Rehabilitation of Learning Disabilities in Finland
11.3.2014

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Topics of the presentation

- On the concept of learning disabilities (LD)
- Rehabilitation and support for learning disabilities in Finland
- Experiences of the Rehabilitation Foundation
  - The Learning to Learn – project
  - Effectiveness of neuropsychological rehabilitation of young dyslexic adults
Developmental learning disabilities

- Learning can be hindered because of multiple reasons
  - Motivation, neurological of psychiatric conditions, mental retardation etc.
- Developmental disabilities
  - Not explained by other illnesses of lack of education
- Difficulties in cognitive functioning caused by an atypical functional organization of the brain
- About 10% of the population are affected
- (In the UK the term is usually specific learning difficulty)
Classifying learning disabilities

- Reading disability / dyslexia
- Mathematics disability / dyscalculia
- Specific language impairment (SLI)
- Nonverbal learning disabilities (NLD)
- Motor Learning Difficulties
- Non-specific learning disabilities
- Developmental neurocognitive disorders also include Attention deficit disorder
- The problems often overlap and often continue into adulthood
Rehabilitation and support in Finland

- Special education
- Speech therapy
- Occupational therapy
- Neuropsychological rehabilitation
- Vocational rehabilitation
- Psychosocial interventions
- Courses and peer support organized by special interest groups
Learning to Learn project (2006–2010)

- Funded by Finland’s Slot Machine Association (RAY)
- Developing rehabilitation services for adults whose learning disabilities interfere with studies, working life or everyday life
- The services developed:
  - Psychological examination of adult learning disabilities (based on neuropsychological assessment)
  - **Individual rehabilitation**: LD coaching / rehabilitative instruction and guidance
  - **Group rehabilitation**: Supportive peer groups
  - LD advisor for clients and professionals
Self-reported problems in dyslexia

N= 43 (mean age 37)

- Foreign lang.: 77% major difficulties, 15% mild difficulties, 7% no difficulties
- Arithmetics: 35% major difficulties, 48% mild difficulties, 19% no difficulties
- Memory: 33% major difficulties, 49% mild difficulties, 18% no difficulties
- Reading: 26% major difficulties, 63% mild difficulties, 11% no difficulties
- Writing: 23% major difficulties, 63% mild difficulties, 14% no difficulties
- Concentration: 19% major difficulties, 56% mild difficulties, 25% no difficulties
- Self esteem: 12% major difficulties, 67% mild difficulties, 31% no difficulties
- Drawing: 9% major difficulties, 72% mild difficulties, 19% no difficulties
- Relationships: 7% major difficulties, 48% mild difficulties, 45% no difficulties
- Manual skills: 5% major difficulties, 79% mild difficulties, 45% no difficulties
- Sports: 2% major difficulties, 23% mild difficulties, 75% no difficulties
In what areas the learning disability causes the most prominent problems?

N=43 (mean age 37)

- Certain work related tasks: 67
- Certain subjects in studies: 56
- General studying skills: 51
- Choosing a profession or a career: 30
- Everyday life: 30
- Applying for jobs: 19
- General life control: 16
- Relationships: 16
- Work in general: 12
Rehabilitation in the learning to Learn -project

- Individual coaching
  - Up to 10 sessions, spread along a long time period
  - Individual learning plan, developing one’s own learning strategies in studies and at work

- Group courses
  - Half a year courses including 20 sessions
  - Peer support, knowledge, training
Feedback from the rehabilitation

- Positive feedback given concerning the whole project:
  - Better self-knowledge (89 %)
  - Accepting one’s own learning disability better (81 %)
  - Understanding one’s own disability has had a positive influence on life and future plans (77 %)
  - Quality of life is better (74 %)
  - Trusting and believing in one’s own abilities more (71 %)
  - Important tool in studies and working life (69 %)

- Subjects participating in individual coaching compared to subjects participating in the other services of the project reported
  - having made more changes in their study- and working habits and
  - having special benefits in getting ahead in their studies or work career
Feedback from group rehabilitation

- Almost 90% reported, that the rehabilitation
  - Met their expectations
  - Helped in achieving their personal goals
  - Was suitable in length
- The most important aspects according to rehabilitees were:
  - Knowledge on learning disabilities (96%) and how to cope with them (94%)
  - Knowledge on memory functions (93%)
  - Sharing the learning experiences (91%)
  - Knowledge on learning strategies (89%)
  - Techniques for reading, writing and relaxing (75%)
Neuropsychological rehabilitation

- Usually long in duration, up to 3 years
- Cognitive interventions include three main aspects:
  - Getting the weakened function to recover
  - Training compensative techniques and strategies
  - Learning to use different kinds of assistive devices and changing the environment
- Psychoeducation
- Psychological support, informing the family members

Neuropsychological rehabilitation for adult learning disabilities

- Based on a neuropsychological examination whereby the different areas of cognition are assessed:
  - Verbal and visual problem solving
  - Memory functions
  - Concentration, attention, executive functions
  - The specific learning disabilities
- Also psychological wellbeing is evaluated
Neuropsychological rehabilitation for adult learning disabilities

- In adulthood the focus is on compensation instead of drilling the basic functions
- Main goals are
  - Increasing self-knowledge
  - Focusing on subject’s cognitive and personal strengths as well - supporting self-esteem is very important
- Attainable goals and an active role of the participant should be stressed
Effectiveness of neuropsychological rehabilitation of young dyslexic adults (2012-16)

- Funded by the National Insurance Institute
- In co-operation with the Helsinki University Hospital, Dept. of Foniatrics
- Randomized, controlled study
- Individual or group based neuropsychological rehabilitation
- Target group 18-35-year old young adults with dyslexia
  - Dyslexia is causing problems with studies or work or in attaining either one
- ClinicalTrials.Gov
  - clinicaltrials.gov/ct2/show/NCT01930500?term=neuropsychological+rehabilitation+dyslexia&rank=1
Individual neuropsychological rehabilitation

- 12 sessions lasting 1.5 hours
- Within a 5 month period, 1 time/week or every other week
- Dealing with the demands the participant has in his/her life (studies, work, or attaining them)
- Learning new strategies and strengthening coping with the problems
- Promoting good experiences regarding learning
Methods used

- Increasing the understanding of one’s own difficulties and how they influence different areas of functioning
- Supporting self-esteem, going through earlier disappointments in learning situations, diminishing anxiety towards learning
- Cognitive rehearsal
  - To improve metecognition and adapt new strategies
- Homework
  - To apply the learned strategies into their everyday life
- Selecting suitable assistive devices and practicing using them
- Recommending appropriate arrangements for studies or work
Neuropsychological group rehabilitation

- Groups of 8-10 participants
- 12 sessions lasting 2 hours plus a break
- Within a 5 month period, 1 time/week or every other week
- One neuropsychologist present every time
  - On five of the sessions another neuropsychologist, special education teacher or physiotherapist is present
Methods

- Peer support
- Information
  - On dyslexia, reading and writing strategies, memory functions etc.
- Cognitive rehearsal
  - Divided in to smaller groups when possible
- Training strategies for coping with stress and techniques for relaxation
- Homework
  - To apply the learned strategies into their everyday life
- Informing on different assistive devices and recommending appropriate arrangements to studies or work
- Practicing group skills
Thank you!

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