

Training for Lasting Change: Trauma-Informed Training Results in Improved and Sustained Individual and Organizational Knowledge, Attitudes, and Policies

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Abstract

Objective: Trauma-informed care (TIC) trainings seek to improve individual and organizational recognition and care to individuals who have experienced trauma. However, whether TIC trainings result in long-term changes to an organization's policies and practices remains unclear. This article describes the effectiveness of a workshop designed to train professionals across disciplines in understanding and implementing TIC in their work and workplace.

Methods: Between July 2021 and May 2022, participants completed a 2-day (approximately 12 hours) training in TIC that included didactics on cultural responsiveness, the biological effects of trauma, the components of TIC, and how to deploy TIC within their organization.

Prior to the training, participants completed a previously validated survey, the Survey for Trauma-Informed Systems Change, which evaluated their pre-training (T0) competency in TIC and the level of TIC within their organization. Within 48 hours following the training, participants completed a post-survey (T1). To evaluate the longer-term impact of the training, participants repeated the post-survey at 6 months post-training (T2).

Results: Over a 1-year period, 598 individuals (78% women, 20% men; mean age = 45.5 years) received training in TIC. There was a significant increase between the T0 survey and the T1 post-survey in self-assessed knowledge and attitudes; systemwide knowledge and attitudes; training, support, interaction, and environment; and awareness of cultural background at work (P values < .001), but not safety and acceptance at

work ($P = .06$). Open-ended qualitative responses on the T2 survey, which probed what specific policies and/or practices had been modified within the participant's organization, revealed improvement in several key themes (training, policy, and communication).

Conclusions: This unique trauma-informed didactic training resulted in persistent quantitative and qualitative change within individuals and organizations. Most notably, the training yielded greater confidence in utilizing TIC practices and systemic change at the organizational level. The results suggest that a 2-day training in TIC can transform organizational training, policy, and communications.

J Clin Psychiatry 2023;84(6):23m14904

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Globally, 70% of the population has reported at least 1 traumatic event happening in their lifetime, and nearly two-thirds of Americans have experienced at least 1 adverse childhood experience (ACE).^{1,2} These ACEs can include physical and sexual abuse, loss of a parent, and intimate partner violence.³ Trauma, and ACEs, are so pervasive that this has been called a public health epidemic.⁴ The seminal ACEs Study showed a link between greater ACEs and poorer health outcomes across the lifespan.^{3,5} Specifically, correlates at the intersections of chronic stress, physical health diagnoses (ie, cardiovascular disease, diabetes), mental health diagnoses (such as depression, anxiety, posttraumatic stress disorder, substance use disorder), and ACEs have been shown.^{5,6}

This extensive body of literature indicates that most individuals have experienced at least 1 trauma and that traumatic events uniquely shape their health and behavior.

IMPORTANCE OF PRACTICING TRAUMA-INFORMED CARE

Given the high burden of trauma on the global population, it is critical that individuals and organizations (the workforce and the workplace) in all fields are trauma-informed. *Trauma-informed* refers to the recognition and management of the effects of trauma on individuals as well as the prevention of recurring trauma. There has been a recent shift toward implementing trauma-

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Clinical Points

- Very few studies evaluating trauma-informed care trainings have evaluated whether the effectiveness of the training persists 6 months later, and even fewer have evaluated trauma-informed systems change within multiple organizations.
- Long-lasting trauma-informed change can happen both on an individual level and on a systemwide level. Change at both levels is needed to have a trauma-informed organization, system, and/or program.

informed care (TIC) practices across systems. For example, TIC trainings have occurred within community-based organizations, health care clinics, and legal systems.^{7–10} Public and private organizations, as well as federal and state legislatures, have expressed interest in creating trauma-informed policies and procedures.^{11–14} There are several examples of trauma-informed legislation as evidenced by work done on the federal level through the SUPPORT for Patients and Communities Act,¹⁵ as well as on the state level. For example, Oregon¹⁶ and Massachusetts¹⁷ have introduced bills to expand access to training in TIC. As more systems, organizations, and individuals invest in TIC, it is critical to be able to measure the efficacy of these trainings and policy changes.¹²

A critical step in measuring the effectiveness of training in TIC is standardizing what it means to be trauma-informed. The Substance Abuse and Mental Health Services Administration (SAMHSA)¹¹ released guidelines in 2014 outlining the 6 core principles of TIC that must be adhered to when implementing system change, including safety; trustworthiness and transparency; peer support; collaboration and mutuality; empowerment, voice, and choice; and cultural, historical, and gender issues. Furthermore, SAMHSA¹¹ laid out 10 implementation domains for TIC: governance and leadership; policy; physical environment; engagement and involvement; cross-sector collaboration; screening, assessment, treatment services; training and workforce development; progress monitoring and quality assurance; financing; and evaluation.¹¹ These TIC guidelines operate as a critical structural framework that outlines domains trainings can target. Indeed, prior work suggests TIC has changed attitudes, built knowledge, and improved critical outcomes within these domains.^{18,19} For example, in health care settings, implementation of trauma-informed principles and approaches has not only improved providers' attitudes and knowledge but also translated to improvement in patient health outcomes.^{20–23}

An important part of engaging in TIC is the ability to clearly state what change(s) an institution has made and reliably measure and demonstrate the effects of policy and practice changes. Therefore, in addition to showing specific

evidence of trauma-informed changes that happen within an organization (eg, patient health outcomes), researchers have begun to find ways to measure the efficacy of trauma-informed implementations. To demonstrate when and how trauma-informed change is occurring, researchers have been, and actively are, developing instruments to measure organizational change reliably and meaningfully.^{23–27}

Prior work demonstrates that staff and client knowledge, attitudes, and perceptions on trauma-informed care can be quantified. However, most of this work used system-specific measurement scales. For example, scales were designed to measure change in a single field, such as education (eg, Attitudes Related to Trauma-Informed Care [ARTIC]) or health and human services.^{23,24,28} Moreland-Capuia and colleagues²⁷ noted that there were no existing scales that could be used to consistently quantify trauma-informed, culturally responsive change in every system, across all disciplines. As such, our team developed the Survey for Trauma-Informed Systems Change (STISC).²⁷ A detailed description of the STISC is provided in Moreland-Capuia et al.²⁷ To summarize it briefly: a 5-subscale instrument was developed using the methodology of Boateng et al²⁹ and the principles and practices of the TIC-tool development guide authored by the National Center for Trauma-Informed Care.¹¹ The 59 items can be broken down into 5 subscales: self-assessed knowledge and attitudes, safety and acceptance at work, systemwide knowledge and attitudes, training and employee support, and awareness of cultural background at work.

