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ORIGINAL ARTICLE

Implementing Trauma-Informed Practice in Juvenile Justice Systems: What can Courts Learn from Child Welfare Interventions?

Jerel M. Ezell[1,2] · Margaret Richardson[2] · Samira Salari[3] · James A. Henry[2]

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Abstract
Many youth entering juvenile court systems show manifestations of psychological trauma. Focusing on rural juvenile courts, systems with greatly underserved and under-researched populations, we assessed practices, barriers, and recommendations around trauma-informed practice, an evidence-based approach for addressing trauma and reducing delinquent behavior and recidivism. As part of a pilot trauma-informed practice initiative at four rural Michigan juvenile courts, semi-structured qualitative interviews were conducted with 15 court staff, including probation officers, referees, judges, and on-site clinical therapists. Respondents expressed an ideological affinity for trauma-informed practice, describing growing inclinations to rely on referral-making around mental health treatment *in lieu* of traditional (punitive) sentencing. Key implementation barriers included limited access to local mental health resources, insufficient buy-in from K-12 schools, government, and police, and concerns over professional abilities/boundaries. Respondents recommended additional technical trainings on trauma-informed practice and cross-disciplinary education for clients' families and external stakeholders.

Keywords Delinquency · Intervention · Mental health · Qualitative · Recidivism · Rural

Child Maltreatment: Population Trends and Criminal Justice Linkages

Child maltreatment, which includes various forms of abuse and neglect, is broadly characterized as any act or failure to act by a parent (or caretaker) which results in death, serious physical or emotional harm, sexual abuse, or exploitation of a child (Smith 2010). Cross-sectional research illustrates that as many as one in four children in the United States will experience an act of maltreatment (Verrecchia et al. 2010). In 2016, there were an estimated 676,000 verified reports of child maltreatment in the United States, with roughly 1750 children dying as a result of abuse or neglect (Child Maltreatment, 2016 n.d.). Recent epidemiologic surveillance demonstrates that child maltreatment occupies a markedly vast and diverse socioeconomic milieu, with rates of child maltreatment consistently more pronounced in families with lower socioeconomic status (SES) and among racial/ethnic minority groups (Maguire-Jack et al. 2015; Wildeman et al. 2014).

Increasingly, child maltreatment is recognized as having a dense constellation of adverse short and long-term health sequelae, with the most outsized effects bracketed around intellectual, social, emotional, and physical development up through the adolescent and early adult years (Font and Berger 2015; Widom 2014). Silverman's seminal longitudinal study previously showed that, in contrast to non-abused children, abused children had significant impairments in functioning at ages 15 and 21, including increased levels of depression, behavioral issues, and suicide attempts (Silverman et al. 1996). Rates of substance abuse, and subsequent proclivities for violence (including abuse of future offspring), have also been shown to be elevated among those with exposure to childhood maltreatment (Felitti et al. 1998; Proctor et al. 2017).

Sociological research into the undergirding drivers of delinquency, including normatively antisocial behavior and unlawful or criminal acts (Matza and Sykes 2017), reveals that

✉ Jerel M. Ezell
jerel@uchicago.edu

[1] Department of Sociology and Department of Medicine, University of Chicago, 1126 E. 59th St., Chicago, IL 60637, USA

[2] Children's Trauma Assessment Center, Unified Clinics, Western Michigan University, Kalamazoo, MI, USA

[3] University of Illinois Hospital and Health Sciences System, Chicago, IL, USA

the majority of youth who develop a pattern of delinquent behaviors and subsequent court involvement have faced serious childhood adversities. These encompass sexual and physical abuse and ongoing exposure to domestic and "street" violence (Buffington et al. 2010; Carrion and Steiner 2000). Empirical reports indicate that 70 to 92% of youth with delinquencies have experienced past trauma (Greenwald 2002; Jolliffe et al. 2017), and these data further illustrate that youth needing a child welfare intervention have substantially higher delinquency rates compared to youth with unsubstantiated cases.

Notably, the diagnostic parameters of child maltreatment have been shown to be wide-ranging: Steiner and colleagues' early work on posttraumatic stress disorder (PTSD) found that 32% of delinquent youth met the criteria for PTSD, in comparison to 3% or fewer in the overall child population (Steiner et al. 1997). Current scholarship has identified a similar PTSD prevalence among delinquent youth (Modrowski and Kerig 2017; Wilson et al. 2013). Beyond an elevated risk of PTSD symptomology, youth exposed to multiple or repeated traumas often frequently and dramatically shift emotional states, are unable to calm themselves, and have generally negative perceptions of themselves and those around them (Steiner et al. 1997). Youths' telegraphing of opposition and disrespect for authority are theoretically framed as self-protective, brain-based survival responses (Henry et al. 2007) which engender a sense of safety and control when experiencing overwhelming traumatic stress. Incidentally, this dysregulation places youth at a heightened risk of excessive/harsh punishments, social isolation, and rejection, which, in turn, reinforces youths' negative working model of the world, hypervigilance, and underlying depression (Brotman et al. 2017; Ezell et al. 2018).

The Implementation of Trauma-Informed Practice

In targeting and addressing the underlying sources of trauma, a trauma-informed, neurodevelopmental/regulatory understanding of youth going through juvenile courts has critical treatment and pharmacological implications. Presently, however, the juvenile justice system is under-equipped, ideologically and structurally, to meet the treatment needs of youth with psychological trauma (Acoca 1998; Snyder and Sickmund 2006). The only published national survey of trauma-informed practice in public juvenile justice organizations, released in 2006, found that less than 10% of these organizations had created programming to address past maltreatment/trauma or developed collaborations with other agencies that could meet this need (Snyder and Sickmund 2006). Newer complementary evidence suggests that the proportion of trauma-informed juvenile justice organizations has largely stagnated (Ford et al. 2016). Without receiving appropriate rehabilitation to address important psychological correlates of maltreatment and trauma, many juvenile offenders will re-offend upon release from detention facilities (Coleman and Stewart 2010).

