

Parkinson's Disease Current Awareness Bulletin

July 2018

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Training healthy persons and individuals with Parkinson's disease to use Xbox Kinect games: a preliminary study.

Author(s): Dantas, Isabela Viana; Leal, Josevan Cerqueira; Hilgert, Luiza Saboya; Allegretti, Ana Luiza Caltabiano; Dos Santos Mendes, Felipe Augusto

Source: International Journal of Therapy & Rehabilitation; Jun 2018; vol. 25 (no. 6); p. 280-290

Abstract: Background/Aims: Individuals with Parkinson's disease, besides the motor and cognitive symptoms may even present deficits in the motor learning. A recent therapeutic approach involves virtual reality that offers elements that can minimize the difficulties in the learning process. Recently, the therapeutic potential of Nintendo Wii® gaming device for rehabilitation of patients with Parkinson's disease has been showing positive results, but studies related to the use of the Kinect for Xbox™ are still scarce. The present study aimed to investigate the effects of motor and cognitive demands of six Kinect for Xbox 360™ games on the learning of patients with Parkinson's disease, comparing it with healthy individuals. Methods: A total of 19 adults, 8 with idiopathic Parkinson's disease and 11 healthy adults participated in a program which included 10 training sessions and had their scores registered three times. Findings: The results showed that in four of those games, patients with Parkinson's disease showed an ability to improve and keep their performance, but not in the other two games, similar to healthy adults. Conclusions: It was concluded that motor and cognitive abilities affected by Parkinson's disease may be improved with the use of virtual training proposed in this study. Some of the games and gaming devices features can influence the learning process, even in healthy adults.

Pain in Parkinson's disease: the lived experience.

Author(s): Twomey, Doireann; Stuart, Samuel; Baker, Katherine

Source: International Journal of Therapy & Rehabilitation; Jun 2018; vol. 25 (no. 6); p. 301-308

Abstract: The article discusses a study which aimed to further understand pain in Parkinson's disease. The study used an interpretative phenomenological analysis (IPA) approach to examine the essence of the personal experiences of pain in patients with Parkinson's disease. It examined the effect of both the participants' pain and Parkinson's disease on their relationship with family and spouse and the association between their pain and feelings of suffering, despair and anxiety.

Clinical aspects of adherence to pharmacotherapy in Parkinson disease: A PRISMA-compliant systematic review.

Author(s): Straka, Igor; Minár, Michal; Gažová, Andrea; Valkovič, Peter; Kyselovič, Ján

Source: Medicine; Jun 2018; vol. 97 (no. 22)

Abstract: Background: Parkinson disease (PD) is the second most common neurodegenerative disease with various motor and nonmotor symptoms. Progressive course of PD requires frequent medication adjustments. Various combinations of drugs and dose regimens could be used to control symptoms. Thus, not surprisingly, adherence to pharmacotherapy is frequently suboptimal in these patients having negative effect on motor control and patient's quality of life. Methods: In this article, we offer up-to-date review of adherence in PD compared with other chronic conditions. In addition, we summarize factors influencing level of adherence, ways of measuring, and methods of adherence optimization. For the review of adherence in PD, a literature search was undertaken using PubMed database and relevant search terms. Articles were screened for suitability and data relevance. Results: PubMed and Scopus databases were systematically searched in 2016 and data extraction was a multistep process based on the PRISMA Guidelines. Conclusion: According to the recent data, sufficient control of motor symptoms and adequate quality of life are primary goals in the treatment of PD. Adherence to pharmacotherapy play a key role in this process, thus the medication should be tailored for each patient. In order to improve level of suboptimal adherence, these patients should have got recommended various dosing devices or alarms. Good communication with the patients and their relatives or caregivers is also essential.

A qualitative study of female caregiving spouses' experiences of intimate relationships as cognition declines in Parkinson's disease.

