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JOINT SIMULATION TRAINING FOR CORRECTIONAL OFFICERS AND HEALTHCARE PROVIDERS IN A CORRECTIONAL SYSTEM

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Abstract

In the correctional setting, correctional officers and healthcare providers become immersed in a variety of emergencies in a first responder capacity, requiring organized team approaches and aligned goals. A training gap was identified as healthcare providers and correctional officers facilitate separate training initiatives with minimal focus and education surrounding their collaborative efforts in emergency response situations. The *Joint Simulation Training Program* (JST) was designed to address this gap, allowing staff the opportunity to practice responding to emergencies together through simulation training. Simulation is an interactive educational technique for teaching knowledge as well as technical, clinical and behavioural skills to participants as they respond to immersive scenarios that replicate real-life events. This is the first joint experiential training initiative undertaken across Provincial Correctional Centres, in Alberta, Canada, and presumably internationally due to a paucity of existing programs in the literature. The case study presented in this paper outlines the design, implementation, and outcomes of this innovative interprofessional training program. The lessons learned from this transformative program should help shape future training initiatives in corrections education, to better prepare these interprofessional teams to work in unpredictable environments.

Keywords: Simulation-based education, interprofessional training; emergency response; correctional system; healthcare

Introduction

In Canada, the provincial correctional system supervises adults and young persons serving sentences of less than two years and also remands being held in pre-trial custody or serving a community sentence (Malakeih, 2019). In correctional facilities, staff provide direct care to the offender population ranging from basic needs, primary care, disease management, addictions and mental health, to emergency response, which demands robust assessment and decision-making skills to meet the needs of offenders who require care but may also be manipulative and aggressive (Almost et al., 2013). Assessment and management of security threats and medical emergencies in a first responder capacity render this environment dynamic and higher risk to the physical and psychological safety of staff (Ferdik & Smith, 2017).

In the Provincial Correctional Centres in Alberta, Canada, a gap was noted in training as both correctional officers and healthcare staff have different roles and separate educational initiatives with minimal focus on interprofessional emergency code response. The literature reflects this paucity in experiential interprofessional training initiatives (Brennan, 2006; Kent-Wilkinson, 2011). The siloed approach to training promotes ineffective communication and gaps in teamwork contributing to errors that can compromise staff safety and offender care (Palaganas et al., 2014). The division nurtures a culture lacking mutual respect and understanding between professions and contributes to territorial boundaries that exclude joint decision-making (Mulholland et al., 2019). Correctional environments require dedicated educational strategies to prepare staff to work together (Diaz et al., 2014).

To address this gap, the Joint Simulation Training Program (JST) was designed and implemented. The innovation of JST integrates the principles of experiential learning through simulation-based education (SBE) and the Relational Coordination Framework. SBE is an interactive educational technique for teaching knowledge as well as technical, clinical and behavioural skills to participants as they respond to immersive scenarios that replicate real-life events (Lateef, 2010; Alfes et al., 2018).

Joint Simulation Training is in-person SBE that involves dynamic and realistic correctional emergency code scenarios, such as an altercation between offenders resulting in life-threatening trauma. These immersive scenarios provide correctional officers and healthcare staff the opportunity to intentionally respond to and manage the priorities of their respective roles while navigating shared priorities of the situation. The Relational Coordination Framework supports interprofessional SBE through the pillars of shared goals, shared knowledge, and mutual respect as necessary to support the highest level of team performance and interprofessional collaboration (Brazil et al., 2018).

JST has become widely embraced by frontline staff and senior leaders across a large geography. With the intent of empowering the correctional workforce, this case study discusses the design, implementation, and outcomes of the transformative JST program and its applicability across all correctional facilities nationally and internationally.