One reason for the slow adoption of trauma-informed practice in juvenile justice systems may be related to incoherence and inconsistency in theoretical and practical framing. In Branson and colleagues' recent systematic review of conceptualizations of trauma-informed juvenile justice systems (Branson et al. 2017), the authors identified relative similarity in existing studies' characterization of core definitional domains for trauma-informed practice, but notably less consistency in regard to formal implementation, praxis, and policy. Traditionally, trauma-informed practice, in the context of child welfare interventions, refers to the iterative identification and treatment of traumatic impact as the conduit between exposure to maltreatment and subsequent "acting out" of delinquent behaviors, such as interpersonal violence, consumption of alcohol or drugs, and skipping classes (Henry et al. 2011; Ko et al. 2008). In turn, trauma-informed practice, *in the context of juvenile justice*, proffers objective consideration of a child's social, emotional, and developmental life-course in formulating appropriate adjudication and sentencing guidelines. Unlike traditional legal models which are often highly punitive, trauma-informed practice seeks to encourage recognition of the role trauma plays in shaping child behavior, whilst prioritizing approaches most likely to attenuate and help mend the underlying processes that have led to the maladaptive or criminal behavior (Henry et al. 2011; Richardson et al. 2012).

While the trauma-informed practice model has been broadly applied in the past two decades, primarily in social work/social services environments, little research has been published assessing implementation processes in juvenile or family court systems, these being largely "trauma-blind" environments where the influence of psychological distress has historically been only passively, or only secondarily, weighted during adjudication (Donisch et al. 2016; Ford et al. 2007; Ko et al. 2008). Moreover, little is known about trauma-informed practice in rural areas, spaces with well-documented and aggressive barriers to quality healthcare, education, and community resource-building (Angold et al. 2002). Indeed, studies on differences in trauma prevalence across different geographic milieu have been inconclusive (Erickson et al. 2013; Paul et al. 2006). Of note, rates of youth incarceration have also been shown to vary by location, sometimes signaling higher levels in rural areas; for example, a recent large study of K-12 students in Louisiana determined that rural students shared similar risk factors for incarceration and had greater overall odds of encountering the juvenile justice system as compared to urban-dwelling students, even after controlling for common covariates (Blackmon et al. 2016).

To address this empirical gap, a series of semi-structured interviews were conducted with staff at four juvenile/family courts in Michigan who had been trained on integrating trauma-informed practice into their workflows. This pilot qualitative investigation, part of a state-wide trauma-informed practice initiative, was aimed at developing a better understanding of the intellectual and formative operationalization of trauma-informed practice and associated trauma-informed practice implementation procedures, challenges, and spaces for enhancement. Provisional insights gleaned from this analysis may support the development of trauma-informed practice programming in juvenile justice settings elsewhere, or refinement of existing programs.

Procedures

Overview of Trauma-Informed Practice Initiative at Juvenile Courts

In 2011, the Children Trauma Assessment Center (CTAC) introduced an integrated training initiative with four juvenile/family courts, each located in a different county in Michigan, USA. As part of this initiative, CTAC staff delivered trainings on trauma-informed practice to court personnel, which included probation officers, judges, referees, and ancillary clinical professionals. These trainings, which were proceeded by one follow-up "refresher" in the subsequent year, addressed the following: 1) the basic etiology and pathways of childhood trauma; 2) how trauma affects the morphology of the brain and impairs neuropsychological development; 3) how trauma-informed practice can effectively identify and lead to improved behavior in affected youth; and 4) the interdisciplinary nature of implementing trauma-informed practice. In regard to the latter, court personnel were trained on the CTAC Trauma Screen, which is described in-depth elsewhere (Henry et al. 2010). Briefly, the CTAC Trauma Screen is a validated checklist tool designed to help mental health practitioners for youth, and related stakeholders, identify traumatic exposures and manifestations in children between the ages of 6 and 18 years of age. The CTAC Trauma Screen consists of 18 questions, takes roughly five minutes to administer, and has three primary diagnostic axes: 1) awareness/suspicion of prior/current forms of abuse or neglect; 2) exhibition of aggressive behavior toward others or oneself, or oppositional dispositions; and 3) performance or attendance at school (e.g., evidence of low or failing grades; truancy).

As part of the initiative, court staff were asked, at client intake, to administer the CTAC Trauma Screen (Henry et al. 2010) on youth entering the court system through adjudication. Court staff were trained on how to utilize the screening results to determine if further trauma/psychological assessment was necessary and which types or modalities of subsequent therapeutic treatment the juvenile could benefit from. Conceptually, the goals of the trainings were to equip court personnel with a broader understanding of trauma and its impact on the development and behavior of children and to also frame the potential utility of screening for trauma as a way of crafting trauma-specific interventions to reduce criminal recidivism and improve overall juvenile outcomes (self-control, class attendance, graduation rates, etc.).

Study Setting and Population

Between May 2016 and August 2016, court personnel, including probation officers, judges, referees, and on-site clinical professionals, were recruited from four rural county courts which had participated in the trauma-informed practice trainings. At the time of the study, each of the four counties had a median annual household income between $10,000 and $20,000 *less* than the overall Michigan median annual household income of $52,492 (American Community Survey: 2017 Data Release n.d.) and was ranked in the state's bottom 25th percentile. To protect the identity of the courts and respondents, no further identifying details on either is provided.

