

Parkinson's Disease

Current Awareness Bulletin

June 2013

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Jason Ovens
Library & Knowledge Service Manager

Title: Review: Management of Parkinson's disease

Citation: Neuropsychiatric Disease and Treatment, March 2013, vol./is. 9/(321-340), 1176-6328;1178-2021 (01 Mar 2013)

Author(s): Pedrosa D.J., Timmermann L.

Abstract: Parkinson's disease (PD) is one of the most frequent neurological diseases. Despite the modern imaging and nuclear techniques which help to diagnose it in a very early stage and lead to a better discrimination of similar diseases, PD has remained a clinical diagnosis. The increasing number of available treatment options makes the disease management often complicated even when the presence of PD seems undoubted. In addition, nonmotor symptoms and side effects of some therapies constitute some pitfalls already in the preclinical state or at the beginnings of the disease, especially with the progressive effect on patients. Therefore, this review aimed to summarize study results and depict recommended medical treatments for the most common motor and nonmotor symptoms in PD. Additionally, emerging new therapeutic options such as continuous pump therapies, eg, with apomorphine or parenteral levodopa, or the implantation of electrodes for deep brain stimulation were also considered. 2013 Pedrosa and Timmermann, publisher and licensee Dove Medical Press Ltd.

Full Text:

Available from *National Library of Medicine* in [Neuropsychiatric Disease and Treatment](#)

Title: Parkinson disease: An update

Citation: American Family Physician, 2013, vol./is. 87/4(267-273), 0002-838X;1532-0650 (2013)

Author(s): Gazewood J.D., Richards D.R., Clebak K.

Abstract: Parkinson disease is a progressive neurologic disorder afflicting approximately 1 percent of Americans older than 60 years. The cardinal features of Parkinson disease are bradykinesia, rigidity, tremor, and postural instability. There are a number of neurologic conditions that mimic the disease, making it difficult to diagnose in its early stages. Physicians who rarely diagnose Parkinson disease should refer patients suspected of having it to physicians with more experience in making the diagnosis, and should periodically reevaluate the accuracy of the diagnosis. Treatment is effective in reducing motor impairment and disability, and should be started when a patient begins to experience functional impairment. The combination of carbidopa and levodopa is the most effective treatment, but dopamine agonists and monoamine oxidase-B inhibitors are also effective, and are less likely to cause dyskinesias. For patients taking carbidopa/levodopa who have motor complications, adjunctive therapy with a dopamine agonist, a monoamine oxidase-B inhibitor, or a catechol O-methyltransferase inhibitor will improve motor symptoms and functional status, but with an increase in dyskinesias. Deep brain stimulation is effective in patients who have poorly controlled symptoms despite optimal medical therapy. Occupational, physical, and speech therapy improve patient function. Fatigue, sleep disturbances, dementia, and depression are common in patients with Parkinson disease. Although these conditions are associated with significantly lower quality of life, they may improve with treatment. (Am Fam Physician. 2013;87(4):267-273. Copyright 2013 American Academy of Family Physicians.

Title: Promotion of physical activity and fitness in sedentary patients with Parkinson's disease: Randomised controlled trial

Citation: BMJ (Online), March 2013, vol./is. 346/7898, 1756-1833 (09 Mar 2013)

Author(s): Van Nimwegen M., Speelman A.D., Overeem S., Van De Warrenburg B.P., Smulders K., Dontje M.L., Borm G.F., Backx F.J.G., Bloem B.R., Munneke M.

