

Childhood Trauma, PTSD, and the Cautious Forensic Expert

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For centuries, medicine and psychiatry mirrored society's equivocations regarding childhood trauma. Those conflicts have mostly resolved, with widespread agreement that children are commonly exposed to traumatic events that may lead to PTSD and other mental conditions. The psychiatric and legal arguments should no longer be about the reality of childhood trauma in general; instead, experts should focus on the methodology of translating a particular child's narrative truth of maltreatment into a historical account, so that the expert can be qualified to offer criminal or civil court testimony after examining the child. In this commentary, we explore the daunting forensic challenges of eliciting admissible evidence to confirm or dispute the allegations and of offering scientifically credible opinions about whether any present and future harm related to the trauma and PTSD was directly caused by the incident.

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Wise psychiatrists, in my experience, are those who base their opinions on a constellation of factors, hesitate long and hard before expressing a dogmatic opinion of child credibility and rarely pin their colors exclusively to one particular mast.—Hon. Mr. Justice Nicholas Wall, Royal Courts of Justice, London, England¹

Historical Context for Controversies in Childhood Trauma and PTSD

Childhood trauma and PTSD continue to confront American forensic psychiatrists with conceptual, methodological, and sociopolitical challenges that resonate with the struggles and passions of 16th Century Salem, Massachusetts, 19th Century Vienna, Austria, and 20th Century Los Angeles, California. Tedeschi and Billick's timely and comprehensive review² affords an opportunity for us to focus on several questions that remain relatively unsettled but quite salient for any forensic psychiatrist evaluating or treating a patient with a suspected or confirmed history of childhood trauma.

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Medicine and psychiatry have generally mirrored society's equivocations regarding the extent to which trauma occurs in childhood and what may be its psychopathological sequelae. The infamous Salem witch trials, beginning in 1692, resulted in 20 verdicts of guilt and subsequent executions based on the testimony of young witnesses who were afflicted by the traumatic disease of "astonishment" that consisted largely of physical symptoms without concomitant physical illness. Within a few years, these cases of judicially proven witchcraft predicated on the peculiar attitude and behavior of children and adolescents were disavowed by the court and community.

Two hundred years later, Freud presented a theory of the psychogenic etiology of physical symptoms that posited the existence of repressed memories of childhood seduction.³ This formulation was soon renounced and replaced by a construct that posited that infantile sexual fantasies devoid of actual abuse produced hysteria in young women. This pattern of assuming and later rejecting the existence of childhood trauma emerged again in the 1980s in southern California, when staff members of local preschools were indicted and faced criminal trials for alleged acts of childhood sexual and satanic abuse. These charges were mostly based on later discredited accusations from parents and their young children.⁴ Analogies to

the Salem witchcraft trials abounded in the media. To further complicate matters, investigations of an acute onset of physical symptoms in a group of adolescents was investigated and found to represent an outbreak of “mass hysteria” in impressionable teenagers, which in an earlier era might have been misinterpreted as the product of witchcraft.⁵

On the other hand and despite an apparent temptation to do so, not all accounts of childhood physical and sexual abuse and trauma can be dismissed as fanciful. Kempe’s repeated efforts to find a major medical journal willing to publish his landmark article on the battered child syndrome is a shameful testament to the denial of the prevalence of mistreatment and traumatization of children.⁶ Indeed, when Terr⁷ first presented her meticulously researched study of the children from Chowchilla who were kidnapped and buried alive in their school bus, the professional audience angrily mocked her findings of psychic trauma in the child survivors and accused her of overpsychologizing and overdiagnosing.⁸ However, as was the case with physical child abuse, all challenges to the validity of a childhood traumatic syndrome were rebutted by waves of scientific research that led to the ultimate recognition of child and adolescent PTSD in the Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised (DSM-III-R)⁹ and subsequent editions.

The recent revelations of the truthfulness of horrific and widespread allegations of sexual and physical misconduct in orphanages and foster care systems, as well as by actors, priests, and sports coaches, reflect a growing acceptance that many trusted, even beloved authority figures have been serial offenders of the most dreadful sort.¹⁰ That said, there continue to be obstacles to establishing the veracity of reports of childhood maltreatment. For example, controversies persist regarding the “shaken baby” form of infant physical abuse, in which the credibility of medical expert testimony has itself been shaken.¹¹ Nonetheless, there is an emerging consensus that the journey to adulthood is perilous and not infrequently marred by exposure to traumatic events of all types and at all ages and that the consequences of psychic trauma can vary in incidence, form, and severity.