Qualitative Interviews and Analytic Plan

A research staff member trained in interviewing and qualitative methodology conducted semi-structured interviews with participants. In addition, we periodically observed daily activities of staff and active cases in the court. To be eligible to participate in the interviews, court staff members had to have been part of the CTAC-led trainings or "refresher" sessions and also have used, or been familiar with, the CTAC Trauma Screen procedures for at least one year. No financial incentive was offered to participants for their participation, however sites were given a small annual donation to account for extra time and effort staff spent on the integrative initiative. On average, interviews lasted approximately 45 min.

A sample of the interview questions is provided in Appendix Table 2. Questions sought to assess court personnel's experiences and perspectives on obstacles and opportunities around implementation of the CTAC Trauma Screen and court decision-making from adjudication through (mental health) referrals, to treatment plan monitoring and evaluation. Interviews were audio-recorded and professionally transcribed by an outside organization. Audio files and interview transcripts were securely stored on a drive and restricted to research team members.

The qualitative interviews were supplemented by cursory assessments of a nonrandom selection of closed petitions/client case files from each court site consisting of arrest details, psychosocial screenings, and programming materials. Due to the fluctuating procedural aspects of the courts and the way in which cases enter and exit dockets, it was not

possible to obtain and review a random, standardized volume of records at each site. Thus, we reviewed any petitions that had been closed within a year before the date of the assessments. Given the above-referenced lack of uniformity, we provide only these non-adjusted estimates:

In brief, a total of 133 individual case files were nonrandomly selected and reviewed across the four juvenile court sites, including 47 cases (35.3%) at Court Site 1, 33 cases (24.8%) at Court Site 2, 16 cases (12.0%) at Court Site 3, and 37 cases (27.8%) at Court Site 4. The mean age of the youth was 16.27 (± 2.09) and the majority were male (61.0%). In addition, most youth were categorized as White (90.8%). Across all sites, the overall mean number (± SD) of youth trauma exposures or manifestations, as measured by the CTAC Trauma Screen, was 4.38 (± 4.58) out of a possible score of 18. Approximately 36% of the sample had one or no (zero) trauma exposures or manifestations, and roughly 32% of the sample had six or more trauma exposures or manifestations, illustrating a bimodal distribution. Among males, the most common trauma manifestations, as measured by the CTAC Trauma Screen, were the items "oppositional-defiant behavior" (30.9%), "issues with authority" (30.9%), and "school problems (failing grades)" (28.4%). Among females, the most common trauma manifestations were the items "oppositional defiant-behavior" (28.6%), "suspected neglect" (26.5%), and "issues with authority" (24.5%).

Qualitative analytic methods adhered to inductive methodology (Glaser 1965; Strauss and Corbin 1990). Procedures involved open coding and thematic analysis using ATLAS Ti (version 8.0). Prior to formal analysis, a series of a priori codes were built around concepts related to childhood trauma exposure, as well as matters of implementation, barriers, and solutions to trauma-informed practice in juvenile court settings, to compose a provisional codebook. During this iterative process, the codebook was expanded as necessary. A second coder independently examined the codes and a subset of the transcripts (25%) to establish a crude estimate of inter-rater reliability: Reliability was generally strong (>80% agreement in code application); discrepant results were discussed and reconciled between the two coders. For additional methodological fidelity, member checks were performed with initiative stakeholders to confirm and refine emergent themes (Creswell and Miller 2000).

Approval for the study was obtained from the Institutional Review Board at Western Michigan University and the administrative bodies of the four participating court sites. Verbal consent was obtained.

Results

Qualitative Interview Findings

A total of 15 individuals, representing four different juvenile courts, were interviewed (Appendix Table 3). Respondents included seven probation officers, four court referees, two judges, and two clinical therapists. Notably, those interviewed represented *all* corresponding staff members at each court (with the exception of the respective judges at Court Site 1 and Court Site 2 who were unavailable for an interview). This dynamic typifies the rather condensed workforces in this area.

Major emerging themes were bracketed around three domains: (1) *Conceptualization, operationalization, and implementation of trauma-informed practice in juvenile court systems*; (2) *Obstacles to implementation and usage of trauma-informed practice in juvenile court systems*; and (3) *Proposed strategies for enhancing implementation and utility of trauma-informed practice and associated trainings and psychometric tools*. An overview of the interview themes is presented in Table 1.

Conceptualization, Operationalization, and Implementation of Trauma-Informed Practice in Juvenile Justice Systems

The Emergence and Activation of Trauma-Informed Practice

Across the board, court personnel expressed an ideological affinity for the overall procedural arc of trauma-informed practice, perceiving it as a valuable modality for identifying, understanding, and negotiating the psychosocial history and manifesting behavioral typologies of youth. As one judge explained:

> I think, overall, [trauma-informed practice] has been very successful as a worldview of how to deal with these cases. It's definitely taken root here because of the [training] and the professional community that was brought into it. It's part of what we do now. – Court Judge (Court Site 3)

Along these lines, most respondents also described seeing direct experiential value in the CTAC Trauma Screen as a routinized way to gauge the potential presence of trauma-related exposures or manifestations in youth. However, in spite of the general endorsement of the CTAC Trauma Screen's utility, several respondents indicated that the tool did not produce meaningful elucidation or insights beyond other tools they were currently using (e.g., the MAYSI 2, DSM, etc.). Moreover, other respondents viewed the CTAC Trauma Screen as 'just another thing' for them to have to consider during the intake process (adding to their already voluminous paperwork). Broadening this notion, a Community Mental Health Therapist Supervisor (Court Site 1) noted that the screen was valuable only if it was "[not] used in isolation. It's a good starting point for some [staff]." This individual further remarked on the

