

Rehabilitation treatment of micrographs in individuals with Parkinson's disease: outcome research

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Introduction: Micrography is one of the most common effects of Parkinson's disease and can be defined as "an impairment of the fine motor skills of the hand which mainly occur with a progressive or stable reduction in the writing width (1,2)". The exact prevalence of micrography is not yet clearly defined in the literature, ranging from 9 to 72% incidence (3-6); despite this, it is globally recognized as one of the first symptoms of Parkinson's disease, which can be used as a reliable criterion for early diagnosis.

Objective: The aim of this study is to evaluate the effectiveness of a rehabilitation treatment for the improvement of micrography in individuals with Parkinson's disease through an outcome research.

Methods: The program will be administered on an outpatient basis at the Policlinico Umberto I (Rome), where a minimum of 10 patients with a diagnosis of Parkinson's disease and a Hoehn & Yahr scale score from 1 to 3 will be recruited.

The intervention will last 9 weeks (two weekly treatments) and the sample will be evaluated in three times: pre-treatment (t0), post-treatment (t1) and 1 month after the end of treatment (t2).

For the evaluation of the intervention, the following will be used as outcome measures: the Jebsen Taylor Hand Function test, Parkinson Disease Questionnaire-39 and the measurement of the size of the letters.

Results: 15 patients, who met the inclusion requirements, were recruited. The pre and post treatment evaluations showed statistically significant data for all the outcome measures used with a $p < 0.05$. Significant data were also obtained in the evaluation of the size of the handwriting for all follow-ups.

Conclusions: Our study has shown that rehabilitation treatment for micrography in Parkinson's disease is effective in reducing writing times and improving letter size.

References:

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