Measuring the Impact of Trauma-Informed Primary Care: Are We Missing the Forest for the Trees?

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IN BRIEF

Few studies exist that measure the quantitative impact of trauma-informed primary care. As a result, health care providers often struggle to answer critical questions, such as: *"What patient outcomes need to be measured to know if trauma-informed primary care is working?"* In this brief, authors Miguelina Germán, PhD, Dana E. Crawford, PhD, and Kathleen Dumpert, PsyD from Montefiore Medical Group's Trauma-Informed Care Program propose a measurement model for trauma-informed primary care and suggest potential variables that could be assessed for each major intervention component. This measurement model is based on the experiences of Montefiore Medical Group and other health care organizations that participated in *Advancing Trauma-Informed Care*, a national initiative led by the Center for Health Care Strategies with support from the Robert Wood Johnson Foundation.

n spring 2018, a small group of national stakeholders gathered to brainstorm opportunities to advance the implementation and adoption of trauma-informed care (TIC) in health care settings. The convening, organized by the Center for Health Care Strategies (CHCS) with support from the Robert Wood Johnson Foundation (RWJF), included a diverse representation of stakeholders such as adult and pediatric primary care providers, payers, psychiatric care providers, philanthropic leaders, public health professionals, and behavioral health clinicians, among others. One of the payer representatives, who had expressed interest in potentially incorporating trauma-informed approaches into a value-based payment model, asked: *"What patient outcomes would we need to assess to determine whether a health care organization's TIC program is working?"* This query, and the idea that a payer recognized the promise of a trauma-informed approach to care, triggered excitement among the health care providers. At the same time, the question elicited anxiety among the group given that outcomes measurement is largely underdeveloped in the TIC field.

It is not an exaggeration to state that enthusiasm for developing and implementing TIC has far outpaced the field's ability to measure the impact of such programs. A search in *Google Scholar* with the keywords, "trauma-informed care" yields over one million hits, but adding words such as "outcome," "measurement," "impacts," and "evaluation" narrows the results to a few dozen studies. Of these studies, the ones that predominately examined patient outcomes took place in residential treatment facilities and demonstrated impressive patient outcomes such as decreased use of restraints, reduction of property destruction, and improved patient satisfaction.^{1,2,3,4} The few studies conducted in primary care predominately examined short-term measures such as changes in measurement, it is not safe to assume that the results are generalizable given the differences in

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provider attitudes, but not patient outcomes.⁵ Thus, while there has been some good work done in measurement, it is not safe to assume that the results are generalizable given the differences in treatment setting and patient needs, and the amount of time providers typically spend with patients, among other factors.

This brief focuses on measurement challenges related to adopting a trauma-informed approach to care and articulates a measurement model to guide an evaluation strategy for TIC in health care organizations, particularly primary care. It suggests potential variables tailored to the health care sector that could be assessed for each major TIC intervention component. It uses examples from Montefiore Medical Group's work training an estimated 1,000 staff on trauma-informed approaches and implementing universal adverse childhood experiences (ACEs) screening at its 20 primary care practices under *Advancing Trauma-Informed Care*, a national initiative that focused on how to practically implement trauma-informed approaches in diverse health care settings. Drawing on these experiences, as well as the evaluation studies on TIC mentioned above, we share lessons about measurement and pose a provocative question to the field: *If the "outcomes" of TIC in primary care result in only improving patient engagement and satisfaction (and not health outcomes), is it still worth doing?*

Trauma Organized to Healing Organization

Trauma-informed primary care describes an organizational approach to "understanding, recognizing, and responding to the effects of all types of trauma"⁶ for both patients and the health care workforce. This approach appreciates that many problem behaviors began as attempts to cope, and seeks to address the "intersections of trauma with culture, history, race, gender, location, and language." As referenced in the below graphic — developed by Trauma Transformed, a program of the East Bay Agency for Children — organizational approaches to adopting TIC often involve first conceptualizing a continuum of being organized around trauma-inducing policies and practices, to adopting trauma-informed practices, or becoming a healing organization.⁷



A New Approach to Measuring and Evaluating Trauma-Informed Primary Care

Many TIC programs focus the bulk of their interventions on upstream variables — e.g., changing provider attitudes and behavior, modifying the environment, and developing workforce wellness practices. In contrast, many evaluations of health care interventions are traditionally more oriented around understanding the impact of these programs on patient outcomes, including cost and utilization. By focusing only on the *trees* (i.e., patient outcomes) when evaluating TIC programs, are we missing critical parts of the *forest*?