Table 1 Overview of Qualitative Interview Themes

Conceptualization, Operationalization and Implementation of Trauma-informed Practice in Juvenile Justice Systems	Obstacles to Implementation and Usage of Trauma-informed Practice in Juvenile Court Systems	Proposed Strategies for Enhancing Implementation and Utility of Trauma-informed Practice and Associated Trainings and Psychometric Tools
Trauma-informed practice generally viewed as an ideologically and operationally valuable tool in better understanding youth and their pathways to initial delinquency and recidivism	Access to mental health resources hampered by limited number of local trauma-informed practitioners and density issues, as well as client/family transportation obstacles	Deeper clinical focus in trainings on mechanics of trauma and more follow-up "refreshers," potentially delivered online (e.g., webinars), around trauma-informed practice, to stabilize stakeholder engagement
Shifts away from modular methods of thinking about youth behavior to trauma-informed practice generated in staff a sense of autonomy and capacity to explore and consider clients' psychosocial backgrounds in sentencing	Concerns over professional boundaries, and relative appropriateness and competency of court personnel to broach psychological milieu during engagements with clients and their families	Findings way to complement court personnel with on-site clinicians trained in trauma-informed practice, thereby reducing geographic/access barriers to access for clients and their families
Trauma-informed practice generally stimulated tendency toward referral-making for mental health services over traditional, purely/retributive punitive forms of sentencing (e.g., detention, fines, etc.)	Families' low-income status and insurance issues stymie courts' efforts to facilitate access to mental health treatment sites and, more generally, to have viable alternatives or substitutes for standard care/institutionalized sentencing measures	Focusing outside of the court system to other stakeholder groups—namely police, schools, and parents—to provide education on the various dimensions of trauma and ways to potentially engage youth who show signs of traumatic exposure
General sense that trauma-informed practice enhanced relationships between courts and families, and did or could improve youths' psychosocial outcomes and reduce youths' likelihood of recidivism or intensification of trauma manifestations	Difficulty achieving intellectual and practice support from skeptical state/local government, and "tradition-minded" law enforcement and, K-12 school officials around the trauma construct and need for comprehensive trauma-informed assessments of juveniles	Collaborating with government leaders to build coalitions of tactical and financial support to advance the juvenile system to one that focuses underlying processes behind juveniles' deviant behaviors via a public health prevention approach

need for consistent, rigorous application, in lockstep with the particulars of the training protocol, noting "You [have] to do a good job; [if] you don't do a good job, you have no value [and] might as well not do anything. If you're going to do it: Do it the way we've trained."

One probation officer, in considering her initial introduction to trauma-informed practice and the CTAC Trauma Screen, discussed her views of the details needing to be weighed in addressing trauma-influenced behaviors, contrasting her current opinions with those from earlier on in her career. Of note, on several occasions, this respondent returned to the importance of trauma-informed practice in calibrating the expectations of adoptive parents:

> Before I thought 'Well, it's just the kid acting out; they're just not listening. They're just being naughty.' But, now, it's like, 'Okay, yeah.' You look back into the family history, and all the issues with parents. All these parents are fighting their own battles. They aren't raising these children, and [are] just letting them do what they do; and of course [their children] make bad choices. Maybe when I didn't know about trauma, or how it affected your brain, I just thought 'It's kids being kids.' Now, it's, 'Oh, this is why you're doing this.' And a lot of these parents are not informed of trauma. Especially adoptive parents. They're adopting these children [....] and [thinking] 'Love is enough.' And it's not. – A Court Probation Officer (Court Site 1)

Using Trauma-Informed Practice to Guide Sentencing Recommendations In general, respondents expressed both a greater overall desire and proclivity for recommending trauma treatments and other mental health-related referrals for juveniles *in lieu* of—or in tandem with—more traditional sentencing modalities, such as detention, formal probation, or fines. This was supported by our file review. Trauma-

informed practice was described as helping crystallize drivers of child behavior and facilitating identification of fruitful approaches to correcting delinquency-producing behaviors. As a judge explained in considering the impact of trauma-informed practice in the juvenile justice system:

> I've been doing this 22 years as a judge, and I'm definitely more likely to look at trauma and say, 'I can see why this kid is being such a little asshole.' Where, when I started out, I guess I was raised, back when I went to college, it was the 'nurture vs. nature' debate. 'If it's not the genetic component, it's got to be the upbringing component.' Well, things are more complicated than that. I've come to realize that if I've got a seriously delinquent kid or […] even a troubled, delinquent kid: Let's look at what events in his life have changed. 'Your father used to beat you,' whatever. 'This is part of what you are, and we need to address that.' I really try to keep a kid in the community (out of detention) more than I would have 10 years ago. – A Juvenile Court Judge (Court Site 4)

Respondents also illustrated ways in which trauma-infused-thinking promoted greater case-specific flexibility, allowing them to be more creative and open-minded in crafting potential solutions. A probation officer characterized this orientation as such:

> I think we take a look at their past and as far as trauma goes. And then also around here, all the counselors are focused more on that [trauma], so we can refer them out to those services. [It] seems like more people are educated in that and wanna help the kids […]. We ask the court-ordered kids, more often than not, to counseling now when we look at their pasts and stuff like that. So, it has helped. – A Court Probation Officer (Court Site 2)

In situating families as central stakeholders in improving client outcomes, several respondents remarked on how dynamics with families often forced court personnel to recognize and engage caregivers as partners in minimizing the ongoing transmission and impact of trauma in youths' lives. Specifically, respondents described an ongoing shift to focusing on educating caregivers about trauma and the importance of identifying trauma and its subsequent impact on functioning and pathways to delinquent behavior.

