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Development of an Expert-Rater Assessment of Trauma History in a High-Risk Youth Forensic Sample

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Development of an Expert-Rater Assessment of Trauma History in a High-Risk Youth Forensic Sample

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Objective: Exposure to childhood trauma is particularly prevalent among incarcerated juveniles. Although there is a growing understanding of the detrimental impact trauma exposure can have on child and adolescent development, childhood maltreatment can be very difficult to accurately measure. Integration of self-report trauma histories as well as supplemental file reports of trauma exposure may provide the most accurate estimate of experienced trauma among youth in correctional settings. **Method:** The current study developed an expert-rated assessment of trauma that synthesizes self-report, as well as objective file information, using a sample of 114 incarcerated male juveniles. **Results:** In addition to establishing scale factor structure, reliability, and validity, the current study provides additional evidence of the prevalence of trauma among incarcerated juveniles and reports on external correlates of the scale that are particularly relevant in correctional settings (e.g., psychopathic traits). **Conclusion:** These results suggest that the integration of both self-report and file material can be meaningfully used to assess traumatic symptomology.

Clinical Impact Statement

This study demonstrates that self-report trauma histories as well as supplemental file reports of trauma exposure can be meaningfully integrated to provide a more complete assessment of trauma exposure among adjudicated adolescents. These findings highlight need for an expert-rated measure of childhood trauma among incarcerated youth, and demonstrate utility of a novel trauma assessment.

Keywords: trauma, assessment, juvenile delinquency, psychopathy

Supplemental materials: <http://dx.doi.org/10.1037/tra0000423.supp>

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Exposure to childhood trauma is extremely prevalent among incarcerated adolescents (Adams et al., 2013). Abram and colleagues (2004), for instance, reported that over 90% of incarcerated youth in their sample were exposed to at least one traumatic event in their life, and over 80% experienced two or more traumatic events prior to incarceration. Given the prevalence of trauma among adjudicated youth, the ability to accurately assess trauma exposure is crucial, particularly considering the deleterious consequences associated with childhood trauma. The experience of childhood trauma is linked to a range of adverse consequences, including poor cognitive functioning (Gould et al., 2012); difficulty with emotion regulation, empathy, and socialization (Kerig, Bennett, Thompson, & Becker, 2012; Young & Widom, 2014); development of psychopathology (e.g., depression, posttraumatic stress disorder [PTSD]; Anda et al., 2006; Fergusson, McLeod, & Horwood, 2013); poor health outcomes (Lee & Park, 2018); and sexual promiscuity (Arata, Langhinrichsen-Rohling, Bowers, & O'Brien, 2007).

Moreover, a growing body of research has documented that witnessing violence alone, outside of direct victimization, contributes to long-term psychopathology (Bair-Merritt, Blackstone, & Feudtner, 2006; Dargis & Koenigs, 2017; Howard, Kimonis, Muñoz, & Frick, 2012). Exposure to violence, outside of direct victimization, is a crucial consideration, as incarcerated youth tend to grow up in violent neighborhoods (Garbarino & Plantz, 1986; Loeber & Stouthamer-Loeber, 1986). Consequently, incarcerated youth are not only more likely to be directly victimized (e.g., childhood physical abuse) but also are at high risk of witnessing violent behavior in their larger neighborhoods and communities (Berman, Silverman, & Kurtines, 2002; Gibson, Morris, & Beaver, 2009; Wood, Foy, Layne, Pynoos, & James, 2002).

An additional consideration within juvenile offenders is the experience of traumatic loss (i.e., having a close family member or friend die unexpectedly), which is associated with a number of adverse outcomes (e.g., Brent, Melhem, Donohoe, & Walker, 2009). Indeed, learning of the violent injury or death of a loved one is now included as a traumatic event that can be formally assessed for PTSD (*Diagnostic and Statistical Manual of Mental Disorders*; 5th ed.; American Psychiatric Association, 2013), and may be a useful variable to formally measure when assessing trauma experiences among adjudicated youth. Considering negative outcomes associated with childhood trauma, accurate assessment of trauma exposure will likely benefit youth in need of services, as it may aid not only in application of trauma-informed interventions, but also in effective management and crisis response strategies implemented with youth (Branson, Baetz, Horwitz, & Hoagwood, 2017; Ko et al., 2008).