With the existence of childhood traumas firmly in mind, the psychiatric and legal arguments should no longer be about the reality of childhood traumatic events in general and the possible development of childhood PTSD and other posttraumatic condi-

tions. Instead, experts should now focus on the methodology of translating a particular victim’s narrative truth of childhood trauma into legally provable historical truth, often at a much later time when the putative victim is examined and the case is finally heard in a civil or criminal court. The challenge of examining a child who reports trauma, to elicit admissible evidence that confirms or disputes the allegations and to predict what if any harm is directly caused by the incident, will be explored in the balance of this commentary.

Methodological Dilemmas

Scientific research has established the deleterious impact of fear, stress, and hyperarousal that together may serve as proxies for trauma, on the neuronal circuitry and transmitters underlying learning and memory. Few investigators would dispute the notion that various forms of memory impairment have become well recognized as a consequence of traumatic stress. Yet even in the absence of trauma, human memory is notably malleable. Stone opined 20 years ago in the context of psychoanalytic psychotherapy of adults that “everything we have learned in recent years about memory has emphasized its plasticity, the ease with which it can be distorted, and the difficulties of reaching a hypothetical veridical memory.”¹² A considerable body of cognitive studies has reinforced this conclusion for adults and found it to be even more evident for children.

Further, there are methodological difficulties that plague the examination of a possibly traumatized child. The immediate dilemma is how to engage the child and encourage speaking openly about what was perhaps the worst experience in his life.¹³ Indeed the interview becomes more of an art than a science, and it is daunting to imagine how a protocol could reach the standard of a practice guideline in the absence of systematic reviews of relevant evidence-based studies.¹⁴

Consider some of the common sources of error in conducting an examination and interpreting its findings. The risk of cross-contamination arises when the interviewer broaches a sensitive topic or prompts recall by referring to information that had been gathered from other sources, such as from news accounts or from other children, or even from prior examinations of the same child (e.g., “Didn’t you tell Dr. Jones . . .?”). Child psychiatrists must be well versed in the latest data on normal development, cultural

and religious influences, and family customs. For example, caution is strongly advised in using anatomically explicit dolls or in determining whether a child's genital self-stimulation is pathological or not.

There may be multiple reasons for a child to be persistently silent during the examination, with each reason having its own clinical and legal implications. The child may be exhibiting any combination of deliberate withholding and avoidance, unconscious resistance, and oppositional defiant behavior. Not uncommonly, a child will deny, retract, or change salient details over several sessions. This phenomenon should generate hypotheses about whether the incident in question did or did not occur and whether any psychological symptoms followed the incident. The child may be responding to external pressure or threat by a parent or adult exerted directly or insidiously, or perhaps by an internal desire to protect or to harm. The child may be scared, confused, ashamed, or guilt ridden, and these factors may be operating consciously or unconsciously. Moreover, when children begin speaking, they may, like their adult counterparts, exaggerate or even lie to gratify a desire for attention or for secondary gain, to express frustration or anger, or to obtain sympathy or revenge.

Another parameter challenging the examining psychiatrist concerns the vagaries of childhood memory. It is accepted that young children demonstrate a greater degree of selective attention (e.g., tunnel vision), so that their recollections tend to be much stronger for central action than for peripheral details. A popular ploy during cross-examination by a defensive attorney is to confound the child witness by asking for a description of the furniture and wallpaper in the room where a sexual assault occurred. More consequential is peritraumatic dissociation or amnesia that may frustrate attempts to elicit specific information. A child may be tempted to fill in the missing memory by the mental process of confabulation, which may discredit an otherwise truthful account. Considerable research has been conducted regarding the serious problem of suggestibility, which operates more powerfully in younger children. There is no question that repeated assertions, much like hypnosis, can alter existing memories and create permanent new recollections without the subject's awareness that this has occurred. A body of data suggests that memories of trauma are also susceptible to such enduring modifications.

For these reasons, the wary psychiatrist must remain vigilant to avoid the danger of sliding down the slippery slope of questionable logical inference that a proffered diagnosis of childhood PTSD automatically establishes the existence of a specific traumatic event that is the proximate cause of symptomatic consequences. Without substantiation, that conclusion would erode credibility and detract from otherwise reliable testimony.

Childhood Adversity as a Risk Factor

PTSD may be considered as a mental condition with a psychosocial etiology that is inextricably tied to an underlying neurobiological diathesis, the exact mechanism of which is not well understood. Considerable attention has been drawn to childhood adversity as a broad and unifying concept encompassing a variety of extrinsic trauma and severe stress experiences during early life. Multiple studies have found an increased incidence of psychiatric disorders in those children with documented histories of abuse, neglect, or serious family dysfunction, as well as a surge in adult medical illnesses and premature death.¹⁵ Individuals who report childhood adversity are more likely both to experience traumatic events in adulthood and to develop PTSD after traumatic exposure.¹⁶

