

Prevalence

Almost half of people suffering traumatic brain injury may later be diagnosed with axis I disorders

Koponen S, Taiminen T, Portin R et al. *Axis I and II psychiatric disorders after traumatic brain injury: a 30-year follow-up study.* *Am J Psych* 2002 Aug;159:1315–21.

QUESTION: What is the prevalence of axis I and II psychiatric disorders following traumatic brain injury?

Design

Retrospective analysis.

Setting

One university hospital in Finland.

Participants

60 people who suffered traumatic brain injury between 1950 and 1971 participated. The sample was drawn from people referred to hospital for neuropsychological evaluation between 1966 and 1972. Participants were reassessed an average of 30 years following traumatic brain injury. Mean age 61 years (range 44–84); 32% women.

Main outcome measures

DSM-IV axis I disorders were diagnosed with the Schedules for Clinical Assessment in Neuropsychiatry (version 2.1). Axis II disorders were diagnosed with the Structured Clinical Interview for DSM-III-R Personality Disorders. Cognitive Impairment was assessed using a test battery and the Mini-Mental State Examination.

Main results

48% of participants had an axis I disorder that began after traumatic brain injury. 62% had an axis I disorder during their lifetimes. Common new disorders following traumatic brain injury were major depression (27%), alcohol abuse or dependence (12%), panic disorder (8%), specific phobia (8%) and psychotic disorders (7%). 23% had at least one personality disorder.

Conclusions

Traumatic brain injury may be associated with susceptibility to depression, delusional disorder and personality disturbances. The authors emphasise the importance of psychiatric follow-up after traumatic brain injury.

COMMENTARY

A substantial number of people who sustain a traumatic brain injury (TBI) later develop neuro-behavioural and psychological consequences. Few studies have examined the extent of psychiatric diagnosis according to ICD or DSM criteria among people with TBI. Koponen's attempt to determine axis I and II psychiatric diagnosis according to the DSM-IV criteria 30 years post-TBI is unique. There are some limitations, however. For example, the high rate of psychiatric diagnosis observed may have been influenced by sampling bias because the cohort was selected from a clinic sample (who may be prone to develop more psychopathology), the cohort size is small and a high proportion of participants were lost to follow up.

It is unclear, therefore, to what extent the findings can be generalised for TBI patients as a whole. The high rate of depressive episodes is somewhat understandable, but the high rate of psychotic disorders is difficult to comprehend, particularly since half of these patients had a diagnosis of dementia and none had a diagnosis of schizophrenia. Despite its methodological limitations, however, this study serves to make clinicians aware of the possibility of increased vulnerability to psychiatric disorders among TBI patients, even many years following the original trauma.

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