This scale was developed with a training workshop on TIC hosted monthly by the Institute for Trauma-Informed Systems Change (ITISC), housed in McLean Hospital in Belmont, Massachusetts. The 2-day training included topics such as, what is trauma?; the neurobiological impacts of trauma; trauma and racism; and the traumatized organization/corporation.³⁰ All sessions were created and facilitated by experts in these fields who hold advanced degrees. While participants mostly listened to these presentations, there was question-and-answer time after every topic. The role of the participant was not a passive one; there were several breakout sessions throughout the 2 days, facilitated by trained fellows at the ITISC. These were designed to help individuals brainstorm specific trauma-informed practices to apply to their organizations in a smaller setting. The length of the workshop was determined based on work conducted by Diane Wagenhals³¹ at Lakeside Global Institute which suggests that an individual requires 2 hours of trainings to be deemed “trauma aware” and 12 hours of training to become “trauma-informed.” Therefore, we examined whether the ITISC's 12-hour “Training for Change” curriculum led to significant improvements in positive attitudes toward TIC and marked improvement in knowledge.

In the current study, we leveraged pre- and post-survey data from individuals who attended the ITISC's

Table 1.

Demographic Characteristics and Mean Pre-Training (T0) Subscale Scores Among Survey for Trauma-Informed Systems Change Respondents

	Completed 1 or more subscales at T0 (N = 473)	Completed 1 or more subscales at T1 (post-training)		P ^a	Answered 1 or more follow-up questions at T2 (6 mo post-training)		P ^a
		Yes (n = 322)	No (n = 151)		Yes (n = 56)	No (n = 417)	
Demographic characteristics							
Age, mean (SD), y ^b	45.5 (11.1)	46.0 (11.2)	43.8 (10.8)	.34	47.2 (12.1)	45.2 (10.9)	.01
White, n (%) ^c	364 (77)	246 (76)	118 (78)	.65	44 (79)	320 (77)	.70
Black or African American, n (%) ^{c,d}	53 (11)	32 (10)	21 (14)	.30	<5 (≤7)	49–53 (12–13)	NA
American Indian or Alaska Native, n (%) ^{c,d}	7 (1)	3–7 (1–2)	<5 (≤3)	NA	<5 (≤7)	3–7 (1–2)	NA
Asian, n (%) ^c	41 (9)	33 (10)	8 (5)	.006	6 (11)	35 (8)	.45
Native Hawaiian or Other Pacific Islander, n (%) ^{c,d}	<5 (≤1)	<5 (≤1)	<5 (≤3)	NA	<5 (≤7)	<5 (≤1)	NA
Hispanic or Latinx, n (%) ^{c,d}	43 (9)	30 (9)	13 (9)	.81	<5 (≤7)	39–43 (9–10)	NA
Gender identification, n (%) ^{d,e}				.01			.78
Man	94 (20)	70–72 (22–23)	22–24 (15–16)		10–12 (18–22)	82–84 (20)	
Woman	368 (78)	242–244 (74–76)	124–126 (83–84)		41–43 (75–78)	325–327 (79)	
Other identification ^f	7 (1)	3–7 (1–2)	<5 (≤3)		<5 (≤7)	3–7 (1–2)	
Highest education level, n (%) ^d				.14			.51
High school diploma, GED, or Associate’s degree	32 (7)	17 (5)	15 (10)		<5 (≤7)	28–32 (7–8)	
Bachelor’s degree	176 (37)	120 (37)	56 (37)		19–20 (34–36)	156–157 (37–38)	
Master’s degree	128 (27)	87 (27)	41 (27)		15–16 (27–29)	112–113 (27)	
Professional degree	65 (14)	40 (12)	25 (17)		6–7 (11–13)	58–59 (14)	
Doctoral degree	72 (15)	58 (18)	14 (9)		12–13 (21–23)	59–60 (14)	
Pre-training total subscale scores, mean (SD)^{b,e}							
Self-assessed knowledge and attitudes	77.0 (13.8)	77.2 (14.5)	76.7 (12.2)	.89	75.4 (14.5)	77.2 (13.7)	.32
Safety and acceptance at work	24.4 (5.0)	24.5 (4.8)	24.1 (5.3)	.26	25.0 (4.4)	24.4 (5.0)	.42
Systemwide knowledge and attitudes	26.7 (3.9)	26.5 (4.1)	27.1 (3.6)	.04	27.1 (3.2)	26.6 (4.0)	.26
Training, support, interaction, and environment	56.2 (11.8)	55.9 (11.6)	56.5 (12.4)	.92	55.6 (11.7)	56.1 (11.8)	.99
Awareness of cultural background at work	12.1 (2.2)	12.2 (2.1)	12.1 (2.4)	.57	11.8 (2.2)	12.2 (2.2)	.06

^aP values are from logistic regression associating probability of completing 1 or more post-training subscales or answering 1 or more 6-month follow-up questions with demographic characteristics and pre-survey total subscale scores. The method of generalized estimating equations accounted for clustering by training date. Demographic categories associated with cell counts <5 were excluded from statistical models.

^bCalculation of SDs accounted for clustering by training date.

^cRespondents could endorse any number of race and ethnicity categories.

^dSome frequencies and percentages are presented as ranges to avoid disclosing exact cell counts less than 5.