Background

Historically, the various roles in corrections were created before the development of supporting education, with current research advocating the need for specific education in this area of speciality (Kent-Wilkinson, 2011). Specific skills required to work in a secure environment include communication strategies, managing violent situations, verbal de-escalation skills, security awareness, the ability to

liaise with prison and legal systems, debriefing, and awareness of offender needs (Brennan, 2006). Currently, correctional officer education in Alberta consists of a nine-week province-wide induction course for recruits. This training consists of tactical skills development including restraint process and use of force. Application of these skills is reinforced through study of the Canadian Criminal Code (Government of Canada, 2019), the Corrections Act (Alberta Government, 2019), the Canadian Charter of Rights and Freedoms from the Canadian Constitution (Government of Canada, 2018), and simulation scenario training. Additionally, officer recruits receive an introduction to addictions and mental health, medical emergency responses, verbal de-escalation techniques, cultural sensitivity, and professional boundaries, consistent with other international approaches (Farrell, 2015; Reid, 2017).

Correctional healthcare staff enter the workforce with respective licensure and subsequent specialization into this clinical area remains predominantly an apprentice-style approach as training or ongoing education is inconsistently available for broad scopes of practice (Almost et al., 2013). Healthcare staff undergo didactic orientation ranging from one to five days, followed by training buddy-shifts where they partner with senior staff members. Challenges identified by correctional healthcare staff on national and international levels include reported feelings of unpreparedness when entering their new roles in a secure environment as generalists, and requiring additional emergency medical response training to function as first responders to medical emergencies (Shelton & Nicholson, 2010; Wang, 2017).

While both groups require specific competencies to complete respective roles and tasks, there is an industry demand to implement and study educational and training programs specifically designed for this workforce (Ferdick & Smith, 2017). The dynamic learning needs of these interprofessional teams demands educational strategies combine the management of violence and aggression, medical response, and facilitation of teamwork skills (Brennan, 2006; Scannell, 2015; Dhaliwal, 2016). JST was co-designed with correctional officer and healthcare stakeholders to inform content and ensure the program meets current program and centre-level learning requirements, with the ability to adapt to future needs.

METHODS

Context

JST was designed and implemented within the province of Alberta in January 2013. Between 2013 and 2019, more than 110 separate joint simulation days were held. To date, this program has captured nine out of ten Correctional Centres within the province. Each simulation session involved correctional officer and healthcare staff participants responding to pre-determined scenarios. Scenarios ranged from management of an escalated offender progressing to drug overdose, attempted suicide, cardiac arrest, altercation with a weapon resulting in life-threatening trauma. To ensure replicability of scenarios and consistent delivery, each the simulation day incorporated 9 key features inclusive of participants, recruitment and planning, setting, equipment, facilitators, simulators, pre-brief, scenario, and debrief.

Participants

In total, 1,200 participants were trained through JST. Post-session self-reported participant surveys were completed by a sample group of 133 (n=133), comprising 71 correctional officers to 62

healthcare staff. The demographics of the participants captured correctional officers and healthcare staff employed at the respective centre for each session. Participants had a wide range of clinical experience from students to senior staff members. Additionally, centres varied drastically in size and staffing compliment. Targeted participant group sizes were reflective existing staff resources during emergency code response to yield a realistic and relevant response pattern during scenarios.

Recruitment and planning

Recruitment involved management assigning staff to participate in the training sessions. Recruitment was also promoted through posters and e-mail communications allowing staff to schedule a date to participate in training. As previous experiences affect adult learner responses and decisions making, scenario complexity was tailored to appropriately reflect the knowledge and experience of participant groups (Grierson, 2014).

Setting

This initiative focused on *in situ* simulations where the interprofessional team interacts and practices in their environment (Couto, Barreto, Marcon, Mafra & Accorsi, 2018). This approach to delivering simulation in the real clinical environment improves the transfer of knowledge and skills into practice (Brazil et al., 2018).

Operational constraints limit the space and time available to run simulation training in correctional environments, requiring flexibility and preparedness by facilitators. Alternative training environments can include any space within the facility not actively occupied by offenders to avoid compromising scenario objectives, ensure physical and psychological safety for staff and offenders, and mitigate possible litigation concerns related to offenders observing training sessions or gaining access to training equipment.