While a major driver behind the development of TIC programs in health care is to ultimately impact patient outcomes, individuals developing trauma-informed approaches should think more broadly about how to effectively measure program success. Drawing from our experiences, we recommend that organizations interested in evaluating TIC efforts seek to: (1) measure all major TIC program components and ensure that the measurement conceptually links to the actual intervention activities; and (2) avoid only measuring patient-level outcomes. More specifically, we encourage workforce program developers to ask themselves the basic question: *Is this TIC program actually designed to impact patient health outcomes?*

Measurement Model for Trauma-Informed Primary Care

This brief details a proposed measurement model for trauma-informed primary care that highlights typical program components (see **Exhibit 1**, page 4), a brief definition or rationale for why each component is necessary, and examples of how to measure each component. This model was inspired by conversations with colleagues also participating in the *Advancing Trauma-Informed Care* initiative including Ken Epstein, PhD, LCSW, Allison Hamblin, MSPH, Briana Loomis, PhD, and Edward Machtinger, MD.

To clarify, this model does not address trauma-informed approaches that involve training behavioral health providers in trauma-specific treatments. Instead, the measurement model focuses on interventions primarily designed to target the other members of the primary care practice and the practice environment as a whole. For each component, examples are provided for how to measure the effectiveness of TIC in primary care. The first section of the model highlights the typical intervention components of TIC programs in primary care settings, including: (1) providing workforce trainings consisting of education and skills to implement TIC; (2) creating workforce wellness practices; and (3) making environmental changes.



Typical Trauma-Informed Care Intervention Components

Workforce Training

Often, the first intervention component of a TIC program in primary care and health care settings more broadly is providing a comprehensive educational workforce training that ideally targets clinical and non-clinical staff at all levels of the organization (e.g., physicians, nurses, other allied health professionals, front desk staff, administrators, and security). Providing education promotes a shared language and understanding of TIC and the unique manifestations of trauma. This component is critical because a misinterpretation of patient behaviors stemming from trauma such as an angry outburst, non-adherence, or high utilization of health care services often leads to non-empathic responses between the health care workforce and patients. In turn, non-empathic responses can increase the likelihood of ineffective interactions and approaches between staff and patients.

Workforce training aims to improve understanding of trauma to promote staff empathy, while also providing staff with the necessary skills to manage challenging staff-patient interactions and enhance their ability to interact effectively with patients with trauma histories. To assess the impact of a trauma-informed workforce training, we recommend assessing changes in staff knowledge and attitudes toward TIC, for example, through pre- and post-training questionnaires that accompany TIC training materials (see **Exhibit 2** on page 5). These questionnaires focus on assessing confidence in recognizing trauma symptoms in patients and how staff can be affected by their own trauma history, in addition to assessing the knowledge and other skills gained through TIC training.^{8,9,10}

Exhibit 2. Assessing Staff Knowledge, Attitudes, and Skills Related to Trauma-Informed Care: Sample Questions

Montefiore Medical Group uses pre- and post-training questionnaires to assess changes in staff knowledge, attitudes, and skills related to trauma-informed care. Below are sample questions:

- A patient in your clinic becomes upset and agitated by the long wait time and noise level in the waiting room. From a trauma-informed care perspective, what could you try to do in this situation?
- When dealing with a difficult patient interaction, what is a potential impact of shifting the question you ask yourself from "What is wrong with this patient?" to "What happened to this patient?"
- If you are at work and a colleague shares graphic details about a patient interaction that involved something traumatic, what are some reactions you may experience?

Workforce Wellness Practices

Workforce wellness practices should acknowledge the unique toll that working closely with patients exposed to trauma can cause on staff in terms of burnout, compassion fatigue, and vicarious trauma. While there is evidence that general workforce wellness practices improve employee recruitment and retention, reduce absenteeism, and improve productivity, developing workforce wellness practices through a trauma-informed lens also recognizes the impact of working with patients whose behaviors may be hostile, angry, and dysregulated as a result of their exposure to trauma.^{11,12} At Montefiore's TIC program, examples of workforce wellness practices include:

- Incorporating mindfulness or relaxation exercises into regularly scheduled meetings and morning huddles in the primary care practice;
- Encouraging staff to take breaks when needed, particularly after difficult patient interactions;
- 3. Engaging in regular deep breathing exercises throughout the day; and
- 4. Developing workflows for staff to use when they are triggered.

