

Trauma: psychopathology, boundaries and treatment

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The traumatic nature of some mental disorders has been underlined for over a century; however, it is in the last 20 years that knowledge on epidemiological, clinical and neurobiological characteristics of psychopathological reactions to trauma exposure has gained an undeniable progress. First introduced in psychiatric nosography in the DSM-III (APA, 1980), in light of the evidence emerged in the veterans exposed to the Vietnam war, Post-Traumatic Stress Disorder (PTSD) and its related disorders, have been progressively investigated in victims of specific trauma, particularly sexual or physical violence, general population exposed to human made or natural disasters, up to wide epidemiological samples. Relevant neurobiological, genetic and neuroimaging findings have thus consistently emerged. As a matter of fact, a more accurate definition of these conditions has been achieved, leading to the acknowledgment of their distinctiveness from other mental disorders, particularly anxiety disorders, so that the DSM-5 first devoted a specific chapter to trauma and stress related disorders, highlighting their specific nature. Besides specific neurobiological alterations, these disorders still share the risk of a frequent chronic course, high comorbidity rates with other mental disorders, treatment resistance and high suicidal risk¹⁻⁶.

Increasing attention has been devoted to the role of childhood trauma, especially sexual and physical abuse and, most recently, emotional abuse and neglect. Although a spread of different kinds of childhood adversities, such as parental loss, separation, discord and bullying, are now known to contribute to later psychopathology, childhood trauma appears to have particular negative and long-lasting effects. Upon the DSM-5 redefinition of trauma, a special attention has also been devoted in most recent years to the impact of particular life experiences, such as those related to special working populations (e.g., emergency operators and first rescuers or caregivers), highlighting the role of preventive factors such as professional preparation and support. Conversely, subtle manifestations of traumatic experiences have been reported in fragile populations, like adolescents, women and minorities.

In this regards, important findings emerged from the investigations of not only full-blown manifestations of PTSD but also of its partial and sub-syndromal forms, that often represent a problem not only during the acute phase but also across extended periods of time after exposure. Trauma story, in fact, can help clinicians to better explore risk factors and psychopathologies surrounding traumatic events but there is a need to research-oriented instruments able to assess traumatic spectrum symptoms otherwise undetected. Consistently, a relevant role in neurobiological and clinical research has been driven by multidimensional approaches to these mental disorders, such as that suggested by the *Trauma and Loss Spectrum* model, developed by clinicians and researchers

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of the *Spectrum-Project* (www.spectrum-project.org)⁷. During the past few decades, a large body of research has further increased our understanding of the relationships between early adversities and psychological difficulties later in life and intriguing findings suggested the potential role of altered neurodevelopment, particularly autism spectrum disorder (ASD) in its moderate forms with no cognitive or language impairment, as vulnerability factor for the impact of traumatic experiences, even multiple minor ones⁸⁻¹⁰. As a matter of fact, the ability to adjust has been shown to decline dramatically over time in ASD subjects in the aftermath of disaster exposure. Consistently, individuals with ASD have been suggested to represent a low-resilience group that could be specifically more prone to develop Trauma and Stress Related Disorders and, studies on the new concept of Adult Autism Subthreshold Spectrum (AdAS)¹⁰ have hypothesized it as a possible matrix of vulnerability for the subsequent development of trauma related disorders, especially in their complex forms (e.g. complex PTSD). Most recently, increasing evidence has further led to the awareness that traumatic experiences may play a key role as potential triggers for the onset or worsening of other mental disorders that post-traumatic stress ones, such as mood disorders and psychoses^{11,12}. Clinical and neurobiological research, in fact, further supported the view that the effect of traumatic experiences is much broader than what is believed and this may encompass the entire lifespan¹⁵. If on one side, in fact, traumatic experiences in adulthood may contribute to a worsening of other mental disorders course and outcomes, childhood adversities have been associated with an increased risk of psychoses, mood and anxiety disorders, as well as other medical disorders in gen-

eral. According to preclinical and clinical models, early adverse events can disrupt the homeostatic control of immune responses and lead to enduring inflammatory dysregulation at a peripheral and central level leading to microglia activation and neuroinflammation. These mechanisms have been hypothesized to relate to an increased risk of mental disorders, particularly mood and psychotic disorders.

Given the spread of potentially traumatic events, what is surprising is the ability of the individual to adapt, which protects him from turning towards trajectories of psychopathological development, encouraging research on risk versus resilience factors. There has been growing interest in the concept of resilience^{14,15} and the question as to whether psychotropic medications or psychosocial treatments might have resilience-enhancing effects. Resilience can have a role not only in interpersonal trauma but also in natural-disaster related trauma.

In conclusion, despite significant progress has been achieved in the clinical definition and neurobiological correlates of these disorders, there is still a lack of advancement within their psychopharmacologic treatment. However, attention is deserved if we consider that the clinical and social burden of inefficaciously treated PTSD is absolutely relevant. The impact of PTSD morbidity and mortality is further magnified by its substantial disruptions in family, workplace and societal contexts¹⁶. The relationship of the clinical response of psychotherapy vs pharmacotherapy in people with mental disorder and trauma comorbidity is complex and far from being elucidated¹⁷. In this issue we collected theoretical and clinical contribution of trauma boundaries to enhance the clinicians' awareness on clinical management of trauma spectrum disorders.

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