

Improving Health Literacy Among Patients with Multiple Sclerosis through a Flipped Classroom Model

Jennifer Felker^{*1,3}, Megan Mazzotta^{*1,3}, Kathy Keefer², Brandon Lowry¹, Brett W. Fling^{1,2}, Augusto Miravalle²

¹Department of Health and Exercise Science, Colorado State University, Fort Collins, CO, USA; ²The Brain Health Center of the Rockies, Fort Collins, CO, USA, ³University of Colorado School of Medicine, Aurora, CO, USA

* These two authors contributed equally to this work.

Abstract

Objective: To explore the efficacy of a flipped classroom Brain Health Program in improving health literacy in individuals with Multiple Sclerosis (MS).

Study Design: This was a non-randomized, single-armed trial with a convenience sample of adults diagnosed with MS who participated in the flipped classroom Brain Health Program. Participants were recruited from the Brain Health Center of the Rockies' website, advertisements in neurology clinics in Northern Colorado, and word of mouth.

Methods: 24 patients with MS completed 18 online modules aimed at improving understanding of MS and its implications along with ways to optimize quality of life. Afterward, patients participated in 6 synchronous, virtual 1-hour sessions that had a balance between didactic, experiential learning, and Q&A. Participant health literacy was assessed pre- and post-intervention using a 5-question survey focused on 5 core outcomes. Patients were also given a survey to assess the quality of the synchronous sessions.

Results: Pre-post comparisons revealed statistically significant medians of differences, indicating substantial shifts in participant self-reported knowledge and understanding after the flipped classroom intervention. 97% of participants rated each session favorably and up to 90% of participants felt more empowered to live with MS due to what they learned.

Conclusions: These results suggest that the flipped classroom model of the Brain Health Program demonstrated improvements in self-reported health literacy for the participants of the study. Further investigations of this method for patient education in MS and other chronic illnesses should be explored.