To measure the impact of workforce wellness practices, we recommend assessing variables such as workforce turnover, employee satisfaction, employee burnout, and perceived levels of vicarious trauma and compassion fatigue among staff. A recent study found improvement in employees' satisfaction following the implementation of wellness practices at the workplace through TIC.^{13,14} This is typically measured using self-administered questionnaires pre- and post-TIC trainings that ask staff about the impact TIC and wellness practices have had on their work environment.^{15,16} Compassion fatigue and burnout can be measured using assessment tools such as the Professional Quality of Life Version 5 and the Crisis and Trauma Resource Institute Wellness Assessment for Burnout and Compassion Fatigue.^{17,18}



Using Low Impact Debrief to Support Staff Wellness

When triggered at work, staff may speak with co-workers to process the event. In these instances, we encourage the use of a technique called "low impact debriefing," which involves asking your co-worker for permission to share information about the challenging patient interaction.¹⁹ This type of debriefing is helpful because we have found that after experiencing a challenging patient encounter, speaking with a colleague can reduce negative emotions and the feeling of being overwhelmed.²⁰ At the same time, this practice can overwhelm the colleague who is sought out to be a listening ear. Therefore, we recommend that staff seek this social support by:

- 1. Obtaining permission from the colleague before sharing information;
- 2. Giving fair warning to the colleague if the interaction is potentially triggering; and
- 3. Sharing the minimal amount of information possible with the colleague.²¹

For example, a co-worker using this technique could ask a colleague if she has a few minutes to let her talk about a challenging patient, share that hearing the patient describe her history of abuse was upsetting and caused the co-worker to dream about it overnight, but not share the details of the patient's abuse to minimize the possibility of vicariously traumatizing the colleague.

Changes to Environment

Environmental interventions can shape behavior and impact individuals' moods. Physical environmental factors such as noise, air quality, light, temperature, and aesthetics can have an impact on staff and patients' perceived level of stress and physical and psychological safety.²² Examples of such interventions at Montefiore's TIC program include adding a water cooler in the waiting room and creating a dedicated recovery room equipped with a comfortable chair and calming images for staff to use following a challenging patient interaction. In a primary care environment where a large number of patients (and staff) may have trauma histories, unanticipated and loud levels of noise can serve as a trigger. To address this at Montefiore, we have worked to decrease the number of overhead pages using the loudspeaker system. From a TIC perspective, health care delivery environments should minimize the potential for patients to feel triggered and unsafe and should consistently seek ways to foster a sense of security within a healing environment. Measuring the impact of environmental changes can include assessments of staff and patient perceptions of physical and psychological safety in the practice.



Mediator Variables for Trauma-Informed Care in Primary Care Settings

Mediator variables are intermediate or short-term outcomes that occur between the intervention components and the long-term outcomes. For trauma-informed primary care, these include practice delivery and patient engagement and satisfaction.

Practice Delivery

The three intervention components described above — workforce training, workforce wellness practices, and changes to environment — are expected to impact practice delivery. Practice delivery encompasses interactions between the workforce and patients, as well as interactions that staff have with one another. In addition, practice delivery of TIC often includes screening patients for current and/or past exposure to trauma or ACEs. In collaboration with leaders in the field of TIC, the Substance Abuse and Mental Health Services Administration is currently seeking to identify and implement methods to enhance practice delivery and ways to measure TIC program efficacy. Ultimately, most TIC programs seek to enhance practice delivery to improve patient experience and outcomes, while simultaneously increasing workforce wellness.

To assess interactions between staff and patients at Montefiore, we created a tool that measures the impact of workforce trainings on practice delivery. The tool includes hypothetical clinical vignettes to study staff members' attributions and judgments of patients' behaviors in addition to staff decision-making with respect to these patients. The vignettes were administered pre- and post-training to assess potential changes in staff affect modulation, professional boundaries and behavior, and attributions of the patient's behavior described in the vignette. See **Exhibit 3** (page 8) for a sample patient vignette and an example of how a staff member's understanding of a patient's behavior shifted before and after a series of TIC trainings.

