

The impact of cognitive impairment resulting from traumatic brain injury on health-related quality of life (HRQOL) in Pakistan

Ahmad Danial¹, Laveeza Fatima², Muhammad Fawad Bosan³

Madam, Millions of people are affected by traumatic brain injury (TBI) across the world each year. Road traffic accidents (RTAs) are among the top contributors of mild to severe TBI cases, and in developing countries like Pakistan, low literacy rates and lack of awareness regarding traffic rules have further aggravated the situation.¹ Many survivors of RTAs never return to their normal life and are made to live with persistent disabilities. The limitation of knowledge regarding post-TBI cognitive impairment has been noted, and it further adds a barrier to necessary actions. It's evident that following mild to moderate TBI, the patients are prone to cognitive impairment and its associated adverse effects.²

A recent 2019 study by Gorgoraptis et al. reported that cognitive impairment adversely affects health-related quality of life (HRQOL) following TBI.³ In Pakistan's already struggling healthcare system, there are a few emergency trauma centres with neurocritical care units in it. Another study indicates that TBI patients are not assessed by an experienced doctor most of the time, with poor reporting of the clinical findings and hence missing out on an important finding in such patients.⁴ Computed Tomography (CT) scans for critical patients are available only in large centers, and the patient load and cost of investigation can hinder its timely availability for most TBI patients. Post TBI cognitive impairment can cause a significant burden on the healthcare system leading to other social implications as well. The patients are discharged once they get stabilized with no proper follow-up plans which can lead to other avoidable cognitive impairments like dementia, psychiatric problems, and behavioural changes.

In TBI cases, risk assessment and more advanced investigations like MRI can be provided to the patients who are being suspected of any finding missed on a CT scan.

Furthermore, TBI guidelines need to be reviewed and planned accordingly. A psychiatric team must assess patients' mental status changes during the stay and if needed proper therapy must be initiated. Neuropsychological rehabilitation plays a pivotal role in cognitive impairments and can help decrease the burden of neurological diseases⁵ and improves HRQOL of patients. Hence, a unified and interdisciplinary approach towards patients with traumatic brain injury is required not only to reduce mortality but also to improve the quality of life in survivors.

Disclaimer: None.

Conflict of interest: None.

Funding disclosure: None.

DOI: <https://doi.org/10.47391/JPMA.8621>

Submission completion date: 06-01-2023

Acceptance date: 04-03-2023

References

1. Dunne J, Quiñones-Ossa GA, Still EG, Suarez MN, González-Soto JA, Vera DS, et al. The Epidemiology of Traumatic Brain Injury Due to Traffic Accidents in Latin America: A Narrative Review. [Online] [Cited 2022 November 12]. Available from: URL: <http://www.thieme-connect.de/products/ejournals/html/10.1055/s-0040-1709363>
2. Sharbafshaaer M, Researchers MSY, Club E, Branch Z. Impacts of cognitive impairment for different levels and causes of traumatic brain injury, and education status in TBI patients. [Online] [Cited 2022 December 16]. Available from: URL: <http://www.scielo.br/j/dn/a/TLgv93zGdKsf8KNd6SDRbmj/?lang=en>
3. Gorgoraptis N, Zaw-Linn J, Feeney C, Tenorio-Jimenez C, Niemi M, Malik A, et al. Cognitive impairment and health-related quality of life following traumatic brain injury. *NeuroRehabilitation*. 2019; 44:321–31. doi: 10.3233/NRE-182618.
4. Bhatti JA, Stevens K, Mir MU, Hyder AA, Razzak JA. Emergency care of traumatic brain injuries in Pakistan: A multicenter study. *BMC Emerg Med*. 2015; 15:1-7. doi: 10.1186/1471-227X-15-S2-S12.
5. Barman A, Chatterjee A, Bhide R. Cognitive impairment and rehabilitation strategies after traumatic brain injury. *Indian J Psychol Med*. 2016; 38:172-81. doi: 10.4103/0253-7176.183086.

¹Quaid-e-Azam Medical College, Bahawalpur, Pakistan; ²3rd Year MBBS Student, Allama Iqbal Medical College, Lahore, Pakistan; ³Khawaja Farid Social Security Hospital, Multan, Pakistan.

Correspondence: Ahmad Danial. e-mail: ahmaddanialbosan@gmail.com
ORCID ID. 0000-0002-1223-2648