Equipment

Equipment included role player body-impact protection which enables officer participants to engage physically, security equipment which enables participants to complete required tasks, and medical supplies to reinforce familiarity and associated skill development.

This program has observed increased staff participant engagement during scenarios when the realism of the scenarios was considered. Realism is the degree to which sensory, cognitive, and motor information embedded within the scenario allows participants to conceptualize the scenario as 'real' and contributes to skill development and progression (Grierson, 2014). This program utilizes inert forms of intermediate weapons for officer use to assist in gaining control of threatening situations (Government of Canada, 2019), additional role players to create realistic volume levels and distracting stimuli, as well as makeup/moulage to represent signs and symptoms of injury. These elements enhance the realism of the scenarios, staff engagement, and learning outcomes.

Facilitators

Each simulation session was co-facilitated by an officer instructor and healthcare educator. Additional facilitators can include a second officer trainer and simulation consultant when groups are newly implementing this training program. This training is sensitive to the facilitator approach as they set the learning environment for scenarios and debriefs. To what extent staff participants engage in the

experience depends heavily on how psychologically safe they feel and on instructors' facilitation skills (Cheng et al., 2016). At the start of the session the facilitators specify learning objectives, prepare the training space, pre-brief participants, effect the simulation scenario, and guide a debrief following the scenario. Facilitators view mistakes as learning opportunities and this premise is promoted and explicitly shared throughout the entire learning experience.

Simulators

JST uses a combination of manikins and role-plays to represent the offender(s) during scenarios. When extreme medical intervention is required, manikins or task trainers create an opportunity for staff to perform skills in real time, such as performing airway management or chest compressions. The majority of scenarios utilize role-plays to add realistic stimuli and challenges such as threat cues, physical interventions, and verbal de-escalation techniques, reinforcing positive muscle memory (Donovan & Mullen, 2019).

JST has utilized various role-play groups, however correctional officers who take on the role of the offender have proven to be the safest and most appropriate approach. Correctional officers who perform the role-play during the scenarios appropriately gauge staff responses secondary to their knowledge of the threat cues, physical intervention, and restraint process by correctional officers, while mitigating injury.

Pre-brief

Facilitators greet correctional officers and healthcare participants, deliver the pre-brief, and review the learning objectives of the simulation scenarios with the entire group. The pre-brief provides the opportunity for staff participants to familiarize themselves with the environment, equipment, and expectations, preparing them to regulate their learning through the scenario(s) (Cheng et al. 2016).

Scenarios

JST objectives were designed in partnership between corrections and healthcare stakeholders to guide the scenario development. Stakeholders included managers, frontline supervisors and frontline staff to ensure applicability and accuracy of content. The objectives included security, medical and collaborative targets for both correctional officers and medical teams, and were reflective of needs assessments, current policies and procedures, and staff requests for High Acuity Low Occurrence events (HALO). Training efforts that are reflective of current events ensures applicability to participants while addressing HALO events, improving staff comfort and confidence in response (Shelton & Nicholson, 2010; Bilic et al., 2020). The facilitators then coordinate the setting, the equipment, and role players to incorporate realism into the scenario.

Debrief

Following each scenario, the facilitators guide correctional officers and healthcare staff participants through open discussion. The debrief provides a venue for participants to reflect on the action, positive outcomes, share varying perspectives, and discuss areas for improvement with a focus on key topics outlined in the scenario objectives (Cheng et al., 2016; Scannell, 2016).

Participating in reflection and discussion helps team members understand one another's thinking around specific responses or decisions leading to shared knowledge, shared goals, and mutual

respect (Kessler et al., 2014). This learner-centred approach builds on staff engagement and a sense of responsibility in learning (Cheng et al., 2016). Debriefing allows participants to reinforce insights through the conscious association of specific actions and outcomes, intentional practice in a safe environment, and refined future approaches between correctional officers and healthcare staff.

