gaps in training, including inadequacies in active aggressor response, tactical medical, and leadership and crisis management. One participant stated, "I definitely need [tactical medicine training]. We got a brief 10-minute lecture on it early on, but the triage process needs to be covered in more detail and more length." Another participant addressed agency culture and expressed a need for officers to possess well-balanced abilities, saying, "We have a culture that when things happen, we call SWAT [special weapons and tactics]." Participants across agencies agreed leadership training also needed improvement. There was a consensus that leaders should train alongside participants, and leaders' training should be more realistic (i.e., their roles and responsibilities should mirror what they would be doing during actual responses) to adequately prepare both groups for real-world incidents. Lastly, participants emphasized the importance of conducting post-incident reviews to learn from experience and improve future responses.

MULTIAGENCY COORDINATION. The presence of multiple agencies (e.g., law enforcement, fire and rescue, emergency management, emergency medical services) responding to incidents created challenges in coordination efforts. One participant mentioned, "With so many officers on the scene, it was hard to keep track of who was doing what," highlighting the importance of understanding each agency's roles and responsibilities. Clear communication protocols for multiagency responses also surfaced as an issue, with several participants opining that existing systems were inadequate. One participant expressed a need for "greater understanding of allied agency coordination . . . especially in a massive incident." Relatedly, one participant noted issues with receiving conflicting orders from different commanders at different agencies, saying "We were getting mixed messages, and it was hard to know what to do."

LEADERSHIP AND INCIDENT COMMAND. Issues with leaders' egos and command dynamics were mentioned by several participants. They noted that some leaders did not listen to participants' input, which was based on their observations from being "on the ground." One participant remarked, "It's frustrating when leaders come in and ignore what we're saying." Similarly, they strongly expressed frustration with leaders overriding a decision made by individuals actively engaged in the situation, leading to confusion and inefficiency. When leaders refused to collaborate, participants raised concerns about leadership experience and competence. One participant stated, "Some leaders just [do not] have the hands-on experience to make the right calls." When promotions were discussed, some participants indicated that they were based on assessments rather than practical experience, leading to inadequately prepared leaders.

INCIDENT COMMAND STRUCTURE. Although closely related to communication challenges and coordination among multiple agencies, incident command structure presented as a standalone theme during data analysis. Participants significantly noted the command structure on the scene was unclear, leading to delays in critical decision making. One participant said, "We kept asking, '*Who's in charge?*' and no one seemed to know." Another participant expressed the need

for an immediate and clear determination of incident command, saying, "We need to establish who is in charge right away to avoid confusion." Participants also noted the need to transfer incident command during an incident (as more personnel arrive on scene) and clear communication of that shift.

RESOURCE ALLOCATION. Participants discussed the need for better resource allocation during critical incidents, which highlighted the necessity for better planning and communication. They agreed that clearer communication would improve scene efficiency and management. One participant mentioned many officers gathering in one location when they were needed in another area, saying "If we knew what resources we had and where they were needed, we could respond better." Participants also raised concerns about the adequacy of resources and the timing of resource supply, comparing the simulated scenario to real-life incidents. One participant said, "I think it is a little unrealistic to have so many [emergency medical services units] there so quickly." However, another participant mentioned, "I thought the [emergency medical services] contingent was superb in the amount that we had."

Successes and Deficiencies

Successes and deficiencies aligned with the overarching themes garnered from participant responses. FLETC CIRT program successes included the value and applicability of the training, the collaboration among multiple agencies, and the opportunity to improve decision-making. Participants clearly noted the training program's value, particularly the active aggressor scenarios and the tactical medical training. Additionally, participants expressed the importance of collaboration among different agencies during critical incidents, which was highlighted as a success of the training program. They discussed improved decision making regarding active aggressors, as well as reports of shots fired. One participant said, "I think the training was phenomenal for the department as a whole. And I think every department needs more of this training."

