Validity of the Weekly Calendar Planning Activity in Persons with Multiple Sclerosis
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Introduction
- Multiple sclerosis is a progressive disease of the CNS that mostly affects young adults. Up to 30% of persons with MS (PwMS) have deficits in executive function (EF), which can affect their performance on everyday tasks.
- In PwMS, EF is typically assessed using neuropsychological measures which have limited ecological validity.
- The Weekly Calendar Planning Activity (WCPA) is an assessment of EF that could be clinically useful for PwMS because it is based on a complex functional task that is able to detect subtle EF deficits, and does not excessively rely on physical capacities which can be impaired in PwMS. It has alternate forms with 3 different levels of difficulty, making it suitable for assessing EF deficits of varying severity among PwMS.
- The purpose of this study is to validate the use of the WCPA for the MS population.

Objectives
- To compare performance on the WCPA between PwMS and healthy controls (HC) to establish discriminant validity.
- To determine the relationship between scores on the AR and WCPA among PwMS to establish concurrent validity.
- To determine the relationship between scores on the BICAMS and WCPA among PwMS to establish construct validity.

Participants
- **PwMS (n=62)**
  - **Age (years)**: 48.8
  - **Education (years)**: 15.33
  - **Employment Status (%):** Working 30.8 (n = 20), Not Working 67.5 (n = 27)
  - **Employment Status (%):** Working 61.5 (n = 40), Not Working 32.5 (n = 13)

- **HC (n=40)**
  - **Age (years)**: 44.45
  - **Education (years)**: 17.08

Measures
- **Weekly Calendar Planning Activity (WCPA)** - measures EF while organizing and entering appointments into a weekly schedule
- **Actual Reality (AR)** - measures functional cognition while purchasing food and plane ticket online using a computer
- **Brief International Cognitive Assessment for Multiple Sclerosis (BICAMS)** - assesses cognitive impairments

Discussion
- This study provides preliminary evidence for the discriminant, concurrent, and construct validity of the use of the WCPA with PwMS. Further investigation should be done on the WCPA variables that were not considered in this study, namely self-awareness, planning time, efficiency, types of errors, and types of strategies used by PwMS. The WCPA focuses on the quality of performance rather than just the quantitative scores that were included in this study. Further examination of this information would provide a more comprehensive understanding of the WCPA’s ability to reflect EF difficulties among PwMS.

Note. Higher scores on all tests denote better performance except for AR and WCPA Total Time. *P < .05, **P < .01.