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Trauma-Informed Care: Implementation Efforts in Northeast Tennessee

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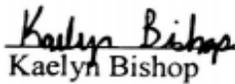
Trauma-Informed Care: Implementation Efforts in Northeast Tennessee

A thesis

presented in partial fulfillment

of the requirement for the Department of Psychology

University Honors Scholar Program


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Abstract

Trauma has been found to be highly prevalent and associated with many negative health and social outcomes (i.e., heart disease, higher suicide risk, high-risk behaviors) in the general population. Despite these associations, trauma detection is relatively rare in service-providing organizations. Trauma-informed care (TIC) is a proposed solution that encourages trauma detection, understanding the symptoms associated with trauma, and treating trauma while actively avoiding re-traumatization to the service user. Although research about TIC efficacy has been fairly limited, there are some promising potential benefits of the practice to the client, provider, and the population as a whole. For this study, we looked at service providers' reported familiarity with TIC and implementation of TIC in their organization across seven timepoints. We found familiarity increased more than implementation, and we discuss potential reasons that may cause this discrepancy.

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Trauma-Informed Care: Implementation Efforts in Northeast Tennessee

Trauma, due to its prevalence and the negative outcomes with which it is associated, needs to be addressed. Trauma-informed (TIC) care is a suggested solution to the current issues of under-detection and limited acknowledgement of trauma when organizations are interacting with recipients of care. The purpose of this study is to identify service providers' knowledge of TIC as well as the implementation in differing types of organizations such as mental and physical health services, school systems, and justice systems. Understanding the current state of these organizations will allow TIC trainers to know which organizations to target for implementation.

Trauma

Trauma, often not recognized by service providers, is a part of many people's lives affecting how the individual functions and their well-being. Trauma is defined by the Substance Abuse and Mental Health Services Administration (SAMHSA; July 2014) as, "an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life-threatening and that has lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being" (page 7). Classen and Clark (2017) expand on this definition by providing examples of experiences that may cause individual stress and qualify as trauma, such as a natural disaster, childhood neglect, sexual abuse, or vehicular accident. They also explain that anyone can experience a traumatic event at any point in their lives, and this trauma can be a one-time event or ongoing. Trauma can affect multiple aspects of an individual's life such as the aforementioned effects referenced by SAMHSA, in addition to behavioral functioning (Classen & Clark, 2017).

Adverse Childhood Experiences (ACEs). Trauma that occurs to an individual before the age of 18 is often described as an adverse childhood experience or an ACE. Felitti and

colleagues (1998) conducted one of the first studies that examined the prevalence of adverse childhood experiences within a large sample ($n = 8,056$). Felitti and colleagues examined the relationship between adverse childhood experiences and long-term health outcomes, such as risk and prevalence of disease, quality of life, use of health care, and ultimately, mortality. These researchers found that more than half (52%) of the participants had experienced at least one adverse childhood experience, and 6.2% of participants had experienced four or more.

Prevalence of, and risk for, disease were much higher for participants who reported adverse childhood experiences when compared to those who did not. There was a significant ($p < 0.05$) dose-response relationship between adverse childhood experience exposure and health outcomes such as ischemic heart disease, cancer, chronic bronchitis or emphysema, history of hepatitis or jaundice, skeletal fractures, and poor self-related health. A history of diabetes or strokes did not appear to have a significant relationship with adverse childhood experiences. Many mental health disorders, such as depressive disorder, anxiety disorder, and anger management difficulties, were also found to be significantly related to ACEs. Since the original ACE study, many more studies have been conducted investigating the prevalence and effects of adverse childhood experiences. These results were overall consistent with the original ACEs study, and multiple other associations have been established (i.e., trouble sleeping, low self-esteem, overrepresentation in juvenile detention centers) (Abram et al., 2004; McCauley et al., 1997). Many of these studies will be discussed throughout this manuscript.

Prevalence of trauma. The prevalence of trauma in the general population, particularly the mental health population, is overwhelming. In 1995, the percentage of people who had been exposed to trauma was estimated to be between 50% and 70% (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). The exposure to trauma in the mental health population is also

staggering at estimated rates of 80% to 90% (López-Martínez et al., 2018; Kessler et al., 1995). In one study, by the age of 40, almost every participant had reported experiencing at least one traumatic experience (Widom, Czaja, & Dutton, 2008).

