

# Outpatient clinic for mild TBI

Torgeir Hellstrøm, MD (PM&R specialist)

Oslo University Hospital

Department for Physical medicine and Rehabilitation

# Background

- 4200-7000 hospitalized due to TBI each year in Norway (Andelic et al 2008, Heskestad et al 2009 )
- ranges from severe to mild cases with 80-90% classified as mild
- 15-25% of the mild cases report longstanding somatic, cognitive, and emotional symptoms (Bohnen 1993, Ruff 1996)
- Startet following these patients 2007

# How we work

- Patients are typically seen 6-8 weeks after the injury
- Consultation by a specialist PM&R
- Broad referral base: neurosurgery, neurology, PM&R, orthopaedics, oral- and maxillofacial surgery, as well as general practitioners (GP)
- We serve the Oslo and Akershus region (pop.  $\approx$  1'2 m)
- Funding from the Norwegian Labour and Welfare Administration (NAV); part of a 'speedier return to work' scheme
- Approximately 10 new patients per week; 440 p year

Physician 6-8 weeks post-injury



Additional interdisciplinary assessments



Rehabilitation plan with team and patient



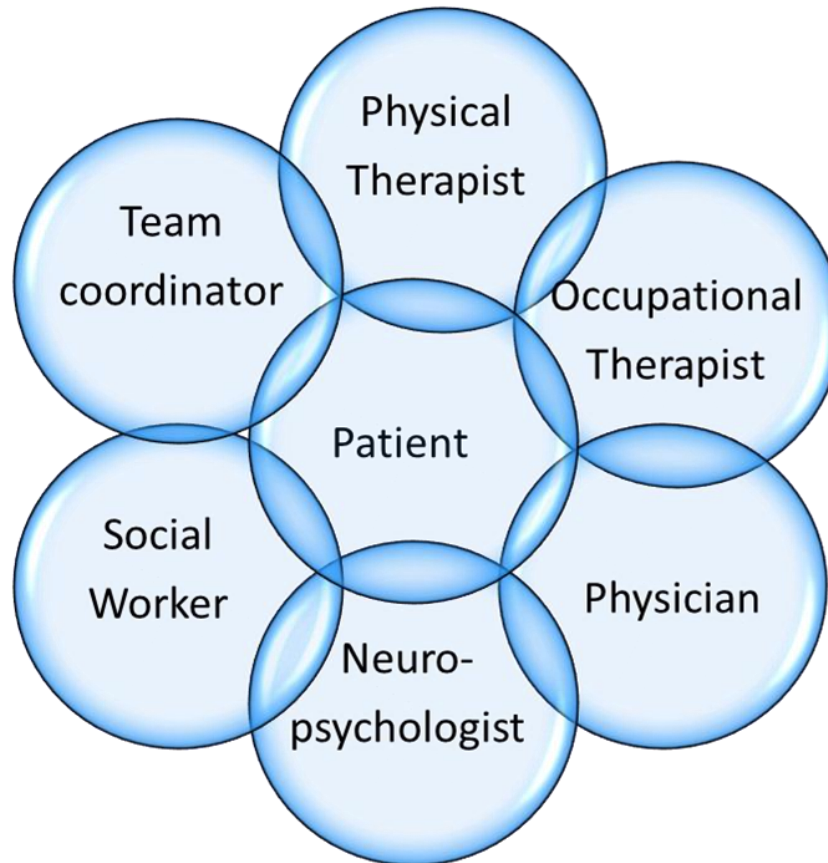
Individual consultations /treatments,  
psycho-educative group



