

EPOSTER 20

Assessment Tools for the Study of the Effectiveness of Physical Exercise Interventions in Functionality of People with Mild Dementia

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Synopsis

Exercise is often proposed as a non-pharmacological intervention in people with dementia, but evidence remains inconclusive about the effects on cognitive function. Several systematic reviews comment on the heterogeneity of the results due to the type and degree of dementia under consideration, the type of intervention exercise as well as the different assessment tools used. The aim of this study is to present assessment tools regarding the functionality of people with mild dementia in relation to therapeutic exercise and its effectiveness. Presentation of functionality assessment tools that can be used for research and clinical purposes and facilitate physiotherapists in clinical decisions: Senior Fitness Test (SFT), Berg Balance Scale (BBS) and Instrumental Activities of Daily Living Scale (IADL). All the above tests have been proven valid and reliable in Greek population. The SFT is used for measuring functional fitness for both healthy seniors and people with dementia. It is suitable for both research and clinical purposes. BBS is a tool for assessing balance in the elderly; it has been tested for its reliability and validity in patients with various neurological diseases. IADL is suitable for the assessment of the complex activities of the daily life of the elderly. It is also a valid and reliable tool for assessment functions, in both healthy elderly and elderly patients with dementia.

Keywords: Dementia, functionality, observation tools, assessment tools.

Background

Exercise is often proposed as a non-pharmacological intervention in people with dementia, but evidence remains inconclusive about the effects on cognitive function. Several systematic reviews comment on the heterogeneity of the results due to the type and degree of dementia under consideration, the type of intervention exercise as well as the different assessment tools used [1,2].

Purpose

It is to present assessment tools regarding the functionality of people with mild dementia in relation to therapeutic exercise and its effectiveness.

Methods

Presentation of functionality assessment tools for mild dementia (Alzheimer's Disease) that can be used for research and clinical purposes and facilitate physiotherapists in clinical decisions: Senior Fitness Test (SFT),



Berg Balance Scale (BBS) and Instrumental Activities of Daily Living Scale (IADL). All the above tests have been proven valid and reliable in Greek population [3-7].

Results

The Senior Fitness Test (SFT) is a valid and reliable tool for measuring functional fitness for both healthy seniors and people with dementia. It is suitable for both research and clinical purposes. It is simple to use, does not require expensive tools or technical expertise and can be applied in any clinical setting. The test includes six functional tests of strength in the arms and legs, endurance, balance, agility and flexibility (Chair Stand, Arm Curl, 6-Minute Walk / 2-Minute Step, Chair Sit and Reach, Back Scratch, 8 Foot Up & Go) and takes about 30 - 40 minutes to perform. Each test has accompanying performance standards for men and women aged 60 to 94 years. In addition, the SFT provides threshold values for each test that help identify the risk of loss of mobility [8]. The Berg Balance Scale (BBS) is a tool for assessment balance in the elderly, it has been tested for its reliability and validity in patients with various neurological diseases. The BBS assesses the static and dynamic balance capacity. It consists of 14 simple tests, which are often performed in daily activities. The time required to complete all the tests is 15-20 minutes. BBS is an easy and fast test. Subjects are graded on a scale of 0-4 depending on their ability to perform the required tests. The examinee is graded with 0, when he cannot perform a test, and with 4, when he performs it successfully without any help. The overall score ranges from 0 to 56 and a score less than 45 equates to an increased risk of falls. Higher scores indicate better performance and greater independence. The Cut-off point 45/56 for independent and safe movement is proposed. The Instrumental Activities of Daily Living Scale (IADL) by Lawton - Brody, is an appropriate instrument to assess independent living skills. IADL is suitable for the assessment of the complex activities of the daily life of the elderly. It is also a valid and reliable tool for assessment functions, in both healthy elderly and elderly patients with dementia. The IADL is an easy to administer assessment instrument that provides self-reported information about functional skills necessary to live in the community. The instrument is most useful for identifying how a person is functioning at the present time, and to identify improvement or deterioration over time. Administration time is 10-15 minutes. There are eight domains of function measured with the Lawton IADL scale. Women score on all 8 areas of function, for men, the areas of food preparation, housekeeping, laundering are excluded. A summary score ranges from 0 (low function, dependent) to 8 (high function, independent) for women, and 0 through 5 for men. The Lawton IADL scale is widely used in both research and clinical practice [6,9-11].

Conclusions and Implication

The aforementioned functionality assessment tools are valid, reliable as well as easy and fast to use. These tools can be used for research and clinical purposes and facilitate physiotherapists (researchers and non-researchers) in their decisions.

Competing Interests: The authors declare no conflict of interest.

Ethics Approval: The study approved by the Ethical Committee of the University of West Attica (96645 - 25/11/2020).

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