

# Occupational therapy-based self-management education in persons with post-COVID-19 condition related fatigue A feasibility study with a pre-post design

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## Background and Aim

Persons with post-COVID condition are a growing population requiring support returning to everyday life.

**Energy Management Education (EME, fig. 1)** is a self-management education based on energy conservation and management strategies.

- It targets the ability to reduce the impact of fatigue in daily life.
- It is delivered in peer groups or individual sessions by an Occupational Therapist in out or inpatient setting
- Materials: Intervention protocol and workbook for participants (D,I,F)

Since 2021 EME is standard OT at REHAB for persons with Long-COVID fatigue.

**Study aim:** to investigate procedural and methodological parameters to plan a future study analyzing the effectiveness of EME in individuals with Long COVID fatigue.

## Figure 1

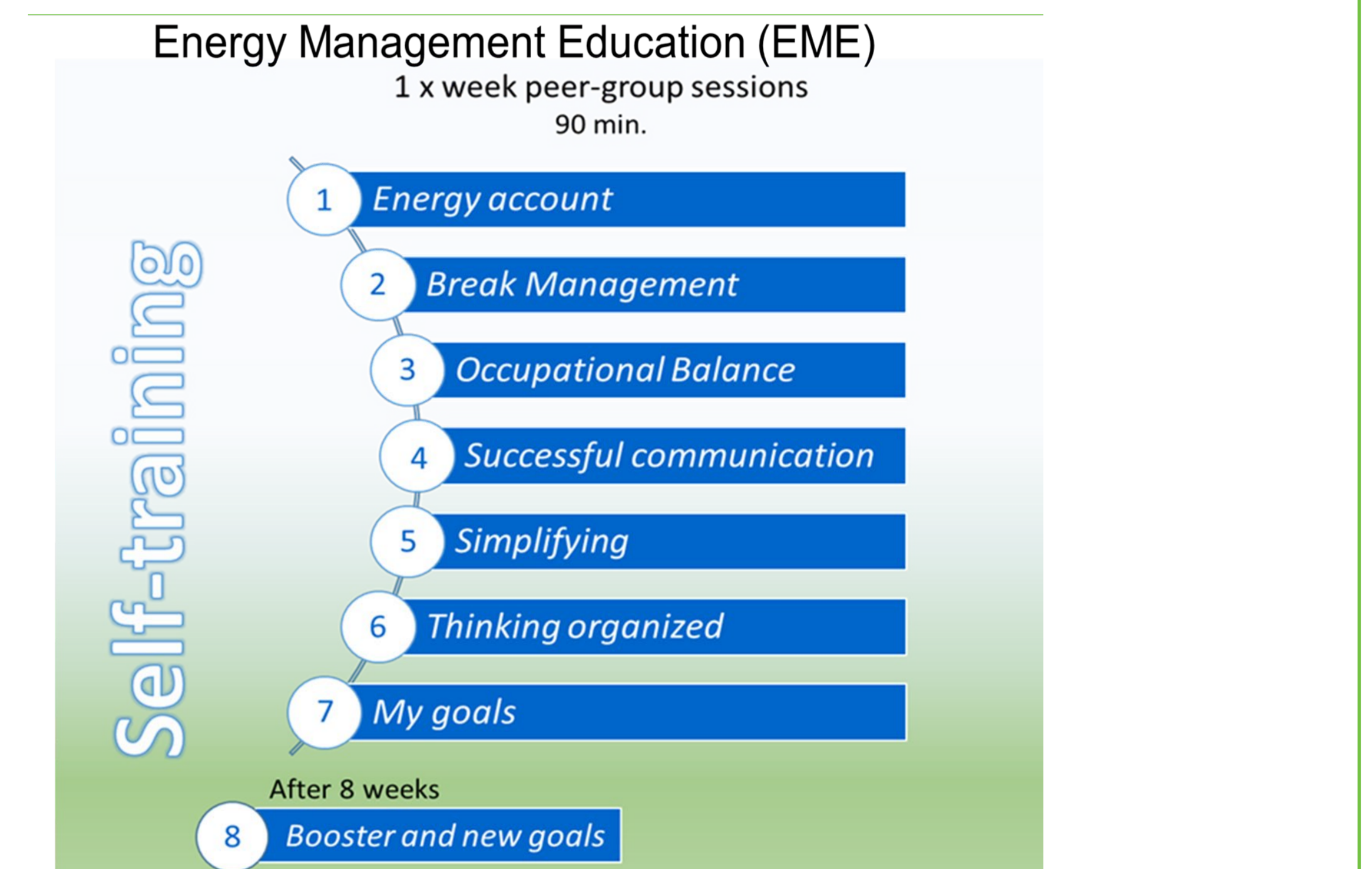


Figure 1: Energy Management Education Version 3.2 (Weise & Hersche, 2022)

## Materials and Methods

Pre-post design: The procedural data was collected regarding eligibility, reasons for participation decline, dropout, and follow-up rates.

