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Organizational Assessment to Implement Trauma-Informed Care for First Responders, Child Welfare Providers, and Healthcare Professionals

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Traumatic events can have a detrimental impact on individuals' health and well-being. Ensuring trauma-informed care (TIC) in key community sectors is an important step in addressing trauma. We conducted an organizational assessment to identify the strengths and needs of organizations in implementing TIC in three sectors located in a Midwestern mid-size city: first responder organizations, health care institutions, and a child welfare agency. Using an explanatory sequential mixed-methods design, middle-level managers (n = 118) from the three sectors participated in online surveys and follow-up focus groups (n = 25). We assessed participants' self-reported experiences across the following organizational domains: staff training (knowledge and skills), leadership commitment, organizational policies, and staff supervision. Sectors differed in their organizational strengths and needs related to the TIC. The first responder organizations reported well-established policies and de-briefing programs, with a greater need for trauma-informed training and practical support. Healthcare institutions reported high levels of training in patient screening and referrals, but expressed less effective communication within the organization and unstructured resources for TIC services. The child welfare sector showed the highest level of understanding about TIC through their strong internal training programs, but challenges exist in applying the training to daily practice and dealing with vicarious trauma for staff. We discuss the implications of these findings and suggest sector-specific organizational strategies.

Public Significance Statement
This article identifies organizational strengths and needs in relation to providing trauma-informed services in the three key service sectors of the community: first responder, healthcare, and child welfare services. Our findings will help readers acknowledge and develop sector-specific strategies to transform organizations to be trauma informed.

Keywords: organizational assessment, trauma-informed care, mixed-methods design, multi-sector comparison

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Trauma is a highly prevalent and widespread public health concern. The Substance Abuse and Mental Health Services Administration (SAMHSA) stated that individual trauma can occur from "an event, series of events, or set of circumstances, that is physically or emotionally harmful or life-threatening to an individual and that has lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being" (SAMHSA, 2014). A landmark study of adverse childhood experiences (ACE) based on 13,494 adults who completed a standard medical evaluation at a large Health Maintenance Organization in the U.S. discovered that more than 50% of adults participating in the study reported at least one traumatic experience in their childhood, and almost 25% reported two or more (Felitti et al., 1998). Another national study reported that almost 90% of 2,935 respondents had at least one potentially traumatic event in their lifetime (Kilpatrick et al., 2013). A more recent study using the largest and most representative sample of 214,157 adults from 23 U.S. states found that 62% of adults had at least one ACE, and about 25% reported three or more ACEs (Merrick et al., 2018). Globally, a survey study with a sample of 68,894 adults in 24 countries across six continents revealed that over 70% of the respondents reported a traumatic event and 31% were exposed to four or more events (Benjet et al., 2016). Traumatic experiences may have a detrimental impact on an individual's emotional, cognitive, behavioral, and psychological functioning. Exposure to potentially traumatizing events may lead to changes in the way the brain responds to stimuli, processes information, and makes decisions (Perry, 2005). In childhood, regular exposure to traumatic experiences may cause the brain to release adrenaline, noradrenaline, and cortisol, which could affect a child's development, functioning, regulation skills, and mental health, resulting in increased learning disabilities and negative educational outcomes (Carrion & Wong, 2012; Koenen et al., 2003; McLaughlin & Hatzenbuehler, 2009). Additionally, studies have shown that childhood trauma is significantly associated with behavioral and health risk factors, as well as chronic diseases (Anda et al., 2008; Ford et al., 2011; Oreskovich & Ballew, 2013; Rothman et al., 2008). For example, frequently elevated cortisol levels in children raise blood pressure and blood sugar, inhibit clear thinking, destabilize mood, reduce high-quality sleep, and stimulate fat accumulation. Individuals with moderate to high ACE scores ($\geq$3) are more likely to smoke, become obese, use illicit drugs, experience depression, contract a sexually transmitted disease, develop alcoholism, develop emphysema or chronic bronchitis, and attempt suicide (Burton, 2018; Harris, 2018). Moreover, there is a strong graded relationship between the number of categories of childhood trauma and multiple risk factors later in life (Felitti et al., 1998; Hughes et al., 2017). People with four or more ACEs are at an increased risk of having multiple health risk factors compared to people with no ACEs, and this relationship becomes stronger as individuals are exposed to more categories of trauma.

