Outcomes of Traumatic Exposure

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KEYWORDS

• Childhood trauma • Posttraumatic sequelae • Resilience
• Trauma and stressor-related disorders

KEY POINTS

- Epidemiology of trauma exposure reveals that outcomes vary, from resilience to psychopathology, to developmental disability or death. Many factors influence outcomes.
- When psychopathologic outcomes are present, comorbidity is the rule.
- Infants and young children tend to be most susceptible, but older children and adolescents also have specific susceptibilities.
- Posttraumatic outcomes can be measured with broad screening and diagnostic instruments that assess longitudinal outcomes.
- DSM-5 includes a new category, Trauma and Stressor-Related Disorders, resulting from traumatic exposures. These ailments include attachment disorder, disinhibited social engagement disorder, adjustment disorder, acute stress disorder, posttraumatic stress disorder (PTSD), and PTSD for children 6 years and younger.
- Traumatic exposures are also associated with separation anxiety disorder, persistent complex bereavement disorder, mood disorders, disruptive behavior disorders, borderline personality, psychoses, somatoform disorders, and substance abuse disorders.
- Awareness of adverse outcomes underscores the importance of early socioeconomic, psychological, school, family, and psychopharmacologic interventions.
- Ethical considerations may influence triage, determination of those at most risk, allocation of services, and how to assess outcomes.
- Advocacy and public policy initiatives are essential to improving outcomes.

INTRODUCTION

Most children will not develop long-standing posttraumatic sequelae. When present, however, traumatic stress in children and adolescents is increasingly recognized globally as a problem affecting child health. Research that documents the scope of exposures and impact, and studies ways to mitigate the individual and social impacts of such widespread trauma, is expanding. This article examines outcomes of childhood traumatic exposure, including resilience, traumatic stress, depression, developmental

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Abbreviations	
DSM-III	*Diagnostic and Statistical Manual of Mental Disorders. Third Edition*
ICD-9	*International Classification of Diseases. Ninth Revision*
PTSD	Posttraumatic stress disorder

pathology, and factors influencing such outcomes. In addition, the article provides extensive sources for further reference, and presents factors influencing response to trauma, nosology and evaluation, interventions, and ethical and public policy issues.

DEFINITIONS

Outcomes refer to individual or group health effects, including mental health effects, after traumatic events.

Psychological trauma is a stress that overwhelms one's ability to cope and reassert equilibrium.

Combined physical and psychological trauma refers to both forms of trauma affecting one individual.

Resilience is the ability to adapt successfully to severe or chronic stress.

Susceptibility in epidemiology refers to an individual who is at risk of a disease.

A disaster is an event that overwhelms a community's ability to cope.

LITERATURE REVIEW

This section is a concise, selective review of a huge and rapidly expanding, complicated body of knowledge informing our understanding of children's psychological responses to traumatic events.

Developmental trauma research has recently identified additional factors that influence posttraumatic outcomes, including:

- Genomics and epigenomics[1,2]
- Stage of biopsychosocial development
- Parental posttraumatic stress disorder (PTSD)[3]
- Socioeconomic and community susceptibility[4]
- Environmental impact
- Proximity
- Pain[5,6] and injury
- Prior trauma or disease, or disasters[7–9]
- Impact on family, social support, and treatment

Some historical impetus for understanding and treating the mental effects of trauma in children, adolescents, and adults, such as the addition of PTSD in the *Diagnostic and Statistical Manual of Mental Disorders Third Edition* (DSM-III),[10] derives from military psychiatry and lessons learned from the Vietnam War, which involved older adolescents as well as adults. Impetus also came from recognition of the enormous traumatic impacts of genocide, child abuse, and rape, and of the psychological effects of other injury or violence in the general population.

Several seminal writings set the stage for understanding child PTSD and developing treatments. In his study of survivors of Hiroshima, Robert Lifton[11] described the horror of atomic weapons and their lasting traumatic impacts on survivors, including children. His observations of reexperiencing, avoidance, and numbing, among other symptoms, helped form the basis of the criteria for PTSD. For children, Lenore Terr's[12]