

# Intensive rehabilitation of patients with severe traumatic brain injury



# Development of a research-based didactic model An ongoing PhD projekt

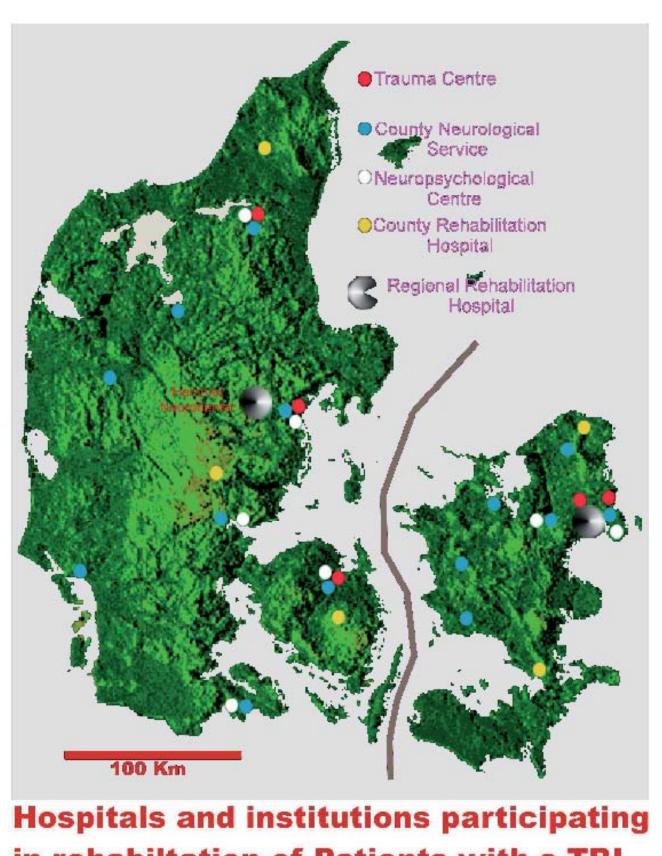
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### Introduction

- Annually, about 7500 people suffer a traumatic brain injury (TBI) in Denmark. 250 of these suffer severe injuries.
- About 120 people (18+) mostly males need highly specialised neuro-rehabilitation at one of the two regional centres in Denmark.
- It can be assumed, that the patient's motivation and involvement in planning and implementation of rehabilitation improve subjective and objective outcome.
- Motivation, involvement and learning in patients with severe traumatic brain injury constitute a major challenge because TBI often involves disturbances in language and perception, lack of insight, reduced initiative, tiredness and depression.

# Purpose

The purpose of this project is to develop and pilot-test a didactic model for improvement of motivation, involvement and re-learning of daily life competences in the initial phase of physical and psychosocial rehabilitation following a TBI.



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## **Assumptions**

A neuro-rehabilitation effort in patients with severe traumatic brain injury based on a didactic model for improvement of motivation, involvement and re-learning of daily life competences will

- improve the patients experience of meaningful learning and influence
- provide staff with a tool which contributes to the experience to work in a targeted way concerning motivation, patient influence and re-learning daily life competencies.

#### **Material and methods**

The project is an explorative, qualitative study in three phases and with a triangulation of research methods. The approach is `participatory design', which indicates that practitioners are actively involved in developing and evaluating the didactic model.

- Phase 1: Field study and focus group interviews to clarify the ongoing pedagogic practice and the staff's thoughts about involvement, motivation and learning of daily life activities. Data provides the clinical background for the theoretical study, in which a preliminary didactic model is developed, based on analysis, interpretation and application of pedagogic research literature in relation of our target population (patients with severe traumatic brain injury strugling to re-learn everyday competencies). In the focus group interviews rehabilitation experts express their opinions about the applicability of the model in clinical practice and suggest improvements, leading to initial adjustments of the model.
- Phase 2: Intervention (step one): Teach and supervise the staff in the application of the model. Intervention (step two): 10 12 adult patients consecutively included at the end of the post-traumatic amnesia phase (PTA) will be rehabilitated according to the principles in the didactic model. Data collection on each patient: 2-3 days field study and video recording of at least one interaction with staff. At discharge an in-dept interview with patients, who are able to take part and focus group interview with the staff of these patients.
- Phase 3: Evaluation of the experiences of patients and staff in the pilot-study and further adjustment of the model.

PHASE 1			PHASE 2					PHASE 3
GETTING TO KNOW Current practice	LITERATURE STUDY Pedagogic literature targeted TBI patients re- learning	MODEL Ajustment	TRAINING OF STAFF		EL TESTIN 2 patient		ices	FINAL MODEL CORRECTION
General Practice  2 x fieldstudy  2 x focusgroup Interview		Expertgroup: Hearing of provisional model	Team education and supervision Specific use of the model	Feam applies the model	Fieldstudy	Focusgroup interview	Depth Interview (possibly video)	

#### **Status**

The study has obtained permission from The Danish Data Protection Agency. The Regional Committee On Biomedical Research Ethics concludes, that the study does not need a permission from an ethics committee. In phase 1 the first field study is finished, and the data is analysed using N-Vivo 7 for textcondensation.