Negative outcomes of trauma exposure. In addition to widespread occurrence, trauma exposure is associated with widespread impacts across life domains. Trauma exposure and its impacts have been researched extensively and empirical evidence consistently supports a relationship between trauma exposure and negative life outcomes, including, but not limited to, physical health, mental health, and social health.

Physical health. There are significant and direct relationships between trauma exposure (including ACEs) and health outcomes (Jakubowski, Cundiff, & Matthews, 2018; López-Martínez et al., 2018; McCauley et al., 1997; Scott et al., 2013). Scott and colleagues (2013) found that one traumatic experience had a dose-response relationship with multiple physical health outcomes such as arthritis, back and neck pain, frequent or severe headaches, heart disease, high blood pressure, diabetes, and peptic ulcers. When an individual experienced five or more traumatic experiences, an even stronger relationship between the trauma exposure and these negative health outcomes (with the exception of blood pressure and diabetes) was found, adding chronic lung diseases and asthma to the list of related health outcomes (Scott et al., 2013). Further, adult cardiometabolic disease has been found to positively correlate with cumulative childhood adversity (e.g., two or more adverse childhood experiences before the age of 18; Jakubowski, Cundiff, & Matthews, 2018). Specific types of trauma, such as child abuse, have also been examined. Childhood abuse alone was found to be related to a variety of physical symptoms including frequent tiredness, issues sleeping, gastrointestinal issues, chest pain, and shortness of breath (McCauley et al., 1997). Given the relationship between trauma exposure and

negative health outcomes, it should be no surprise that survivors of trauma are over-represented in the healthcare system (Classen, 2017). In part this is because mental health disorders related to trauma exposure (i.e., post-traumatic stress disorder; PTSD), have also been consistently associated with negative physical health outcomes (López-Martínez et al., 2018).

Mental health. Trauma history is predictive of mental health. In a large, international study conducted by Kessler (2010), childhood adversities were significantly related to an increased risk of DSM-IV mental disorders across the lifespan. Childhood abuse victims had significantly higher mean scores for anxiety, depression, somatization, and low self-esteem than individuals who had not experienced abuse (McCauley et al., 1997). Childhood abuse victims were also more likely to report a history of substance abuse, specifically alcoholism, relative to individuals who did not report a history of childhood abuse (McCauley et al., 1997).

Additionally, individuals who experienced childhood abuse were nearly four times more likely to report having attempted suicide and more than three times as likely to have been hospitalized for a mental or emotional concern when compared to individuals who did not report childhood abuse experiences (McCauley, 1997). In addition, trauma exposure is the predecessor to posttraumatic stress disorder (PTSD), which is a disorder that can occur after an individual has a traumatic experience and is often characterized by symptoms such as nightmares, emotional numbness, and hypersensitivity (Kessler et al., 1995). Different types of trauma experiences are more likely to result in PTSD, such as rape and combat exposure (Kessler et al., 1995). The prevalence of PTSD is high, with 7.8% of the general population diagnosed with the disorder (Kessler et al., 1995).

Social and behavioral functioning. Social and behavioral outcomes such as increased risk of experiencing more trauma and greater likelihood of participating in high-risk behaviors,

are related to adverse childhood experiences and as one would expect, these are often associated with negative outcomes (Anda, Butchart, Felitti, & Brown, 2010). Children who are abused or neglected report significantly more interpersonal traumatic experiences, such as being physically harmed or being involved in a serious accident later in life than individuals who did not experience childhood abuse or neglect (Widom, Czaja, & Dutton, 2008). Further, in a review by Ko and colleagues (2008), children who experienced repeated trauma were more likely to participate in high-risk behaviors (e.g., unsafe sexual practices and substance use) and demonstrated lower levels of academic success. The relationship between repeated trauma exposure and engagement in high risk behaviors is evident in the overrepresentation of trauma history within the juvenile justice system. According to Abram et al. (2004), in a sample of 898 juveniles in the justice system (ages 10 to 18), 92.5% reported at least one trauma and 84.0% reported more than one trauma experience.