Abstract: Objective To evaluate whether a multifaceted behavioural change programme increases physical activities in patients with Parkinson's disease. Design Multicentre randomised controlled trial. Setting 32 community hospitals in the Netherlands, collaborating in a nationwide network (ParkinsonNet). Participants 586 sedentary patients with idiopathic Parkinson's disease aged between 40 and 75 years with mild to moderate disease severity (Hoehn and Yahr stage =3). Intervention Patients were randomly assigned to the ParkFit programme or a matched general physiotherapy intervention. ParkFit is a multifaceted behavioural change programme, designed specifically to achieve an enduring increase in the level of physical activity (coaches using motivational strategies; ambulatory feedback). Main outcome measures The primary endpoint was the level of physical activity, measured every six months with a standardised seven day recall (LASA physical activity questionnaire-LAPAQ). Secondary endpoints included two other measures of physical activity (activity diary and ambulatory activity monitor), quality of life (Parkinson's disease questionnaire-PDQ-39), and fitness (six minute walk test). Results 540 (92.2%) patients completed the primary outcome. During follow-up, overall time spent on physical activities (LAPAQ) was comparable between the groups (adjusted group difference 7%, 95% confidence interval -3 to 17%; P=0.19). Analyses of three secondary outcomes indicated increased physical activity in ParkFit patients, as suggested by the activity diary (difference 30%; P<0.001), the activity monitor (difference 12%; P<0.001), and the six minute walk test (difference 4.8 m; P=0.05). PDQ-39 did not differ between ParkFit patients and controls (difference -0.9 points; P=0.14). The number of fallers was comparable between ParkFit patients (184/299; 62%) and controls (191/287; 67%). Conclusions The ParkFit behavioural change programme did not increase overall physical activity, as measured with the LAPAQ. The analysis of the secondary endpoints justifies further work into the possible merits of behavioural change programmes to increase physical activities in daily life in Parkinson's disease.

Full Text:

Available from *Highwire Press* in [BMJ](#)

Title: Attitudes to brain donation for Parkinson's research and how to ask: a qualitative study with suggested guidelines for practice.

Citation: Journal of Advanced Nursing, 01 May 2013, vol./is. 69/5(1096-1108), 03092402

Author(s): Harris, Clare, Kiger, Alice, Counsell, Carl

Abstract: Aim To describe factors people consider important in deciding whether or not to donate their brain for research after death. Background Brain tissue retrieved at post-mortem is needed to further research into neurological conditions such as Parkinson's disease. Previous research has focussed mainly on attitudes to organ donation for transplantation. Design Data were gathered and analysed using a qualitative approach based on grounded theory. Methods Nineteen people who had made a decision about brain donation, five people with Parkinson's and 14 unaffected individuals, were identified through theoretical sampling. Interviews conducted between September 2007-January 2008 were analysed to identify themes representing the concerns of participants, when making a decision. Findings The three main themes identified were views and beliefs about post-mortem, the importance of family and the things people do not talk about. Although participants were more familiar with the concept of organ donation for transplantation, unanimous support was expressed for brain donation for research. However, beliefs about death and post-mortem, influence of family and the difficulty in talking and thinking about things to do with death all posed barriers to consent when actually asked to make a decision. For some, however, being asked had acted as a catalyst, transforming previously held positive attitudes into a decision to consent. Conclusion Guidelines for asking developed from these findings highlight the importance

of discussing the issue to raise awareness in potential donors, involving family members, and giving accurate and appropriate information to inform, reassure and to dispel misconceptions.

Full Text:

Available from *Wiley* in [Journal of Advanced Nursing](#)

Title: Validity of the Nintendo Wii® balance board for the assessment of standing balance in Parkinson's disease.

Citation: *Clinical Rehabilitation*, 01 April 2013, vol./is. 27/4(361-366), 02692155

Author(s): Holmes, Jeffrey D, Jenkins, Mary E, Johnson, Andrew M, Hunt, Michael A, Clark, Ross A

Full Text:

Available from *ProQuest* in [Clinical Rehabilitation](#)

Title: Living with moderate-stage Parkinson disease: intervention needs and preferences of elderly couples.