Evaluation of the rehabilitation plan

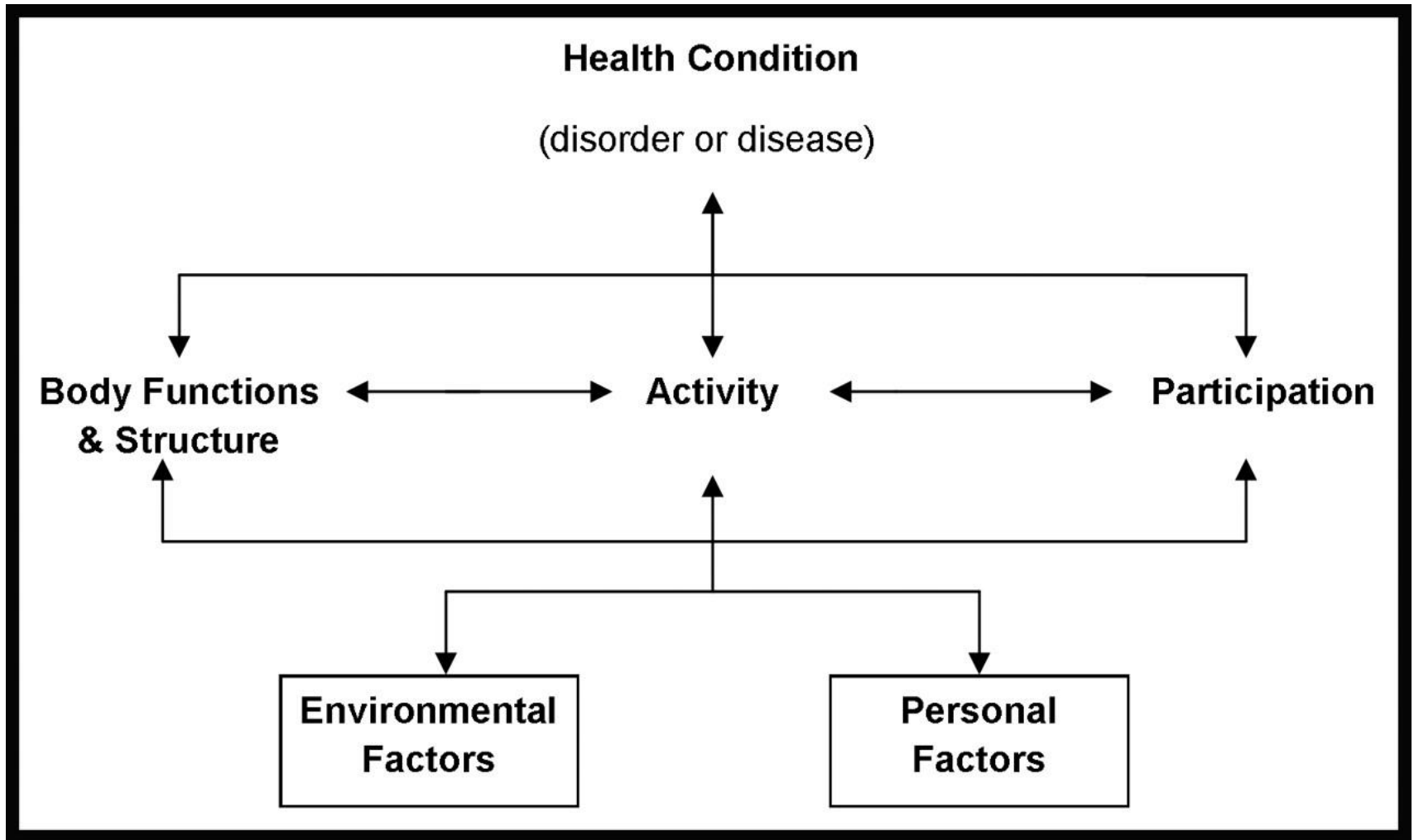
# Routine physical examination (physician)

- Mental status assessment
  - By observation during history taking
  - Screening tools for affective disorders (PHQ9 and GAD-7) and PTSD-10 (PTSS)
  - Screening questions for alcohol (CAGE) and substance abuse
- Screening neurological examination including
  - Cranial nerves
  - Balance and coordination
  - Deep tendon reflexes
  - Manual muscle testing and general function tests



# Evaluation and assessments

- Physical
  - Dizziness/vertigo
  - Neck function and pain
  - Oculomotor function
  - Exercise tolerance
    - (Physiatrist, P.T)
- Cognitive
  - Memory, concentration, attention
  - Psychomotor speed and information processing
  - Executive functioning
  - Daily activities
    - (O.T., Neuropsychologist)
- Emotional
  - Emotional functioning with focus on anxiety and depression and Post traumatic stress reactions
  - Mood/affect, fatigue,  
(Neuropsychologist, O.T.)
- Psycho-social functioning
  - Family, friends, social activities
    - (O.T. Social worker, N.psych)
- Vocational
  - Work/studies facilitation
  - Sickness absence management
  - Social security benefits
    - (Social worker, O.T. )





# Treatment

- Psycho-educative group intervention
  - Consecutive 4-weeks
  - Better understanding of their symptoms
  - Reassurance of favourable outcome
  - Sharing experiences
- Individual tailored contacts
  - Evaluation of patient's capabilities and job demands
  - Plan for gradually RTW

# Evaluation of the program

**Client Satisfaction Questionnaire** (Attkisson CC. 1982)

<b>The quality of the program:</b>	excellent 55%, good 36%
<b>Met your needs?</b>	almost all 36%, most of 55%
<b>Have the service you received helped to deal more effectively with your problems?</b>	helped a great deal 50%, yes, helped 41%
<b>Would you come back to the program:</b>	yes, definitely: 77%
<b>Recommend to a friend:</b>	yes, definitely 86%
<b>Overall satisfied:</b>	very satisfied: 77% mostly satisfied: 18%

# Research related to the program

- Effect of multidisciplinary outpatient treatment after MTBI- a randomised controlled trial and prognostic factors for RTW; Eirik Vikane PhD
- Vestibular Rehabilitation after TBI; Ingerid Kleffelgård, Physiotherapist, PhD-fellow
- Transitions in rehabilitation. Biographical disruption and professional expertise. HIOA/OUS studie; PhD fellow Ida Heiaas. Supervisor Helene L. Sjøberg. PhD fellow Mirela Slomic. Supervisors Helene L. Sjøberg, Unni Sveen
- Biographical disruption, adjustment and reconstruction of everyday occupations and work participation after mild traumatic brain injury. A focus group study. Sveen U, Sjøberg HL, Østensjø S

# Research related to the program

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RESEARCH PAPER

## **Problems in functioning after a mild traumatic brain injury within the ICF framework: the patient perspective using focus groups**

Unni Sveen<sup>1,2</sup>, Sigrid Ostensjo<sup>2</sup>, Sara Laxe<sup>3</sup> & Helene L Soberg<sup>1,2</sup>

*<sup>1</sup>Department of Physical Medicine and Rehabilitation, Oslo University Hospital, Oslo, Norway, <sup>2</sup>Faculty of Health Science, Oslo and Akershus University College of Applied Sciences, Oslo, Norway, and <sup>3</sup>Guttmann Institute Hospital for Neurorehabilitation, Universitat Autònoma de Barcelona, Badalona, Spain*

# Thank you for your attention