Trauma Detection

Trauma-related outcomes are an obvious public health concern, but consistent trauma detection is lacking. Research suggests that trauma screening is not conducted regularly across agencies (Agar, Read, & Bush, 2002; Ashby, Ehmer, & Scott, 2018; Read, Harper, Tucker, & Kennedy, 2018). A meta-analysis of nine studies showed that only 28% of cases of abuse and neglect detected by researchers was reported in the patient's clinical file (Read et al., 2018).

Trauma history assessment needs will vary by service type, but because of the widespread health outcomes predicted by trauma, service providers and service users would benefit from knowing trauma history. Screening could be beneficial in medical clinics, mental health facilities, schools, and correction facilities to determine which service users have experienced trauma.

Understanding a service user's trauma would allow the service providers to account for those

experiences when providing care to the client, whether that be a police officer being patient and understanding when interacting with a substance abuser or a nurse taking particular care when undressing an elderly patient to take a shower. Due to the benefits of trauma screening, it is important that it is occurring in organizations. Although there are many ways to increase trauma screening, one method that has been demonstrated in the literature to increase trauma detection is a trauma-focused intake form. Intake forms have been shown to be effective at increasing trauma screening in past organizations (Agar et al., 2002; Read et al., 2018).

Trauma-Informed Care

Trauma-informed care (TIC) is one proposed way to help alleviate the negative outcomes associated with trauma and increase trauma detection. SAMHSA (2014) states:

A program, organization, or system that is trauma-informed realizes the widespread impact of trauma and understands potential paths for recovery; recognizes the signs and symptoms of trauma in clients, families, staff, and others involved with the system; responds by fully integrating knowledge about trauma into policies, procedures, and practices; and seeks to actively resist re-traumatization (page 9).

Being trauma-informed involves understanding the effects that trauma can have on an individual's physical and mental health, social and behavioral functioning, and consequently their engagement with the service being utilized (Classen & Clark, 2017). Trauma-informed service providers view trauma as a pertinent piece of information when caring for any patient or client (Classen & Clark, 2017). Trauma-informed organizations also seek to adjust their current practices to a practice that best accommodates the needs of a trauma survivor (Classen & Clark, 2017). SAMHSA (2014) provides six key principles of the trauma-informed approach: safety; trustworthiness and transparency; peer support; collaboration and mutuality; empowerment,

voice, and choice; and cultural, historical, and gender issues (page 10). Safety entails promoting a feeling of security from emotional or physical harm and being able to engage in services in an active and honest manner. Trustworthiness and transparency is defined as believing the provider will be honest about treatment and operations with the client and family. Peer support is being able to interface with other individuals with similar experiences in an effort to encourage one another's recovery. Collaboration and mutuality between the provider and the recipient level the playing field and allow common goals to be set and worked towards together. Empowerment entails the client feeling capable of positive change through focusing on strengths and collaborating with the service. Considering cultural, historical, and gender issues encourages service providers to provide services that do not include stereotypes or biases and includes policies and protocols that are responsive to the individual's needs (SAMHSA, 2014). By using these principles of care, service providers are more equipped to detect and address trauma effectively.

Effectiveness of TIC. Although existing literature is fairly limited, when TIC is implemented at a foundational level within agencies and organizations, positive impacts on provider and client outcomes have been reported (Ashby et al., 2018; Beckett, Holmes, Phipps, Patton, & Molloy, 2017). Ashby and colleagues (2018) found that trauma assessment was not routinely conducted in a patient-centered medical home for adolescent mothers prior to implementation of trauma-informed programs, but after trauma-informed programs were implemented, trauma history was assessed and 29.9% of service users reported trauma exposure. Further, after implementation of TIC programming, clients attended significantly more antenatal visits than prior to implementation. Further, there were significantly fewer low-birthweight

babies born after TIC was implemented than there were prior to implementation (Ashby et al., 2018).

In another setting, the TIC implementation had other positive impacts on the service providers as well as the service users. At an inpatient hospital ward, nurses were overworked and overwhelmed with emotionally and physically demanding patients (Beckett et al., 2017). There was a dependence on sedation medications and seclusion tactics in efforts to manage difficult patients. After trauma-informed training was implemented, seclusion rates decreased by 80%, with incidents being much less severe, and lower dosages of sedatives were utilized. According to Beckett and colleagues, trauma-informed training re-introduced understanding, compassion, and respect for the patients which led to the nurses being more able to discuss and encourage the patients' strengths and resources for rehabilitation.