^eFour respondents selected “Prefer not to say” for gender identification. Two of the 473 respondents were missing self-assessed knowledge and attitudes pre-survey subscale totals; 10 were missing safety and acceptance at work pre-survey subscale scores; 2 were missing systemwide knowledge and attitudes totals; 10 were missing training, support, interaction, and environment totals; and 9 were missing awareness of cultural background at work totals.

^fIncludes transgender man, transgender woman, non-binary or gender-nonconforming, and other.

Abbreviations: GED=general equivalency diploma, NA=not applicable, SD=standard deviation.

“Training for Change” workshop. Participants included a wide range of professionals at various stages of their careers, including from health care, corporate, legal, and government sectors. To name some of the participants’ careers represented in this sample: floor nurses, CEOs, therapists, academics, and correction officers within the justice system. The primary aim was to quantify whether the training yielded sustained TIC change in individual and organizational policies and practices. To address this goal, we collected 6-month post-training qualitative surveys specifically inquiring about how individuals and organizations applied their attitudes and improved knowledge in TIC and made organizational change. We expected that even 6 months after training, participants would report improved individual and organizational knowledge, attitudes, and confidence in care.

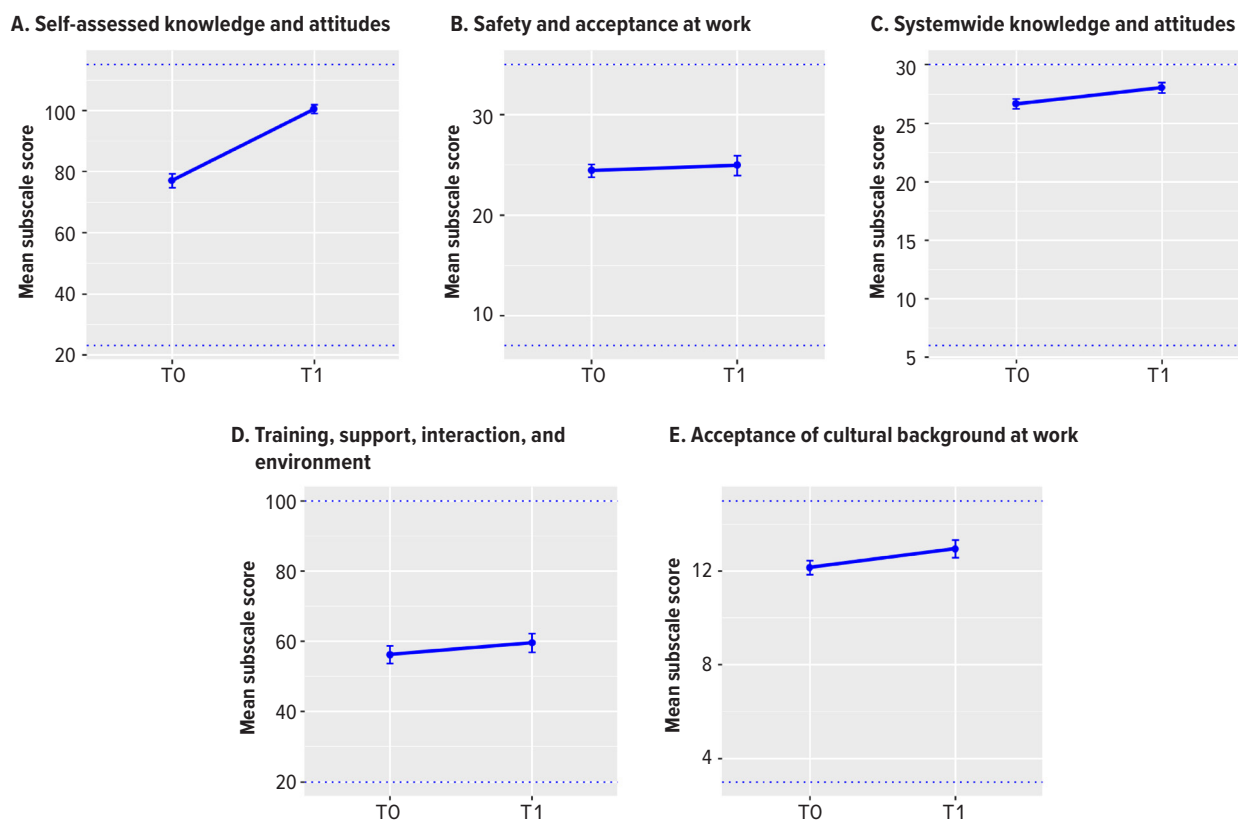
METHODS

Participants and Procedure

Between July 2021 and May 2022, 598 participants participated in the Training for Change workshop, virtually, on Zoom. Participants either signed up for this workshop individually or were signed up by their organization to take the training. Most participants found out about this workshop series via word-of-mouth or through McLean’s continuing medical education (CME) website. There was not a formal advertising campaign done for recruitment. Pre-surveys (T0) were sent to all participants and consisted of a demographic questionnaire and the STISC. The pre-survey expired the morning participants underwent day 1 of the workshop. If the participant accessed

Figure 1.

Pre-Survey (T0) and Post Survey (T1) Scores on Survey for Trauma-Informed Systems Change Subscales^a



^aError bars indicate 95% confidence intervals; dotted lines indicate subscale ranges.

Table 2.

Post-Training Changes (T1–T0) in Survey for Trauma-Informed Systems Change Subscale Total Scores (N=473 Total Respondents)^a

Subscale	Mean change (95% CI) ^b	ES ^c	<i>t</i> ^b	<i>df</i> ^b	<i>P</i> ^b
Self-assessed knowledge and attitudes	23.6 (22.2–24.9)	1.71	33.32	780	<.001
Safety and acceptance at work	0.4 (0.0–0.8)	0.08	1.88	769	.06
Systemwide knowledge and attitudes	1.5 (1.1–1.8)	0.38	8.54	780	<.001
Training, support, interaction, and environment	3.7 (2.6–4.8)	0.32	6.73	769	<.001
Awareness of cultural background at work	0.9 (0.7–1.1)	0.40	8.70	770	<.001

^aNumber of respondents contributing data per subscale was 463–471 at T0 and 319–322 at T1.