Addressing the negative impacts of traumatic experiences requires a system-level approach. Child-serving institutions (schools, welfare agencies, pediatric offices), first responder organizations (law enforcement agencies, firefighters, emergency medical technicians), and healthcare institutions regularly encounter individuals exposed to trauma; therefore, they are well positioned to be able to identify signs of trauma and act to mitigate the situation (Ko et al., 2008). Such programs, organizations, or systems should be "trauma-informed," that is, staff in the program need to *realize* the impact of trauma and understand the potential path to recovery, *recognize* the signs and symptoms of trauma, *respond* by fully integrating knowledge about trauma into policies and practices, and actively *resist* retraumatization (SAMHSA, 2014).

SAMHSA provides six key principles to guide a trauma-informed approach: (a) safety, (b) trustworthiness and transparency, (c) peer support, (d) collaboration and mutuality, (e) empowerment, voice, and choices, and (f) cultural, historical, and gender issues. Safety means that service organizations promote a sense of safety throughout their physical settings or interpersonal interactions with staff and clients. Trustworthiness and transparency reflect that the processes of organizational operations and decision-making are transparent and trustful to the people involved. Peer support promotes mutual support from those who experience trauma or their family members to build hope and trust, and to help recovery and healing. Collaboration and mutuality recognize the importance of sharing power and decision-making within an organization, emphasizing that everyone plays a role in a trauma-informed approach. Empowerment, voice, and choices highlight the power of individual strengths and experiences in the process of healing and recovery, and foster empowerment for staff and clients. Cultural, historical, and gender issues need to be addressed to avoid past cultural stereotypes and biases, and incorporate policies and protocols that are responsive to these issues. For example, an undocumented African immigrant from a low-income household may be discriminated against on the basis of race, ethnicity, social status, gender, and nationality. Along with having mental health implications, studies suggest that constant discrimination due to marginalized identities is a significant predictor of posttraumatic stress (Seng et al., 2012).

Based on these guiding principles, Fallot and Harris (2009) suggested that organizations or programs need to consider the following six domains to create a culture of trauma-informed care: (a) program procedures and setting; (b) formal services policies; (c) trauma-screening, assessment, and planning; (d) administrative support for trauma-informed services; (e) staff training and education; and (f) human resources practices. Hummer et al. (2010) further developed the concept of Fallot and Harris's model by developing an organizational self-assessment tool focusing on three areas: Leadership commitment and support, TIC practices at organizational or program levels, and client engagement. More recently, based on a comprehensive review of existing definitions and frameworks, Hanson and Lang (2016) identified the three "core components" of a trauma-informed approach: (a) workforce development (training, awareness, and secondary traumatic stress); (b) trauma-focused services (use of standardized screening measures and evidence-based practices), and (c) organizational environment and practices (collaborations, service coordination, safe physical environment, written policies, defined leadership). Taken together, assessing these components is critical to understand the extent to which an organization is trauma informed, to identify the strengths and needs of each organization, and to develop appropriate implementation strategies for improvement.

Despite the critical need to assess the organizational aspects of TIC implementation, the current literature does not provide a well-supported and comprehensive framework for these efforts. The definitions and operationalizations of TIC practices are inconsistent across studies. According to a recent systematic review by Champine et al. (2019), of 38 measures for assessing organizational level TIC implementation, 26 (42%) focused on workforce development only.

Even within the same component (e.g., workforce development), studies have shown different measures, such as demonstrated knowledge and understanding of trauma and TIC (Alisic et al., 2016; Conners-Burrow et al., 2013; Marvin & Volino Robinson, 2018), perceived self-efficacy (Baker et al., 2016; Sullivan et al., 2016), personal attitudes and beliefs about the TIC approach (Baker et al., 2016; Brown et al., 2012), and skills development and training opportunities (Bassuk et al., 2017; Fallot & Harris, 2009). Half of these measures ($n = 19$, 50%) assessed more than one component of a trauma-informed approach, and only four measures (10%) assessed all three components. For example, the Creating Culture of Trauma-Informed Care Self-Assessment Scale and Fidelity Scale (Fallot & Harris, 2009, 2014) included items that cover all three components (workforce development, trauma-focused services, and organizational environment and practices).