Although there is a growing understanding of the detrimental impact trauma exposure can have on child and adolescent development, childhood maltreatment can be very difficult to accurately measure. It is well-documented that individuals tend to underreport traumatic events (Shaffer, Huston, & Egeland, 2008; Williams, 1994), and it may be particularly difficult for a traumatized individual to disclose their trauma histories in a correctional setting, given the oftentimes stressful and chaotic nature of jails and prisons. Accordingly, those who do not endorse trauma exposure in a correctional setting may not receive necessary services that could ameliorate trauma-related symptoms and improve behavioral outcomes (e.g., Hunter, 2010). Simultaneously, antisocial personality traits are quite

prevalent in incarcerated populations (Black, Gunter, Loveless, Allen, & Sieleni, 2010) and, although it is currently unknown how often incarcerated youth falsify reports of trauma, it is possible that inmates may lie about experienced abuse in an effort to receive more lenient treatment or lesser punishments. In any case, relying only on self-report measures of childhood trauma in incarcerated settings may result in inaccurate identification of youth in need of trauma-related services.

Assessment in institutionalized settings facilitates access to auxiliary historical records of childhood trauma, such as child protective services reports. Such reports can be used to corroborate youth's reported trauma histories, as well as identify youth who have a tendency to underreport negative experiences. Nonetheless, correctional files are rarely standardized, and even very traumatized children may not have any formal documentation of their experiences included in their file. Additionally, biases exist in the reporting of trauma to authorities, making it more or less likely that a child who experiences trauma has formal documentation of the experience (Lane & Dubowitz, 2007). Accordingly, integration of self-report trauma histories as well as supplemental file reports of trauma exposure may provide the most accurate estimate of experienced trauma among youth in correctional settings. For instance, given the bias to underreport instances of trauma, youth may largely deny experiences of trauma, resulting in an underestimate of their experience. Incorporating external file information that details traumatic experiences would allow increased "ratings" of that youth's experience, thus more accurately reflecting their exposure to trauma. Similarly, scores could be appropriately adjusted for youth who self-report substantial trauma without any external validation of the experience.

Such integration may also provide useful information regarding the adverse mental health outcomes associated with trauma that are overrepresented in incarcerated samples (e.g., PTSD, antisocial traits, psychopathy). For instance, there has been a well-documented link between trauma exposure, antisocial traits, and juvenile delinquency (e.g., Ford, 2002; Fox, Perez, Cass, Baglivio, & Epps, 2015; Kerig, Ward, Vanderzee, & Arnzen Moeddel, 2009; Smith & Thornberry, 1995; Steiner, Garcia, & Matthews, 1997), and a number of recent studies have shown that childhood trauma is related to the antisocial and/or impulsive features of psychopathy (e.g., Krischer & Sevecke, 2008). Although there is some evidence that exposure to domestic violence is associated with the interpersonal-affective traits that are characteristic of psychopathy (Dargis & Koenigs, 2017), the extent to which childhood trauma contributes to these traits is unclear. Utilizing an integrated measure of trauma exposure, rather than just relying on self-report measures, may provide useful information regarding the relationships between trauma exposure, antisociality, and psychopathy among adjudicated juveniles. However, to date, no clinician-rated measures of trauma, utilizing both self-report and documentation, have been developed or implemented in correctional settings.

Accordingly, the goals of the current study were threefold: (a) to develop a clinician rated scale to assess trauma exposure in a sample of incarcerated juveniles, (b) to include a measure of community trauma and traumatic loss to better capture the full-range traumatic experiences that characterize adjudicated youth, and (c) to examine correlates of trauma (e.g., internalizing and externalizing symptomatology) in an incarcerated sample utilizing a clinician-rated scale.

Method

Participants

Participants included 114 male adolescents currently incarcerated at a maximum-security youth detention center in Wisconsin who were participating in a larger National Institute of Child Health and Human Development neuroimaging study (No. 1R01HD082257-01; principal investigator [PI]: Kiehl). Participants were eligible for participation if they were between 14 and 21 years old and had an estimated English reading level of at least fourth grade. Furthermore, file information regarding maltreatment history needed to be available. Ten files were deemed to have too little information to accurately assess trauma histories, and thus were excluded from analyses. Accordingly, final analyses included $n = 104$ participants. Ages ranged from 14 to 20 ($M = 16.40$, $SD = 1.01$). The average IQ for the sample was 83.61 ($SD = 14.10$). Participants were 66.3% African American, 30.8% Caucasian, 1.9% Hispanic, and 1.0% Native American.

