

Persistent postconcussion symptoms after mild traumatic brain injury or minimal head injury

Background: Mild head injuries have been extensively researched, nevertheless, we know little about the mildest form: the minimal head injuries. We examined the demographic and clinical characteristics as well as symptoms reporting of patients referred to a specialist clinic due to persistent postconcussion symptoms (PPCS) and categorized their injuries into mild traumatic brain injury (MTBI) and minimal head injury (MHI), for further comparison.

Materials and methods: Prospective longitudinal cohort study set at an outpatient specialist rehabilitation clinic for acquired brain injuries. The participants were patients with PPCS (N=122) based on injury severity: MTBI (WHO criteria (1,2) and MHI (Head Injury Severity Scale (HISS) criteria (3,4). Data were collected by a semi-structured interview and PCS were measured with the Rivermead Postconcussion symptoms Questionnaire (RPQ).

Results: Sixty-two percent had sustained an MTBI (n=76) and 38% (n=46) an MHI. (Mean age: 37 vs. 35 years, 71% vs. 70% women, mean time from injury to first consultation: 6 months for both groups). Both groups frequently reported preinjury health problems such as headaches (41% vs. 48%), head injuries (47% vs. 53%) and mental health problems (41% vs. 56%). MHI participants more often reported symptoms exceeding two weeks after a previous head injury (8% vs. 21%), they had sought health care later in the acute phase (median: 0 days vs. 1 day), had more often only seen their general practitioner (31% vs. 59%) and fewer had returned to fulltime work postinjury (33% vs. 15%). Headaches were frequently reported postinjury for both MTBI and MHI participants (90% vs. 94%) and there were high average RPQ total scores (30 vs. 31 points).

Conclusions: Preinjury health issues were common, indicating the importance of assessing preinjury health status as a vulnerability for developing PPCS. A considerable number of patients at a specialist clinic for patients with PPCS, had sustained an MHI, not meeting criteria for an MTBI. The MHI group's later and lower entry into health care, points towards the importance of established pathways of care in primary health care.

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