Benefits of Implementing TIC. There are many benefits that may result from the implementation of TIC. These benefits aid individual clients, service providers, and society as a whole.

Service user benefits. Trauma interacts with an individual's ability to function in society, as well as their health. By implementing TIC, service providers are able to provide more effective care on an individual level, thereby improving service users' health outcomes. Increased knowledge of trauma and the symptoms associated with it by service providers, may increase the quality of care they will give to the service users, increasing likelihood of improvements in physical, mental, and social health outcomes. Further, care that aims to avoid re-traumatization, theoretically should inherently decrease the likelihood of service users experiencing re-traumatization, if implemented appropriately.

Service provider benefits. Trauma-informed service providers may be more equipped to recognize compassion fatigue, allowing them to take the proper steps to protect their well-being and quality of life. TIC has been associated with improved patient outcomes, and because patient outcomes are likely to be better, providers may be less likely to experience burnout. Trauma-informed providers may also be in a better position to provide more effective care, thereby reducing staff demands, which in essence, increases the available workforce.

Societal benefits. With established associations between trauma and negative health outcomes, it should come as no surprise that women who reported a history of maltreatment also reported having higher healthcare costs than women who did not report a history of maltreatment (Walker et al., 1999). More specifically, women who reported sexual maltreatment paid even more annually for healthcare (Walker et al., 1999). While these statistics represent the costs to the individual, when the individuals are looked at collectively, it becomes a societal concern. Walker et al. (1999) estimated that the total cost of maltreatment for the Health Maintenance Organization in their study was around \$8,175,816, based on a maltreatment prevalence rate of 42.8%. These funds could be used for other purposes if trauma were treated more effectively using a trauma-informed approach. The negative trauma-related health and social outcomes experienced at an individual-level extend to a societal level in a number of ways, but most tangibly in terms of finances.

Potential consequences of not implementing TIC. By not implementing TIC, organizations would forfeit the opportunity to provide the most effective care. Individuals would not receive comprehensive care, and as such, the services would be less equipped to address the potential underlying problem of trauma. It is a disservice to service users, providers, and society

as a whole to ignore trauma when the prevalence and consequences associate with trauma are well documented by the literature.

By not implementing TIC, service providers risk not only providing inefficient service, but they also may be unknowingly doing more damage. Individuals who experience trauma as children are more likely to experience a traumatic event at a later date than individuals who never experienced trauma (Widom, Czaja, & Dutton, 2008). Without the knowledge of how to best interact with survivors of trauma, it is likely that the power dynamic alone could be traumatizing to an individual (Classen & Clark, 2017). It is important that service providers protect service users from re-traumatization, which is a core component of TIC.

What organizations would benefit? There are many different organizations, and positions within these organizations, that could benefit from implementing TIC principles. Systems of care that should integrate trauma-informed approaches to their practice include, but are not limited to, the following: child welfare system, education system, health care system, and the justice system (Ko et al., 2008). Examples of specific positions within these systems that might benefit due to the extremely personal nature of their work include the following: teachers, lawyers, doctors, therapists, human resource officers, and administrative staff (Ko et al., 2008). Ultimately, all service providers who are involved in connecting with people could benefit from being trained in TIC.

Current Study

Due to the prevalence of trauma as well as the negative effects that trauma has on an individual, it is important that service providers do everything in their power to alleviate these outcomes associated with trauma. Despite converging evidence consistently supporting a relationship between trauma and health outcomes, there is only a small body of empirical

research that has investigated the efficacy of training service providers to be trauma-informed in providing care to service users. In part this is due to the limited implementation efforts across a broad range of human service providers in the US. Therefore, current gaps in literature point to a need for increased implementation efforts and investigation into the efficacy of those implementation efforts in order to increase awareness of trauma and promote TIC.

For this study, we utilized a longitudinal cohort design. Participants were drawn from individuals who work in some capacity as a service provider. These participants may or may not have attended a TIC training. We assessed their knowledge and usage of TIC in their workplace by asking questions about their understanding of TIC and TIC implementation efforts in their respective organization. The purpose of this study was to determine if familiarity and implementation of TIC was increasing over time concurrently with TIC trainings.