Procedures and Ethical Considerations

Initial contact with potential study participants was made through announcements by research staff at the facility. Informed consent was obtained from all participants and either their parent/guardian, or the resident advocate acting in a limited guardianship role. In most cases, participants' parents could not be contacted because their whereabouts were unknown, their parental rights had been terminated, and/or the youth were wards of the state. In these cases, informed consent was obtained from resident advocates acting in a limited guardianship role. Participants were informed of their right to discontinue participation at any point during the study. Participants were also informed that their participation was in no way associated with their facility and/or probation status, and that there were no direct benefits to them. Participant remuneration was paid at the rate of the hourly facility wage. All procedures were approved by the human research review committee at the research institution and correctional facility where the study was conducted.

Participants were interviewed in private offices at the facility. All participants completed two separate interviews assessing childhood trauma, psychopathic traits, and psychological functioning. The interviews were videotaped so that multiple research staff could review the records. Research staff also reviewed file information to complete Trauma Checklist ratings, detailed below.

Measures

Trauma Checklist

File information. Experience of trauma was assessed using information collected from institutional files, as well as participant self-report during semistructured interviews (see below). Detailed criminal and psychological files were available for all participants. Although the information included in individual files varied, all files included some of the following: psychiatric reports, risk assessments, competency assessments, social services reports, social histories completed by social workers, child protective services reports, education reports, and law enforcement incident reports.

Semistructured interview. Semistructured interviews were conducted by trained research staff. All research staff held at least a bachelor's level education in psychology or a related field, and were supervised by a licensed clinical psychologist. Our research staff conducted semistructured interviews with the juveniles who choose to participate in our studies for the purpose of rating the Psychopathy Checklist-Youth Version (PCL-YV; Forth, Kosson, & Hare, 2003), and this Trauma Checklist. The Massachusetts Youth Screening Instrument (MAYSI-2) was also completed during these interviews. The content of these interviews is guided by a semistructured interview developed by the PI of this study (Kent Kiehl) and his colleagues. Topics discussed include developmental history, relationships with family and friends, dating/sexual history, criminal history, use of substances, recreational interests, experiences of trauma and exposure to violence (with specific questions addressing each of the trauma categories included in the Trauma Checklist), attitudes toward the criminal justice system, future goals, and institutional behavior. Given the range of topics covered, the depth at which they are covered, and logistical constraints (e.g., schedule conflicts, room availability) interviews are broken into two separate sessions. The timing of these interviews is largely dependent on availability of each participant. In most cases, the two interviews were conducted within one week of each other. In all cases, juveniles completed both interviews with the same research assistant. All interviews were videotaped to provide accurate recording of detailed client histories.

Trauma Checklist ratings. After interviews and extensive file review, experiences of trauma were categorized into seven specific forms of abuse. Four of these categories are consistent with other well-validated childhood maltreatment measures (e.g., Bernstein & Fink, 1998), including physical abuse, emotional abuse, sexual abuse, and neglect/poverty. Three additional categories were also created to better capture traumatic experiences frequently endured by adjudicated youth, including the experience of growing up in a violent or dangerous neighborhood (community trauma); observing familial and nonfamilial violence (observed trauma); and experiencing the death of a loved one (traumatic loss). The constructs of traumatic loss and observed trauma have also been assessed in validated measures of life stress (e.g., Felitti et al., 1998; Adverse Childhood Experiences Study). Additionally, exposure to community violence has been linked with a variety of pathological outcomes (e.g., violence perpetration, Gorman-Smith, Henry, & Tolan, 2004), and was thus included on the Trauma Checklist.

