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Swimming for Wellness, Exercise and Aquatic Therapy (SWEAT) for People with Multiple Sclerosis

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Introduction

A multidisciplinary group of faculty and students from Long Island University, Brooklyn Campus participated in an aquatic recreational program coordinated with the New York City Chapter of the National Multiple Sclerosis Society (NMSSNYC Chapter) and funded by several grants including a Christopher Reeve Quality of Life Grant.

Objectives

The purpose was to examine the effects of group aquatic exercises on the quality of life, fatigue and mobility functions of individuals with multiple sclerosis (MS), and to determine the feasibility of a community-based aquatic program.

Description

The first program in Summer 2008, was an OT capstone research project supervised by OT and PT faculty. The aquatics intervention also included faculty and students from Sports Science and the LIU Wellness, Recreation and Athletic Center.

Methods

Thirteen participants with MS were recruited from the NMSSNYC Chapter. The group met for 5 weeks, twice weekly in Summer 2008, led by a certified aquatics instructor using the aquatics curriculum from the NMSS (www.nmss.org). Pre and post assessments examined the effects of the aquatic program on fatigue (MFSIS), balance (Berg Balance Scale), functional mobility (TUG), strength, depression (Beck Depression Inventory), quality of life (SF 36) and occupational performance (COPM).

Results/Discussion

A significant increase in hand strength and perceived level of occupational performance was demonstrated. There were no significant changes in other areas. The small sample size, short duration of the program and environmental conditions (summer temperature, pool water temperature) may be contributing factors. People with MS also experience varying stages of illness and functional levels, which may impact expected outcomes.

Conclusion

Aquatic programming was a beneficial form of alternative treatment for managing the symptoms of MS in adults. There was a statistically significant increase in hand strength, and it was also enjoyable. Additional research was undertaken with a second program offered in the context of a Sports Science class, on a weekly basis in a cooler season, Spring 2009 to determine if this time/format had greater efficacy.

Contribution to Practice

This unique interdisciplinary/agency model supports the therapeutic benefits of a community based aquatic program emphasizing wellness for people with MS.