Data collection

Data collection for evaluation involved three separate sources. From November 2013 to January 2015, a Participant Survey (*Figure 1*) was administered following each JST session with a group of 77, inclusive of 37 correctional officers and 40 healthcare staff. The self-reported survey provided qualitative data related to the simulation experience and care provided in a correctional environment. From September 2016 to October 2017 an updated Participant Survey (*Figure 2*), based on the Mayo High-Performance Scale (MHPTS), was administered following each JST session with a group of 56 participants, inclusive of 34 correctional officers and 22 healthcare staff. The self-reported survey allowed participants to evaluate team performance and behaviours (Malec et al., 2007).

The survey template selected for the study was based on the standardized provincial simulation program evaluation tool. To qualify the themes further, written attestations from participants, supervisors and managers were collected via e-mail communications between November 2013 to April 2021.

Data analysis

The steps involved in data analysis included manual tallying of participant rating scales responses and analysis of written responses resulting in 4 consistent themes. The theme groups include teamwork, security and safety, equipment and resources and culture change outlined in *Table 1 – Outcome Themes*. The rationale for selecting manual counting of self-rated scores and analysis of written responses was reflective of the subjective nature of the tools available to the program at the time. All data were evaluated annually to inform program evolution, enable applicable scenario design and ensure relevant debriefing objectives for participant groups.

Ethical Considerations

This project followed the successful completion of the "A Project Ethics Community Consensus Initiative ARECCI" screening tool identifying the primary purpose of the project as a quality improvement program and evaluation project which involves minimal risk; therefore, formal ethics approval was not required. https://arecci.albertainnovates.ca/ethics-screening-tool/?#gf_4

Outcomes

With greater than 1,200 participants to date, the majority of staff who have participated in JST considered this educational experience highly beneficial to their practice. The original Participant Surveys revealed that 98% of sampled participants (n=77) rated an improved understanding of how to work in a correctional environment, better management of available resources, and found the training relevant to practice. In the updated Participant Survey, 81% of participants (n=56) rated an increase of confidence in their ability to execute procedures and interventions as a team, identify key roles, and implement effective communication skills.

The written attestations from participants emphasized the enhanced teamwork and effective

eSIM Simulation Event Evaluation

eSIM

Date: _____ **Topic:** _____

Event Facilitator(s): _____

Profession: **Attending Physician ( )** **Resident / Fellow ( )** **Medical Student ( )**
RN ( ) **LPN ( )** **Nursing Student ( )** **RT ( )** **RT student ( )**
EMS ( ) **EMS Student ( )** **Other** _____

Years in practice / education: _____

Please circle the following that reflects your rating:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. The overall educational experience of the simulation event was excellent.	1	2	3	4	5
2. The simulation scenarios were appropriate for the learner group.	1	2	3	4	5
3. The realism of the simulation event was excellent.	1	2	3	4	5
4. The post-scenario debriefing was helpful for my learning.	1	2	3	4	5
5. The learners were treated with respect.	1	2	3	4	5
6. This simulation event was well organized.	1	2	3	4	5
7. The group size of the simulation event was appropriate.	1	2	3	4	5
8. Interdisciplinary involvement in the simulation event had a positive impact (if applicable).	1	2	3	4	5

What did you find most useful about your simulation event?

_____

_____

How could we improve the educational experience of your simulation event?

_____

_____

What would you suggest for future scenarios and learning opportunities?

_____

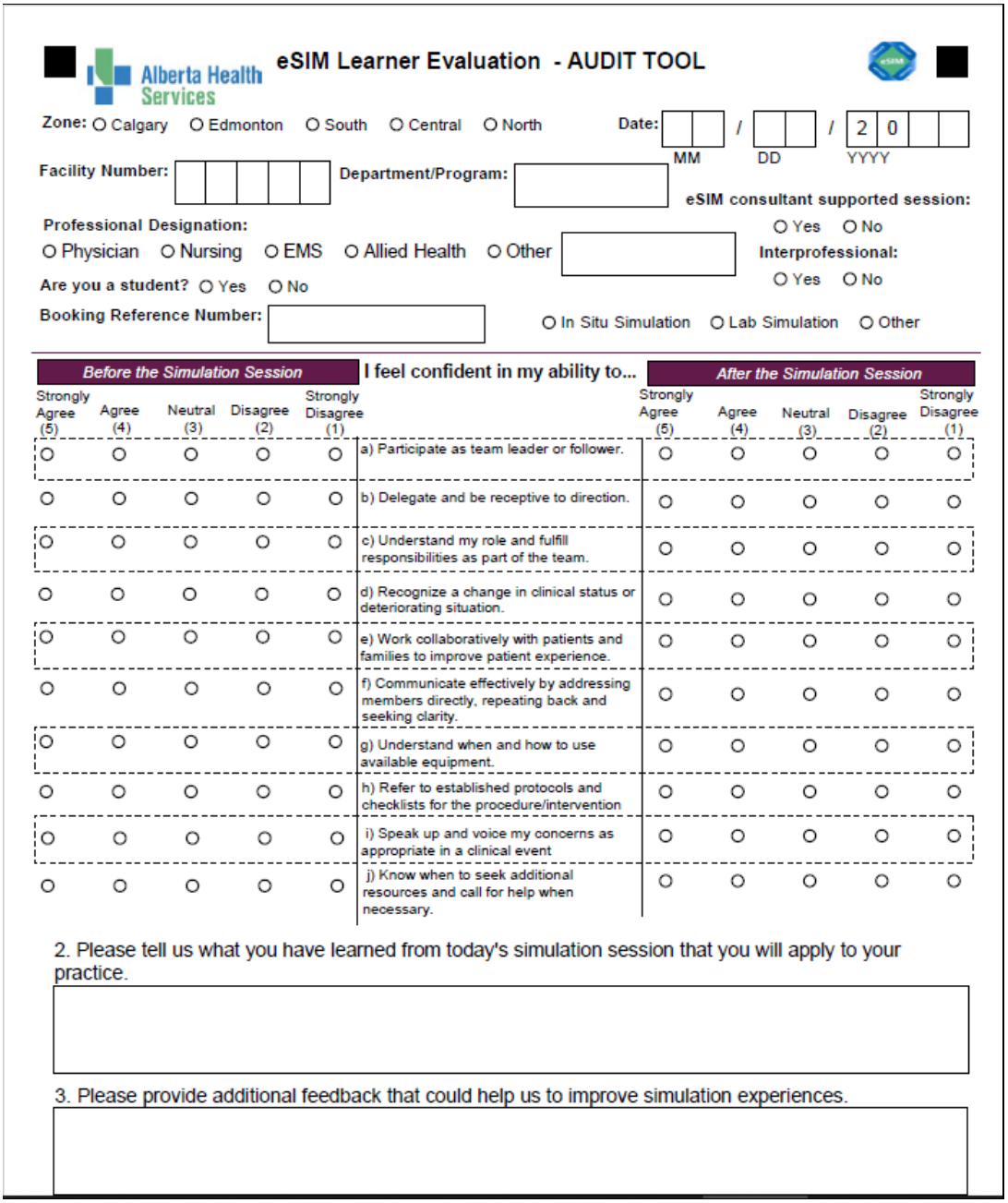
_____

Ideally, how often would these simulation events be useful for your on-going education?

_____

_____

Figure 1: Participant Survey 2013-2015



Alberta Health Services

eSIM Learner Evaluation - AUDIT TOOL

Zone: ○ Calgary ○ Edmonton ○ South ○ Central ○ North

Date: ___ / ___ / 20___ (MM / DD / YYYY)

Facility Number: _____ Department/Program: _____

eSIM consultant supported session: ○ Yes ○ No

Professional Designation:

○ Physician ○ Nursing ○ EMS ○ Allied Health ○ Other _____

Interprofessional: ○ Yes ○ No

Are you a student? ○ Yes ○ No

Booking Reference Number: _____ ○ In Situ Simulation ○ Lab Simulation ○ Other

Before the Simulation Session					I feel confident in my ability to...	After the Simulation Session				
Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)		Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
○	○	○	○	○	a) Participate as team leader or follower.	○	○	○	○	○
○	○	○	○	○	b) Delegate and be receptive to direction.	○	○	○	○	○
○	○	○	○	○	c) Understand my role and fulfill responsibilities as part of the team.	○	○	○	○	○
○	○	○	○	○	d) Recognize a change in clinical status or deteriorating situation.	○	○	○	○	○
○	○	○	○	○	e) Work collaboratively with patients and families to improve patient experience.	○	○	○	○	○
○	○	○	○	○	f) Communicate effectively by addressing members directly, repeating back and seeking clarity.	○	○	○	○	○
○	○	○	○	○	g) Understand when and how to use available equipment.	○	○	○	○	○
○	○	○	○	○	h) Refer to established protocols and checklists for the procedure/intervention	○	○	○	○	○
○	○	○	○	○	i) Speak up and voice my concerns as appropriate in a clinical event	○	○	○	○	○
○	○	○	○	○	j) Know when to seek additional resources and call for help when necessary.	○	○	○	○	○

2. Please tell us what you have learned from today's simulation session that you will apply to your practice.

3. Please provide additional feedback that could help us to improve simulation experiences.

Figure 2: Participant Survey 2016-2017

Table 1: Outcome Themes

Themes	Standards	Participant responses
Teamwork	In a Correctional setting, both Officers and Healthcare staff function in a first responder capacity. For Healthcare staff, a first responder capacity approach contrasts basic healthcare staff training. Staff in this setting are expected to be aware of security concerns and threats to safety. While for Officers, this first responder setting exposes them to medical emergencies, extending beyond the scope of their emergency first aid training. Training allows for sharing of knowledge and expertise Through training, Officers and Healthcare staff are better able to anticipate the support and resources required, as well as delegate tasks to team members. For instance, capturing critical timings, activation of EMS, accessing medical supplies, performing CPR, and administering Narcan can be delegated to either discipline, depending on resources available.	"When I responded to a [critical incident] I knew exactly what to do because of my training – it kicked in and I was able to think calmly and clearly". (Correctional officer, 2021) "The entire team worked like a well-oiled machine – not one member went into panic mode". (Correctional officer, 2014) Director – "there is a noticeable difference in both the team work aspect and the care provided". (Correctional Director, 2014) "Just knowing what each other is doing and being able to support all team members (officers and healthcare staff) or how to help out in the situation". (Officer, 2018) "Since we have started this training, we have noticed a distinct shift and improvement in teamwork. Before the Officers would back away as soon as Healthcare staff arrive. Now, Officers ask how they can help and both sides collaborate". (Healthcare staff, 2016)
Safety and Security	In a first responder capacity, the first priority is Scene Safety and Control The Officers are the leader in securing the controlling the scene. Once the scene is deemed secure, medical staff assume medical leadership. If multiple threats exist in an emergency, safety and security take precedent over medical needs to avoid further injury. Personal Protective equipment vital to scene safety as well and need to be consideration for all staff entering scene.	"Through involvement in this training, Healthcare staff gained a better understanding of what my job as an Officer entails, and what goes into de-escalating a volatile situation". (Officer, 2014) "The officers have such valuable information as to who is involved, what happened". (Healthcare staff, 2016) "I didn't understand why officers stayed with the offender who was handcuffed, then realized the offender was extremely tense and exhibiting threat cues – the officers noticed before I did". (Healthcare staff, 2018)
Equipment/ Resources	This environment does not have the same level of resources as a hospital. Some Provincial Correctional Centers have 16-hour healthcare staff coverage, while others offer 24hr. Healthcare staff and Paramedics typically do not working to the full scope of practice due to governing bodies and existing policies. Staff must rely on strong assessment skills, mobilization of resources available, and expedient patient transfer to Hospital, when necessary. Simulations provide an excellent gap analysis for hazard/equipment/policy identification and team utilization.	Simulations identified need for Officers Emergency kits. Result: Many offender units now have first aid equipment for Officer use. (Officer supervisor, 2018) The healthcare staff group identified concerns with Code bag contents and training on equipment. Result: Feedback provided to Provincial Education working group. (Healthcare manager, 2018) Delays in the administration of emergency medications due to location. Result: Medication code bag reviewed and rendered more readily accessible for staff. (Healthcare Educator, 2017) Officers and Healthcare staff have separate governing policies and not consistently familiar with differences. Result: Debriefs allow for review of policies and clarification of the process. (Officer and Healthcare staff, 2016)
Culture Change	Joint Simulation has allowed teams to have a shared mental model of safety, teamwork, role clarity, and efficiency. The shared exposure to high acuity situations in training has allowed reflection on past events and promoted post-incident debriefs. Historically, debriefs were not consistently held post-critical incidents. If they did occur, they predominantly occurred within the respective discipline and did not involve the entire team. Staff have become more accustomed to debriefing during training, with increasing participation in sharing of experiences, constructive feedback, peer support, and promotion of self-care. Training prepares staff to handle/respond to various code situations with the hope of decreasing the potentially traumatizing effects of these events.	"Nobody understands what we do in Corrections better than those we work with. We should have each other's back during codes and after them." (Officer, 2020) "The elaborate debriefs allow a lot to be discussed and evaluated afterwards; we gained further knowledge into what we can do" (Officer, 2018) "With my first hanging, I was surprised by the weight of the offender and the image stuck with me" (Officer & healthcare staff, 2018) "I was confident in my response due to earlier scenario training – this should be mandatory training" (Officer, 2014) Healthcare staff - "Kudos to the staff and simulation training, it has proven itself tonight. Although it was a bad code, all went very well and everyone worked well together" (Healthcare staff, 2014)

communication skills between correctional officers and healthcare staff since the inception of JST in addition to improvements in response and management of emergency codes. The themes identified through the data analysis and written participant narratives align with existing literature, highlighting the significant outcomes associated with simulation training and continuing education for staff working in secure and uncertain environments (Brennan, 2006; Scannell & Barash, 2015).

Following JST, staff participants expressed a deeper understanding and appreciation of the various skillsets and levels of expertise that impact effective communication and supportive team behaviours. These collaborative behaviours are pivotal to achieving multiple objectives simultaneously during emergency response (Hicks & Denny, 2008; O'Carroll et al., 2016). Since the inception of JST, team debriefs following real-event critical incidents have increased, promoting validation and support amongst colleagues and ultimately fostering a positive culture of interprofessional collaboration.

Discussion

Historically, the various roles in corrections were created before the development of supporting education, with current research advocating the need for specific education at advanced levels in this speciality area (Kent-Wilkinson, 2011). The need for skill development and emerging evidence suggests collaborative practice improves interprofessional culture, decreases errors and improves offender patient outcomes, especially in the context of HALO events (Kaba et al., 2018).

The nature of simulation training is inherently low-risk and repeatable, addressing response to HALO events through deliberate practice (Quick, 2018). JST allows staff to develop specialized skills required to perform their roles within the larger team and across various conditions improving the ability to successfully function in high-stress emergency conditions, resulting in better post-incident outcomes (Grierson, 2014; Flannery, 2015; Farrell, 2015). In contrast to siloed approaches to staff education, interprofessional training provides the opportunity to work interdependently, enhance mutual respect and communication of needs to achieve a shared practice (Mulholland et al., 2019).

Consistent with the Relational Coordination Framework and analysis of the emergent themes from participant evaluations, JST enables staff to develop a common language that is timely, accurate, with a problem-solving focus and paramount to effective team behaviours. This interprofessional simulation program enhances team culture through *shared knowledge* of priorities during each emergency code, *shared goals* in response and provision of care, and *mutual respect* deemphasizing power imbalances and territorial boundaries between professions, lending to task integration and shared goals (Appelbaum et al., 2020).