Exhibit 3. Sample Patient Vignette Used to Evaluate the Impact of Montefiore Medical Group's Trauma-Informed Care Training

The following patient vignette is used to assess potential changes in interactions between staff and patients before and after TIC trainings at Montefiore Medical Group. This specific vignette was administered to a nurse working with adult patients in a primary care setting.



age 30 years. Father, Jared, age 36 years. Children: Gabby, age 12 years and Michael, age 4 years. Four members of the Robinson family are scheduled for appointments today. The children, Gabby and Michael, are scheduled for well-child visits. Lisa (Mom) is scheduled for a women's health visit. Maria (grandmother) is scheduled to see her primary care provider (PCP). The Robinson family arrives two hours late for these appointments. Maria was required to make a follow-up visit with her PCP post emergency department admission as a result of fainting. You bring Maria back into the examination room to take her vitals. When you attempt to take Maria's blood pressure, she becomes agitated, pulls her arm away and says, "Don't touch me! I'm fine. I'm just here to see the doctor." You try to explain to Maria that this is part of her visit with the doctor. She yells at you to leave the room, saying that she will only talk to her doctor.

Question: Why do you think the patient is acting like this? What is the number one reason?

This question sought to understand the nurse's attributions of the patient's behavior. Before receiving TIC trainings, a nurse answered, "it could be that she [the patient] knows that if she behaves badly she will still be seen," which we coded as a less empathetic attribution of the patient's behavior. After receiving five TIC trainings over 1.5 years, the same nurse answered this question by writing, "She [the patient] is probably upset at the fact that she is there with 3 of her family members, she could have been waiting a long time to be seen, she could be worried about what the doctor is going to say...there are a lot of factors that could lead to this behavior." We coded this as a more empathetic response.

A key component of enhancing practice delivery to support TIC is effectively screening patients for their trauma history (see **Exhibit 4** on page 9 for information on Montefiore's approach to ACEs screening). Other options for measuring the impact of TIC programs on practice delivery could include: (1) direct observations between staff and patients; (2) the "secret shopper" technique in which a person assumes the role of a patient in order to better understand the patient experience; (3) measuring the number of patient complaints before and after implementing a TIC intervention; (4) assessing patient's direct perceptions of practice delivery through surveys or focus groups; or (5) the number of referrals to behavioral health.



Exhibit 4. Montefiore's Evolving Approach to ACEs Screening

At Montefiore, our TIC program aimed to implement universal ACEs screening across the lifespan, from infancy through geriatrics. Our practices, which serve 300,000 patients across 20 primary care practices that span pediatrics, internal medicine, and family medicine, screen annually starting at the two-month well child visit. Primary care practices routinely employ screenings related to physical health. At Montefiore, behavioral health screenings for social-emotional development, depression, and anxiety are also routine. However, our system was not universally screening for exposure to trauma. After reviewing a number of trauma screening tools available at no cost, our TIC program recommended the ACEs questionnaire. Many of our physicians asked us to assess the added utility of screening for ACEs compared to the other behavioral health screens that these practices were already administering.

As such, we analyzed approximately 21,000 ACEs questionnaires and other behavioral health screens given to patients over a 12-month period.²³ The other pediatric behavioral health screens included the Ages and Stages Questionnaire: Social Emotional (ASQ:SE) and the Pediatric Symptom Checklist-17 (PSC-17), while the adult behavioral health screens included the two-item Patient Health Questionnaire (PHQ-2) and the two-item Generalized Anxiety Disorder (GAD-2).^{24,25,26,27} Each screen was identified as positive or negative according to validated clinical cutoffs. For example, a patient attending their annual physical would be given the ACEs questionnaire and the PHQ-2. If the patient scored four or higher on the ACEs questionnaire, the screen was rated positive; if they scored zero on the PHQ-2, the screen was rated negative. A chi-square analysis yielded the proportion of patients who were positive on the ACEs screen, but negative on other behavioral health screens.

