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Question

Cite this article: Hickie IB, McFarlane AC, Ospina-Pinillos L, Chanen AM, Medland SE, and Crouse JJ. To what extent are depressive or other mood disorders a consequence of earlier traumatic experiences? *Research Directions: Depression.* 1, e7, 1–2. https://doi.org/10.1017/dep.2023.16

Received: 3 October 2023 Accepted: 3 October 2023

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To what extent are depressive or other mood disorders a consequence of earlier traumatic experiences?

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Context

The potential relationships between traumatic experiences and the onset and course of major mood disorders have always been controversial. Some experiences, most notably physical or sexual abuse, as well as substantive bullying in childhood, are clearly recognised as major risk factors for a range of mental disorders, as well as a range of linked phenomena including self-harm and suicidal behaviours (McKay et al., 2021; Zatti et al., 2017). There is considerable interest and ongoing research into how these adverse experiences come to be 'encoded' via neurobiological or genetic mechanisms that then transmit those effects into later-onset major mental disorders, substance misuse or other self-harming behaviours (Maddox et al., 2019).

In recent years, there has also been a renewed interest in the extent to which such very adverse childhood experiences are common (Mathews et al., 2023), what specific forms of adverse experiences are most strongly linked to negative outcomes and what degrees of variations in childhood experiences are reported (retrospectively by adults) as being 'traumatic'. Mental health services have moved to focus on 'trauma-informed care' as a central component of their engagement and treatment practices.

Globally, there is intense interest in the role that trauma may play on larger population groups – including most notably children and young people – who are exposed as a consequence of prolonged civil conflicts, war, violent crimes and associated major social disruptions. Where these experiences have been prolonged and cumulative, the inter-generational consequences may also be a major public health concern.

By contrast, there have also been concerns that the recent upsurge in traumatic explanations of the major mental disorders, including the full range of mood and psychotic disorders, is in danger of being overstated. The extent to which retrospectively reported major incidents of child abuse or neglect correspond to independent and contemporaneous reports of significant child abuse is limited. The broadening of the scope of retrospective reporting of emotional, physical or sexual maltreatment of children and youth is another factor for consideration in epidemiological and neuroscience studies of the topic.

Given the emphasis in most research is on reported exposure prior to or following the onset of major mood disorders, consideration also needs to be given to what individual or societal factors are influencing the changes in reporting of trauma by successive population-based cohorts (i.e., younger people, despite the societal factors that have promoted less exposure of children to abuse or neglect) or among emergency workers or war veterans exposed to highly variable experiences of traumatic or life-threatening events.

The fact that most people exposed to traumatic experiences do *not* go on to develop major mood or other psychiatric disorders argues that other individual, transgenerational or societal factors influence the prevalence of reporting traumatic experiences, the rate of exposure to these factors or the incidence of disorders that can be reasonably attributed to trauma.

New methods in genetic (e.g., Mendelian randomisation, epigenetics), neurobiological (e.g., longitudinal tracking of key stress-response systems, including the hypothalamic-pituitary-adrenal axis, immune and Sympathetic Nervous System) and brain imaging studies (e.g., longitudinal birth and youth cohorts) are now addressing many of these complex methodological challenges (Warrier et al., 2021).

More informed answers to these questions are critical to deepening our understanding of the place of traumatic experiences within the risk to onset, illness course and response to treatment of those with depressive or other mood disorders. Additionally, they are also clearly important to

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developing appropriate population-health-based responses, while also assisting those individuals and those social groups that have been most affected by traumatic experiences,

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Competing interests. IBH is the Co-Director of Health and Policy at the Brain and Mind Centre (BMC), University of Sydney, Australia. The BMC operates an early-intervention youth services at Camperdown under contract to Headspace. Professor Hickie has previously led community-based and pharmaceutical industry-supported (Wyeth, Eli Lily, Servier, Pfizer, AstraZeneca, Janssen Cilag) projects focused on the identification and better management of anxiety and depression. He is the Chief Scientific Advisor to, and a 3.2% equity shareholder

in, InnoWell Pty Ltd which aims to transform mental health services through the use of innovative technologies.

References

- Maddox SA, Hartmann J, Ross RA and Ressler KJ (2019) Deconstructing the gestalt: mechanisms of fear, threat, and trauma memory encoding. *Neuron* **102**(1), 60–74.
- Mathews B, Pacella R, Scott JG, Finkelhor D, Meinck F, Higgins DJ, Erskine HE, Thomas HJ, Lawrence DM, Haslam DM, Malacova E and Dunne MP (2023) The prevalence of child maltreatment in Australia: findings from a national survey. *Medical Journal of Australia* 218(Suppl 6), S13–S18.
- McKay MT, Cannon M, Chambers D, Conroy RM, Coughlan H, Dodd P, Healy C, O'Donnell L and Clarke MC (2021) Childhood trauma and adult mental disorder: a systematic review and meta-analysis of longitudinal cohort studies. *Acta Psychiatrica Scandinavica* **143**(3), 189–205.
- Warrier V, Kwong ASF, Luo M, Dalvie S, Croft J, Sallis HM, Baldwin J, Munafò MR, Nievergelt CM, Grant AJ, Burgess S, Moore TM, Barzilay R, McIntosh A, van IJzendoorn MH and Cecil CAM (2021) Geneenvironment correlations and causal effects of childhood maltreatment on physical and mental health: a genetically informed approach. Lancet Psychiatry 8(5), 373–386.
- Zatti C, Rosa V, Barros A, Valdivia L, Calegaro VC, Freitas LH, Ceresér KMM, Rocha NSD, Bastos AG and Schuch FB (2017) Childhood trauma and suicide attempt: a meta-analysis of longitudinal studies from the last decade. *Psychiatry Research* 256, 353–358.