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# PromOTing Quality of Life for Individuals with Huntington's Disease

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Presented in Partial Fulfillment of the Master of Science in Occupational Therapy degree at Thomas Jefferson University

## Objectives of Presentation:

- Describe the symptoms of Huntington's disease and their impact on functional performance.
- Recognize the role of occupational therapy in improving quality of life for individuals with Huntington's disease.
- Discuss how occupational therapy interventions for individuals with Huntington's disease can be applied in a variety of settings.

## Clinical Question:

What is the effectiveness of occupational therapy interventions in improving quality of life for individuals with Huntington's disease?

## Methods for Review:

**Databases Searched:** Pubmed, Scopus, and CINAHL

## **Search Terms Utilized**

- **P:** Huntington's Disease, neurodegenerative disease
- **I:** Occupational therapy, therapy, rehabilitation, adaptive equipment, compensatory strategies, environmental modifications, caregiver education, education, patient education, multidisciplinary, social support, coping
- **C:** N/A
- **O:** Quality of life, well being, health, function, participation, independence

## **Articles Reviewed**

- Peer reviewed articles, published between 2000-2015, in national and international literature and focusing on adults ages 18 years and older, with outcomes related to quality of life were included.
- Initial search yielded 795 articles and after the screening process, 14 articles were critically analyzed.
- Articles utilized were levels I-V evidence.

## **Appraisal Process**

- **Level I-V Evidence:** Evaluation of Quality of an Intervention Study (Law & MacDermid, 2014)
- **Qualitative Articles:** The Qualitative Review Form (Letts, Wilkins, Law, Stewart, Bosch, & Westmorland, 2007)

## Results:

Based on the evidence gathered, the following themes were synthesized: multidisciplinary approach, exercise-based interventions, and leisure-based interventions.

**Multidisciplinary Approach:** defined by professional involvement and intervention approaches, such as: therapeutic exercises, cognitive and compensatory strategies, biomechanical techniques, occupation based, gardening, psychosocial support, and feeding

- 2/6 found statistically significant results on quality of life<sup>17,24</sup>
- 6/6 found clinically significant results<sup>8, 17, 20, 21, 22, 24</sup>
- There is moderate evidence to support use of a multidisciplinary approach for improving QOL

**Exercise-based Approach:** included Community-based Exercise Program, Home-based Exercise Program and In-patient Exercise Program

- 5/9 found statistically significant results on quality of life<sup>7, 11, 12, 17, 24</sup>
- 9/9 found clinically significant results<sup>6, 7, 8, 11, 12, 17, 18, 21, 24</sup>
- There is strong evidence to support use of exercise-based interventions for improving QOL

**Leisure-based Interventions:** included gardening, Dance Dance Revolution, handheld games, walking, multisensory stimulation, art, and pottery

- 4/7 found statistically significant results on quality of life<sup>1, 11, 12, 13</sup>
- 6/7 found clinically significant results<sup>1, 5, 11, 12, 13, 20</sup>
- 1/7 found no effect<sup>9</sup>
- There is moderate evidence to support use of leisure-based interventions for improving QOL

## Implications:

<b>Practice</b>	<b>Education</b>	<b>Research</b>
-Maintenance is an achievable goal -Home exercise program delivered via direct-care -Interventions should be motivating, occupation-based -UHDRS may be a viable measure to use in practice	-Highlight QOL as outcome measure -Facilitate collaboration amongst OTs and other professionals -Consider continuing education for professionals working with this population	-Implement studies in the U.S. -Collect long term follow up data -Combine multidisciplinary and exercise -Investigate effect of these interventions on various stages of HD Increase rigor of study (i.e. control group, multi-site studies)

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