In corrections, many factors such as high cognitive load, psychological stressors, multiple stimuli, and competing priorities impact emergency code responses (Barry, 2017; Ferdik, 2017). While emergency codes may be unpredictable or unforeseeable, the effectiveness of a team's response is predominately governed by modifiable factors such as communication, role clarity, task completion, and leadership (Couto et al., 2018; Malec et al., 2007). Our findings suggest the establishment of JST has had profound impacts on the relational and collaborative aspects of emergency code response between correctional officers and healthcare staff.

To promote frequent and consistent JST sessions across all correctional centres, the long-term goal

of JST is to establish facilitator capacity at each site through mentorship. Challenging geographies for remote locations can limit access to in-person mentorship. To afford increased access to real-time support at these sites, Virtual Facilitation options have been developed that will allow JST mentors to join a local session on a laptop or mobile device.

Limitations

The inductive approach followed in the analysis of themes (see Table 1) identified in this case study limits the interpretation of the findings, as self-reported participant responses can be subject to recall bias evoking either only very positive or negative experiences. Evaluation of the case study could be improved through a larger sample size with the inclusion of data comparing staff injury rates and offender health outcomes before and after JST implementation, in addition to analysis of overall JST program cost-effectiveness.

Another limitation of this study is the variability of facilitator approaches to the pre-brief, scenarios and debriefs. Some facilitators would provide abbreviated pre-briefs which often would impact participant buy-in during a scenario and limit their involvement in the debrief discussion. Alteration of key aspects during scenario delivery impacts scenario objectives, replicability, and consistent messaging. Debriefing time is often twice as long as the scenario which can be uncomfortable for less experienced facilitators. Limiting the debriefing discussion impacts the learner-centric reflective nature of simulation training for the participants.

To address this variability, a Facilitator Education Program was designed and piloted with correctional officers and healthcare facilitators from five Provincial Correctional Centres. Facilitators need to have a structured approach in scenario pre-briefing, delivery and debriefing, allowing them to optimize learning outcomes (Cheng et al. 2015). This course allowed facilitators to create a shared mental model regarding JST delivery and develop co-facilitation skills.

JST faced initial hesitation from leadership groups and some frontline staff at the time of implementation. Consistent with the literature, hesitation was due to the perceived complexity of a new and innovative program combining two separate disciplines in a simulation training environment, logistical coordination, and scepticism of value (O'Caroll et al., 2016). The centres that appreciated high levels of participation utilized an implementation strategy of top-down and bottom-up approach inclusive of support by leadership, initial uptake by site trainers, staff support to attend training, and participant recruitment. Through staff feedback and observed positive shifts in the culture at participating centres, program support increased.

Conclusion

The JST program helps empower the correctional workforce by preparing frontline teams to respond to and manage emergency events within correctional facilities. Historically staff were expected to respond together but did not train together. Through use of live scenarios, JST recreates high-acuity low-occurrence events providing frontline correctional officers and healthcare staff the opportunity to collaborate and practice together in emergency response.

By incorporating a high degree of realism and intentional debriefing discussions, staff have the opportunity to develop specialized skills required to perform their roles within the larger team and

across various conditions, improving the ability of the team to successfully function in high-stress emergency conditions. Our findings demonstrating improved staff confidence, shared knowledge and goals, and positive influence on team culture suggests JST has profound impacts on the relational and collaborative aspects of emergency code response in correctional environments.

As far as we are aware, JST remains the only joint experiential educational training program between correctional officers and healthcare staff globally. The JST program is scalable to the specific needs of any correctional facility nationally and internationally and highlights the value of interprofessional education to improve emergency response outcomes.

Competing Interests

KS, MD, MJ, AK are faculty for Healthcare Systems Simulation International, which provides consulting and all levels of courses on systems-focused simulation and debriefing for quality and safety staff, simulation enthusiasts, and others in healthcare. The authors declare that they have no competing interests.

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Authors Contribution

KS, DK, SR, MD, MJ and AK were involved in the conceptualization, writing and editing manuscript. All authors read and approved the final manuscript.

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