We found a very different pattern of results in adult patients versus pediatric patients. Among the adult sample, there was a statistically significant number of adults who screened positive on the ACEs questionnaire, but not on the PHQ-2 and GAD-2. This gave our team evidence that ACEs screening was yielding important information among adult patients. In contrast, among the pediatric sample, there were no statistically significant differences in the ACEs positive predictive value above and beyond the ASQ and the PSC-17. The results with the pediatric sample shifted our thinking toward prevention as there is strong evidence that patients with four or more ACEs are at higher risk for a host of poor physical and mental health outcomes as they age. In pediatric primary care, as opposed to internal medicine, there is a unique opportunity to help *prevent* children from acquiring four or more ACEs and build resiliency before they turn 18 years old. Consequently, instead of eliminating ACEs screening for children, Montefiore is piloting using an ACEs score of lower than four as the cutoff to trigger consultation with behavioral health in primary care pediatrics.

Patient Engagement and Satisfaction

Assuming a TIC program has successfully improved practice delivery, the next component in the measurement model to potentially be impacted is patient engagement and satisfaction. Research has found that certain patient behaviors can cost the health care system both time and money. Examples include high no-show rates to appointments, noncompliance with

medical recommendations, and underutilization of preventive resources, each of which may, in many cases, be at least partly attributed to unaddressed mental health issues such as untreated depression and trauma or other social determinants of health.^{28,29,30,31} The measurement model, we propose, suggests that by improving practice delivery in ways specific to TIC, patients will be more engaged and satisfied with primary care. Research has indicated that TIC interventions have resulted in patients giving higher ratings to their primary care providers on partnership, indicating that TIC approaches positively impact communication and shared understanding of patient needs in the primary care setting.³²

In a recent study, patients of primary care physicians who were trained in TIC were compared to patients of providers who did not receive the training.³³ Using a 21-item questionnaire through which patients rated their primary care physicians on rapport, information, and partnership, the study found that patients of trained physicians rated their providers more highly in terms of partnership, such as taking patient concerns into account when making treatment decisions. In addition to this approach, other ways to measure this component as part of a TIC program can include: (1) the number of trauma screens completed as an index of engagement with the screening process; (2) the number of patient complaints regarding negative interactions with staff; (3) a patient satisfaction measure; and (4) the no-show rates for both medical and behavioral health appointments.

Long-Term Outcome Variables Related to Trauma-Informed Primary Care

Patient Engagement and Satisfaction

In our proposed measurement model, patient engagement and satisfaction can function as a mediator or long-term outcome variable. At Montefiore, we felt the pressure to impact patient health outcomes when designing our TIC program. However, as we designed the intervention, which was universally applied to our entire primary care workforce and did not target a specific patient disease population, we came to realize that our intervention components would likely not impact patient health outcomes, particularly in the short-term. Nevertheless, we thought it was logical to expect our TIC interventions to impact patient engagement and satisfaction, because our intervention consisted of workforce trainings focused on teaching primary care providers, nurses, and administrative and front desk staff skills to respond to patients in an empathetic manner and giving them tools for interacting with patients with significant trauma histories. Given that this was the content of the TIC workforce training intervention, measuring patient health outcomes (such as HbA1c levels or body mass index) would not be conceptually linked to Montefiore's TIC program. Instead, we assessed patient engagement and satisfaction using a patient experience questionnaire before and after our universal TIC workforce training.

Patient Health Outcomes

For primary care settings that implement a TIC program targeting a specific group of patients, such as patients with poorly controlled asthma, workforce trainings would likely include content specific to working with the targeted group. For example, the TIC hypothetical vignettes would specifically train staff to respond to patients with poorly controlled diabetes, helping them to identify barriers and other critical variables, while maintaining an empathetic stance. Thus, in these types of TIC programs, it would be logical to expect a potential impact on patient health outcomes, such as better managed HbA1c levels, higher rates of preventive use of nebulizer, medication compliance, decreased asthma related visits to the emergency department, etc.

Moderator Variables for Trauma-Informed Primary Care

Moderator variables identify conditions under which the relationship between an intervention and its outcomes may differ. For example, a TIC program may impact female patients differently than male patients. In this example, gender would be a moderator variable. As such, it is important to consider the critical role that moderator variables can play in assessing the impact of a TIC intervention, such as integrated behavioral health and quality improvement resources.