This is compounded by the limited data on the psychometric properties of the TIC measures. In Champine et al.'s (2019) review, these data were not available for half of the studies reviewed. Of those that reported, Cronbach's α coefficients and factor analysis were the most frequently used index for internal consistency. For example, the Attitudes Related to Trauma-Informed Care (ARTIC) Scale (Baker et al., 2016) assesses staff attitudes related to organizational TIC implementation based on the seven key elements targeting workforce development (i.e., underlying causes of and responses to problem behavior and symptoms, on-the-job behavior, self-efficacy at work, and reactions to the work) and organizational environment and practice (i.e., personal and system-wide support for TIC). ARTIC has a highly validated and reliable set of measures (ARTIC45-, 35-, and 10-item versions) that can be flexibly used for clients' needs. TICOMETER (Bassuk et al., 2017) also shows strong psychometric properties based on Cronbach's α values in conjunction with factor analysis.

Moreover, the existing literature does not emphasize cross-sector comparisons for TIC assessments. Most studies focus on a single sector, typically representing child welfare or health/mental health settings (Champine et al., 2019). Although a few studies have assessed TICs in multiple settings (Baker et al., 2016; Bassuk et al., 2017; Hummer et al., 2010), these studies often fail to acknowledge different approaches in designing and executing TIC implementation strategies specific to the needs of each sector. For example, the first responder sector (e.g., law enforcement or firefighters) and the child welfare services sector may have different organizational structures, training procedures, reporting channels, or cultures, which may provide different ideas or priorities on how organizations could be trauma informed.

In this study, we conducted an organizational assessment to identify the strengths and needs of each organization that provide trauma-informed services in three different sectors of the community: first responder, health care, and child/family welfare services. Our study provides insights into sector-specific strategies that may improve the effective implementation and sustainability of TIC within these sectors.

Methods for Organizational Assessment

Study Context

We conducted this study in the context of a community-wide TIC initiative in a metropolitan city located in the Midwestern state. The focus of the initiative is that "each person or organization that might come into contact with a victim of trauma would not only understand but recognize that trauma and respond appropriately" with the goal of training up to 22,000 individuals, which is 5% of the community population. Led by a nonprofit organization, this initiative is a collaborative effort among organizations in the community intended to create a safe, supportive, and engaging environment.

Study Population

The study team approached the city's Champions Committee for Trauma-Informed Care (CCTIC), the leading coalition of the community-wide TIC initiative. The CCTIC consists of representatives from diverse sectors of the community, including first responder organizations, healthcare institutions, child and family service agencies, nonprofit foundations, behavioral health institutions, public health departments, school districts, and higher educational institutions. The study team attended regular meetings, explained the study goals, and asked organizations from key sectors to participate. Of the 21 community organizations that participated in CCTIC, five organizations representing three sectors of the community showed interest in participating in this study: a police and a fire department (first responders), two healthcare systems (healthcare), and an agency for child and family welfare (child welfare services). An education sector (school district) also showed interest initially, but had to be omitted due to school leadership changes and extensive administrative delays in the research approval process.

We worked closely with representatives (CCTIC members) from each of the five organizations to (a) identify and recruit study participants, (b) modify survey items to reflect organization-specific practices and services, and (c) distribute the survey. We focused our recruitment on middle-level managers or training coordinators because of the unique roles and opportunities of middle management positions in organizational culture change (Floyd & Wooldridge, 1994). These employees have sufficient experience in frontline work and, at the same time, are familiar with upper-level organizational policies and practices. Upon consultation with each organization's contact person, we identified 327 middle-level managers/training coordinators across five organizations, including 31 police lieutenants, 30 battalion chiefs in the fire department, 44 middle-level supervisors and case managers at a child/family welfare agency, 30 service line directors, and about five immediate supervisors for each director in a multi-hospital chain, and 72 health care providers and staff in the emergency department and trauma unit in an academic health center. The response rate is shown in Table 1.

Study Design

We conducted an organizational assessment using an explanatory sequential mixed-methods design (Creswell, 2014). We administered self-report questionnaires to 327 individuals across five organizations, and then conducted follow-up focus groups or interviews with 25 of these individuals.

