Outpatient clinic for mild TBI

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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. ≈ 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
  – Psycomotor 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)

<table>
<thead>
<tr>
<th>The quality of the program:</th>
<th>excellent 55%, good 36%</th>
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<tr>
<td>Met your needs?</td>
<td>almost all 36%, most of 55%</td>
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<tr>
<td>Have the service you received helped to deal more effectively with your problems?</td>
<td>helped a great deal 50%, yes, helped 41%</td>
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<td>Would you come back to the program?</td>
<td>yes, definitely: 77%</td>
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<td>Recommend to a friend:</td>
<td>yes, definitely 86%</td>
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<td>Overall satisfied:</td>
<td>very satisfied: 77%, mostly satisfied: 18%</td>
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</table>
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
- Biographical disruption, adjustment and reconstruction of everyday occupations and work participation after mild traumatic brain injury. A focus group study. Sveen U, Søberg HL, Østensjø S
Research related to the program

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

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Thank you for your attention