> I can get some families to hear what I'm sayin'. And then other ones, I haven't figured out how to say it in a way that they're going to buy it. If I can get any buy-in, you know, it makes a huge difference. If I can get the parents to see, 'Okay, this is what's happening in your brain when you're upset. And [the child's] trigger just happens to be a whole lot more sensitive than yours,' then I can begin to get them to begin to act differently.' […] My biggest thing is if they [the parents] just don't follow their teenager. I'm like, 'You've got this fight or flight thing going on.' [The parents] are flying. […] That radically changes most of the kids that I work with; the family dynamic changes immediately. – A Court 'Community Mental Health' Therapist (Court Site 1)

Obstacles to Implementation and Usage of Trauma-Informed Practice in Juvenile Court Systems

Friction between Traditional Institutional Approaches and "Trending" Interprofessional Belief Sets

Respondents from Court Site 3 held a markedly nuanced position regarding the implementation of trauma-informed practice in juvenile courts in contrast to their counterparts; each respondent from the Court Site 3 described feeling it was inappropriate for probation officers and/or court personnel to directly discuss issues related to psychological health and well-being (and, by extension, trauma) with clients or clients' families. (Of note, respondents from Court Site 3 also indicated that they were using the CTAC Trauma Screen only sparingly, if at all, unlike respondents from the other three sites, which we confirmed during our cursory file review). Some of the professional discomfort and reticent was described as being stirred by the presumed orientation of clients and their families. As one probation officer explained, exploring the psychosocial histories of clients (and, by extension, families) could be viewed as an invasive, accusatory, or otherwise negative, meaning-laden act:

> Delinquency aside or charges aside: It's one thing to talk about that, because that's why we're here. We're here for court; we're not here to delve into their deep, dark secrets, or what have you. And we [the court] just said, 'As a parent, I'd have trouble with someone asking one of my daughters, 'Hey, by the way…' My daughter would probably look at you, like, 'What? Get out of here!' You know? – A Probation Officer (Court Site 3)

Relatedly, the court referee from this court noted,

> My guys can't be 'the hammer' and 'the Kleenex.' My guys are the hammer, you know […] Yeah, we hold people accountable, but if we get about as far as mentoring, good behavior; I mean, we take kids fishing. We do all these fun things. We try to show them one way of life. But now to go from the hammer to therapist, is a line that is tough to cross. At least in our beliefs. Some

> courts may feel very comfortable doing that. – A Juvenile Court Referee (Court Site 3)

Extending from this thread, court personnel across *each* site noted a generalized sentiment of not being fully equipped with the clinical knowledge to appropriately probe and/or discuss trauma and its potential impacts. Most respondents noted that they had not received any formal evidence-based psychotherapeutic training; moreover, of the four courts, only Court Site 1 had a credentialed mental health counselor directly on-site.

Intricacies of Generating Buy-In and Overcoming Resistance from Community Stakeholders Across the board, respondents spoke to difficulty in building support and alliances related to trauma-informed practice with *non-court* stakeholder entities—namely, police, K-12 teachers and school administrators, and government officials. In describing failures to help re-orient non-court stakeholder entities' adversarial attitudes towards youth displaying behavioral issues, respondents remarked that their external counterparts largely dismissed trauma-informed thinking as a faddish movement which ignored what they saw as the genesis and primary source of delinquency: poor parenting and some children being inherently bad. Multiple respondents, including a probation officer (Court Site 4), perceived this mentality as reflective of a larger generational schism, remarking that, 'Younger staff seem to go with [trauma-informed practice] a little easier—'Yeah, I get it,'—and are willing to help more than the old people [who are] stuck in their [mentality of]: 'This is how we did it, and this is how I'm gonna do it.'" The variation in belief systems was described as a significant contributor to an ongoing 'silo effect' within and between the courts and, in particular, local schools and police. In the case of police, diminished buy-in was bracketed around general frustrations created from police officers' frequent run-ins with particular delinquent youth. Illustrating this dynamic, a court referee describes her staff's rocky relationship with local police:

> We'd like to say we're sick of getting calls in middle of the night because the kids are demonized for being these things, and police very much want them locked-up. And I know [the police] get frustrated a lot with us. […] We used to have really good relationships [with police]. […] And I think it's hard for them to just accept. I try do my best to try to accommodate what they want or need. Or they're frustrated because they've been called out to a house 10 times in the last week. So, what can I do to kind of help them? It's difficult. They come from a very, very, very different mindset. I think it's very hard for law enforcement to buy into [this] trauma thing. […] 'I'm not saying what the [kid] did was right by any means, but why don't we look at what's going on?' – A Juvenile Court Referee (Court Site 1)

Recognizing and Addressing Trauma-Related Treatment Needs: The Problem of Limited "Landing Spots." Considering instances where trauma was detected through formal or informal trauma screening, all respondents detailed earnest efforts to make referrals to mental health resources. (This tendency was corroborated by the informal file review, where treatment recommendations and follow-up letters from mental health providers were often observed as part of juveniles' case files.) For some respondents, however, trauma screening and recognition brought with it the diametric dilemma of having limited or low-quality local referral sources to utilize to further assess and address clients' mental health needs. Along these lines, respondents from each site described a fragmented patchwork of mental health services in their respective rural communities, framing local mental health clinicians as largely unskilled in providing comprehensive trauma-informed assessments and/or evidence-based trauma treatment.

A probation officer (Court Site 2) remarked that, "You wait a long time to get in [for a comprehensive trauma-informed assessment]. I'm not aware of anybody up [in my area] where you can get a kind of [comprehensive trauma-informed] assessment. You can get a psychological [assessment] where they might have [just] a paragraph about trauma. […] So, if we had a kid [with trauma], we'd have to wait on the waiting list and eventually get there. And in the meantime, [we] muddle through." Much of the blame for limited clinical sourcing and programmatic funding (often couched in terms of prohibitive Medicaid reimbursement) for trauma-informed services was attributed to state and county government.