Data Collection Procedures

A representative from each organization sent an invitation email to all potential study participants within their organizations. The

Table 1
Sample Characteristics

Items	First responder sector		Health care sector		Child welfare services sector
	Fire department	Police department	Health system 1	Health system 2	Family welfare agency
Total sample	30	31	150	72	44
Survey returned	30	20	40	30	21
Response rate	100%	64.5%	37.5%	41.7%	47.7%
Analytic sample	30	20	21	26	21
Focus group participants	2	5	5	10	3
Job title	Battalion chiefs or captains	Police lieutenants (administrative, customer service, uniform patrol)	Directors and supervisors for each service unit	Health care providers and staff at an emergency department	Family permanency supervisors and training supervisors
Main responsibilities	Supervise personnel in their unit, emergency incidents, safety plans, operations, education, etc.	Supervise police officers or sergeants in their unit, administrative duties, training, etc.	Supervise personnel in their unit, managerial and operational decision making	Patient care, education, coordination, staff supervision	Supervise family permanency team members, supervise and manage case management staff, training new workers
Number of years worked *M* (*SD*)	20.5 (4.2)	22.9 (3.8)	15.8 (10.6)	10.8 (8.2)	4.1 (1.90)

Note. In health care sector, we removed observations with more than 20% of items missing, resulting in the final analytic sample size (n = 47); Sample size for number of years worked varies due to missing values.

initial email invitation contained a web survey link with an attached cover letter explaining the research objectives, procedures, confidentiality, and contact information of the principal investigator. Reminder emails were sent 2 and 4 weeks after the initial emails. We administered a survey from July 2017 to January 2018. Each survey took approximately 20 min to complete. To recruit focus group participants, we included a question in the survey asking whether the respondents were interested in participating in the subsequent focus group interview. We asked them to leave their email addresses if they wanted to be contacted. Twenty-five respondents showed interest and left email addresses. We invited them to focus groups or individual interviews, depending on their availability. We conducted five focus groups (three to six people each) and five individual interviews to ask participants' opinions about the survey findings and additional thoughts around the five domains of the survey. Each focus group was approximately 45 min long. Two authors developed a semi-structured interview guide by adapting the facilitation techniques used in community engagement initiatives and used this guide to discuss survey results with participants from each organization. To facilitate our discussion, we shared aggregated survey results for each organization (Supplemental Table 1) with focus group participants. The University of Nebraska Medical Center Institutional Review Board (#251-17-EX) approved all study procedures.

Survey Instruments

We combined the existing survey instruments of the Trauma-Informed Organizational Self-Assessment (Hummer et al., 2010; Fallot & Harris, 2009; Orchard Place/Child Guidance Center, 2018). We chose these instruments because they are comprehensive enough to cover the core components of organizational level TIC implementation as identified by Hanson and Lang (2016) and were relevant for application to multiple settings. The final instruments included 34 items spread across five domains: staff development: knowledge-based training (10 items), staff development: skill-based training (six items), leadership commitment (four items), organizational policies (ten items), and staff supervision and support (four items). Please see Supplemental Table 2 for the detailed information. All items used a 4-point Likert scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Once we finalized the instrument, we modified the survey items to reflect each participating organization's context. For example, when referring to service recipients, child welfare agencies use the term "clients," while first responder organizations use "citizens" or "contacts," and healthcare institutions use the term "patients." We also asked participants' background information, such as department, job title, main roles, work years, involvement in TIC training/coordination, and willingness to participate in the follow-up focus group.

Analysis

Simple descriptive statistics were used to analyze the survey responses. Item response scales were combined to produce a binary variable (agree vs. disagree). The average proportion across items was calculated to produce a single proportion for each domain. These were reported along with their standard deviations. The focus group data were transcribed by a third-party contractor. Using a narrative analysis approach, the transcripts were coded into

predetermined categories defined by the five domains (staff development: knowledge-based training, staff development: skill-based training, leadership, organizational policy, and supervision). We used predetermined categories to align the qualitative results with the survey results. Three independent coders completed the coding with an intercoder reliability rating of $\kappa = 0.80$.