Integrated Behavioral Health

In the proposed TIC measurement model, the availability of behavioral health resources is a key variable that can potentially influence each component of TIC implementation. For example, integrated behavioral health specialists can serve as consultants to make the primary care environment more trauma-informed, provide workforce trainings on trauma, and enhance practice delivery. Integrated behavioral health specialists in primary care can provide referred patients with mental health assessments and short-term therapy, case consultation, coordination of resources, and referrals to specialty mental health services. Having behavioral health specialists integrated into primary care practices has resulted in primary care providers feeling more willing to screen for behavioral health issues, more satisfied with these specialty services, and more competent in screening and treating behavioral health problems.^{34,35} More specifically, behavioral health specialists can assist primary care providers, nurses, and front desk staff to develop greater competency and comfort level in screening their patients for trauma. Behavioral health specialists can also advocate for and motivate their colleagues to adopt trauma-informed approaches because they possess the skill-set to help their team feel supported in discussing trauma with their patients — a topic that many health professionals do not receive explicit training to conduct.

We recognize, however, that many primary care settings do not have integrated behavioral health specialists. Additionally, some practitioners believe that trauma-informed approaches, particularly screening patients for current or past trauma, should not be implemented in primary care without adequate behavioral health services on site to support the primary care team. In medicine, it is considered unethical to screen without having appropriate follow-up

and referrals for patients in place. However, we believe that TIC can still be implemented in practices without integrated behavioral health specialists on-site as long as there is access to behavioral health resources for patients experiencing trauma or with trauma histories. Therefore, we recommend developing direct referral workflows from primary care to local community agencies for in-person treatment. In rural settings, or other practice areas with fewer behavioral health resources, we recommend using educational materials on trauma (e.g., brochures, books, flyers) to help patients understand some of their symptoms, exploring telemedicine options, and familiarizing staff with online resources.

Quality Improvement Resources

As a concept, TIC is very ambitious in that it strives to change the culture of a practice, and changing a system presents its own unique challenges. Quality improvement coaches are experts in the process of systems change that leads to improvement. The skillset of these coaches helps them to be uniquely qualified to enact positive change and sustain improvement in systems. Quality improvement coaches can help leadership identify barriers, increase buy-in, and develop workflows to implement TIC at a practice level, such as universal trauma screening or workflows for how to respond when staff become triggered by an event.

Conclusion

In this brief, we posed a provocative question to the field: If the "outcomes" of TIC in primary care result in **only** improving patient engagement and satisfaction (and not health outcomes), is it still worth doing? We believe the answer to this question is a definitive yes! While TIC aims to educate the workforce about how trauma impacts the way patients and staff navigate the health care system, assessments often solely evaluate patient health outcomes. In this model, we encourage those developing TIC programs to think more broadly about how to effectively measure program success by going beyond measuring patient outcomes to also assess all major TIC intervention components. Based on our experience, we have identified potential variables that could be assessed for each major intervention component and outlined how to conceptually link measurement variables to the actual intervention activities. Our logic model proposes that practice delivery, as well as patient engagement and satisfaction, explain the relationship between the typical intervention components of TIC programs (e.g., changes to environment, workforce training, and workforce wellness) and patient health outcome variables. The strength of this relationship is uniquely moderated by behavioral health resources and use of quality improvement resources. One limitation of this brief is that we did not highlight the importance of engaging patients in the measure development process. Montefiore's TIC program did have a patient advisory board that provided feedback on the various aspects of the program. In line with a trauma-informed approach, it is important to obtain patients' perspectives on their definitions of the critical components of a TIC program and how to define successful implementation.

Based on our experiences implementing TIC in the primary care setting, we recommend that when developing and evaluating trauma-informed approaches in health care organizations, program developers measure the success of their efforts as a whole, examining patient engagement and satisfaction, and workforce wellness in addition to patient outcomes to better understand the totality of the TIC landscape. While TIC programs could be designed to target patient symptoms, without targeting the experiences of the individuals working with patients, a major moderator of patient care is negated. In short, the workforce serves an essential role in patient outcomes. By both acknowledging the trauma history of many members of the workforce and training them to interact with patients and colleagues with empathy, the entire system is likely to be more effective and equipped to strengthen health care outcomes in the long-term.

Learn More

This brief is a product of <u>Advancing Trauma-Informed Care</u>, a national initiative made possible by the Robert Wood Johnson Foundation that aimed to better understand how trauma-informed approaches can be practically implemented across the health care sector. To learn more, visit CHCS' *Trauma-Informed Care Implementation Resource Center* at <u>TraumaInformedCare.chcs.org</u>.