All seven categories of abuse were coded on a 0 to 2 scale. A 0 was assigned if the youth had no or very little evidence of experiencing abuse (i.e., the individual denied experiencing that type of abuse across all interviews and self-report measures, and their file did not indicate any experience of abuse). A 1 was assigned if the youth had experienced abuse, but at low severity, or if there were discrepancies between self-report and file information. A discrepancy was defined as a youth self-reporting a history of trauma without additional validation provided by file material. In cases where file material documented traumatic experiences, but the juvenile denied any such experiences, a 1 or a 2 was assigned, depending on the severity of the trauma. A 2 was assigned if the youth had experienced abuse chronically, or fewer times at a high severity, as there is evidence that both chronicity and severity are important variables to consider when measuring childhood abuse (Clemmons, Walsh, DiLillo, & Messman-Moore, 2007). A 2 was

Table 1
Trauma Scale Scoring Criteria

Score	Criteria
0	Denied experiencing abuse during both PCL-YV and K-SADS interviews and file documentation denied abuse history
1	Abuse self-reported and confirmed in file, but not chronic/severe Self-reported abuse consistently, but unable to confirm abuse in files
2	At least three sources of information confirming abuse experience required to receive a 2. Only received a 2 if file information confirmed self-report abuse experience Both chronic abuse and individual instances of severe abuse coded as a 2 Abuse considered "chronic" if self-report and file indicated long-term, non-specific maltreatment occurred Single incidents of abuse considered "severe" if detailed in Child Protective Service report File documentation of chronic/severe abuse, but youth denied abuse

Note. PCL-YV = Psychopathy Checklist-Youth Version; K-SADS = Kiddie Schedule for Affective Disorders and Schizophrenia.

only given when file documentation corroborated self-report accounts of trauma. Details about scoring criteria are included in Table 1.

Because this was an initial validation study, we set the minimum acceptable intraclass correlation coefficient (ICC) value to .6 or above. All subscales were at or above this cutoff. This cutpoint was selected because general ICC guidelines suggest that values between .5-.75 reflect "moderate" reliability. Trauma Checklist total scores showed moderate internal consistency ($\alpha = .69$).

The Trauma Checklist consisted of the following items:

Physical Abuse was defined as adults in the household physically harming the youth. Files included Child Protective Service (CPS)/Child in Need of Protection and/or Services (CHIPS) investigations of abuse claims as well as self-reported and parent-reported information about physical abuse in the home. Any reports of the youth being hit, pushed, kicked, or involved in any other altercation with a family or household member which left bruises or marks was included in this item. A score of 2 was assigned if the file explicitly stated that the youth had a physical manifestation of abuse (e.g., broken bone, hospitalization, etc.), if there was a substantiated CHIPS petition for severe physical abuse, or if there were multiple examples of physically abusive actions in the home.

Emotional Abuse was defined as adults in the family acting in a way that demonstrated that they did not care about the youth. This included reports of the family refusing to visit the youth while incarcerated or in treatment, parents continually making and then breaking promises to the child, or explicit statements made in the child's presence intended to make the child feel bad, embarrassed, or humiliated (e.g., "I hate you," "you are worthless," "I wish you had never been born"). Participants received a score of 2 if the file information explicitly stated that an adult was verbally abusive to the participant or gave multiple examples of emotionally abusive statements/actions.

Sexual Abuse was defined as anyone forcing the youth to do something sexual that he did not want to do or any sexual activity between an adult and a child. File information included specific CHIPS/CPS petitions regarding sexual abuse, psychological reports of abuse disclosures in therapy, self-report ques-

tionnaires regarding sexual abuse (i.e., Maltreatment and Abuse Chronology of Exposure scale; Teicher & Parigger, 2015), and risk evaluations for juvenile sexual offenders which included victimization history. A score of 2 was assigned only if the file explicitly detailed at least one instance of sexual abuse (e.g., rape, molestation etc.).

Neglect/Poverty was defined as the inability or refusal of a youth's caretaker to provide safety and care for the youth. File evidence included documentation of periods of homelessness, parents with severe drug or alcohol addiction, or families who were relying solely on social security for income. A score of 2 was assigned if there was documentation that the youth had been removed from the guardian's care due to a substantiated neglect charge, if the youth had experienced chronic homelessness or extended periods of hunger, or if the youth had been left alone for long stretches of time before they could care for themselves.

Community Trauma was defined as exposure to neighborhood factors that might cause physical or psychological harm, including gang affiliations, being the victim of a violent crime (e.g., getting shot at, getting mugged), and physical abuse by peers (e.g., hitting, pushing, kicking by peers). A score of 2 was assigned if the file explicitly detailed an instance of nonfamilial violence (e.g., reports being shot at by a rival gang, getting mugged, substantial peer bullying).