Addressing Persistent Socioeconomic Obstacles Common in Isolated Rural Communities Relating to the broad geographic and situational barriers cited, general resource access was framed as being heavily tempered by the local population's socioeconomic parameters. Respondents frequently indicated that most clients and families they serve were lower-income and did not have reliable access to transportation, nor the financial means to consistently support trips to and from the court or referral sites. More generally, respondents pegged their prototypical client as from a family living below the federal poverty line and uninsured or underinsured, with a general inability to pay for mental health and wraparound services. This binary was described as presenting an often-untenable situation for families endeavoring to address their child's needs but lacking the financial means to do so; and

this, in part, being due to what respondents described as parents' 'own [personal] issues' and need to prioritize employment and their basic daily needs (e.g., paying for food, bills etc.). The referee at Court Site 4 outlines efforts above-and-beyond standard services to address these ecologically-ensconced issues:

> We [have to] send them 45 minutes to an hour away for counseling. Then transportation becomes an issue. […] Transportation is a huge issue for people here. […] They have Dial-A-Ride [a local transportation vendor], and then we buy bus tokens for them to get here [to our office]. We try to go see them twice a month in their environment, whether it be at home or school, so they're not having to come here constantly. A lot of our parents are on disability, or don't work, or [do] part-time work. Or [are] getting assistance from the State. Or the parents that are working are busting their butt, and they can't take off the time to get the child to probation visits and counseling. – A Juvenile Court Referee (Court Site 4)

Grappling with Population Changes, Increasingly Complex Cases, and Associated Capacity Issues With the exception of respondents from Court Site 4, who described seeing a steady decrease in their cumulative caseload and a decline in overall case severity in recent years, most respondents detailed encountering increasingly psychosocially complex cases. A probation officer (Court Site 2) characterized her changing community as such, "Like everybody, we're expected to do more or less. […} Our caseloads have doubled. The amount of violent crime has gone up; the drug use [is] harder. When I first started here seven years ago, [it] was the typical things [...]: misdemeanor alcohol; misdemeanor smoking a little weed; or fighting at school. Now, we're having to place kids with serious heroin addictions. You know, kinda the buzz-thing around here is that we're one bad sex offender away from our budget being blown."

A court referee pinned the surge in his court's caseload complexity and volume to general downshifts in the regional economy and associated changes in local demographics to what she described as populations with denser class-related distinctions and social needs, noting,

> We've also seen the hard-working factory families are leaving; we've closed one, two, three factories. […] These jobs produced $70,000 to $80,000 incomes per year, per family. Those jobs are now gone; being replaced by lower-income families. And so, we've seen that shift in our courts. […] We used to process maybe 12 to 15 neglect-abuse cases a year. Now, we're processing 40 to 50. So, it's pretty easy to see what's happening. – A Court Referee (Court Site 3)

Proposed Strategies for Enhancing Implementation and Utility of Trauma-Informed Practice and Associated Trainings and Psychometric Tools

The viability of trauma-informed practice was often framed around the need to activate community-based capacity and paraprofessional resources, specifically in regard to amplifying referral sources. Respondents speaking to these efforts, which were described as nascent but promising, described the value of engaging both clinical and lay individuals on trauma-informed practice, as well as government—local bodies, in particular—to fully endorse comprehensive trauma-informed assessments and evidence-based treatment as a fundamental procedural aspect in adjudication for juveniles. More generally, respondents indicated that more financial and tactical support would be needed to ensure trauma-informed practice became a true, "validated" mainstay in juvenile courts and across other institutions (government, K-12 schools, etc.). To this end, the trauma-based protocol envisaged by respondents involved co-locating trauma-informed clinicians on-site at the courts on at least a part-time basis.

> The easy answer is provide me [with] one staff [member] to run the whole thing out of here. And we would support that. [..] If we had that, we would support that. […] But if there was somebody who came; like if we identified risk factors through a checklist, whatever it may be, and then we say, 'You've gotta meet with so-and-so next time at this time.' If we had that person, I think it could be successful.' – A Juvenile Court Referee (Court Site 3)

Several respondents who were successfully leveraging internal leadership support described ongoing initiatives to extend learnings from trauma-informed practice trainings into network-building exercises with other community entities, including local schools and policing units. These respondents indicated that it was paramount to have empirical research, which was pegged as currently limited, clearly demonstrating how trauma-informed practice may reduce delinquency and recidivism. These data were described as opportunities to more pragmatically engage would-be stakeholders around the nature of trauma, the potentially restorative role of the juvenile court, and ways to viably address repeat arrests and recidivism. These efforts were also framed by respondents as means of reducing misinformation and stigma surrounding mental illness. To this end, clients' parents were often cited as the first and most important stakeholders to engage in 1) recognizing the value of identifying and addressing trauma in

delinquent youth *and* in 2) addressing trauma present in the parents themselves, the latter highlighting staff beliefs on the presence and role of intergenerational trauma in the client populations.

> [We need] parent education, and getting them the therapy and what they actually need to be different. If you grew up in a chaotic environment and you grow up and have kids; if you don't know something different? Sometimes, we have to slow people down, and go 'This doesn't mean you're bad, just because we want you to do it different.' And that takes time and effort to get people to be okay with doing it differently and [that it is not] horrible to do it differently. That affects the juvenile justice system, because most of these kids […] have a trauma history. – A Court Community Mental Health Clinician (Court Site 2)

Most respondents, in considering ways of augmenting trauma-informed practice in juvenile court settings, remarked on the need to build organizational capacity and professional competence through more in-depth trainings targeting practical knowledge around trauma's impact on human development. These individuals discussed the potential positive impact of broadening the spectrum of trainings and offering more periodic refreshers; a probation officer went further in recommending that the trainings/refreshers be digitized and made accessible online (e.g., video webinars).