Heritable factors contribute to the creation and perpetuation of social environments that propagate PTSD through early exposure to adversity. Data has demonstrated a higher concordance for exposure to interpersonal violence as well as for PTSD in monozygotic twins compared with dizygotic twins, implying shared genetic risk factors for both exposure and PTSD.¹⁷ Features of the child's environment may signal transient and enduring changes in molecular pathways that amplify genetic vulnerabilities. For example, *FKBP5* is a candidate gene that has been associated with glucocorticoid receptor responsiveness, whose expression is significantly lower in PTSD.¹⁸

Adverse childhood experiences also comprise stressful but not strictly traumatic exposures that conform to a stress-dose, biological-response effect. These include unfavorable life circumstances, such as immigration, parental divorce, and poverty, which may be associated with an attenuated degree of adult psychopathology. Nemeroff noted that "different forms of childhood maltreatment produce distinct effects on particular brain regions and circuits and

the heterogeneity of the patient's past and more recent experience represents another important variable.¹⁹

Tedeschi and Billick⁴ referred to the fairly well established biological model for PTSD that implicates a dysfunction in the hypothalamic–pituitary–adrenal (HPA) axis. Compared with control subjects, patients with PTSD have elevated corticotrophin-releasing hormone that does not produce corresponding levels of urinary and plasma levels of cortisol as expected. Unlike depressed patients, patients with PTSD are found to respond to a dexamethasone (synthetic corticoid) challenge with increased cortisol suppression. It is hypothesized that the lower levels of glucocorticoids suppress the HPA axis, which may contribute to increased sympathetic activation and hyper-responsivity to stress. Recent studies have found that impairment in the normally regulated mechanism of biological response to trauma may represent a pre-exposure vulnerability rather than be a consequence of the trauma exposure itself.²⁰

Adverse childhood experiences can trigger changes in glucocorticoid responsiveness through epigenetic mechanisms that influence gene expression. Current research extends the critical period of susceptibility to the deleterious effects of adversity from childhood, to birth, to fetal development, and even to earlier in the parental lifespan. For example, a pregnant woman may experience trauma that produces a hormonal cascade affecting herself and her placenta, which then impacts the fetus and later transforms DNA expression in the offspring. Studies have shown that maternal stress in nonhuman primates alters the sensitivity of the progeny's HPA axis leading to deficits in reactivity to stress and cognition.²¹ Epigenetic research has documented that glucocorticoid alterations in association with PTSD risk were more robust in mothers than in fathers with PTSD before conception.²² Further, lower cortisol levels were measured in the children of mothers who developed PTSD while pregnant on September 11, 2001.²³

Americans are commonly exposed to one or more traumatic events, though most will respond with only brief, normative manifestations of acute stress. Less than 10 percent of Americans develop PTSD. Consequently, PTSD may also be conceptualized as a condition in which the process of recovery from the transient psychological symptoms that follow trauma is disrupted. Resilience comprises the con-

stellation of factors that promote recovery, and deficits in resilience have been a focus of biological and psychosocial research.²⁴ With the exception of soldiers about to be deployed to combat, it is difficult to perform studies of populations before abuse or trauma. However, there is concern that childhood maltreatment may produce the HPA dysfunction associated with PTSD, even in the absence of a diagnosable disorder, which in turn may confer sensitivity to traumatic exposures occurring later in adulthood.²²

Genetic endowment may increase the risk of early childhood adversity by influencing environmental feedback loops, as well as by epigenetic pathways that modify DNA function and reciprocally affect the biopsychosocial responses to these events. Although this theory generates appreciable scientific interest, the forensic implications are fairly straightforward. All known biological markers, such as brain imaging and laboratory testing, lack reliability for admissibility in court as a method to validate the diagnosis of PTSD. A child with a history of adverse life experiences from other causes may represent the proverbial "egg shell" plaintiff, whose predisposition to a subsequent traumatic injury would not mitigate damages. Moreover, in the absence of a current diagnosis of childhood PTSD, vulnerability to psychopathology as an adult would not be sufficient to recover damages. An award for future medical harm is appropriate only "when such damages are established with reasonable certainty" (*Auto-Owners Ins. Co. v. Tompkins*²⁵). This standard requires competent substantial evidence that would not generally be compatible with a showing of increased risk. Without question, there is a role for forensic psychiatrists in the public health struggle to reduce the tragic epidemic of child maltreatment and its legacy of long-term medical and psychiatric sequelae.

The Old Testament prophet Zachariah (8:16) commanded that: "These are the things that ye shall do: Speak ye every man the truth to his neighbor; execute the judgment of truth and peace in your gates." But, as Justice Wall implied, in an adversarial legal system that is considering childhood trauma and PTSD, it may not be possible to establish the truth or to achieve peace, at least not with reasonable medical certainty.¹ The psychiatric expert must strive to collect relevant data, consider possible bias, and face clinical uncertainty. Ultimately, it is the

court and not the expert who is the final arbiter of justice in an imperfect world.

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