Findings

Sample Characteristics

As illustrated in Table 1, 141 of the 327 individuals returned the survey (43.1% response rate). After removing responses with more than 25% of items missing, the final sample included 118 employees working in three different sectors in the community: first responders ($n = 50$), healthcare institutions ($n = 47$), and child welfare agencies ($n = 21$). Twenty-five respondents participated in the following focus group/interview sessions: The study participants were mostly middle-level managers, except for one organization, where participants were healthcare providers and staff at all levels from an emergency department and trauma unit at a large integrative academic center. Participants' primary responsibilities include supervising their units, dealing with emergencies, making, or implementing operational decisions, or training personnel. The mean number of work years of participants varied by organization from about 4 years at child welfare services agency to 23 years at the police department.

Staff Development: Knowledge-Based Training

As shown in Table 2, less than half of the participants in the first responder sector (38.4%) agreed that staff in their organization received knowledge-based TIC training, including topics such as basic concepts of trauma and trauma-informed approach, underlying causes of trauma, local resources, and vicarious trauma, among others. The healthcare sector (56.8%) and child welfare service sector (79.0%) showed a medium-to-high level of agreement for this domain.

Focus group interviews revealed several themes in this domain. Regarding the survey results of low-to-medium level of knowledge-based training, the first responder and healthcare sectors agreed that they needed additional TIC-specific training even though they had already received some forms of TIC training yearly. Healthcare participants pointed out that high staff turnover rates and other training demands in their sector make it challenging for them to participate in TIC training. Child welfare service participants explained that, despite the high levels of TIC education in their organization, challenges still exist in applying the knowledge in the field.

Focus group participants in the first responders and healthcare sectors also expressed a lack of practical resources or tools (e.g., structured websites, pamphlets, or handouts) available for citizens/clients/patients to refer to appropriate TIC treatments or services. Culture and stigma were the main themes of the focus group. Some participants said that, under the current organizational culture, asking help for vicarious trauma can be seen as "not able to handle the job." A first responder participant explained that due to the nature of their job (fast-moving from incident to incident), staff members do not have enough time to destress between emergency/duty calls. The child welfare services sector participants said that they currently provide training in self-care for supervisors, but no organization-wide effort was mentioned.

Staff Development: Skills-Based Training

This domain covers whether the participants received training and education regarding practical skills to provide TIC, such as how to screen or assess individuals with trauma experiences, facilitating referrals to trauma-specific agencies, helping clients to handle their feelings, and more. Overall, participants reported lower agreement scores in skill-based training than in knowledge-based training (25.7% for the first responder sector, 53.9% for the health care sector, and 63.5% for the child welfare services sector).

Focus groups included discussions on training issues around referrals and calming strategies. The first responder participants mentioned that the chain of commands from different hierarchies (e.g., sergeants, lieutenants, or district officers) need to be involved in the referral process because they may have diverse information to connect community members to appropriate resources. The healthcare sector participants said that for cases of sexual assault or domestic violence, referral chains were well established within their organization. Regarding training on calming strategies, participants from the first responder sector expressed that they needed more training on how to calm or de-escalate individuals before they become too emotional or not-in-control. Healthcare participants mentioned that de-escalation or crisis intervention training is offered in their organization, but the training is not mandatory, and thus is not currently widespread within the organization.

Leadership Commitment and Support

This domain includes organizational leadership's commitment and support for implementing trauma-informed care, such as commitment to leadership, addressing cultural and policy barriers that may impede implementation, allocating resources, and providing incentives for TIC initiatives. The scores for leadership commitment and support were lower in the first responder sector (33.0%) than in the healthcare and child welfare services sectors (53.9% and 63.5%, respectively). Interestingly, all three sectors reported exceptionally low agreement (18.0%—24.0%) regarding the incentive systems to support staff initiative related to TIC. Focus group participants explained that they thought their leaders were committed to TIC implementation, but challenges existed in obtaining practical support, such as allocation of budget or protecting staff time.