Changes in self-efficacy in using energy management strategies (SEPECSA), fatigue impact (MFIS), competency in daily activities (OSA), and quality of life (SF36) were collected three times (fig. 2). Implemented behavior strategies at five months from EME were documented.

### Inclusion / exclusion criteria

- Linguistic skills & motivation for education
- Experienced of living with fatigue
- No cognitive impairment
- No major depression

## Results

- 17 out of 30 eligible persons included
  - No dropouts during the intervention period.
  - The follow-up response rate was 70%.
- Positive changes in outcome dimensions and large effect size (ES): \* sig. 0.05 level
- Fatigue impact: BL-T2\*
  - Self-efficacy in performing energy conservation strategies: BL-T1\*-T2 (fig. 3)
  - Competency in performing ADL: BL-T2\*
  - SF36, Physical component scale: BL-T2\*
- Increase of stable used energy management behavior (fig. 4)

## Figure 2

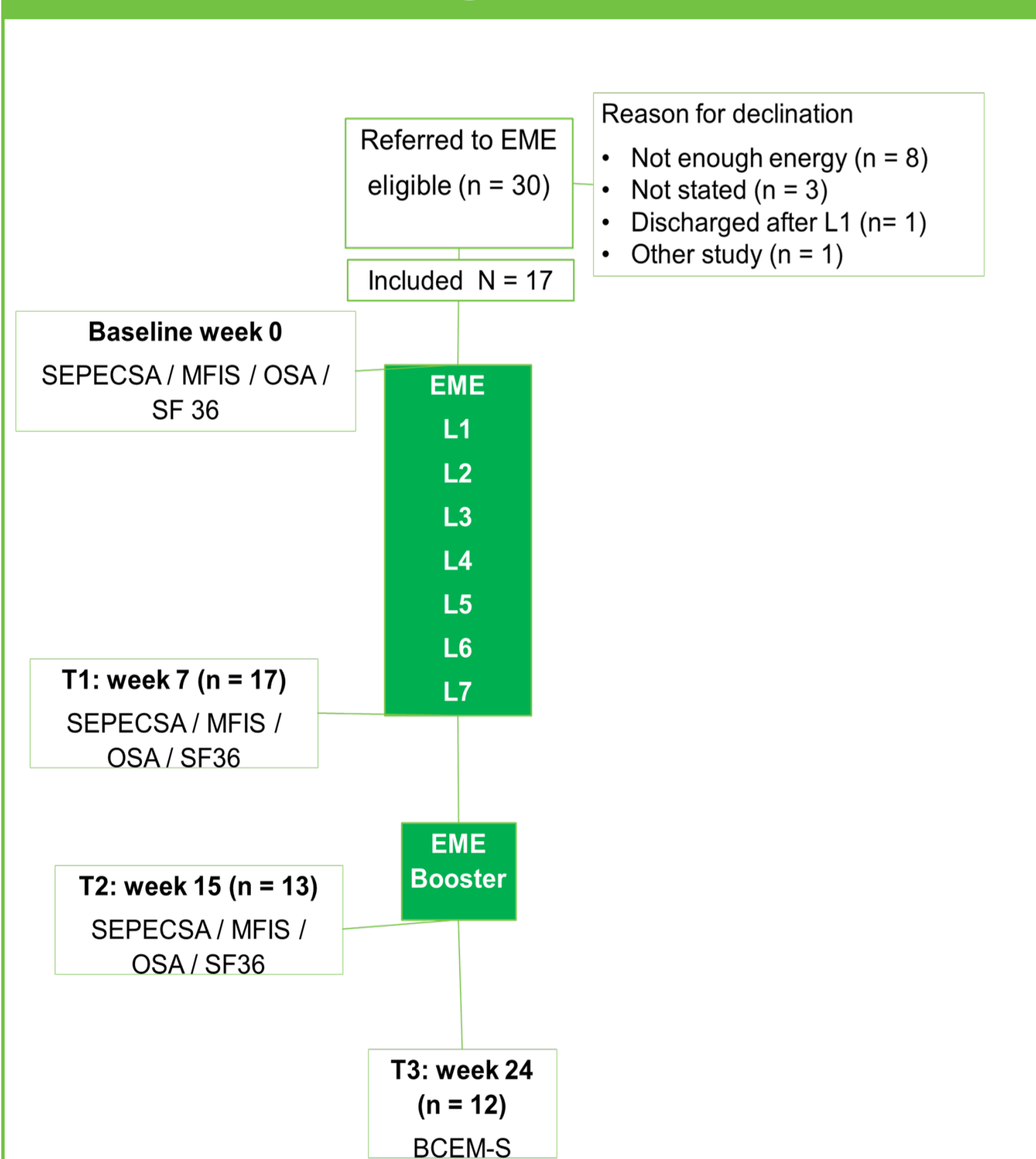


Figure 2: Study flowchart

## Figure 3

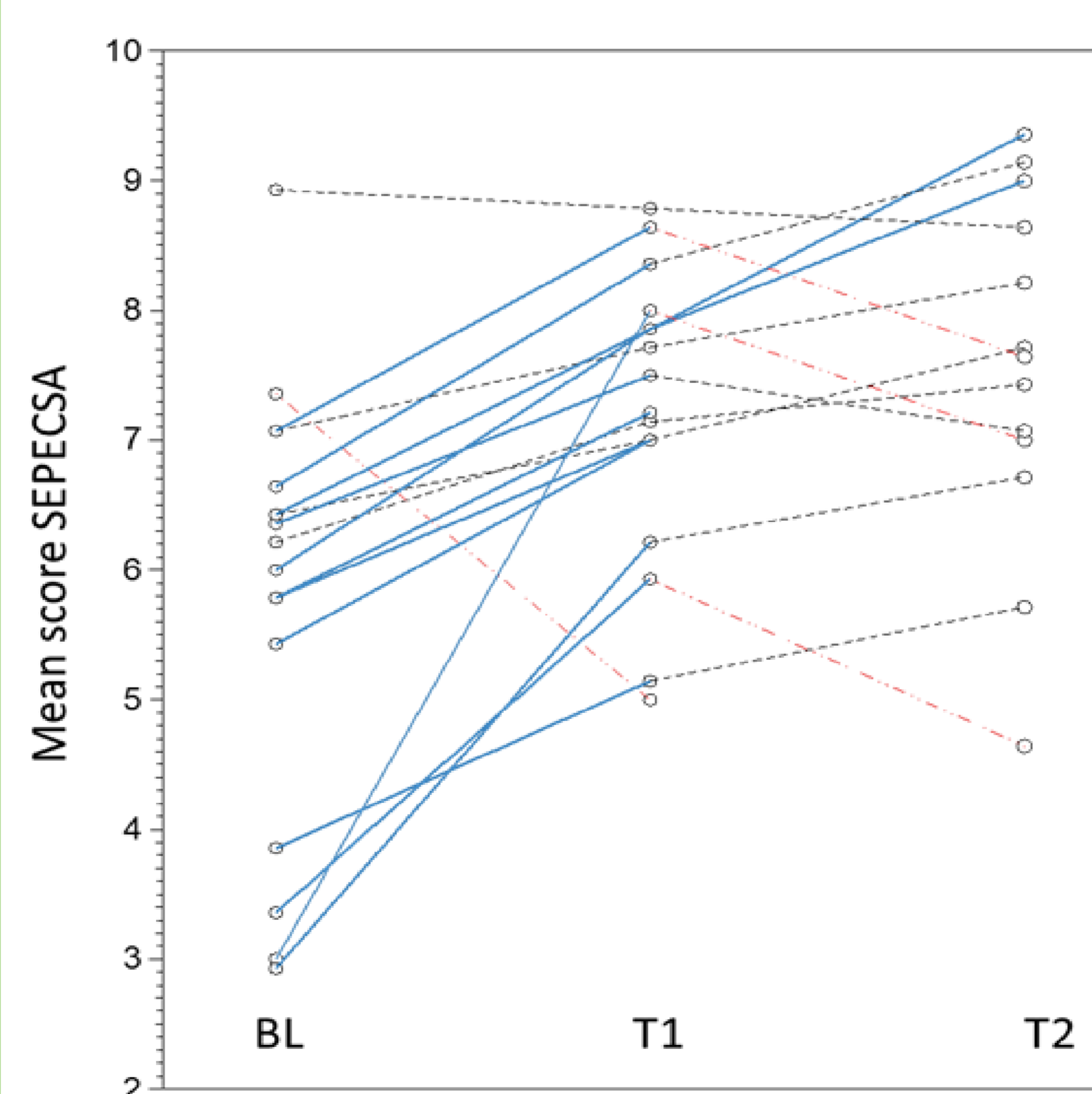


Figure 3: Mean differences in perceived self-efficacy in performing energy management strategies.