Method

Participants

Participants in this study ($n = 566$) were drawn from human service organizations across Southern Appalachia and others to whom the survey was forwarded, and were diverse in age and organization; however, they were predominately white (83.2%) and female (74%). The participants in the study ranged from 20 to 86 years of age ($M = 47.0$, $SD = 13.36$).

Organizations that the participants represented included the following: mental health facilities, physical health facilities, justice systems, and a variety of others (see Table 1). The original study included students, but for the purpose of this study, students were excluded. The distribution of organizations the participants represented varied across seven time points.

Table 1

Overall Organization Affiliation Demographics

	Percentage
Judge (Juvenile Court)	0.5%
Other Court Employee	0.2%
Probation/ Parole (Adult)	3.5%
Probation/ Parole (Juvenile)	1.4%
Police/ Sheriff/ State Trooper	2.1%
Jail/ Prison Employee	0.4%
Social Worker	15.9%
Psychologist	0.5%
Counselor	12.5%
University Faculty	4.6%
Clergy (Chaplain, Pastor, Other)	7.2%
Other Mental Health Worker	3.2%
Teacher/ Educator	7.4%
Volunteer	8.7%
Other	28.1%
Missing	3.7%

Measure

A two-page, online survey was administered that asked for county of employment, age, gender, race, and organization affiliation of the participants. Questions assessed self-reported familiarity with TIC, TIC knowledge, and current implementation efforts of TIC in the participant's respective organization. For the purpose of this study, we looked at two items. The item of interest that addressed familiarity with TIC was "*Are you familiar with the term 'Trauma-Informed Care'?*" with four response choices (*no, somewhat, yes, blank*). The other item of interest addressed implementation of TIC in a person's respective organization by asking for the participant's level of agreement with the following statement, "*The people served are routinely screened for trauma exposure and related symptoms,*" using a 4-point Likert-type response scale (*0 = does not describe my agency or institution, 1 = somewhat describes my agency or institution, 2 = very much describes my agency or institution, 3 = N/A or don't know*).

The full survey is included in the Appendix.

Procedure

Approval was obtained from the East Tennessee State University Institutional Review Board. Prior to an initial TIC training event held in October 2015 and the survey was emailed to 452 registrants for the event. At six-month intervals, the same survey was distributed to that same list of individuals, with additional names of people who had attended training events in the area. A snowball sampling technique was used. The email asked for the recipient to follow a link to the survey and forward the email request to anyone who may have interest in responding. Surveys emails were sent at the following times: Time 1: October 2015; Time 2: April 2016; Time 3: October 2016; Time 4: April 2017; Time 5: October 2017; Time 6: April 2018; Time 7: October 2018.

Results

We examined the portion of the survey that assessed respondents' familiarity with TIC and the implementation of TIC in their respective organization. By measuring the familiarity and implementation at the different time points, we were able to monitor the participants' familiarity with TIC and implementation of TIC over time. The results showed increased familiarity with TIC over time, during which TIC training events were implemented; however, implementation showed only a modest increase across time points.

Familiarity

Examining the percentages of reported familiarity from October 2015 to October 2018 reveals a large difference between the reported familiarity. In October 2015, only 32.7% of participants responded "yes" to the question "Are you familiar with the term 'trauma-informed care?'" That percentage increased to 92.3% by October 2018 which is a difference of 59.6%. It is also important to note that the percentage of participants who reported "no" decreased from

19.7% in October 2015 to 0.0% in October 2018. The increase in familiarity occurred over the time during which TIC trainings were taking place, so these trainings could be related to the increase. Participants were fairly uniform, with one exception, across the seven time points for the response “somewhat” ($M = 10.7\%$, $SD = 6.9\%$). The first time point is responsible for pulling up the average and increasing the standard deviation, indicating most change took place between time 1 and time 2. Based on the percentages of blank responses ($M = 13.4\%$, $SD = 12.6\%$), the question appears to be applicable to the participant’s organizations, and the participants seem willing to answer the question. These percentages, along with the other percentages for the other time points and the total, are reported in Table 2.