Organizational Policies

The organizational policies domain focuses on whether the organization has formalized TIC initiatives, debriefing of incidents that threaten staff or clients, regular reviews of policies, and involve staff and clients in developing policies. All three sectors showed moderate agreement rates (44.7%—53.2%) for this domain. During the follow-up focus group, participants from the first responder sector mentioned that they had both formal and informal policies and programs related to TIC: Formal debriefing meetings and support programs for large-scale incidents, and peer support programs for small incidents. Healthcare participants said that they had an employee assistance program (EAP) and a crisis response team,

Table 2
Integrated Results Matrix for Organizational Assessment for Trauma-Informed Care

Quantitative results (%)				Qualitative results		
Domain	FR	HC	CW	FR	HC	CW
Staff development knowledge-based training				• Annual in-service training exists, but more training is needed in TIC • Need for training and *tools to refer* citizens to appropriate resources (e.g., list of local resources) • *A culture* where needing help could be seen as not able to handle the job	• Basic training exists, but could be increased; Challenges of keeping all staff trained due to high *turnover* and other *training demands* • Lack of structured resources of referral • *A culture* where needing help seen as "not able to handle the job"	• Despite a high level of education, challenges still exist in *applying knowledge* to day-to-day practices • Training in self-care is provided for supervisors, but no *program* exists for all-staff
Agree	38.4	56.0	79.0			
Disagree	55.2	43.2	18.6			
NA/DK	6.4	0	4.8			
Staff development skill-based training				• Need to involving *chain-of- commands* to connect community members to appropriate resources • *Need of training* for calming or de-escalating techniques	• Some *referral chains* are set up (e.g., sexual assault or domestic violence) • De-escalation or crisis intervention *training is offered* as a *voluntary basis*	• Despite a high level of education, challenges still exist in *applying knowledge* to day-to-day practices
Agree	25.7	53.9	63.5			
Disagree	65.3	40.8	27.8			
NA/DK	9.0	5.3	8.7			
Leadership commitment and support				• Leadership was committed to implementing trauma-informed care, but there are challenges in getting practical support (e.g., budget and staff time)	• Highly committed leadership, but insufficient practical support for TIC initiatives	• Highly committed leadership, but insufficient incentive system specifically for TIC initiatives
Agree	33.0	41.0	58.0			
Disagree	54.0	43.1	33.3			
NA/DK	13.0	16.1	8.3			
Organization policies and procedures				• *Formal debriefing programs* are in place for larger or serious incidents • *Peer support program* is used on a case-by-case basis • Emphasize *"buy-in" of staff and the public* to implementing changes in policies and practices	• Mentioned Employee Assistance Program (EAP) and crisis response teams, but there isn't much *communication* about the programs, so it is under-utilized	• Policies supporting trauma-informed care are in place, but *communication* as a concern
Agree	46.5	44.7	53.2			
Disagree	32.9	19.1	24.0			
NA/DK	11.5	21.6	17.1			
Staff supervision				• Due to quick shifts and nature of the field work, regular meetings tend to focus on more day-to-day business rather than addressing topics related to trauma-informed care or self-care	• Opportunities for staff to seek assistance occur on an *ad-hoc basis* • Acknowledged the importance of any assistance by someone who understands the culture of their work environment	• Staff supervision is mostly *ad-hoc basis*, rather than regularly scheduled • Supervisors are trained for self-care to be able to use in their team meetings
Agree	31.5	48.4	73.8			
Disagree	56.5	37.2	25.0			
NA/DK	12	14.3	4.7			

Note. FR = first responder sector; HC = healthcare sector; CW = child welfare sector; NA = not applicable; DK = do not know.

but few employees knew about or used these programs. The child welfare service sector respondents mentioned that organizational policies and strategies were in place, but are not effectively communicated among staff. The communication issue emerged consistently from the focus group across all sectors. One participant from the first responder sector emphasized the importance of "buy-in" of staff and the public to implement changes in policies.

Staff Supervision

The staff supervision and support domain asked whether the organization has systematic opportunities for staff to seek support, regularly scheduled time with a supervisor trained in understanding trauma, and regular structured discussion (e.g., team meetings) of self-care and TIC. Only 31.5% of the first responder participants agreed to this domain. In the focus group, the first responder participants explained that regular meetings tended to focus more on day-to-day business rather than addressing topics related to TIC or self-care. Participants from the healthcare and child welfare services sectors showed moderate to high levels of agreement (48.4% and 73.8%, respectively). Focus group participants from these sectors explained that staff sought support from their peers or supervisors mostly on an ad hoc basis, rather than regularly scheduled. Similar comments were found among first responders, who spent most of their time in the field or in their vehicles. One participant from the healthcare sector commented that any support or assistance for employees had to be from someone who understood the culture of their work environment. The child welfare sector also said that their staff could seek help on an ad hoc basis, rather than through regularly scheduled sessions. They said that their agency provided self-care training for supervisors, so that supervisors could use the skills in their team meetings.