Observed Trauma was defined as witnessing acts of violence against another person, including domestic violence and community violence (e.g., drive-by shootings, seeing someone else get jumped, attacked, or shot). A score of 2 was assigned if the file documented at least one significant traumatic event witnessed by the youth (e.g., witnessing domestic violence between parents).

Traumatic Loss was defined as experiencing the death of a family member or close friend. A score of 2 was assigned if the death was someone with whom the youth had close emotional ties (e.g., an immediate family member, a best friend), and a 1 was assigned if the youth experienced the death of a classmate or extended family member.

All trauma coding was conducted by two bachelor's level research assistants who categorized and rated trauma experiences independently. Both research assistants were supervised by a licensed clinical psychologist. The raters double-coded 44 participant's files in order to establish reliability.

External Validity Measures

Psychopathy. The PCL-YV (Forth et al., 2003) was utilized to assess psychopathic traits. The PCL-YV is a scale of 20 items rated 0–2 based on the degree to which the trait is present. It can be further broken into a two-factor model. Factor 1 comprises the interpersonal-affective features of psychopathy (e.g., conning/manipulation, lack of empathy), whereas Factor 2 comprises the lifestyle-antisocial features of psychopathy (e.g., impulsivity, juvenile delinquency). Trained research staff performed all clinical assessments based on information obtained during interviews and reviews of institutional files.

Mental health screening. The MAYSI-2 (Grisso & Barnum, 2000) was used to assess overall psychological functioning. Information about traumatic experiences gleaned from the MAYSI-2 was incorporated into Trauma Checklist ratings. The MAYSI-2 is a 52-item self-report inventory designed to assist juvenile justice facilities in identifying youths with special mental health needs. The inventory assesses the following constructs: alcohol/drug use, irritability and anger, depression, anxiety, somatic complaints, suicidal ideation, thought disturbance, and traumatic experiences. Individuals respond “yes” or “no” regarding the presence of various psychological symptoms “within the past few months.” All participants answered the MAYSI-2 questions verbally with a trained research assistant during one of the interview sessions.

Diagnoses of mental disorders. Psychological diagnoses were obtained from one of two sources. Most youth received detailed clinical assessments upon admission to the juvenile treatment center. When available, these assessments were utilized to code diagnoses of mental disorders. Approximately, 50% of the juveniles had these detailed assessments at the time of data collection. For the remainder of the sample, the Kiddie Schedule for Affective Disorders and Schizophrenia (K-SADS; Kaufman et al., 1997) was used to make diagnoses of mental disorders. The K-SADS is a semistructured interview used to assess the presence of mental disorders in school-age children 6–18. Diagnoses were then coded according to diagnostic categories, including: psychotic (i.e., schizophrenia; schizoaffective disorder; $n = 15$), mood disorder (i.e., depression, bipolar disorder; $n = 66$), anxiety disorder (i.e., generalized anxiety, phobia, obsessive-compulsive, social anxiety; $n = 12$), trauma and stressor related (i.e., PTSD; $n = 27$), or neurodevelopmental ($n = 68$). Psychotic and neurodevelopmental disorders are presented here to provide thorough demographic characterization, although these diagnostic categories were not included in analyses.

Intelligence. Intelligence was estimated from the Vocabulary and Matrix Reasoning subtests of the Wechsler Adult Intelligence Scale (Wechsler, 1997; $n = 31$; only for individuals over the age of 16), the Wechsler Intelligence Scale for Children—Fourth Edition (Wechsler, 2003; $n = 20$), or the Wechsler Abbreviated Scale of Intelligence (Wechsler, 2011; $n = 53$).