Table 2

Reported Familiarity of TIC at Each Time Point

	Yes	Somewhat	No	Blank	<i>n</i>
October 2015	32.7%	25.9%	19.7%	21.8%	147
April 2016	56.1%	10.5%	3.5%	29.8%	57
October 2016	68.9%	8.2%	4.9%	18.0%	61
April 2017	65.7%	8.6%	2.9%	22.9%	70
October 2017	91.5%	5.1%	3.4%	0.0%	59
April 2018	86.4%	8.6%	3.7%	1.2%	81
October 2018	92.3%	7.7%	0.0%	0.0%	91
Total	66.4%	12.7%	7.2%	13.6%	566

Implementation

Examining the percentages of reported implementation revealed less drastic change across time points. In October 2015, 13.6% of participants reported that their organization “very much describes my agency or institution” which is only a difference of 17.2% when compared to October 2018’s percentage of 30.8%. When comparing the percentages of “Does not describe my agency or institution” from October 2015 to October 2018, there is only a decrease of 6.7% with the percentages being 26.5% and 19.8% respectively. These results indicate that some, but not most, agencies who did not already screen for trauma started after the trainings took place.

Participants were fairly uniform at the seven time points in the response “somewhat describes my agency or institution” with an average of ($M = 24.2\%$, $SD = 6.8\%$). Based on the percentages of blank responses ($M = 33.7\%$, $SD = 8.1\%$), the question appears to be either not very applicable to the participant’s organizations, the participants did not know if their organization screened for trauma, or the participants were less willing to answer the question. These percentages, along with the other percentages for the other time points and the total, are reported in *Table 3*.

Table 3

Reported Implementation of TIC at Each Time Point

	Very Much Describes. . .	Somewhat Describes. . .	Does Not Describe. . .	NA or Don’t Know	<i>n</i>
October 2015	13.6%	19.7%	26.5%	40.1%	147
April 2016	8.8%	19.3%	26.3%	45.6%	57
October 2016	21.3%	27.9%	24.6%	26.2%	6
April 2017	27.1%	18.6%	17.1%	37.1%	70
October 2017	25.4%	35.6%	16.9%	22.0%	59
April 2018	23.5%	29.6%	12.3%	34.6%	81
October 2018	30.8%	18.7%	19.8%	30.8%	91
Total	21.0%	23.3%	21.0%	34.6%	566

Discussion

Results indicate that although service providers reported an increased familiarity with the term “trauma-informed care,” this increase in familiarity has not yet translated significantly to an increase in implementation efforts in their respective organizations. This finding introduces speculation into the actual knowledge of TIC, willingness of organizations to implement TIC, and challenges when attempting to implement TIC. One possible explanation for the lack of implementation of TIC, is that knowledge of TIC may not be well-developed. If we assume that familiarity with TIC increased due to TIC trainings in the area, then the TIC trainings may not be effectively demonstrating the need for TIC implementation or potential benefits of TIC. If service providers understand the importance of TIC, they may be more likely to advocate for implementation in their organizations. Another possible explanation is that organizational leadership may not be willing or able to implement TIC. Organizational leadership capable of making TIC-related policies and procedures may not have been exposed to TIC training yet.

Alternatively, the organization leadership may hear about TIC, but they may not view it as an appropriate use of resources. In addition, the organizations could be willing to implement TIC, but there could be financial or staffing challenges that prevent implementation. For example, the organizations could be facing resource constraints (i.e. time or money) which may affect their ability to implement new policies and procedures. Developing new policies and implementing new screening tactics requires training and can take a great deal of time and money.

Limitations

Limitations in this study involve the recruitment method, surveying methods, and the narrow definition of implementation. For recruitment, we used a snowball method. This method made it difficult to know if the same or different people were completing the survey at each time point. We also had limited information as to whether participants attended TIC trainings. Further, self-report surveys are subjective and vulnerable to response bias. Due to social desirability, participants may have rated themselves as being more familiar with TIC and/or more likely to indicate use of trauma screens within their organization. In addition, implementation was defined very narrowly in terms of one item pertaining to trauma screening. It is possible that the represented organizations within this sample were implementing other TIC practices.

Future Research

Familiarity with and implementation of TIC needs to be studied more thoroughly. Specifically, additional research is needed to establish efficacy of TIC trainings and implementation of TIC practices across service organizations. Upon established efficacy of TIC trainings, attention should be given to determining the most time- and cost-effective ways to train service providers on TIC principles and motivate organizations to move forward with comprehensive implementation of TIC principles. Part of determining how to prioritize TIC

trainings and effectively train organizations will likely involve determining the organizations that show the most interest in or resistance to TIC trainings and implementation.