Implications and Practical Application

Trauma is a public health issue because of the complex interactions of factors at the individual, relational, community, and societal levels that influence trauma likelihood and prevention. Our mixed-methods approach provides insights into how staff in the first responder, healthcare, and child welfare sectors perceive their current organizations' staff development, leadership, policies, and supervision in providing trauma-informed services. Our results suggest that training and organizational strategies should be tailored by sector.

Our study highlights the need for basic TIC training (focusing on basic concepts and the impact of trauma) in the first responder sector. Despite their critical roles in addressing the trauma of the survivors or witnesses, our findings are in agreement with previous studies that suggest first responders receive minimal training in traumatic stress or TIC (Ko et al., 2008; Rich, 2019). Training in understanding the multifaceted (physiological, emotional, cognitive, and interpersonal) impact of trauma on humans would be beneficial for first responders to better identify potential trauma victims, their trigger points, and proactively respond to avoid re-traumatizing (e.g., use of calming or de-escalation, or referring to trauma-specific services). Previous research suggests that rather than formal lectures, TIC training should utilize alternative approaches, such as asking questions, role-playing, or breaking into small discussion groups (SAMHSA, 2017).

In addition to training, focus group participants mentioned that they would like to have brochures or handouts listing local resources for TIC-specific services when they refer citizens to appropriate resources. As part of Trauma-Informed Policing, law enforcement officers in some areas now have access to "fourfold wallet-sized cards" to remind them to be sensitive when arresting adults and parents in the presence of children (Young, 2017). Providing these practical tools may be a suitable strategy for first responders to promote trauma-informed services.

In the healthcare sector, we found that healthcare institutions provide training to assist providers with screening and referral for patients experiencing domestic or sexual violence, but place less emphasis on other exposure to trauma. In addition, hospitals often did not incorporate trauma-informed models of care delivery into their own processes. Hospital-based strategies to improve TIC should include administrative and organizational practices that incorporate TIC into patient care processes, build interdisciplinary health/social service teams to provide optimized care, and train providers to communicate with patients to understand personal history and reactions and to assess and screen multiple types of traumatic experiences (Raja et al., 2015). Study participants from the healthcare sector expressed that high turnover and demands for other training requirements are challenges for keeping their staff trained for TIC. With this in mind, continuing medical education credit can be a strategy for improving participation (Green et al., 2015).

We found that the child welfare service sectors reported high levels of TIC staff training focused on trauma knowledge and skills. Focus group participants revealed that they have strong internal training programs, but challenges still exist in applying knowledge to daily practices. Future training for early career staff may consider having more experiential learning activities with hands-on training in their curriculum. Participants from the child welfare services sector also reported that although they have a high level of leadership commitment to provide TIC, there was a lack of incentives (e.g., protecting staff time or resources) for staff to support TIC initiatives. Organizational leaders may consider developing incentives that are feasible and attractive to staff in support of implementing trauma-informed approaches.

Across all sectors, participants were highly interested in learning how to deal with the vicarious trauma experienced by staff. Vicarious trauma can be defined as a reaction to exposure to a client's traumatic experiences or the impact of indirect exposure to traumatic events (Canfield, 2005; McCann & Pearlman, 1990). Our study found a critical need for training in this area, particularly for first responders. Research shows that first responder professionals are more likely to develop behavioral health conditions compared to the general population, due to frequent exposure to second-hand traumatic stress (Sattler et al., 2014). A combined model of training on practicing proactive coping strategies, self-care, mindfulness, or emotional intelligence, coupled with organizational support (e.g., critical incidence debriefing), shows promise for reducing traumatic stress and mental health illnesses among first responders (Kearney et al., 2013; Kleim & Westphal, 2011; Sattler et al., 2014). Organizations have enormous power to either mitigate or exacerbate responses to trauma exposure among employees, which highlights the need for greater awareness at the organizational level (Sansbury et al., 2015).