Supplemental trauma report. The Childhood Trauma Questionnaire (CTQ) was used to assess experienced childhood mal-

treatment (Bernstein & Fink, 1998). The CTQ is a 28-item scale comprised of five subscales which assess different types of trauma, including physical abuse (e.g., “I was punished with a belt, a board, a cord, or some other hard object”), physical neglect (e.g., “I didn’t have enough to eat”), emotional abuse (e.g., “People in my family said hurtful or insulting things to me”), emotional neglect (e.g., “I felt loved” [reverse scored]), and sexual abuse (e.g., “Someone tried to make me do sexual things or watch sexual things”). All subscales consist of five items scored on a 5-point rating scale from 1 (*never true*) to 5 (*very often true*). Two items on the physical neglect scale and all items on the emotional neglect scale are reverse scored. Approximately 34 juveniles in the current sample had CTQ data available.¹

Data Analyses

Total factor scores were computed by summing the individual items that comprised the scale. ICC values were used to examine interrater reliability. The internal consistency of the scale was determined by calculating the Cronbach’s alpha value. Pearson correlations were then utilized to examine the relationship between the Trauma Checklist and another validated measure of trauma (i.e., CTQ). Correlations were calculated between Trauma Checklist scores and relevant mental health conditions (i.e., PTSD, anxiety, depression, psychopathy) to establish external validity of the newly established scale.

Supplemental analyses included an exploratory factor analysis to determine the underlying factor structure of the scale (see the online supplemental materials for additional analyses). Although there are limitations in conducting this type of analysis on a scale with only seven items, this exploratory analysis aimed to examine if a parsimonious understanding of covariation among variables in the scale is better accounted for by more than one factor. Principal-components analysis with a varimax rotation was used to derive factors from the Trauma Checklist.² Individual maltreatment scales were assigned to factors that had loadings $\geq .5$ (Hair, Black, Babin, Anderson, & Tatham, 1998). In addition to factor loadings, individual maltreatment scales were assigned to factors based on conceptual fit. Correlations were then calculated between Trauma Checklist factor scores and relevant mental health conditions (i.e., PTSD, anxiety, depression, psychopathy). Finally, prevalence rates for each type of trauma were identified. Correlation values for all mental health variables are included in Table 2. Descriptive information regarding trauma and mental health variables are included in Table 3.

Results

The Trauma Checklist demonstrated a good level of agreement between raters ($r = .88$). Trauma Checklist total scores were

¹ CTQ data was not part of standard data collection at the onset of this study, and therefore only a sub-sample of the participants in the current study were able to complete it.

² Factor analysis utilizing principal-components analysis with varimax rotation was also conducted using the statistical program SAS, and weighted factor scores were computed (rather than summed scores, as is reported above). The weighted scores and the summed scores were strongly correlated ($r_s > .8$, $p < .001$), and showed similar relationships with the external correlates measured.

Table 2
Zero-Order Correlations Between the Trauma Checklist and External Variables

Clinical variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Trauma Checklist	.65	.57	.50	.46	.39	.49	.34	.80	.53	.28	.01	.18	-.22	-.14	-.19	.68	
2. Physical		.51	.28	.31	-.02	.12	-.01	.77	.07	.23	-.06	.22	-.16	-.04	-.17	.49	
3. Emotional			.28	.21	-.05	.07	-.07	.72	.01	.27	-.06	.11	-.07	-.02	-.12	.52	
4. Sexual				.17	-.05	-.14	.11	.64	-.1	.20	-.06	.03	-.24	-.06	-.27	.34	
5. Neglect					-.01	.1	-.23	.61	.05	.09	.09	.1	-.27	-.30	-.22	.26	
6. Community						.38	.19	-.05	.83	-.05	.1	.03	.05	.02	.10	.30	
7. Observed							.22	.06	.84	.18	.12	.04	-.01	-.10	.08	.29	
8. Loss								-.07	.24	.04	-.07	.09	-.05	.01	-.04	.13	
9. Experienced (F)									.01	.30	-.03	.17	-.27	-.15	-.29	.61	
10. Community (F)										.08	.13	.04	.02	-.05	.11	.39	
11. PTSD											.06	.22	-.09	-.05	-.02	.26	
12. Anxiety												.15	.03	.02	-.08	-.25	
13. Mood disorder														-.29	-.24	-.20	.01
14. PCL-YV total															.84	.76	-.07
15. PCL-YV Factor 1																.54	.14
16. PCL-YV Factor 2																	-.16
17. CTQ Total score (<i>n</i> = 34)																	

Note. *n* = 104. Bolded numbers indicate $p < .05$. Physical = physical abuse; Emotional = emotional abuse; Sexual = sexual abuse; Community = Community Violence subscale; Observed = observed violence; Loss = traumatic loss; Experienced (F) = Experienced Abuse factor score; Community (F) = Community Trauma factor score; posttraumatic stress disorder (PTSD), Anxiety, and Mood disorder = diagnoses; PCL-YV = Psychopathy Checklist-Youth Version; CTQ = Childhood Trauma Questionnaire. Point biserial correlations were run for those including diagnostic disorders.

