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## Research Project

# Psychophysiological effects of animal-assisted interventions in patients with brain injury

### Third-party funded project

**Project title** Psychophysiological effects of animal-assisted interventions in patients with brain injury

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**Organisation / Research unit**

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**Department**

**Project start** 01.10.2017

**Probable end** 30.09.2021

**Status** Completed

Background: Animal-assisted interventions are a rapidly growing field of therapeutic interventions in a broad range of populations. Current results and clinical reports describe it as a promising method to facilitate rehabilitation in patients with acquired brain injury (ABI). However, there are very few studies investigating AAT in this patient group and there is little knowledge of possible mechanisms (Munoz Lasa et al., 2015). Objectives of the project: The proposed projects will examine the effects and clinical significance of animal-assisted therapy in patients with acquired brain injury (ABI) within different stages of function deficits in comparison to "treatment as usual". Methods: To investigate the effects and the effectiveness of animal-assisted interventions in patients with ABI, four randomized controlled trials will be conducted: a first study will explore long-term effects of AAT on 70 patients with acquired brain injury who have some brain function deficits but a full level of awareness in a randomized, controlled study. Outcomes are socioemotional functioning as well as therapy motivation and quality of life measured via behavioral coding in Noldus Observer and FPTM, VAS and WHOQOL-BREF (study 1). In patients with disorders of consciousness, we will investigate the effects of AAT on awareness and achieving therapeutic goals measured via behavioral coding in Noldus Observer, CRS-r, GCS and BAVESTA (30 patients, study 2) and underlying biological correlates such as frontal brain activity measured via NIRS, EDA, HR and HRV (30 patients, study 3). Both studies are designed as randomized, controlled trials. Study 4 serves as a comparison and uses the same design as study 3 but includes 30 non-clinical participants without any brain function deficits. Significance of the study: The proposed studies will help to evaluate the highly innovative and promising method of integrating animals within a therapeutic context for patients with acquired brain injury. The proposed studies will help to better understand mechanisms of animal-assisted therapy and contribute to the development of new treatment approaches. For patients with severe disorders of consciousness, in particular, there are currently limited treatment options, and animal-assisted therapy represents a new and promising approach. Therefore, it is imperative to understand how these patients can be reached individually to prevent risks of long-term, persistent harm. Hence, the results will also have important relevance for public health.

**Keywords** animal-assisted therapy; acquired brain injury; disorder of consciousness; socioemotional functioning; therapy motivation; quality of life; awareness

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## Add publication

### Published results

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