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Endnotes

¹ H.B. Hodgdon, K. Kinniburgh, D. Gabowitz, M.E. Blaustein, and J. Spinazzola. "Development and Implementation of Trauma-Informed Programming in Youth Residential Treatment Centers Using the ARC Framework." *Journal of Family Violence*, 28, no. 7 (2013): 679-692. ² C.V. Izzo, E.G. Smith, M.J. Holden, C.I. Norton, M.A. Nunno, and D.E. Sellers. "Intervening at the Setting Level to Prevent Behavioral Incidents in Residential Child Care: Efficacy of the CARE Program Model." *Prevention Science*, 17, no. 5 (2016): 554-564.

³ T.W. Hales, S.A. Green, S. Bissonette, A. Warden, J. Diebold, S.P. Koury, and T.H. Nochajski. "Trauma-Informed Care Outcome Study." *Research on Social Work Practice*, 29, no. 5 (2019): 529-539.

⁴ S.L. Bloom, M. Bennington-Davis, B. Farragher, D. McCorkle, K. Nice-Martini, and K. Wellbank. "Multiple Opportunities for Creating Sanctuary." *Psychiatric Quarterly*, 74, no. 2 (2003): 173-190.

⁵ B.L. Green, P.A. Saunders, E. Power, P. Dass-Brailsford, K.B. Schelbert, E. Giller, et al. "Trauma-Informed Medical Care: A CME Communication Training for Primary Care Providers." *Family Medicine*, 47, no. 1 (2015): 7.

⁶ M. Earls. "Trauma-Informed Primary Care: Prevention, Recognition, and Promoting Resilience." *North Carolina Medical Journal* (Durham, N.C.). 79, no. 3 (2018): 108-112.

⁷ Trauma Transformed, A program of East Bay Agency for Children. Healing Organization Chart. Available at:

http://traumatransformed.org/wp-content/uploads/Copy-of-TOTIHO-Updated-040319-11x17_Healing-Organization-Chart.pdf. ⁸ A. Hall. B. McKenna, V. Dearie, T. Maguire, R. Charleston, and T. Furness. "Educating emergency department nurses about trauma informed care for people presenting with mental health crisis: A pilot study." *BMC Nursing*, 15, no.1 (2016).

⁹ D. Weiss, N. Kassam-Adams, C. Murray, K.L. Kohser, J.A. Fein, F.K. Winston, and M.L. Marsac. "Application of a Framework to Implement Trauma-Informed Care throughout a Pediatric Health Care Network." *Journal of Continuing Education in the Health Professions*, 37, no. 1 (2017): 55-60.

¹⁰ K.R. Choi and J.S. Seng. "Pilot for Nurse-Led, Interprofessional In-Service Training on Trauma-Informed Perinatal Care." *The Journal of Continuing Education in Nursing*, 46, no. 11 (2015): 515-521.

¹¹ T.W. Hales, T.H. Nochajski, S.A. Green, H.K. Hitzel, and E. Woike-Ganga. "An Association Between Implementing Trauma-Informed Care and Staff Satisfaction." Advances in Social Work, 18, no. 1 (2017): 300.

¹² D.N. Abdullah, and O.Y. Lee. "Effects of Wellness Programs on Job Satisfaction, Stress and Absenteeism between Two Groups of Employees (Attended and Not Attended)." *Procedia - Social and Behavioral Sciences*, 65, (2012): 479-484.

¹³ A.J. Damian, J. Gallo, P. Leaf, and T. Mendelson. "Organizational and Provider Level Factors in Implementation of Trauma-Informed Care After a City-Wide Training: An Explanatory Mixed Methods Assessment." *BMC Health Services Research*, 17, no. 1 (2017).
¹⁴ T.W. Hales, T.H. Nochajski, S.A. Green, H.K. Hitzel, E. Woike-Ganga. "An Association between Implementing Trauma-Informed Care and Staff Satisfaction." *Advances in Social Work*. 18, no. 1 (2017): 300-312.
¹⁵ Ibid.

¹⁶ D.N. Abdullah, and O.Y. Lee. "Effects of Wellness Programs on Job Satisfaction, Stress and Absenteeism between Two Groups of Employees (Attended and Not Attended)." *Procedia - Social and Behavioral Sciences*, 65, (2012): 479-484.