Conclusions

Understanding trauma's widespread impact is the first step in addressing the issue. By recognizing the problem, service providers can begin implementing a solution, TIC. Although TIC training is relatively new and under-studied, it shows strong potential for alleviating the prevalence of trauma and its associated symptoms. We hope that TIC implementation will ultimately lead to more effective service provision and healthier service users.

References

- Abram, K. M., Teplin, L. A., Charles, D. R., Longworth, S. L., McClelland, G. M., & Dulcan, M. K. (2004). Posttraumatic stress disorder and trauma in youth in juvenile detention. *Archives of General Psychiatry*, *61*(4), 403-410.
<https://doi.org/10.1001/archpsyc.61.4.403>
- Agar, K., Read, J., & Bush, J. (2002). Identification of abuse histories in a community mental health centre: The need for policies and training. *Journal of Mental Health*, *11*, 533-543.
<http://dx.doi.org/10.1080/09638230020023886>
- Anda, R. F., Butchart, A., Felitti, V. J., & Brown, D. W. (2010). Building a framework for global surveillance of the public health implications of adverse childhood experiences. *American Journal of Preventive Medicine*, *39*(1), 93–98.
<https://doi.org/10.1016/j.amepre.2010.03.015>
- Ashby, B. D., Ehmer, A. C., & Scott, S. M. (2019). Trauma-informed care in a patient-centered medical home for adolescent mothers and their children. *Psychological Services*, *16*(1), 67-74. <https://doi.org/10.1037/ser0000315>
- Beckett, P., Holmes, D., Phipps, M., Patton, D., & Molloy, L. (2017). Trauma-informed care and practice: Practice improvement strategies in an inpatient mental health ward. *Journal of Psychosocial Nursing and Mental Health Services*, *55*(10), 34-38.
<https://doi.org/10.3928/02793695-20170818-03>
- Classen, C. C. & Clark, C. S. (2017). Trauma-informed care. *APA handbook of trauma psychology: Trauma practice*, *2*, 515-541. <https://doi.org/10.1037/0000020-025>
- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., . . . Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many

of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) study. *American Journal of Preventive Medicine*, *14*, 245–258.

[http://dx.doi.org/10.1016/S0749-3797\(98\)00017-8](http://dx.doi.org/10.1016/S0749-3797(98)00017-8)

Jakubowski, K. P., Cundiff, J. M., & Matthews, K. A. (2018). Cumulative childhood adversity and adult cardiometabolic disease: A meta-analysis. *Health Psychology*, *37*(8), 701–715.

<https://doi.org/10.1037/hea0000637.supp> (Supplemental)

Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic stress disorder in the national comorbidity survey. *Archives of General Psychiatry*, *52*, 1048–1060. <http://dx.doi.org/10.1001/a>

Kessler, R., McLaughlin, K., Green, J., Gruber, M., Sampson, N., Zaslavsky, A., . . . Williams, D. (2010). Childhood adversities and adult psychopathology in the WHO World Mental Health Surveys. *British Journal of Psychiatry*, *197*(5), 378-385.

<http://doi.org/10.1192/bjp.bp.110.080499>

Ko, S. J., Ford, J. D., Kassam-Adams, N., Berkowitz, S. J., Wilson, C., Wong, M., . . . Layne, C. M. (2008). Creating trauma-informed systems: Child welfare, education, first responders, health care, juvenile justice. *Professional Psychology: Research and Practice*, *39*(4), 396-404. <https://doi.org/10.1037/0735-7028.39.4.396>

López-Martínez, A. E., Serrano-Ibáñez, E. R., Ruiz-Párraga, G. T., Gómez-Pérez, L., Ramírez-Maestre, C., & Esteve, R. (2018). Physical health consequences of interpersonal trauma: A systematic review of the role of psychological variables. *Trauma, Violence, & Abuse*, *19*(3), 305-322. <https://doi.org/10.1177/1524838016659488>