Despite their higher rates of reports on self-care training (70% and 76%), focus group participants from healthcare and child welfare service sectors still spend a considerable amount of time discussing

the needs of changing organizational culture, where "seeking help" can be perceived as "weaknesses" or "not handling the job well" in their organizations. Although critical incidence team or peer support programs are available in these sectors, changing organizational culture and being open to ask about how to deal with vicarious trauma in between their busy daily schedules may be the first step in becoming a trauma-informed organization. Addressing vicarious trauma requires a shift in organizational culture, including leadership, administrative, supervisory, and frontline levels. Organizations may also consider implementing evidence-based stress management interventions or self-care models for their staff members (Cieslak et al., 2016; Mimura & Griffiths, 2003; Salloum et al., 2015; Xu et al., 2016).

Finally, our study findings suggest that there may be differences in organizational structure and context across sectors, which could affect the planning, implementation, and evaluation of TIC initiatives. For example, organizations that emphasize a hierarchical chain of commands (e.g., first responder sectors) may consider "top-down, planned" change implementation strategies with strong leadership commitment. Flat and smaller organizations (e.g., child-serving agencies) may consider "less-formalized, bottom-up" change initiatives rather than "top-down, planned" changes (e.g., small TIC projects in each unit/department initiated by frontline service staff). Organizations characterized by highly specialized and interdisciplinary work, such as health care institutions, may consider involving opinion leaders (e.g., lead physicians or nurses) to have staff at all levels to be engaged in TIC initiatives. In addition, using diverse communication channels, such as regular meetings, lunch seminars, intranet messages, or posters and brochures, may help facilitate organization-wide communication.

Our study has several implications for practitioners. Service providers may use TIC training opportunities to learn to recognize and properly respond to address the potential impact of the traumatic experiences of individuals they serve. Our study also suggests that supervisors' role in guiding and supporting field-level practitioners is crucial by having opportunities to talk about TIC topics in their regular work routines and addressing vicarious trauma when needed. Practitioners are key agents in culture changes. Having open, non-judgmental dialogs with their peers or supervisors regarding organizational processes of TIC implementation and addressing secondary as well as their own traumatic experiences will be the key ingredients for successful TIC implementation (Menschner & Maul, 2016).

Limitations

This study had some limitations. Our study sample focused on middle managers due to their unique experiences and position with the organizational hierarchy; however, their perspectives may not be representative of all employees within the whole organization. Although we included sample characteristics such as job titles, main responsibilities, and work years, we did not collect participants' demographic information, such as gender and race/ethnicity, which may also affect the representativeness of our sample. Future studies may consider adding these essential demographic information of participants or client characteristics that the study participants serve. Our study found varying survey response rates across sectors: 82% for the first responder sector, 38% for the healthcare sector, and 48% for the child welfare sector. Sectors with lower response rates may be less well represented by our findings. Other studies have found that the healthcare sector generally reports a low response rate for online surveys (Cho et al., 2013). Future studies may consider further analysis for non-response bias or more strategies, such as multiple reminders or incentives, to improve survey response rates in the healthcare sector. Our study emphasized the need for TIC training and organizational readiness, as identified by employees. The perspective of clients served by organizations may provide additional important information for creating an effective trauma-informed community. Future planners and implementers may consider including staff from all levels of organizations as well as clients to gain multiple perspectives. Including additional sectors with high levels of encounters with individuals exposed to traumatic stresses, such as juvenile justice or education, may offer further insights into organizational needs for a comprehensive trauma-informed community. Another limitation of the present study is that the survey instruments were adapted from previous studies; however, the psychometric properties of these instruments were not validated. Future studies using tools with strong psychometric properties, such as ARTIC or TICOMETER, may strengthen the study results.

Conclusion

Trauma is a highly prevalent and widespread public health concern. Addressing the negative impacts of trauma requires a multi-sector and system-level approach. Child-serving institutions, first responder organizations, and healthcare institutions are among the best positioned to be able to identify and respond to individuals experiencing trauma. Findings from the study highlighted the different strengths and needs of these organizations in the areas of staff training, leadership support, organizational policy, and staff supervision in implementing TIC. Sector-specific training plans and organizational strategies, such as providing practical resources or incentives, engaging chain of commands or opinion leaders in TIC planning and implementation, improving training experiences using more interactive and experiential training curricula, or developing effective communication plans and channels, may facilitate trauma-informed approaches in these organizations.

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