## Figure 4

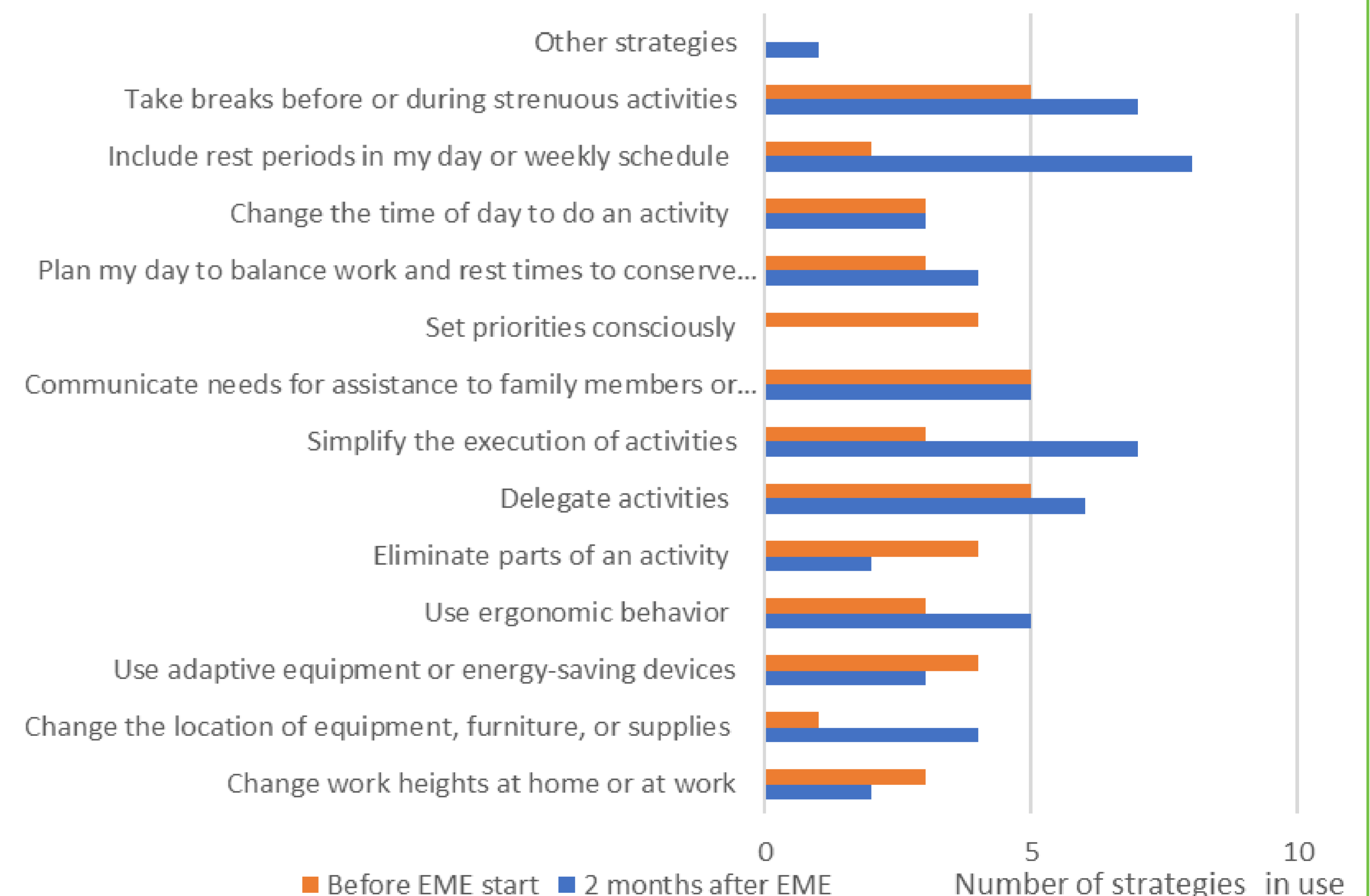


Figure 4: Energy management strategies in use before and after EME

## Conclusion

EME is an occupational therapy-based group self-management intervention feasible in persons with Long COVID-related fatigue. Data showed a large ES in fatigue impact, self-efficacy in performing energy management strategies and competency in daily activities.

### References:

- Hersche R, Development and Preliminary Evaluation of a 3-Week Inpatient Energy Management Education Program for People with Multiple Sclerosis-Related Fatigue. *Int J MS Care*. 2019 Nov-Dec;21(6):265-274 Doi10.1080/09638288.2023.2242783
- Hersche R, Weise A, Hummel B, Barbero M. Occupational therapy-based self-management education in persons with post-COVID-19 condition related fatigue: a feasibility study with a pre-post design. *Disability and Rehabilitation* 2023 DOI: 10.1080/09638288.2023.2242783