Citation: *Journal of Neuroscience Nursing*, 01 April 2013, vol./is. 45/2(88-95), 08880395

Author(s): Beaudet, Line, Ducharme, Francine

Abstract: ABSTRACT: The purpose of this study was to identify the principal intervention needs of elderly couples living with moderate-stage Parkinson disease and their preferences regarding the modalities of a possible nursing intervention. The study's framework of reference consisted of the transitions theory developed by Meleis, Sawyer, Im, Hilfinger Messias, and Schumacher (2000) and of the systemic approach developed by Wright and Leahey (2009). A qualitative design and a participative process were employed. Ten couples were interviewed dyadically. Intra- and interdyad content analyses were performed. Results indicate that the principal intervention needs of couples are geared to developing effective strategies for remaining healthy and planning for the future, to improving communication between spouses and with the formal and informal support networks, and to adopting concerted strategies to facilitate problem solving and role adjustment. Couples would prefer six or seven dyadic meetings, each 60-90 minutes long, every 2 weeks, at an easily accessible location. This study affords avenues for the conceptualization of a psychoeducational nursing intervention intended for couples where a spouse has moderate-stage Parkinson disease.

Title: Management of upper extremity dysfunction in people with Parkinson disease and Huntington disease: Facilitating outcomes across the disease lifespan.

Citation: *Journal of Hand Therapy*, 01 April 2013, vol./is. 26/2(148-155), 08941130

Author(s): Quinn, Lori, Busse, Monica, Bello-Haas, Vanina Dal

Title: Effectiveness of occupational therapy in Parkinson's disease: Study protocol for a randomized controlled trial

Citation: *Trials*, February 2013, vol./is. 14/1, 1745-6215 (02 Feb 2013)

Author(s): Sturkenboom I.H.W.M., Graff M.J., Borm G.F., Adang E.M.M., Nijhuis-van der Sanden M.W.G., Bloem B.R., Munneke M.

Abstract: Background: Occupational therapists may have an added value in the care of patients with Parkinson's disease whose daily functioning is compromised, as well as for their immediate caregivers. Evidence for this added value is inconclusive due to a lack of rigorous studies. The aim of this trial is to evaluate the (cost) effectiveness of occupational therapy in improving daily functioning of patients with Parkinson's disease. Methods/Design: A multicenter, assessor-blinded, two-armed randomized controlled clinical trial will be conducted, with evaluations at three and six months. One hundred ninety-two home-dwelling patients with Parkinson's disease and with an occupational therapy indication will be assigned to the experimental group or to the control group (2:1). Patients and their caregivers in the experimental group will receive ten weeks of home-based occupational therapy according to recent Dutch guidelines. The intervention will be delivered by occupational therapists who have been specifically trained to treat patients according to these guidelines. Participants in the control group will not receive occupational therapy during the study period. The primary outcome for the patient is self-perceived daily functioning at three months, assessed with the Canadian Occupational Performance Measure. Secondary patient-related outcomes include: objective performance of daily activities, self-perceived satisfaction with performance in daily activities, participation, impact of fatigue, proactive coping skills, health-related quality of life, overall quality of life, health-related costs, and effectiveness at six months. All outcomes at the caregiver level will be secondary and will include self-perceived burden of care, objective burden of care, proactive coping skills, overall quality of life, and care-related costs. Effectiveness will be evaluated using a covariance analysis of the difference in outcome at three months. An economic evaluation from a societal perspective will be conducted, as well as a process evaluation. Discussion: This is the first large-scale trial specifically evaluating occupational therapy in Parkinson's disease. It is expected to generate important new information about the possible added value of occupational therapy on daily functioning of patients with Parkinson's disease. Trial registration: Clinicaltrials.gov: NCT01336127. 2013 Sturkenboom et al; licensee BioMed Central Ltd.

Full Text:

Available from *National Library of Medicine* in [Trials](#)

Title: Management of upper extremity dysfunction in people with Parkinson disease and Huntington disease: Facilitating outcomes across the disease lifespan.