I'd recommend sitting together just a video training or even for the people that

> had [the training] - an updated refresher training, and maybe post it online where you need to log in and do it […].and then we can say how to improve it; or say how does it apply to us. [We need it] where we can do it on our own time because, you know, the phone's ringing. 'Okay, I can shut off my phone and do the [training] for an hour,' and I don't have to do a mileage voucher [to go to an offsite training], I don't have to set aside time where we don't really have [time]. – A Probation Officer (Court Site 3)

Discussion

Findings from this qualitative investigation of a pilot trauma-informed practice initiative in a set of rural juvenile courts reveal the internecine effects of child maltreatment and traditional juvenile justice, highlighting the broad stratum of cultural, economic, geographic, and professional factors associated with effective trauma-informed program implementation in this space. Interviews demonstrated that rural juvenile justice systems may be highly-segmented, tasking court personnel with management of long-standing community expectations for retributive punishment, identifying and activating sparse resources, and, more formatively, reducing both recidivism and new incidents of crime. Contextual details amassed from this examination may help inform the construction or enhancement of trauma-informed practice initiatives in other juvenile justice settings.

This preliminary evaluation stands within a marginal, but growing, cache of applied research evaluating the various shades of trauma-informed practice implementation in court systems (Buffington et al. 2010; Ford et al. 2007; Ko et al. 2008). The proportion of children in this study described as experiencing multiple traumas aligns with research suggesting that many youth entering juvenile courts have *complex trauma* (Buffington et al. 2010; Ford et al. 2012). Complex trauma occurs when there are frequent and repetitive traumatic events significantly compromising brain physiology, attachment dynamics (i.e., relatedness), emotional regulation, behavior management, cognition, and self-esteem (Cook et al. 2003; Van der Kolk 2013, 2017).

Knowing the likely prevalence of complex trauma in delinquent youth, its deleterious neurodevelopmental impact, and the risk it creates for ongoing criminality, trauma-based screening can potentially become the gateway to early trauma identification and subsequent resiliency-based treatment plans to treat the root of the problem (Griffin et al. 2012), thereby improving long-term outcomes for youth interacting with the juvenile justice system. Importantly, however, *not all* children who experience maltreatment or other potentially traumatic events will be traumatized. Various factors may contribute to a child's vulnerability to trauma and indeed some factors may contribute to a child's resiliency to trauma (Gilbertson et al. 2002; Gunnar and Quevedo 2007). Genetics and a toxic prenatal environment, for example, may leave a child vulnerable to mental health disorders that limit their ability to cope with traumatic stress (Gillespie et al. 2009; Henry et al. 2007).

Overall, juvenile court personnel in our sample saw wide-ranging ideological and practical value in trauma-informed practice and, to a sometimes lesser extent, formalized screening with a trauma instrument. Trauma-informed practice was characterized by respondents as a fruitful modality for secondary prevention, viewed as both a conceptual lens to be applied to individual cases and as a nexus of iterative operational tools. In regard to the applied use of trauma-specific screening instruments, namely the CTAC Trauma Screen (Henry et al. 2010), several respondents expressed that the tool was redundant and did not offer a substantive extension of other extant tools. For these reasons, some respondents indicated that they did not, or did not regularly, use the screen. To

address this utilization gap, future research should consider ways to pair—and pare—trauma-informed practice frameworks with the most ecologically-salient measurement tools to reduce screening incoherence or redundancies.

On the whole, for most respondents, the emergence of trauma-informed practice and associated trainings had provided a useful conduit for facilitating principled and effective decision-making around juvenile sentencing. Respondents indicated that conducting trauma-informed assessments often led them to more consciously think about and develop programming recommendations targeting the specific mental health needs of juveniles with trauma, thus beginning to correct the intricate processes propelling the youths' behaviors. Respondents showcased a demonstrative pivot away from uniform sentences and fines, a restorative justice-inspired evolution informed by gradual shifts along their career timelines from perceiving delinquent youth as *bad seeds* (Fritz 2015) merely in need of sterner parenting and/or the law's hammer. This latter sentiment was described by respondents as being particularly prevalent among skeptical, "old school" law enforcement and K-12 counterparts and illumined a growing desire among court personnel to adopt and champion evidence-based, public health-inspired approaches to reducing recidivism (Henggeler and Schoenwald 2011).

Despite the broad support articulated by respondents, barriers to the implementation of trauma-informed practices were shown to animate a variety of culturally dense interprofessional, paraprofessional, ecologic, and socioeconomic dimensions. For some, deliberations on the utility of trauma-informed practice were weighted primarily through the cross-cutting prisms of professional obligation and resource limitations. In particular, nearly all respondents indicated that limited mental health referral landing spots in their underserved communities undercut efforts to bridge the gap between recognizing particular trauma-treatment needs and curating and accessing local resources (Ezell et al. 2013). Garg and colleagues (Garg et al. 2016) recently described the potentially dire consequences of screening for unmet needs without having financially or logistically accessible referral outlets for patients, a dynamic that raises ethical questions and may stir further disenfranchisement of marginalized groups, such as rural and low-income populations. Data from the Health Resources and Services Administration demonstrates that roughly 18.6% of rural children between two and eight years of age have a parent-reported mental, behavioral,or development disorder diagnosis, including behavioral or conduct problems, compared to 15.2% of urban-residing children (United States Department of Health and Human Services 2016).

