

# The Lancet Neurology

## Progress in traumatic brain injury must also involve a comprehensive consideration of neuropsychiatric outcomes

--Manuscript Draft--

<b>Manuscript Number:</b>	THELANCETNEUROLOGY-D-22-00864
<b>Article Type:</b>	Correspondence
<b>Keywords:</b>	Traumatic brain injury; neuropsychiatry; rehabilitation; mental health
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<b>Manuscript Region of Origin:</b>	UNITED KINGDOM

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In their Lancet Neurology 2022 Commission report,<sup>1</sup> Andrew I.R. Maas and colleagues put forward a broad-ranging and insightful review of the traumatic brain injury (TBI) field and outlined key recommendations for future research and clinical management.

We would like to congratulate the authors for this excellent review and offer some contributions.

We note that the relationship between mental health and TBI is referenced in several sections of the report. However, we also note the lack of specific clinical recommendations focusing on the neuropsychiatric outcomes of TBI beyond the need to “provide services” and “interventions”. We feel this is important, given the social, clinical and financial need to better support affected individuals.

Many people experience short-to-long term mental health difficulties following a TBI. A 2016 meta-analysis<sup>2</sup> revealed a clear association between TBI and subsequent psychiatric diagnoses (OR 2.00, 1.50–2.66), including depression (OR 2.14, 1.65–2.77), bipolar disorder (OR 1.85, 1.17–2.94), and mixed affective disorder (OR 1.84, 1.50–2.66). Another meta-analysis<sup>3</sup> showed that mild TBI was associated with a 3.29-fold increased risk of depression, which persisted at 6-12 months (OR 2.43, 1.45-4.07), 1-2 years (OR 4.12, 2.10-8.07) and 10+ years (OR 3.42, 1.51-7.77). People diagnosed with post-TBI psychiatric disorders are more likely to experience re-hospitalisations, have increased medical costs and reduced functional gain following their injury, which may also have a negative impact on family members/carers.<sup>4</sup> Post-TBI personality change is likely a similarly important outcome but remains vastly under-researched.

The INESSS-ONF recommendations, which include clinical guidelines from several high-income countries, state that individuals with a TBI should be screened for psychiatric disorders, and diagnosis should involve specialists experienced in managing individuals with TBI. Psychological and/or pharmacological therapies should be offered to these individuals based upon individual factors, patient preference, symptom severity and comorbidity, and existing practice guidelines for the treatment of the diagnosed condition.<sup>5</sup> Despite this, many people experiencing such difficulties post-injury do not receive this care, as access to neuropsychiatrically-informed follow-up of patients with TBI is often lacking and they find themselves caught between acute neurology, rehabilitation and generic mental health services. Furthermore, existing guidelines are not tailored to low- and middle-income countries where TBI incidence is higher but clinical resources are more scarce.

Going forward, comprehensive neuropsychiatric services and pathways for people with TBI must be improved. We hope to see more research and recommendations for neuropsychiatric outcomes in the future.

We declare no competing interests.

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