



Available online at  
**ScienceDirect**  
[www.sciencedirect.com](http://www.sciencedirect.com)

Elsevier Masson France  
**EM|consulte**  
[www.em-consulte.com](http://www.em-consulte.com)



## Original article

# An individual rehabilitation program: Evaluation by Parkinsonian patients and their physiotherapists



## Évaluation d'un programme de rééducation personnalisé dans la maladie de Parkinson par des patients et leurs kinésithérapeutes

F. Ory Magne<sup>a,\*</sup>, N. Fabre<sup>a</sup>, C. Gu<sup>a</sup>, C. Pastorelli<sup>a</sup>, S. Tardez<sup>a</sup>,  
 J.-C. Marchat<sup>a</sup>, P. Marque<sup>b</sup>, C. Brefel Courbon<sup>a</sup>

<sup>a</sup> Department of neurology A, Toulouse university hospital, CHU Purpan, place du Dr Baylac, 31059 Toulouse cedex, France

<sup>b</sup> Department of medicine and physical rehabilitation, Toulouse university hospital, place du Dr Baylac, 31059 Toulouse cedex, France

### INFO ARTICLE

#### Article history:

Received 11 March 2014  
 Received in revised form  
 19 May 2014  
 Accepted 28 May 2014  
 Available online 3 October 2014

#### Keywords:

Parkinson's disease  
 Quality of life  
 Physiotherapy

#### Mots clés :

Maladie de Parkinson  
 Qualité de vie  
 Kinésithérapie

### ABSTRACT

**Objectives.** – The purpose of this work was to study the feasibility of an individual Parkinson disease (PD) rehabilitation program based on each patient's prevalent symptoms and to determine the effects of this program on patient's quality of life as well as the level of patient's and physiotherapist's satisfaction with the program.

**Patients and methods.** – In association with physiotherapists with expertise in PD, a physical medicine and rehabilitation physician, we elaborated a physical therapy program based on the core areas for physical therapy in PD: transfers; posture; balance and falls; physical capacity and inactivity. Within this program, we selected exercises tailored to each patient's main impairment and proposed this selection to their local physiotherapist for three months. Quality of life was evaluated with PDQ-39 at baseline and after three months of the individualized physical therapy program. We built an anonymous satisfaction questionnaire for patients and physiotherapists that was filled out at the end of the program.

**Results.** – One hundred and three individuals with moderately advanced but clinically stable idiopathic PD were included. Significant improvement was found for the emotional well-being, bodily discomfort and stigma domain ( $P \leq 0.05$ ). No significant improvement was found for the other PDQ-39 domains. The mean global satisfaction figures for this program were  $6.0 \pm 2.4$  and  $7.2 \pm 2.1$  for patients and physiotherapists respectively. Most of the patients felt improved by the physiotherapy program and especially for transfer, balance, gait, and mobility.

\* Corresponding author.

E-mail address: [ory.f@chu-toulouse.fr](mailto:ory.f@chu-toulouse.fr) (F. Ory Magne).

<http://dx.doi.org/10.1016/j.neurol.2014.05.009>

0035-3787/© 2014 Elsevier Masson SAS. All rights reserved.

**Conclusion.** – Our study found evidence of the potential benefits of a patient-tailored physiotherapy program. Such a program was feasible and had a favorable impact on patients' quality of life and on physiotherapists' practices for PD patients. Specific physiotherapy may be effective to limit physical mobility impairment. Our results also pointed out that physiotherapy may be efficient to confine the negative impact of social isolation, pain and emotional reactions. Such a program should be associated with a therapeutic education intervention such as encouraging patients to perform physical therapy exercises alone.

© 2014 Elsevier Masson SAS. All rights reserved.

## R É S U M É

Nous avons évalué l'impact d'un programme de kinésithérapie personnalisé sur la qualité de vie des patients parkinsoniens et déterminé sa faisabilité et son intérêt du point de vue du patient et du kinésithérapeute. Des patients parkinsoniens non déments inclus consécutivement ont été évalués par un neurologue (évaluation motrice et de la qualité de vie) et par un kinésithérapeute hospitalier spécialisé dans la maladie de Parkinson. Des exercices adaptés à leurs besoins étaient proposés à leur kinésithérapeute libéral et illustrés grâce à un livret. Le patient était réévalué 3 mois après (moteur et qualité de vie). Il remplissait un questionnaire de satisfaction anonymisé ainsi que son kinésithérapeute. Sur 123 patients inclus, 103 ont été évalués. À 3 mois, les domaines du PDQ 39 explorant le bien-être, l'inconfort physique, et la gêne psychologique étaient significativement améliorés ( $p < 0,05$ ). La note moyenne de satisfaction globale des patients était évaluée à 6/10, celle des kinésithérapeutes à 7/10. Soixante-dix pour cent des patients ont répété les exercices seuls à leur domicile et 90 % ont voulu continuer. Notre étude montre qu'un programme de kinésithérapie personnalisé a un impact favorable sur la qualité de vie des patients parkinsoniens et sur la pratique des kinésithérapeutes de ville.

© 2014 Elsevier Masson SAS. Tous droits réservés.

## 1. Introduction

In spite of optimized medical treatments or deep brain stimulation, patients with Parkinson's disease (PD) are faced with motility deficits such as difficulties with transfers, posture, balance and walking, which are frequently responsible for falls. Moreover these impairments result in social isolation, in inactivity and compromise the quality of life of patients with PD [1]. Evidence suggests that physiotherapy provides additional symptomatic benefit for parkinsonian patients [2] and clinical trials on the use of physiotherapy in PD have led to evidence-based recommendations with gait, balance, transfers and physical activity as the main treatment areas [3]. But questions remain around the optimal content of physical therapy interventions (dosing, component exercises). Moreover, the nature of the therapy performed by physiotherapists to home-based patients with PD remains uncertain as evidence-based recommendations are poorly implemented in clinical practice as they may not have sufficient PD-specific expertise [4,5] (each therapist treating only a few patients with PD every year).

Therefore, we proposed to physiotherapists an individualized rehabilitation program based on the most prevalent symptoms of the patients which have been graded in 3 main groups: axial difficulties, freezing and physical inactivity. The aims of this study were to identify the feasibility of a tailored home rehabilitation program for patients with PD, the effects of this intervention on quality of life as well as on the patients' and physiotherapists' satisfactions.

## 2. Patients and methods

### 2.1. Patients

All the patients were recruited by a neurologist from the Movements Disorders Unit in Toulouse university hospital during 6 months. All the subjects were diagnosed with idiopathic PD and did not suffer from any other neurological, orthopaedic or cardiovascular problems. All the participants were screened to rule out cognitive impairment, severe depression or pronounced visual hallucination which could prevent good understanding or good cooperation during the assessment and rehabilitation program. All patients gave their informed consent.

### 2.2. Outcome measures

All patients were assessed by a neurologist and a therapist with expertise in PD. Demographic data and data related to PD were collected on all subjects. Quality of life was evaluated with PDQ 39 at baseline and after 3 months of physiotherapy.

A survey using a questionnaire was conducted. Patients and therapists were asked to anonymously and respectively give an appraisal on the use and satisfaction of the physiotherapy treatment at the end of the study. Patients expressed their satisfaction (scored from 0 [no satisfaction] to 10) for: (i) global satisfaction, (ii) improvement of transfers, freezing, falls, balance, and walking. Moreover, we asked them if the

Download English Version:

<https://daneshyari.com/en/article/3088064>

Download Persian Version:

<https://daneshyari.com/article/3088064>

[Daneshyari.com](https://daneshyari.com)