significantly correlated with CTQ total scores ($r = .68, p < .0001, 95\% \text{ CI } [.44, .83]$). Trauma Checklist total scores were also significantly associated with PTSD ($r = .28, p = .004, 95\% \text{ CI } [.09, .45]$). There was a slight association between Trauma Checklist total scores and mood disorders ($r = .18$), although this did not reach significance ($p = .06$). The Trauma Checklist was not associated with anxiety disorder diagnosis, $r = .01, p = .89$. Finally, Trauma Checklist total scores were significantly associated with PCL-YV total score ($r = -.22, p = .02, 95\% \text{ CI } [-.39, -.03]$).

ICCs for all Trauma Checklist items (i.e., scores incorporating both self-report and file information) revealed a moderate to high level of agreement between raters: Physical Abuse ($r = .83$); Emotional Abuse ($r = .68$); Sexual Abuse ($r = .84$); Neglect/

Poverty ($r = .84$); Community Trauma ($r = .60$); Observed Trauma ($r = .72$); Traumatic Loss ($r = .82$).

Supplemental Factor Analysis

Principal-components analysis of the Trauma Checklist yielded a three-factor solution, accounting for 63% of the variance in the total scale. As outlined in Table 4, the Physical, Emotional, and Sexual Abuse and Neglect/Poverty items loaded onto one factor; Community Trauma and Observed Trauma items loaded on to a second factor; and the Traumatic Loss scale loaded onto its own factor. Accordingly, Factor 1 is henceforth referred to as Experienced Abuse, Factor 2 as Community Trauma, and Factor 3 as Traumatic Loss.

Prevalence of Trauma

Prevalence rates were based on corroborated cases of abuse/neglect (i.e., scored a 2 on the scale). In addition, among partici-

Table 3
Clinical Descriptive Information

Clinical variable	Endorsed (%)
Trauma Checklist total score	99
Physical abuse	33
Emotional abuse	24
Sexual abuse	26
Neglect/Poverty	37
Community	47
Observed	46
Traumatic loss	28
PTSD	26
Mood disorder	63
Anxiety disorder	12
PCL-YV	39

Note. Endorsed (%) for Trauma Checklist variables reflect scores of 2 on that scale. Endorsed (%) for Trauma Checklist total score reflects a score of 2 on at least one traumatic experience. Endorsed (%) for Psychopathy Checklist-Youth Version (PCL-YV) reflect scores above 30 on the PCL-YV.

Table 4
Principle Component Factor Loadings

Type of trauma	Factor 1	Factor 2	Factor 3
Physical abuse	.675	.194	-.069
Emotional abuse	.541	.221	.269
Sexual abuse	.674	-.534	.139
Neglect/Poverty	.603	.196	-.577
Community trauma	.128	.722	.087
Traumatic loss	.139	.156	.864
Observed violence	.163	.812	.052

Note. *n* = 104. Bolded numbers identify subscales that load onto each factor. Eigenvalues for three-factor solution and subsequent factors: Factor 1 = 1.15; Factor 2 = 1.40; Factor 3 = 1.88; Factor 4 = .85; Factor 5 = .70; Factor 6 = .66; Factor 7 = .37.

pants in this sample, approximately 33% experienced physical abuse, 24% experienced significant emotional abuse; 26% experienced sexual abuse, and 37% reported neglect/poverty. Moreover, 50% had experienced two or more types of experienced abuse (emotional, physical, sexual, or neglect/poverty); and 16% had experienced three or more types of experienced abuse.

Considering the Community Trauma factor, 47% of participants experienced community violence, and 46% of participants experienced observed trauma. Approximately two thirds of these participants, 29% overall, documented both observed trauma and community violence. Approximately 28% of this sample experienced Traumatic Loss, and about 11% experienced all three of these events.