Courts' restricted capacity to attenuate the impacts of trauma exposure through sustained referral-making to mental health services could portend reduced probation compliance, youth recidivism, and increased breadth and/or severity in offenses committed. While ongoing government-led efforts to reform and improve general healthcare access, and access to mental health and social service in particular, have shown promise, geographic disparities have persisted (Adepoju et al. 2015; Griffith et al. 2017). Moreover, although some have proposed and found success using Internet-based solutions or telehealth to deliver mental health services to rural populations (Burmeister et al. 2016; Griffiths and Christensen 2007; Handley et al. 2015), the technical feasibility, user-friendliness, and costs of these systems are still under debate, presently putting them out-of-reach of understandably risk-averse policymakers in underserved communities.

Schematically, court personnel's efforts to infuse a trauma-understanding throughout the adjudication process was a means of minimizing interprofessional silos and improving local communities' responsiveness to youth in juvenile justice. These burgeoning efforts focused on creating uniform understandings around recognizing sources and signs of trauma as well as strategies to prevent and stem the escalation of delinquent ideation and criminal activities. For respondents at one court, the duality of "performances" (Radey and Figley 2007)—*primarily* as a member of the court charged with delivering retribution and adhering to traditional pillars of criminal justice, and then *secondarily* as compassionate, holism-minded interlocutors for mental health treatment—was deemed untenable. These respondents lamented crossing what they perceived to be deeply entrenched professional boundaries: for them, there was prohibitive tension in moving from a system historically anchored to punitive justice to a system which sought to identify, understand, and address trauma to curtail delinquent behaviors. As respondents who more roundly endorsed trauma-informed practice hypothesized, it will likely take time, more training, and more documented positive youth outcomes in delinquency to redress the adversarial tenor of the contemporary juvenile court system (Bombay et al. 2009) and to effectively engage stakeholders who remain resistant to these seismic proposed shifts in judicial paradigms.

There are some limitations to this pilot work. First, this research was conducted with courts in rural communities in Michigan, and the demographic profiles in these areas were largely homogenous, consisting primarily of White, low-income families. Given the well-documented disparities in sentencing, and trauma, among Black, Latino, and urban-dwelling youth (Demuth and Steffensmeier 2004), future programming incorporating these populations would be valuable. While juvenile court clients in low-income urban environments wrestle with socioeconomic barriers similar to those in low-income rural areas (Kinner et al. 2014), cultural and political attitudes which inform

policy might differ. As a result, judicial functioning in the context of trauma-informed practice may be contoured differently in urban environments as compared to rural locations. More research characterizing these ecologic dynamics is needed.

Another limitation to our study is that there was notable intergroup variation among the four stakeholder segments represented. However, we drew our sample from four different counties, capturing nearly all existing staff at each site; indeed, as we learned, most rural communities such as those studied here often only have the capacity (or need) to employ several probation officers and court referees. Accordingly, we believe the organizational cleavages and overall findings here are likely to mirror similarly polled populations. A final limitation is that we were unable to formally assess inter-rater reliability among the court officials to determine whether they administered the CTAC Trauma Screen, or understood trauma, in a uniform manner, but the respondent narratives suggest general consistency across sites, though uptake varied. Future scholarship in this space should endeavor to better characterize these nuances and attempt to quantitatively associate staff perspectives and reported behaviors to actual client outcomes (e.g., symptom/behavior changes, school performance, recidivism, etc.).

In sum, this research pointed to the presence of intricate forms of trauma among children entering juvenile courts in rural, low-income communities, while highlighting a complex tapestry of practices, challenges, and opportunities related to implementing and burnishing trauma-informed practice in these settings. Program successes in carrying out trauma-informed practice, as well as opportunities for programmatic improvement and associated pedagogy, must continue to be discussed and carried out in complement with broad, multidisciplinary stakeholder networks, particularly parents/legal guardians, courts and law enforcement, and K-12 school staff. This engagement may help galvanize buy-in efforts and ultimately codify the continuum of therapeutic care for the myriad delinquent youth who have experienced and show manifestations of trauma—and who are at an elevated likelihood of recurring delinquency should their sources of trauma continue to go unproblematized, unexamined, and untreated.

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Compliance with Ethical Standards

Disclosure of Interest All authors declare that they have no conflicts to report.

Ethical Standards and Informed Consent All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation [institutional and national] and with the Helsinki Declaration of 1975, as revised in 2000. Verbal consent was obtained.

Appendix

Table 2 Selected Key Interview Questions

1. Looking back on the last several years since trauma-informed work began in your community, what (*if any*) are some of the biggest changes that you see in your juvenile justice system in terms of addressing trauma in youth/families?
2. Is there still a need for improvement in addressing the trauma of youth/families involved in the juvenile justice system?
3. To what extent do you feel the needs of kids who have been traumatized are or are not being met?
4. Are there barriers that you can think of that affect the momentum of change in your local community?
5. Has the CTAC Trauma Screening Tool been of benefit to you– if so, in what way(s)? Do you continue to use it? Why or why not?
   - Probes: Does your department (staff working there) use it?
6. Over the past several years, to what extent were any of the interventions and/or trainings by CTAC helpful?
   - Probes: What was most helpful? What could be improved?
7. Are there any best practices or successful tools for working with other providers to coordinate services that you can share?

Table 3 Interviewee Types and Totals ($n = 15$) by Juvenile/Family Court Site

Personnel (n, %)	County Court #1	County Court #2	County Court #3	County Court #4	Total Participating
Court Referees	1 (25.0%)	1 (25.0%)	1 (25.0%)	1 (25.0%)	4/4 (100.0%)
Probation Officers	2 (28.6%)	2 (28.6%)	2 (28.6%)	1 (14.3%)	7/7 (100.0%)
Judges	Unavailable (1)	Unavailable (1)	1 (25.0%)	1 (25.0%)	2/4 (50.0%)
Clinical Therapists	2 (100.0%)	N/A	N/A	N/A	2 /2 (100.0%)

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