



Cognitive functioning, coping and depressive
complaints in patients with low-grade glioma: a
mediation analysis

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Master Thesis – Clinical Neuropsychology

S4306007
July 2nd 2021
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Abstract

Objective: the aim of this study was to examine if cognitive impairments lead to depressive complaints via coping in LGG-patients. Furthermore, associations among cognition, self-reported daily functioning, coping and depressive complaints were examined. **Methods:** included were patients with low-grade gliomas ($n=73$ who were eligible for proton radiation therapy. Assessment consisted of neuropsychological tests (15 Words Test, subtests of Reaction Times and Determination Test of the Vienna Test Battery, Zoo map of the Behavioural Assessment of the Dysexecutive Syndrome and the Facial Expressions of Emotion Stimuli and Test) and questionnaires examining self-rated daily functioning (Patient Competency Rating Scale), coping (Utrecht Coping List) and depressive complaints (Hospital Anxiety and Depression Scale). **Results:** although there was no direct relationship between complex divided attention and planning ability and depression, better complex divided attention and planning ability did lead to depressive complaints via increased passive coping in LGG-patients. Furthermore, faster processing speed, but no other cognitive measures, and better self-reported daily functioning were related to less depressive complaints. Also, better self-reported daily functioning was related to more use of active coping strategies and less use of passive coping strategies of which the latter was found to be related to more depressive complaints. However, increased passive coping was not found to mediate the relationship between self-reported daily functioning and depressive complaints. **Conclusion:** cognitive impairments are not necessarily related to decreased use of passive coping and increased use of active coping. Patients with cognitive impairments might still be able to learn and use active coping strategies to handle their impairments. It is advised for clinical practice to screen for depression in patients presenting with many problems in daily life and lower processing speed and to teach LGG-patients to use less passive and more active coping strategies to maintain good quality of life and increase survival outcome.