Discussion

In a sample of incarcerated, adolescent male offenders, we have shown that youth self-report and independent file documentation can be meaningfully integrated to assess the experience of trauma. Specifically, we reported that measures of emotional, physical, and sexual abuse, neglect/poverty, community trauma exposure, traumatic loss, and observed trauma can all be assessed in an incarcerated sample by a rater using both file documentation and interview-based youth self-report. Utilizing a rater to assess trauma history by way of self-report methods and file review may be advantageous in terms of ability to carefully and comprehensively measure exposure to trauma among youth in juvenile correctional settings. This scale incorporates the assessment of both severity and chronicity of traumatic experiences and establishes a systematic method for integrating both self-report information gained during interviews, as well as complementary documentation in the youth's institutional files. Furthermore, the Trauma Checklist includes measurement of not only directly experienced violence (e.g., physical abuse), but also exposure to community trauma, observed trauma, and traumatic loss.

As anticipated, we observed that the Experienced Trauma Checklist (and specifically emotional, physical, and sexual abuse) were significantly associated with PTSD diagnosis, and that physical abuse was associated with mood disorders. This is consistent with previous research (e.g., Yule et al., 2000), and suggests that the integration of both self-report and file material can be meaningfully used to assess traumatic experiences.

Although the current study was successful in its efforts to provide initial validation of the integration of self-report and file information to assess trauma, several methodological considerations will need to be made in future research. First, future studies should consider differentiating between acute, severe episodes of abuse and chronic abuse histories and the relationship to psychopathology. Similarly, it is possible that abuse may have differential impact on psychopathology depending upon when the abuse occurred in development (i.e., infancy vs. early childhood vs. adolescence). Thus, more granular temporal precision of abuse history, when accurate measurement is possible, may yield useful information. Second, the juveniles included in the current study represent a very high-risk group of juvenile offenders (e.g., many have been convicted of multiple felonies). Here, we presented the initial development of the Trauma Checklist in a high-risk sample, however it is also important to examine this scale in diverse groups of juvenile offenders with varying risk levels to further examine

how trauma exposure relates to criminality and mental health outcomes. Third, use of the Trauma Checklist in adult offender samples will be necessary to broaden its applicability.

Outside of establishing a systematic method for integrating dual sources of information, the current study highlights the high prevalence rates of trauma among incarcerated juveniles. Over 25% of the current sample received a score of 2 on each of the Trauma Checklists, indicating that through their consistent endorsement and supplemental file information, their experience of trauma was confirmed by an outside rater. This, alone, is worth highlighting as it provides additional evidence of relatively high rates of trauma that characterize juvenile offenders, particularly those who are high risk with notable criminal records. As behavioral and emotional correlates of childhood trauma are overrepresented in incarcerated populations (e.g., impulsivity, emotion dysregulation), these prevalence rates suggest that trauma should be included as a standard assessment when working with delinquent youth.

Despite the utility of the Trauma Checklist, there are several limitations worth noting. First, the scale does require use of file information to corroborate self-report histories of trauma. For this reason, the scale has some limited applicability to institutional settings without comprehensive file documentation. Relatedly, because the Trauma Checklist is rated by an independent assessor, it is a more time intensive measure of trauma than simply having a juvenile answer a series of yes/no questions. Therefore, while the combination of self-report and file information utilized in this scale likely provides a more comprehensive measure of trauma experiences, it may also provide logistical concerns for clinicians working in institutional settings who have serious time constraints. It is worth noting that such integration was a primary aim of the current study, and simultaneously represents a strength. While the comprehensive design of the scale may be a barrier to clinical use, it can certainly be implemented in research settings. Third, the correlation values shown here regarding external correlates, while significant, were low and require replication. Fourth, the factor structure established here was supplemental and exploratory in nature. Additional research will be required to ascertain whether the Trauma Checklist is best utilized as a total score, or if factor scores can also be reliably used. This will be particularly important to determine given the more broad measurement of types of trauma included in this study (e.g., observed trauma, traumatic loss). Despite these limitations, the Trauma Checklist has demonstrated that the integration of self-report and file information can provide a thorough and valid estimate of traumatic experiences for incarcerated juveniles.

In sum, the current study presents the initial development of an expert-rated measure of childhood trauma that can be used in institutional settings, particularly among delinquent youth. The results highlight the prevalence of trauma within high-risk incarcerated juvenile populations or among those with significant patterns of criminal behavior, and provide a tool for measuring frequently experienced, but infrequently assessed, forms of trauma (e.g., community, loss).

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