Deficiencies in participant performance during the scenario-based learning were also noted, aligning with the participants' emphasis on post-incident analysis of what went well and what did not. Participants underscored communication issues, training gaps, and incident command structure confusion as deficiencies in performance. Many participants acknowledged communication challenges, expressing how these challenges hindered their overall effectiveness and stifled decision making. They also noted gaps in their training, highlighting the need for more tactical medical training and its incorporation into active aggressor scenarios. One participant described this blending of trainings as "layering," noting that many of their past trainings were siloed and did not build on one another—even though the skills are expected to be deployed together during real-world incidents. Establishing and transferring incident command was a commonly discussed deficiency. Participants emphasized that these two actions must occur to facilitate clearer leadership roles. Each of the noted deficiencies was also cited as a theme for focus group discussions.

Limitations

While this study provides insights into the FLETC CIRT program, its limitations must be addressed. The course was open to all departmental personnel, and only those who volunteered participated. The participants who volunteered may not accurately represent all units, skill levels, and management areas. Those who chose to participate may generally be more proactive in their professional development; therefore, their levels of confidence and response to the simulated critical incident may differ from others. In short, unless the training is mandated by the agency for all personnel, the findings may not be representative of all departmental members' confidence in key areas of critical incident response and preparedness.

Because the purpose of the study was to evaluate the impact of the novel CIRT course on confidence in areas of critical incident response and preparedness in responding to, arriving at, and managing a critical incident scene, post-training behavioral outcomes were not assessed. Typically, training is expected to affect performance and facilitate desired outcomes. This study solely focused on participants' perceptions and did not address any behavioral outcomes.

Discussion

The findings provide robust evidence that the FLETC CIRT course significantly improved officers' confidence in areas of critical incident response and preparedness responding to, arriving at, and managing a simulated critical incident. Relatedly, the impact of the training course on participants' perceptions was meaningful (i.e., all effect sizes were > 0.8). The findings also underscore the importance of continuous evaluation and assessment of law enforcement training. Examples include collecting performance metrics and qualitative feedback from practitioners, as well as employing data-driven approaches to identify gaps in learning to inform future training practices, objectives, and outcomes.

Critical incident response and management faces multifaceted challenges, and participants provided valuable insights into these complexities and noted increases in preparedness and confidence. Participants expressed enhanced readiness in key critical incident areas: incident command, resource management, and interagency communication. However, they noted issues with communication systems, leadership ego and dynamics, and resource allocation that require attention and intervention. These findings aligned with broader trends in law enforcement training, highlighting the need for scenario-based training to enhance officers' decision making, communication, and interagency collaboration skills (Engel et al., 2020; PERF, n.d.). The FLETC CIRT training revealed the importance of moving beyond a checkbox approach and focusing on tailored training strategies that address specific agency operational deficiencies.

The results led to specific recommendations for future training protocols and learning objectives. First, participants suggested implementing clearer communication protocols to streamline information sharing during critical incidents. This includes the obvious practice of only

distributing pertinent information via radio, but also mandates knowledge of roles, job tasks, and needs during an incident. Such practices increase efficiency, decrease radio traffic, and diminish confusion at a scene. Second, participants called for mandatory training for sergeants and incident commanders to ensure they are well-prepared for managing critical incidents. Not only would this increase responders' confidence in their leadership but it would also improve safety for involved officers and the community. Lastly, participants recommended regular scenario-based training to keep skills current and ensure readiness for real-life critical incidents. Understanding these types of training are time and cost intensive, respondents still encouraged consistency using this method of teaching. This method decreases siloed learning, weaving skills into one overall training course.

To build on this study, future research should aim to replicate the findings using a larger and more diverse group of law enforcement personnel (e.g., additional regions or populations). Also, longitudinal analysis could explore the long-term effects of the training on real-world critical incidents and learning retention. Finally, the inclusion of more data points, such as instructor observations and assessments would help triangulate findings and improve understanding of how training influences field performance (i.e., behavior outcomes). For example, benchmark assessments could be completed for participants prior to commencing scenario drills. This would allow instructors to observe each small participant group and provide comparative data to highlight successes and deficiencies in key performance indicators related to critical incident response and management across the training program.

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