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Managing Fatigue with Technology for Individuals with Multiple Sclerosis

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Managing Fatigue with Technology for Individuals with MS

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Special thanks to the creator of Pace My Day app Michelle Ranae Wild and to our participants

INTRODUCTION

• Fatigue is a common and debilitating symptom that inhibits functional abilities for individuals with multiple sclerosis (MS) (Faguy, 2016).
• Energy conservation management (ECM) techniques result in lower levels of fatigue in these individuals (Tur, 2016).
• Mobile health applications (mHealth apps) support self-management strategies and user adherence rates using energy conservation techniques (Silva et al, 2015)

PURPOSE OF THE STUDY

To investigate whether the use of a mHealth app, Pace My Day (PMD), results in lower fatigue and improved adherence to energy conservation techniques for adults with MS.

PACE MY DAY APPLICATION

PMD is a mHealth app designed to help individuals monitor and plan their day and self-manage fatigue.

DESIGN AND METHODOLOGY

DESIGN
Quantitative, exploratory, pre-test and post-test design

INTERVENTION
To support use of ECM techniques, participants used PMD during one chosen task for 14 days.

PARTICIPANTS
Individuals with MS, ages 36-72

OUTCOMES
• Modified Fatigue Impact Scale (MFIS)
• Canadian Occupational Performance Measure (COPM)

RESULTS

Orientation to ECM and PMD training; Pre-test: MFIS and COPM
Participant two-week PMD and ECM techniques implementation
Post-test: MFIS and COPM

DISCUSSION

• Significant reduction in the average level of fatigue was achieved in two of the three categories of the MFIS (physical p=.02, cognitive p=.001).
• PMD was successful in improving satisfaction in the task, indicating an increase in participant’s self rated ability to complete their chosen task.

LIMITATIONS
• Small sample size (n=7)
• No control group

IMPLICATIONS FOR PRACTICE

• Interventions incorporating mHealth app can be used to improve occupational performance.
• Occupational therapists can collaborate with app developers to implement energy conservation techniques into self-management/time management applications.
• Apps can promote adherence to self-management and energy conservation strategies by providing reminders and tracking goals.

CONCLUSION

Results showed a significant decrease in levels of fatigue and an improvement in satisfaction with the chosen activity using PMD and ECM techniques.

REFERENCES