Changes in coping strategies, social support, optimism and health-related quality of life following traumatic brain injury: A longitudinal study

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(Received 17 November 2006; revised 13 February 2007; accepted 18 February 2007)

Abstract
Primary objective: To study longitudinal changes in psychological coping strategies, social support, life orientation and health-related quality of life in the late period after traumatic brain injury (TBI).
Subject: Thirty-one patients with TBI who were first investigated on average 2.3 years after injury and were prospectively followed on average 5.7 years later.
Methods: Estonian versions of the COPE-D Test, the Brief Social Support Questionnaire, the Life Orientation Test and the RAND-36 questionnaire.
Results: During the late follow-up period health-related quality of life and resuming work did not improve significantly. Persons with TBI reported an increase in seeking social/emotional support (p < 0.05), frequent use of avoidance-oriented styles and reduced use of task-oriented styles. This was accompanied by low social support and low satisfaction with support, both of which were associated with health-related quality of life and resuming work after TBI. Although the patients had become more optimistic (p < 0.05), this did not correlate with their health status and social well-being.
Conclusion: This prospective study revealed maladaptive changes in the profile of coping strategies and an increase in optimism. As social support, satisfaction with support and health-related quality of life did not improve, then rehabilitation, social and psychological support are continuously needed.

Keywords: Coping strategies, social support, optimism, health-related quality of life, longitudinal change, traumatic brain injury

Introduction
Psychosocial maladjustment and long-lasting decline in the quality of life of survivors from traumatic brain injury (TBI) are common irrespective of initial severity of injury. Different psychological, emotional, behavioural and social factors combined with neurological impairments may influence outcome, social integration and resuming work following TBI [1-3]. As a rule, changes in psychosocial functioning become more evident in long-term follow-up studies [4, 5], while physical problems predominate and the awareness of psychosocial dysfunctioning is impaired in the early period after TBI [6].

A number of factors that help compensate for difficulties in psychosocial adjustment have been pointed out, including an efficient support network and patients' favourable intrinsic psychological characteristics like task-oriented, problem-focused approaches to stressful events, positive life orientation and dispositional optimism [7-10]. It is acknowledged that effective adjustment presumes active, problem-focused coping with difficulties caused by changes in health and in the psychosocial state, while less functional coping models (social/emotional and avoidance-oriented styles) are related to maladjustment, presence of various