^bFrom repeated measures linear regression accounting for clustering by training date.

^cEffect sizes calculated by dividing the model-estimated mean change by the standard deviation of the subscale score at T0.

Abbreviations: CI=confidence interval, *df*=degrees of freedom, ES=standardized effect size.

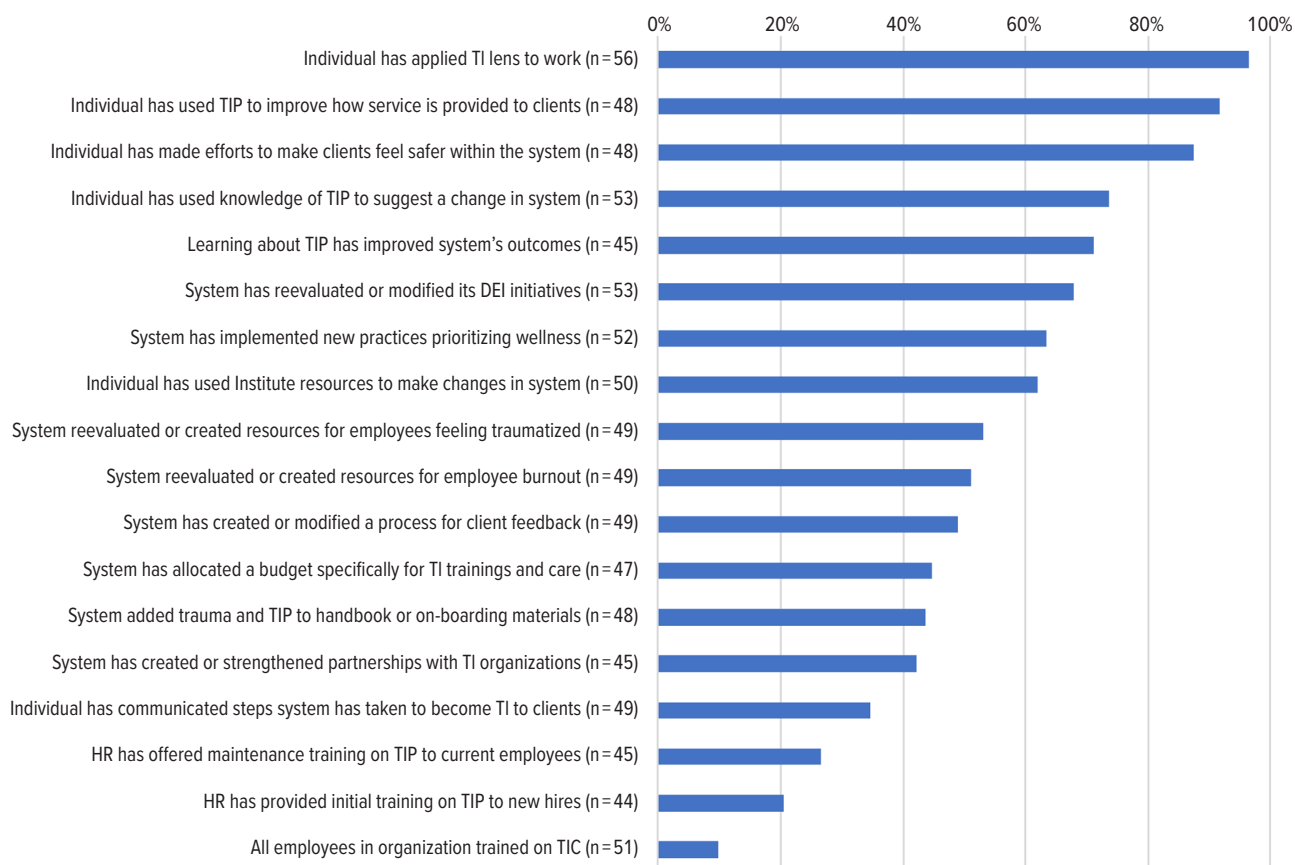
the pre-training survey (T0), they received a post-training survey that expired 48 hours after the course (T1). The 6-month post-survey (T2) was sent to participants who accessed both the T0 and T1 surveys. All surveys were sent via RedCap and were anonymous. Institutional review board (IRB) approval was given by Massachusetts General Brigham (IRB2021P002889).

Six-Month Survey

For T2 data, participants were asked 18 questions from the T1 survey that could be answered with yes, no, or not applicable. Additionally, participants were asked in 3 free-response questions to indicate which specific outcomes had been improved in their organization, what efforts had been made to make their organization

Figure 2.

Percent of Responses Endorsing Changes 6 Months Following Training (N= 56 Total Respondents^a)



^aQuestions received 54–56 responses each (yes, no, or not applicable), with all but 3 questions receiving 54 responses. The sample size in parentheses for each change corresponds to the number of respondents who considered the question applicable. Abbreviations: DEI= diversity, equity, and inclusion; HR= human resources; TI= trauma-informed; TIC= trauma-informed change; TIP= trauma-informed practice.

more trauma informed, and tangible changes their system had made, as well as a general question about which resources they found helpful. The complete questionnaire is available from the authors upon request.

Statistical Analyses

Demographic characteristics of respondents and STISC subscale total scores at T0 were summarized using frequencies, percentages, means, and standard deviations. Standard deviations were calculated using linear models with random intercepts for training dates to account for similarities among respondents who participated in the same training. Logistic regression compared the probability of providing subscale scores at T1 and T2 among those with different demographic characteristics and subscale scores at T0. The method of generalized estimating equations was used to account for clustering by training date for these comparisons.