- McCauley, J., Kern, D. E., Kolodner, K., Dill, L., Schroeder, A. F., DeChant, H. K., . . . Bass, E. B. (1997). Clinical characteristics of women with a history of childhood abuse: Unhealed wounds. *JAMA*, *277*, 1362–1368. <http://dx.doi.org/10.1001/jama.1997.03540410040028>
- Read, J., Harper, D., Tucker, I., & Kennedy, A. (2018). Do adult mental health services identify child abuse and neglect? A systematic review. *International Journal of Mental Health Nursing*, *27*(1), 7-19. <https://doi.org/10.1111/inm.12369>
- Substance Abuse and Mental Health Services Administration (2014). *SAMHSA's concept of trauma and guidance for a trauma-informed approach*. HHS Publication No. (SMA) 14-4884. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- Scott, K. M., Koenen, K. C., Aguilar-Gaxiola, S., Alonso, J., Angermeyer, M. C., Benjet, C., . . . Kessler, R. C. (2013). Associations between lifetime traumatic events and subsequent chronic physical conditions: A cross-national, cross-sectional study. *PLoS One*, *8*(11) <http://dx.doi.org/10.1371/journal.pone.0080573>
- Walker, E. A., Unutzer, J., Rutter, C., Gelfand, A., Saunders, K., VonKorff, M., . . . Katon, W. (1999). Costs of health care use by women HMO members with a history of childhood abuse and neglect. *Archives of General Psychiatry*, *56*, 609–613. <http://dx.doi.org/10.1001/archpsyc.56.7.609rchpsyc.1995.03950240066012>
- Widom, C. S., Czaja, S. J., & Dutton, M. A. (2008). Childhood victimization and lifetime revictimization. *Child Abuse & Neglect*, *32*(8), 785-796. <https://doi.org/10.1016/j.chiabu.2007.12.006>

Appendix

Questionnaire

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Please complete the survey below.

Thank you!

We are conducting a research study about how well Trauma-Informed Care is understood and how often it is used in our geographic area. This survey should take approximately 10 minutes to complete and no identifying information will be requested. In other words, there will be no way to connect your name with your responses. Although you will not be identifiable, the ETSU IRB and personnel particular to this research (Dr. Andrea Clements, Department of Psychology, ETSU and her associated research personnel) have access to the study records.

Over the past few months, you may have been invited to one or more Trauma-Informed Care training events. You may fill out the survey even if you have not been invited to or attended any training events. If you do not want to fill out the survey, it will not affect you in any way. You may refuse to participate and you may quit at any time by simply closing the survey. Please do not complete the survey unless you are at least 18 years of age. If you have any research-related questions or problems, you may contact Dr. Clements (423-439-6661) or Ginger Bastian (423-439-4424). Also, the chairperson of the Institutional Review Board at East Tennessee State University is available at (423) 439-6054 if you have questions about your rights as a research subject. If you have any questions or concerns about the research and want to talk to someone independent of the research team or you cannot reach the study staff, you may call an IRB Coordinator at 423-439-6055 or 423-439-6002.

By continuing to the survey, you are expressing your agreement to participate.

- Continue survey
- I do not wish to complete the survey

Date

Which of the following best describes you (check all that apply)?

-
- Judge (not Juvenile Court)
 - Judge (Juvenile Court)
 - Other court employee
 - Probation/Parole (Adult)
 - Probation/Parole (Juvenile)
 - Police/Sheriff/State Trooper
 - Jail/Prison Employee
 - Social Worker
 - Psychologist
 - Counselor
 - University Faculty
 - Clergy (chaplain, pastor, other)
 - Other mental health worker**
 - Teacher/Educator**
 - Graduate student**
 - Undergraduate**
 - Volunteer**
 - Other

**If you checked other mental health worker, teacher, student, or volunteer, would you please give more detail such as what grade level you teach, your field of study, what type of organization you volunteer with, or other details that would clarify your position.

In which state are you employed?

In which county are you employed?

What is your age?

What is your race?

What is your gender?

Are you familiar with the term "Trauma-Informed Care?"

- Yes
- No
- Somewhat

Regardless of how familiar you are with Trauma-Informed Care, please rate the following to the best of your ability. The following items refer to the agency or institution where you work or volunteer. If the question does not apply or you do not know, please choose "Not Applicable or Don't Know."

The people served are routinely screened for trauma exposure and related symptoms

- Does not describe my agency or institution
- Somewhat describes my agency or institution
- Very much describes my agency or institution
- Not applicable or Don't know