¹⁷ B.H. Stamm. "Professional Quality of Life: Compassion Satisfaction and Fatigue. Version 5 (ProQOL)." 2009. Available at www.proqol.org.

¹⁸ Crisis & Trauma Resource Institute Inc. "Wellness Assessment - Burnout and Compassion Fatigue". Available at <u>https://us.ctrinstitute.com/product/wellness-assessment-tool/</u>.

¹⁹ F. Mathieu. "Low Impact Debriefing: Preventing Retraumatization." *Low Impact Debriefing: Preventing Retraumatization*. 2008. ²⁰ L.A. Treiber, and S.N. Davis. "The role of 'Workplace Family' Support on Worker Health, Exhaustion and Pain." *Community, Work & Family*, 15, no. 1 (2012): 1-27.

²¹ F. Mathieu. "Low Impact Debriefing: Preventing Retraumatization." *Low Impact Debriefing: Preventing Retraumatization*. 2008.
²² P.C. Seifert and D.S. Hickman. "Enhancing Patient Safety in a Healing Environment." *Topics in Advanced Practice Nursing*. 5, no. 1 (2005).

²³ M. Germán and D. Crawford. "Implementing Universal ACEs Screening in a Large Health System: Lessons Learned from Montefiore Medical Group." Presented at the Center for Health Care Strategies, Advancing Trauma-Informed Care Final Convening, New York, NY, 2018.

²⁴ J. Squires, D. Bricker, and E. Twombly. Ages and Stages Questionnaires: Social-Emotional. Baltimore: Brookes. 2002.

²⁵ J.M. Murphy, P. Bergmann, C. Chiang, R. Sturner, B. Howard, M.R. Abel, and M. Jellinek. "The PSC-17: Subscale Scores, Reliability, and Factor Structure in a New National Sample." *Pediatrics*, 138, no. 3 (2016).

²⁶ L.P. Richardson, C. Rockhill, J.E. Russo, D.C. Grossman, J. Richards, C. McCarty, et al. "Evaluation of the PHQ-2 as a Brief Screen for Detecting Major Depression among Adolescents." *Pediatrics*, 125, no. 5 (2010).

²⁷ F. Plummer, L. Manea, D. Trepel, and D. McMillan. "Screening for Anxiety Disorders with the GAD-7 and GAD-2: A Systematic Review and Diagnostic Metaanalysis." *General Hospital Psychiatry*, 39 (2016): 24–31.

²⁸ C. DuMontier, K. Rindfleisch, J. Pruszynski, and J.J. Frey. "A Multi-Method Intervention to Reduce No-Shows in an Urban Residency Clinic." *Family Medicine*, 45, no. 9 (2013): 634-641.

²⁹ S. Kane and F. Shaya. "Medication Non-adherence is Associated with Increased Medical Health Care Costs." *Digestive Diseases and Sciences*, 53, no. 4 (2007): 1020-1024.

³⁰ M.V. Maciosek, A.B. Coffield, T.J. Flottemesch, N.M. Edwards, and L.I. Solberg. "Greater Use Of Preventive Services In U.S. Health Care Could Save Lives At Little Or No Cost." *Health Affairs*, 29, no. 9 (2010): 1656-1660.

³¹ D. Satcher and S.A. Rachel. "Promoting Mental Health Equity: The Role of Integrated Care." Journal of Clinical Psychology in Medical Settings, 24, no. 3-4 (2016): 182-186.

³² B.L. Green, P.A. Saunders, E. Power, P. Dass-Brailsford, K.B. Schelbert, E. Giller, et al. "Trauma-Informed Medical Care: Patient Response to a Primary Care Provider Communication Training." *Journal of Loss and Trauma*, 21, no. 2 (2016): 147-159.
³³ Ibid.

³⁴ M. Germán, M.L. Rinke, B.A. Gurney, R.S. Gross, D.E. Bloomfield, L.A. Haliczer, et al. "Comparing Two Models of Integrated Behavioral Health Programs in Pediatric Primary Care. *Child and Adolescent Psychiatric Clinics of North America*, 26, no. 4 (2017): 815-828.

³⁵ B.C.G. Forson. "Integration of Behavioral Health Methods in Primary Care: The Experiences of Primary Care Providers." *Dissertation Abstracts International: Section B: The Sciences and Engineering.* 78(2018).