Enhancing the Physiological Well-being of Individuals with Neuromuscular Movement Disorders, Through Community Based Fitness Programming

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Published In/Presented At
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Objective

Does group-based exercise for individuals with Neuromuscular disorders improve functional level, decrease fall risk and enhance quality of life?

Background

- Over 700,000 patients a year are hospitalized because of a fall injury, most often because of a broken hip or head injury.¹
- Regular exercise is essential for individuals with Neuromuscular disorders to delay the physiological effects of progressive disease.
- Supervised group exercise class formats promote a safe, fun and educational environment, in which, individuals with Neuromuscular disorders can maximize their physiological response to exercise and be subjected to a positive social dynamic.

Method

- Individuals with Neuromuscular disorders enter a continuum of care that begins with their neurologist’s referral into physical therapy, then, upon discharge, enter into the network fitness program.
- Initial assessment with standardized testing is performed by the physical therapist, and through collaboration with an Exercise Physiologist, the individual is placed into the appropriate group program, based on functional level.
- Functional gains following the completion of a PT program have been proven, but benefits are transient if regular exercise is not maintained; continued exercise is needed for longer-term improvement.²
- Bi-annual assessments provide objective data to support the benefits of regular exercise for individuals with Neuromuscular disorders.

Class Format - 60 minutes in duration

- Warm up
- Strengthening exercises
- Cardiovascular exercises
- Functional movement patterning
- Dynamic movement exercises
- Fun game (that emphasizes balance, coordination and cognitive conditioning)
- Cool down

Results

Pre and post-test data was collected over a 12 month period, using standardized outcome tools administered by Physical Therapists and Exercise Physiologists.

Class Participants experienced:
- Improved functional level
- Decreased fall risk
- Enhanced overall quality of life
- Benefits of PT and EP collaboration
  - Timely referrals along the continuum of care between PT and Fitness to promote patient safety and independence.

Overall, this program supports National Goals for Better Health by promoting lifelong wellness and optimized function in those individuals with movement disorders. Further investigations could identify a correlation between structured exercise programs focused on supporting population health and a reduction in hospital admissions.

References: