

Differences in pain, pain-related physical and emotional functioning, and MS-related impairment by the number of pain locations in MS



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Introduction

Over 50% of individuals with multiple sclerosis (MS) experience pain, which often negatively influences aspects of their everyday functioning, such as recreational activities, work, and mobility [1-3].

Because of fear that it may worsen their pain, individuals with MS may engage in less physical activity; however, this may result in greater pain over time [4].

In addition to physical interference, pain can influence psychological well-being, with higher levels of pain severity being associated with elevated psychiatric distress [5].

This study examined differences in the experience of pain and its impacts by number of pain sites among individuals with MS. It was hypothesized that persons with evidence of widespread pain would report greater pain and pain- and MS-related interference in their physical and emotional functioning.

Methods

Data were collected from 25 participants who completed a baseline evaluation for a randomized clinical trial of cognitive-behavioral therapy for MS-related pain.

All participants completed questionnaires assessing their pain severity (Numeric Rating Scale), pain-related physical functioning (West Haven-Yale Multidimensional Pain Inventory), and emotional functioning (Beck Depression Inventory and Profile of Mood States). MS-related functional status was determined with the MS Functional Composite (MSFC).

Due to the small number of participants, they were categorized into two groups based on their number of pain locations (median = 4; range: 2-7). T-tests were run to compare differences, using a *p* value of 0.1 due to the low sample size.

Results

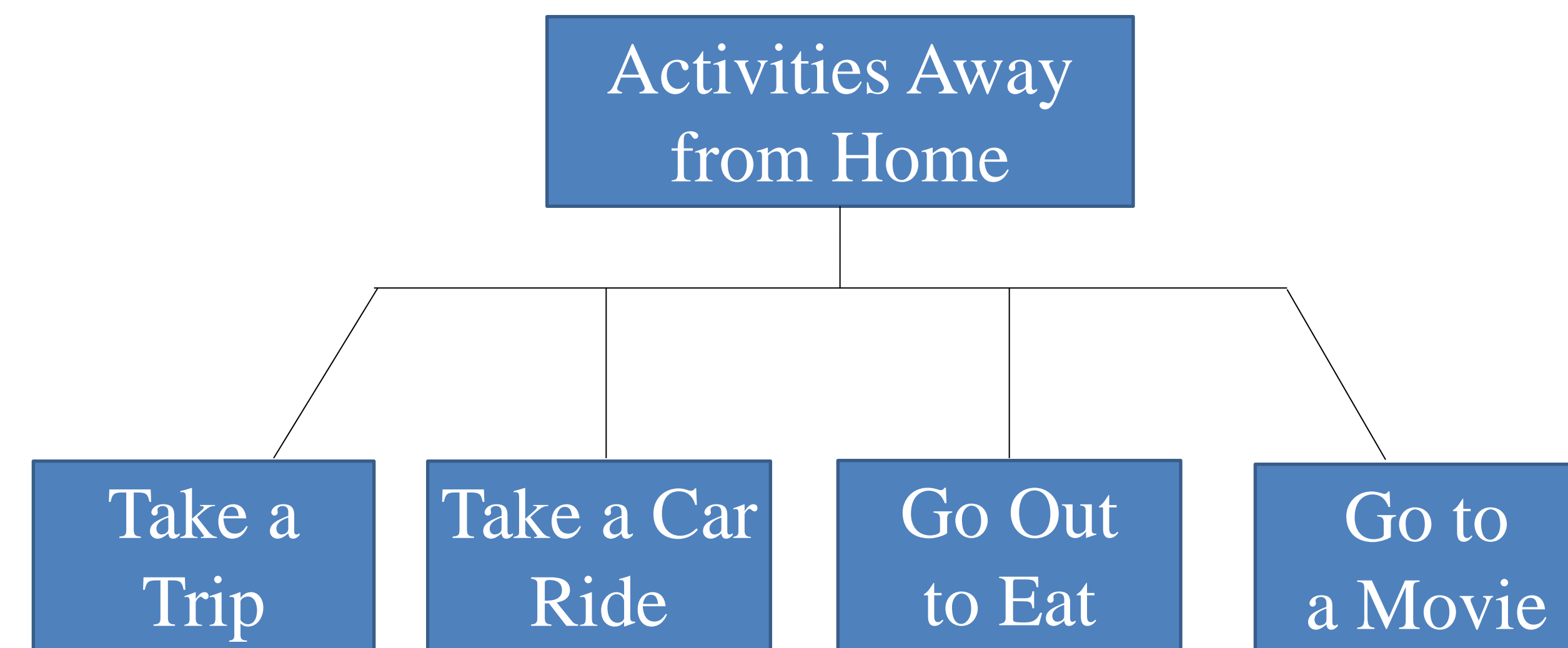


Table 1: Examples of the different activities away from home that individuals may be engaging in.

The majority of participants were men ($N = 16$) with relapsing remitting MS ($N = 16$) in middle adulthood ($M = 53.92$, $SD = 10.41$).

Participants were categorized as having either four or less pain locations ($N = 14$) or five or more pain locations ($N = 10$). There were no differences between the groups by age ($p = 0.501$), disease duration ($p = 0.408$), or MSFC performance ($p = 0.626$).

The two groups did not differ in their level of pain severity ($p = 0.614$) or their number of years with pain ($p = 0.944$). However, individuals with five or more pain locations were more likely to engage in activities away from their home than individuals with fewer pain locations ($t(23) = -2.363$, $p < 0.05$).

Depression was higher among individuals who had pain in five or more locations ($t(23) = -2.024$, $p = 0.055$). This group also tended to endorse greater levels of fatigue ($t(23) = -2.183$, $p < 0.05$).

Discussion

While our sample size is low, our findings suggest that individuals with MS who have pain in more locations experience greater fatigue and depression, even though their levels of pain severity and duration were comparable to individuals with fewer pain locations.

While having pain in more locations may affect individuals' energy and mood symptoms, it may not necessarily interfere in their ability to engage in instrumental activities.

Future research should more closely examine the relationship between pain and emotional functioning, and the hypothesis that negative mood may mediate the spread of pain to other body sites among individuals with MS.

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Acknowledgements

The views expressed in this poster are those of the authors and do not necessarily reflect the position or policy of the Department of Veterans Affairs.

Funding: The Veterans Health Administration; Rehabilitation R&D (D4150-D); the HSR&D Pain, Research, Informatics, Multimorbidities, and Education (PRIME) Center of Innovation (CIN 13-407); and the VHA Office of Research and Development.