

## **Symposium: Interventions in neurorehabilitation - working within a diversity of methods**

Organized by : Anne Norup

Chair: Anne Norup

Working in neurorehabilitation as a neuropsychologist can be a diverse and challenging task, as many different types of interventions can be required depending on the specific need of the patient. This symposium introduces three different interventions, which can all be applied in neurorehabilitation. The interventions include working with the whole family following brain or spinal cord injury, applying hypnosis following concussion and lastly improving sexuality following traumatic brain injury.

### Presentation 1:

**Title:** A manual-based family intervention for families living with brain or spinal cord injuries

**Presented by:** Pernille Langer Søndergaard, neuropsychologist, PhD fellow at Department of Psychology, University of Southern Denmark, Neurorehabilitation Research and Knowledge Centre, Rigshospitalet, Department of Brain and Spinal Cord Injuries, Rigshospitalet

**Abstract:** Acquiring an injury to the brain (ABI) og spinal cord (SCI) constitutes a severe life change for the survivor, but also for their caregivers. The paradigm of helping the family has primarily been on psychosocial interventions targeting caregivers. However, interventions including both survivor and caregivers are essential, as the mental health of the whole family are affected. A manual-based family intervention for the whole family ( $\geq 18$  years old) living with ABI or SCI is investigated in Denmark, and currently 61 families are included. The family intervention aims to improve the quality of life and decrease experienced burden. The intervention consists of eight-weekly 90-min sessions with home-assignments. In the presentation, we will introduce the manual-based family intervention, focusing on the themes of each session (making meaning, shifting focus, managing emotions, communicating effectively, finding solutions, boundary making), which will be valuable for clinical neuropsychologists working with survivors of ABI or SCI.

### Presentation 2:

**Title:** Manual-based hypnosis in patients with long term post concussion symptoms

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**Abstract:** Most people recover spontaneously from a concussion. However, 22-45% experience persistent post-concussion symptoms (PCS) having a significant impact on everyday life. Recently, manual-based hypnosis (Suggestion-Based Cognitive Rehabilitation; SBCR) was found to improve working memory and reduce stress and depression symptoms in patients with brain injury and is now also used for persons suffering from PCS. During last year, BOMI rehabilitation center has offered SBCR for persons with aquired brain injury- including persons with PCS. We will present data from a multiple baseline single-case-experiment design study, including 5 persons with PCS participating in 4 sessions of SBCR. Each person completed questionnaires each week from pre-intervention (range:7-49 days) to two week post-intervention. Semi-structured interviews were conducted to explore participants' experiences and perspectives on how hypnosis may have an impact. Findings generate hypotheses on how hypnosis affect the life of people with PCS, and what factors may mediate any effects during hypnosis.

Presentation 3:

**Title:** Intervention program to improve sexuality and intimate relationships after traumatic brain injury

**Presented by:** Juan Carlos Arango Lasprilla, PhD; Biocruces Bizkaia Health Research Institute, Bilbao, Spain.

**Abstract:** Sexuality is defined as a person's capacity for sexual feelings and includes facets such as sexual activity, sex, gender identities, sexual orientation, pleasure, intimacy, eroticism, and reproduction. Ultimately, these are important aspects of quality of life. Many brain regions control these aspects, and individuals with TBI often experience sexuality-related difficulties after injury. It is estimated that as many as 50%-60% of individuals with TBI report sexuality problems, including inhibited sexual desire, less frequent intercourse, difficulty achieving an erection, and decreased ability to experience orgasms. Although sexual dysfunction after TBI has been well-documented in past research, sexuality continues to be under-addressed in rehabilitation medicine and there is a lack of sexuality interventions for patients who have TBI and their partners. In this presentation, we will introduce a nine-session sexuality intervention. The intervention enables clinical neuropsychologists and rehabilitation professionals to meet the needs of their patients with TBI and their partners.