Inpatient Energy Management Education (IEME) for persons with MS–related fatigue

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Background

Fatigue is one of the most common symptoms in persons with multiple sclerosis (pwMS)¹. It limits participation in ADL’s, productivity and effects quality of life. Outpatient energy conservation education is a valid and effective intervention², but is not compatible with inpatient rehabilitation. Rehabilitation centers need a standardized protocol, feasible in inpatient setting which main the reinforcing effect of peers, principals of patient education, empowerment and change management.

Aims

Part 1: To develop an inpatient energy management education (IEME) protocol and materials, and user-evaluation of a test-run.

Part 2: To evaluate the feasibility of a RCT study-protocol and to explore the effect of IEME on self-efficacy, fatigue and quality of life.

Methods: Part 1

- Development based on scientific literature and knowledge from OT experts.
- Training of 3 OT’s in IEME execution.
- Test run with 13 pwMS.
- Analysis of 3 focus group (participants and OTs) discussions after test-run.
- IEME optimization.

Methods: Part 2

- Small RCT with pwMS from the Rehabilitation Centre Valens.
- Randomization to IEME or to progressive muscle relaxation (PMR; control intervention) in addition to rehabilitation as usual.
- Inclusion criteria: confirmed diagnosis of MS, 3 week inpatient rehabilitation, FSS (>4), EDSS (≤6.5). Exclusion criteria: T-MMSE (<21), BDI-FS (<4).
- Outcome measurement at baseline, after 3 week inpatient rehabilitation (T1) and 4 month from baseline (T2). Assessments: MFIS, SF 36, OSA, Self-efficacy MS-Scale, Self-efficacy for performing energy conservation strategies assessment (SPECSA).

Results 1: Treatment protocol IEME

- Energy account
  - Vicious fatigue circle
  - Principles of energy management
  - Energy profile
- Break Management
  - Types of breaks and break rules
  - Daily schedule
- Occupational balance
  - Activity patterns and priorities
  - Weekly schedule
- Use of body & environment
  - Ergonomic behaviour
  - Environmental adjustments
- Simplifying activities
  - Workload reduction
  - Energy costs and consumption
- Effective communication
  - Speaking about fatigue
  - Communication strategies

Results 2: Feasibility of study protocol

- Recruitment rate: 56.6 %.
- Drop-out: 4.2 %.
- Lost for follow up: 21.4 %.
- Follow up: 74.4 %

Conclusions

- Significant higher scores (p<0.10) in physical functioning (SF36) and self-efficacy for performing energy conservation strategies in IEME vs. PMR at T1 & T2.
- No significant differences in fatigue impact between the groups.
- High treatment fidelity with 89% of all tasks completed.
- Reduced need of individual OT sessions thanks IEME.

Participants information packs send (n=83)
Randomised (n=47)
Excluded
Not meet inclusion criteria (n=20)
Declined participation (n=16)

Drop-out (n=4)
Excluded, not well

My goals
- Revisit the course and the potential of change
- Formulation of realistic and specific goals

Total: 6.5 h

Letter home
Reinforce input for the behaviour change

References:

1. Kugg L. Fatigue is related to multiple sclerosis (MS) and is the most commonly reported symptom of the disease. Mult Scler. 2006; 12(8): 677-688.