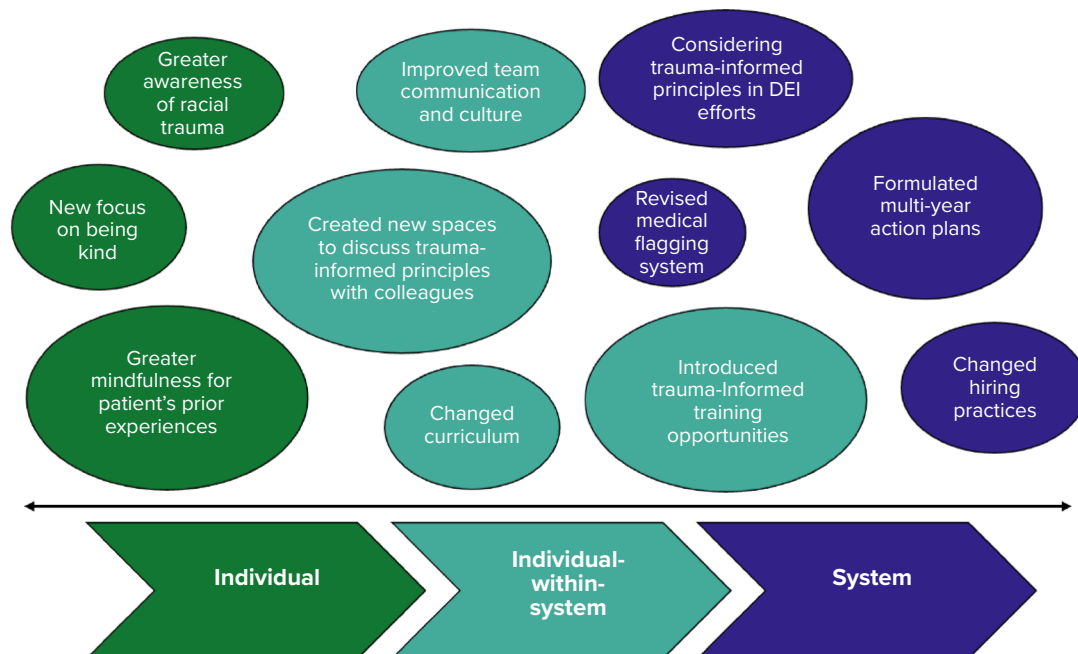
Mean subscale total scores at T0 and T1 and associated 95% confidence intervals were calculated

using separate linear models for each subscale and timepoint with random intercepts for training date. Changes in subscale total scores between T0 and T1 were estimated using 1 repeated-measure linear regression model for each subscale, with random intercepts for training date and unstructured residual covariance between measurements from the same respondent. These models accommodated incomplete data from respondents (either T0 or T1 response missing) under the missing at random assumption.³² A standardized effect size for each subscale was calculated by dividing the model-estimated mean change by the standard deviation of the subscale total score at T0.

Data from respondents with missing responses from 1 or more items on a subscale were excluded from calculations for the corresponding subscale. Otherwise, all observed data were included in analyses for all survey respondents. Statistical analysis was conducted using version 9.4 of SAS software.³³ Statistical tests were 2-sided and conducted at the testwise $\alpha = .05$ significance level.

Figure 3.

Individual, Individual-Within-System, and Systemwide Changes That Occurred After the Institute for Trauma-Informed Systems Change Workshops



Abbreviation: DEI = diversity, equity, and inclusion.

RESULTS

Characteristics of Survey Respondents

Of the 598 training participants sent T0 surveys, 483 responded to 1 or more survey questions (81%), and 473 provided complete responses for 1 or more survey subscales (79%). Three hundred twenty-two participants (67% of the 483 who accessed the T0 survey and 54% of the 598 training participants) provided complete responses for 1 or more T1 subscales, and 56 (12% of those who accessed the T0 survey and 9% of training participants) responded to 1 or more T2 survey questions. It is important to note that for T2, many participants left the organizations they worked at or changed their email addresses within the 6 months between T1 and T2. This partially accounts for why the attrition rate is so high. Table 1 provides demographic information and mean T0 subscale scores for the 473 respondents contributing T0 or T1 subscale data, both overall and by availability of T1 and T2 survey data. Mean (SD) age for the 473 respondents was 45.5 (11.1) years. Most participants identified as White (77%) and as a woman (78%), and most (93%) had a bachelor's degree or more education (93%). Participants who identified as Asian, identified as a man (relative to a woman), and had lower systemwide knowledge and attitudes pre-survey subscale scores were more likely to contribute T1 data. Participants who were older were more likely to contribute T2 data.

Post-Training Changes in Survey Scores

Scores increased significantly post-training for all STISC subscales except safety and acceptance at work. Mean scores by subscale before and after training are displayed in Figure 1. Mean changes in subscale scores, standardized effect sizes by subscale, and results of statistical testing are provided in Table 2. The largest standardized effect size (1.71) was observed for the self-assessed knowledge and attitudes subscale, followed by the awareness of cultural background at work (0.40), systemwide knowledge and attitudes (0.38), and training, support, interaction, and environment (0.32) subscales.

Six-Month Survey: Quantitative Results

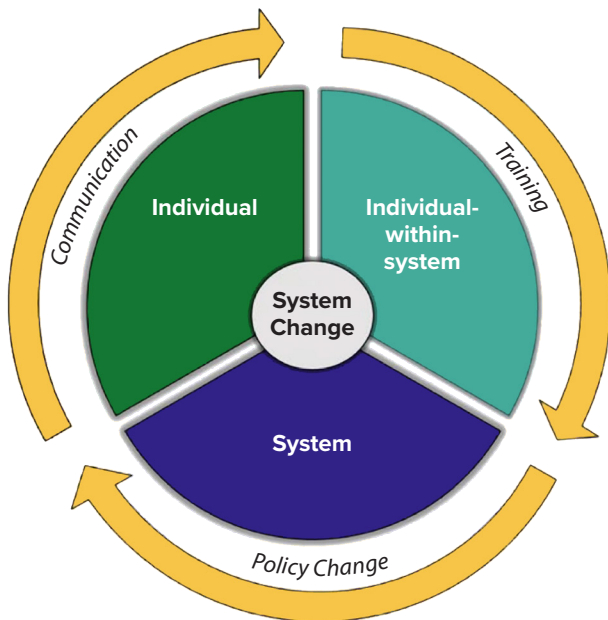
The 56 respondents to the 6-month post-training survey represented 10 of the 12 training dates. Forty respondents (71%) reported affiliation with the health field, 13 (23%) reported affiliation with the education field, and 6 (11%) reported affiliation with government. Fewer than 10% reported affiliation with criminal justice, business, community-based organizations, non-profits, or other fields. Figure 2 displays percentage endorsements for the 18 questions asking about changes in the 6 months since individuals completed the training. The 4 most endorsed changes, all endorsed by 70% or more respondents who considered the change applicable, were all made by individuals or individuals within systems. These were applying a trauma-informed lens to work,

