THE EFFECTS OF MINDFULNESS-BASED STRESS REDUCTION AND THE ROLE OF SOCIAL ISOLATION AND PAIN CATASTROPHIZING FOR IMPROVING PAIN MANAGEMENT OUTCOMES IN ADULTS WITH CHRONIC PAIN

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INTRODUCTION / AIM
To examine the effectiveness of an 8-week group Mindfulness-Based Stress Reduction (MBSR) program for decreasing levels of depression, stress, anxiety, pain disability, pain severity, pain catastrophizing and social isolation in adults with chronic pain. The second aim was to explore the predictive role of social isolation and pain catastrophizing in patients’ health outcomes.

METHODS
This pre-post study design assessed health outcomes in 88 participants across 8 MBSR groups held by the same facilitator at Sinai Health System. Measures were administered immediately prior to the first MBSR session (pre-treatment) and following the last session (post-treatment). The measures administered include the Depression, Anxiety, and Stress Scale 21, the Pain Disability Index, the Short-form McGill Pain Questionnaire-2 assessing pain severity, the Pain Catastrophizing Scale, and the Friendship Scale measuring social isolation. Paired sample t-tests were performed to examine the pre-post treatment changes and simultaneous multiple regression analyses were conducted to examine the predictive role of pain catastrophizing and social isolation in change of health-related outcomes.

RESULTS
There was significant improvement from pre-treatment to post-treatment in levels of depression (p < 0.001), anxiety (p < 0.05), stress (p < 0.0001), pain disability (p < 0.01), pain severity (p < 0.05), pain catastrophizing (p < 0.0001), and social isolation (p < 0.0001). Multiple regression analyses revealed that change in levels of pain catastrophizing significantly predicted change in levels of depression, (b = 0.23, p < .01), anxiety, (b = 0.26, p < 0.001), stress, (b = 0.36, p < 0.0001), pain disability, (b = 0.49, p < 0.05) and pain severity (b = 2.25, p < 0.001). Specifically, a decrease in pain catastrophizing explained a significant proportion of the variance in depression (21%), anxiety (32%), stress (43%), pain disability (19%), and pain severity (32%), ps < .05. Social isolation was not a significant predictor of any of the outcome variables (ps > .05).

DISCUSSION / CONCLUSIONS
These findings suggest that mindfulness practice can improve pain symptoms, depression, anxiety and stress in adults with chronic pain. Pain catastrophizing is an important predictor for patient health outcomes and should be incorporated as part of comprehensive pain assessment.
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