Citation: Journal of Hand Therapy, 01 April 2013, vol./is. 26/2(148-155), 08941130

Author(s): Quinn, Lori, Busse, Monica, Bello-Haas, Vanina Dal

Title: Vitamin D levels in Alzheimer's and Parkinson's diseases: A meta-analysis.

Citation: Nutrition, 01 June 2013, vol./is. 29/6(828-832), 08999007

Author(s): Yan Zhao, Yan Sun, Hong-Fang Ji, Liang Shen

Abstract: Objective: Recent accumulating evidence shows that vitamin D deficiency is prevalent in individuals with AD and PD. The purpose of the present study is to perform a meta-analysis on the 25-hydroxyvitamin D (25(OH)D) status in this population of patients. Methods: We searched all articles in English published up to March 2012 concerning the 25(OH)D level in AD and PD patients. For AD, six studies covering 319 patients and 573 controls were included in the meta-analysis. For PD, five studies discussing 434 patients and 3451 controls were included. Results: It was found that AD patients had lower levels of 25(OH)D than healthy controls (summary standardized mean difference [SMD], -1.39; 95% confidence interval [CI], -2.79 to 0.01). Similar results were found for PD patients versus healthy controls (summary SMD, -1.33; 95% CI, -2.44 to -0.21). Conclusion: The results indicate that despite the similar mean age between patients and

healthy controls in each identified study, both AD and PD patients have lower levels of 25(OH)D than controls.

Title: Meanings of Fatigue for Women With Parkinson's Disease.

Citation: Qualitative Health Research, 01 June 2013, vol./is. 23/6(741-748), 10497323

Author(s): Olsson, Malin, Stafström, Lena, Söderberg, Siv

Title: Barriers to Exercise in People With Parkinson Disease.

Citation: Physical Therapy, 01 May 2013, vol./is. 93/5(628-636), 00319023

Author(s): Ellis, Terry, Boudreau, Jennifer K., DeAngelis, Tamara R., Brown, Lisa E., Cavanaugh, James T., Earhart, Gammon M., Ford, Matthew P., Foreman, K. Bo, Dibble, Leland E.

Abstract: Background. Exercise is known to reduce disability and improve quality of life in people with Parkinson disease (PD). Although barriers to exercise have been studied in older adults, barriers in people with chronic progressive neurological diseases, such as PD, are not well defined. Objective. The purpose of this study was to identify perceived barriers to exercise in people with PD. Design. The study had a cross-sectional design. Methods. People who had PD, dwelled in the community, and were at stage 2.4 on the Hoehn and Yahr scale participated in this cross-sectional study (N=260; mean age=67.7 years). Participants were divided into an exercise group (n=164) and a nonexercise group (n=96). Participants self-administered the barriers subscale of the Physical Fitness and Exercise Activity Levels of Older Adults Scale, endorsing or denying specific barriers to exercise participation. Multivariate logistic regression analysis was used to examine the contribution of each barrier to exercise behavior, and odds ratios were reported. Results. Three barriers were retained in the multivariate regression model. The nonexercise group had significantly greater odds of endorsing low outcome expectation (ie, the participants did not expect to derive benefit from exercise) (odds ratio [OR] = 3.93, 95% confidence interval [CI] = 2.08-7.42), lack of time (OR=3.36, 95% CI= 1.55-7.29), and fear of falling (OR=2.35, 95% CI=1.17-4.71) than the exercise group. Limitations. The cross-sectional nature of this study limited the ability to make causal inferences. Conclusions. Low outcome expectation from exercise, lack of time to exercise, and fear of falling appear to be important perceived barriers to engaging in exercise in people who have PD, are ambulatory, and dwell in the community. These may be important issues for physical therapists to target in people who have PD and do not exercise regularly. The efficacy of intervention strategies to facilitate exercise adherence in people with PD requires further investigation.

Full Text:

Available from *EBSCOhost* in [Physical Therapy](#)

Sources Used

The following databases are searched on a regular basis in the development of this bulletin:

Amed, British Nursing Index, Cinahl & Medline

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