Table 3.
Number of Participants Who Described a Change Within Each Domain in Response to Open-Ended Questions at 6 Months Post-Training (T2)

Question	Level of systems change indicated in response			
	Individual change	Individual-within-a-system change	Systemwide change	No change
Please indicate which specific outcomes have been improved (N = 14)	1	7	4	2
What efforts have you made? (N = 24)	8	9	6	1
In the last 6 months, what other tangible changes has your system/organization made to become more trauma-informed? (N = 32)	1	5	14	12
Question	Response theme			
	Change in communication	Change in training	Change in policy	No change
Please indicate which specific outcomes have been improved (N = 14 ^a)	6	2	5	2
What efforts have you made? (N = 24)	15	5	3	1
In the last 6 months, what other tangible changes has your system/organization made to become more trauma-informed? (N = 32)	3	11	6	12

^aOne participant listed 2 changes, 1 being a communication change and 1 being a policy change.

Figure 4.
Connection Between Themes and Level of System Change



using trauma-informed practice to improve how service is provided to clients, making efforts to make clients feel safer within the system, and using knowledge of trauma-informed practice to suggest a change in the system. Five system changes were endorsed by more than half of respondents who considered them applicable: improved

outcomes from learning about trauma-informed practice; reevaluated or modified diversity, equity, and inclusion initiatives; new practices prioritizing wellness; reevaluated or added resources for employees feeling traumatized; and reevaluated or added resources for employee burnout.

Six-Month Survey: Qualitative Results

For the qualitative data, all answers were categorized twice. First, each answer was labeled as an individual change, an individual-within-a-system change, or a systemwide change. Examples of each category are shown in Figure 3. After the type of change was noted, we looked for thematic similarities. We categorized each qualitative response into one of 3 themes: changes in communication, changes in policy, and changes in training. Table 3 shows the number of participants who described a change within each domain and the number of responses per theme. The interconnections between the themes and the levels of systems change are shown in Figure 4.

DISCUSSION

Training in trauma-informed care can result in remarkable improvements to employees’ attitudes and knowledge and positive secondary outcomes for individuals served. To date, there are multiple discipline-specific curriculums that teach trauma-informed principles to professionals. Given the importance and relevance of TIC across fields, there was a need to develop a scalable curriculum that can be implemented across professions. The Training for Change curriculum is unique because it was created for participants in every field. Similarly, the

corresponding STISC²⁷ was developed with the workshop and designed to be administered across professions to measure the effectiveness of training. Although more individuals and organizations are seeking trauma-informed education, the long-term impact of these curriculums is understudied. In the current study, we evaluated the long-term effectiveness of the Training for Change curriculum in improving knowledge, attitudes, and confidence in TIC.

The pre- and posttest data indicate that the Training for Change curriculum positively impacted 4 of the 5 subscales in the STISC. Following a 2-day, 12-hour curriculum, participants showed positive improvements in self-assessed knowledge and attitudes; systemwide knowledge and attitudes; awareness of cultural background at work; and training, support, interaction, and environment.

Prior studies have shown that workshops on trauma informed care can persistently improve knowledge about and attitudes toward trauma informed care after training. For example, Niimura and colleagues³⁴ found that a 1-day workshop for mental health professionals resulted in significantly more positive attitudes toward TIC immediately after and 3 months after the workshop. Similarly, 2-day trauma-informed workshops for employees within the child welfare system significantly increased employees' knowledge and implementation of trauma-informed practices.³⁵

Most organizations (82%) that participated in the workshops did not send all their employees to the training. One can wonder if this was due to the cost of training or the need to train only specific roles within an organization. It will be helpful to understand the barriers of sending more individuals from each organization to TI training. The 6-month follow-up also indicated that 44% of participants who considered the question applicable made specific changes to their employees' handbooks and on-boarding materials. Most participants (64.2%) reported that their organization reevaluated existing resources and created new ones following the training and implemented new practices following TIC lens (63.4% of participants). Similarly, 74% of participants who considered the question applicable reported that they have used their new knowledge of TIP to suggest changes to their organization. These findings strengthen our hypothesis that the training will lead to long-lasting impact on the organization level and on the individual level.

Ninety-six percent of participants reported that following the training they applied a trauma-informed lens in their work, and 92% of participants who considered the question applicable used this new knowledge to improve their overall service to clients. They also reported that learning about TIP improved their organization's outcome. This relates to the idea that investing in resources in mental health in general and in TIC can have a fiscal impact on organizations. Intransigently, 55% of participants who considered the question applicable noted that their organization did not allocate a budget

specifically for TI training. This may indicate that making changes to budget decisions might take more time. However, since most participants noted that they could find more resources and make changes, it might be that the training improved overall motivation and creativity in implementing these changes without budget change.

Another notable finding indicated that although 65% of participants who considered the question applicable did not communicate to their clients the specific steps that their organization has taken to become trauma informed, 88% of those who considered the question applicable reported that they have made efforts to make their clients feel safer. It might be that "actions speak louder than words" in this situation, and that they prioritize making the change first.

Finally, 62% of participants who considered the question applicable reported that they have used the resources provided to them in the training to make changes, which again validates the quality of the training in the long term.

The specific changes and actions that participants facilitated are overwhelmingly powerful, resulting in changes to communication, policies, and training. Some organizations changed their handbooks, and others created monthly seminars to address TIC and/or taskforce groups. A few organizations noted specific changes to their human resources training (including to hiring procedures, the orientation of employees, and reviews), and others noted increased awareness to include psychoeducation materials about TIC both for their employees and for their clients.

Numerous participants noted that they changed their attitude and language. While this might seem to have a small individual impact, it can have an enormous effect when these individuals are in a key position and interacting with others. For example, one participant responded: "Becoming aware of this lens with which to view the perspectives of others has helped my communication to my group of 500." Another participant noted that following the training, they created and delivered a series of trauma-informed diversity, equity, and inclusion workshops for faculty at a health care and science university.

Participants from health care organizations noted changes in the way they talk with their clients, seeking permission and changing their handbooks. Others reported adding support groups for their clients to address their needs through a trauma-informed lens.

Several participants also noted that the training increased their motivation to seek more training and research to understand ways that trauma has impacted and can still impact their community.

Limitations

Specifically, with the 6-month follow-up survey, only the people responding to the surveys may have positive views of their organization. For example, if one is in a leadership position in a company, it might be easier to create changes rapidly in that institution. As these

surveys are anonymous, there is no way of knowing the position of the survey responder. Furthermore, certain systems can inherently be changed faster than others; a 10-person company could make sweeping changes within 6 months, but a 10,000-person company would have more difficulties doing so due to regulations. This could make employees from larger organizations respond more negatively than employees from smaller institutions.

In addition, much of the training population consisted of White, college educated women. Our goal is for entire organizations to be trauma-informed, but this demographic does not reflect the average member of the workforce. Ideally, as time passes, institutions will make more effort to train their entire organizations, diversifying our sample.

CONCLUSION

The goal of this article is to demonstrate the long-term effectiveness of the Training for Change curriculum. Using the STISC, we have proven that 2 days of TIC can lead people to take specific actions within their organizations that can impact the entire organization, their clients, and moreover the individuals within each organization. Our results showed that participants not only learned and changed their attitudes but also made specific changes to policies, communication, and training.

While there are still limitations to generalizing these changes in some organizations, we have proven that changes can also be made on the individual level. As trauma and stress impact so many individuals (and therefore their workplace), our hope is that more organizations will lean into curiosity and learning about TIC and take specific actions to support and change their environment.

Our results emphasize that even when a segment of an organization attended the training and only some individuals took specific actions, the impact of their decisions is powerful and can change not only their own attitudes but the impact on their organization. Healing happens on a spectrum. Our results emphasize that the training had a long-lasting direct positive impact on the individual and indirect impact on the system. Furthermore, since individuals are part of the system itself, we can conclude that the system itself changed following the training.

Article Information

Published Online: October 30, 2023. <https://doi.org/10.4088/JCP.23m14904>

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Submitted: April 20, 2023; accepted August 3, 2023.

To Cite: Mangus AR, Webb EK, Bar-Halpern M, et al. Training for lasting change: trauma-informed training results in improved and sustained individual and organizational knowledge, attitudes, and policies. *J Clin Psychiatry*. 2023;84(6):23m14904.

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Author Contributions: Alexandra Mangus and Alisha Moreland-Capua contributed to the study conception and design. Material preparation and data collection and analysis were performed by Caitlin Ravichandran, Kate Webb, Alexandra Mangus, and Alisha Moreland-Capua. The first draft of the manuscript was written by Alexandra Mangus and Alisha Moreland-Capua. All authors revised, read, and approved the final manuscript.

Relevant Financial Relationships: Dr Ressler has received consulting income from Alkermes and Takeda and research support from NIH, Genomind, and Brainsway and is on scientific advisory boards for Janssen and Verily, none of which is related to the present work. Dr Moreland-Capua receives royalties from two SpringerNature publications to include: "Training for Change" and "The Trauma of Racism." Dr Ravichandran receives research support from National Institutes of Health grant MH115874, the Robert E. and Donna Landreth Fund for the Study of Neuroinflammation in Autism, the Williams Syndrome Association, the Jerome Lejeune Foundation, and Mass General Brigham. Dr Webb was supported by National Institute of Mental Health grant T32MH017119. Ms Mangus and Dr Bar-Halpern declare that they have no conflicts of interest.

Funding/Support: Support was provided by Dr Kerry J. Ressler and the Center for Excellence in Anxiety and Depressive Disorders at McLean Hospital.

Role of the Funders/Sponsors: The funders had no role in the conduct or publication of this study.

Acknowledgments: The authors express many thanks to several colleagues at McLean Hospital in the Center for Excellence in Anxiety and Depressive Disorders.

Ethics Approval: Institutional review board (IRB) approval was granted by Massachusetts General Brigham, IRB2021P002889, for evaluating the impact of trauma-informed training on a multidisciplinary, cross-sectional group in a virtual setting.

Consent to Participate: Informed consent was obtained from all individual participants included in the study.

References

- Centers for Disease Control and Prevention. Preventing Adverse Childhood Experiences (ACEs) to Improve US Health [press release]. November 5, 2019. <https://www.cdc.gov/media/releases/2019/p1105-prevent-aces.html>
- Kessler RC, Üstün B. *The WHO World Mental Health Surveys: Global Perspectives on the Epidemiology of Mental Disorders*. 1st ed. Cambridge University Press; 2008.
- Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: the Adverse Childhood Experiences (ACE) study. *Am J Prev Med*. 1998;14(4):245–258.
- Federal Partners Committee on Women and Trauma. Trauma-Informed Approaches: Federal Activities and Initiatives: A Working Document/Second Report. 2013. <https://s3.amazonaws.com/static.nicic.gov/Library/027657.pdf>
- Felitti VJ. Adverse childhood experiences and adult health. *Acad Pediatr*. 2009;9(3):131–132.
- Dong M, Giles WH, Felitti VJ, et al. Insights into causal pathways for ischemic heart disease: Adverse Childhood Experiences Study. *Circulation*. 2004;110(13):1761–1766.
- Raja S, Rajagopalan CF, Kruthoff M, et al. Teaching dental students to interact with survivors of traumatic events: development of a two-day module. *J Dent Educ*. 2015;79(1):47–55.
- D'Andrea W, Bergholz L, Fortunato A, et al. Play to the whistle: a pilot investigation of a sports-based intervention for traumatized girls in residential treatment. *J Fam Violence*. 2013;28(7):739–749.
- Purtile J. Systematic review of evaluations of trauma-informed organizational interventions that include staff trainings. *Trauma Violence Abuse*. 2020;21(4):725–740.
- DeAndrade S, Pelletier A, Bartz D, et al. Trauma Informed Care Training in Ob/Gyn Residency Programs. Poster presented at The American College of Obstetricians and Gynecologists, Virtual. October 2020. doi: 10.1097/01.AOG.0000664924.02840.92.
- SAMHSA's Trauma and Justice Strategic Initiative. *SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed Approach*. HHS Publication No. (SMA) 14-4884. Substance Abuse and Mental Health Services Administration; 2014.
- Sweeney A, Filson B, Kennedy A, et al. A paradigm shift: relationships in trauma-informed mental health services. *BJPsych Adv*. 2018;24(5):319–333.

13. Yatchmenoff DK, Sundborg SA, Davis MA. Implementing trauma-informed care: recommendations on the process. *Adv Soc Work*. 2017;18(1):167–185.
14. Baker CN, Brown SM, Overstreet S, et al; New Orleans Trauma-Informed Schools Learning Collaborative. Validation of the Attitudes Related To Trauma-Informed Care Scale (ARTIC). *Psychol Trauma*. 2021;13(5):505–513.
15. SUPPORT for Patients and Communities Act, HR 6, 115th Cong (2018). <https://www.congress.gov/bill/115th-congress/house-bill/6>
16. Relating to chronic absences; and declaring an emergency, HB 4002, 78th Oregon Legislative Assembly (2016). <https://olis.oregonlegislature.gov/liz/2016R1/Downloads/MeasureDocument/HB4002/Introduced>
17. An Act Expanding Access to Trauma Informed Care and Mental Health First Aid Training, HB 4164, 192nd General Court of the Commonwealth of Massachusetts (2022). <https://malegislature.gov/Bills/192/H4164>
18. Brown SM, Baker CN, Wilcox P. Risking connection trauma training: a pathway toward trauma-informed care in child congregate care settings. *Psychol Trauma*. 2012;4(5):507–515.
19. Green BL, Saunders PA, Power E, et al. Trauma-informed medical care: a CME communication training for primary care providers. *Fam Med*. 2015;47(1):7–14.
20. Greenwald R, Siradas L, Schmitt TA, et al. Implementing trauma-informed treatment for youth in a residential facility: first-year outcomes. *Residential Treat Child Youth*. 2012;29(2):141–153.
21. Hodgdon HB, Kinniburgh K, Gabowitz D, et al. Development and implementation of trauma-informed programming in youth residential treatment centers using the ARC framework. *J Fam Violence*. 2013;28(7):679–692.
22. Morrissey JP, Jackson EW, Ellis AR, et al. Twelve-month outcomes of trauma-informed interventions for women with co-occurring disorders. *Psychiatr Serv*. 2005;56(10):1213–1222.
23. Baker CN, Brown SM, Wilcox PD, et al. Development and psychometric evaluation of the attitudes related to trauma-informed care scale. *School Ment Health*. 2016;8(1):61–76.
24. Bassuk E, Unik G, Paquette K, et al. Developing an instrument to measure organizational trauma-informed care in human services: the TICOMETER. *Psychol Violence*. 2017;7(1):150–157.
25. Goodman LA, Sullivan CM, Serrata J, et al. Development and validation of the Trauma-Informed Practice Scales. *J Community Psychol*. 2016;44(6):747–764.
26. Richardson MM, Coryn CLS, Henry J, et al. Development and evaluation of the Trauma-Informed System Change Instrument: factorial validity and implications for use. *Child Adolesc Social Work J*. 2012;29(3):167–184.
27. Moreland-Capua A, Dumornay NM, Mangus A, et al. Establishing and validating a survey for trauma-informed, culturally responsive change across multiple systems. *J Public Health (Bangkok)*. 2022.
28. Sinko L, Beck D, Seng J. Developing the TIC grade: a youth self-report measure of perceptions of trauma-informed care. *J Am Psychiatr Nurses Assoc*. 2022;28(6):455–463.
29. Boateng GO, Neilands TB, Frongillo EA, et al. Best practices for developing and validating scales for health, social, and behavioral research: a primer. *Front Public Health*. 2018;6:149.
30. Institute of Trauma-Informed System Change. Social Justice, Faith, Trauma, and a Way Forward: A Workshop for Professionals. McLean Hospital webinar. Jan 9–10, 2023. <https://home.mcleanhospital.org/ce-itisc-p2?hsCtaTracking=7491de37-cce1-4e4d-9dd4-b93e60dc20f7%7C888eade9-0522-4a49-a020-505ba3e36aad#overview>
31. Wagenhals D. An overview of trauma-informed care. 2017. Retrieved March 17, 2023. <https://lakesidelink.com/training/wp-content/uploads/sites/3/2021/06/LS-ETA.pdf>.
32. Fitzmaurice GM, Laird NM, Ware JH. *Applied Longitudinal Analysis*. 2nd ed. John Wiley & Sons; 2011.
33. SAS Institute, Inc. *SAS User's Guide: Statistics*. SAS Publishing; 1985.
34. Niimura J, Nakanishi M, Okumura Y, et al. Effectiveness of 1-day trauma-informed care training programme on attitudes in psychiatric hospitals: a pre-post study. *Int J Ment Health Nurs*. 2019;28(4):980–988.
35. Kramer T, Sigel BA, Conners-Burrow NA, et al. A statewide introduction of trauma-informed care in a child welfare system. *Child Youth Serv Rev*. 2013;35(1):19–24.