Author(s): VATTER, SABINA; MCDONALD, KATHRYN R.; STANMORE, EMMA; CLARE, LINDA; MCCORMICK, SHEREE A.; LEROI, IRACEMA

Source: Age & Ageing; Jul 2018; vol. 47 (no. 4); p. 604-610

Abstract: Background: the complex and progressive nature of Parkinson's disease (PD) and cognitive impairment may necessitate a care provider, a role which is frequently undertaken by a spouse. Providing and receiving care related to dementia impacts on a couple's partnership and may result in decreased intimacy and relationship satisfaction. Objective: to explore the changes in long-term intimate relationships in Parkinson's-related dementia, as perceived by spouses providing care to their partners. Methods: participants were identified using purposive sampling. Twelve female spouses whose partners had PD and mild cognitive impairment (PD-MCI), PD dementia (PDD) or dementia with Lewy bodies (DLB) completed semi-structured face-to-face interviews. Transcribed data were analysed using inductive thematic analysis. The consolidated criteria for reporting qualitative research (COREQ) were applied. Results: couples' relationship satisfaction, intimacy and communication had already reduced in the mild cognitive impairment stage of PD, but the decline in these domains was markedly greater with the emergence of dementia. Increased spousal care responsibilities resulted in partners spending more time together, but feeling emotionally more distanced. Several participants' roles transitioned from spouse to caregiver and they reported feelings of frustration, resentment, anger, sadness and a worry for the future. Cognitive impairment was significantly harder to accept, manage and cope with than the motor symptoms of PD. Spouses acknowledged their marital commitments and exhibited acceptance,

adjustment, resilience and various coping strategies. Conclusion: this is the first study exploring relationship satisfaction in Parkinson's-related dementia and has provided valuable insight into the changing patterns of intimate relationships

Effects of dance practice on functional mobility, motor symptoms and quality of life in people with Parkinson's disease: a systematic review with meta-analysis.

Author(s): dos Santos Delabary, Marcela; Komerovski, Isabel Giovannini; Monteiro, Elren Passos; Costa, Rochelle Rocha; Haas, Aline Nogueira

Source: Aging Clinical & Experimental Research; Jul 2018; vol. 30 (no. 7); p. 727-735

Abstract: Background: Patients with Parkinson's Disease (PD) undergo motor injuries, which decrease their quality of life (QL). Dance, added to drug therapy, can help treating these patients. Aims: To conduct a systematic review with meta-analysis with the aim to analyze the effects of dance classes in comparison to other interventions or to the absence of intervention, in randomized clinical trials (RCTs), on functional mobility, motor symptoms and QL of PD patients. Methods: The search was conducted in MEDLINE, LILACS, SciELO, Cochrane and PsycINFO (last searched in August 2017). RCTs analyzing dance effects in comparison to other physical training types or to no intervention, on functional mobility, motor symptoms and QL of PD patients were selected. The outcomes assessed were motor symptoms with Unified PD Rating Scale III (UPDRSIII), functional mobility with Timed Up and Go Test (TUG), endurance with 6 min walking test (6MWT), freezing of gait with Freezing of Gait Questionnaire (FOG_Q), walking velocity with GAITRite and QL with PD Questionnaire (PDQ39). Two reviewers independently extracted methodological quality and studies data. Results are presented as weighted mean differences. Results: Five RCTs were included, totaling 159 patients. Dance promoted significant improvements on UPDRSIII, and a decrease in TUG time when compared to other types of exercise. In comparison to the absence of intervention, dance practice also showed significant improvements in motor scores. Conclusion: Dance can improve motor parameters of the disease and patients' functional mobility.

The Effect of Parkinson's Disease on Patients Undergoing Lumbar Spine Surgery.

Author(s): Steinberger, Jeremy; Gilligan, Jeffrey; Skovrlj, Branko; Sarkiss, Chris; Guzman, Javier Z.; Cho, Samuel K.; Caridi, John M.

Source: Parkinson's Disease (20420080); Jun 2018 ; p. 1-7

Abstract: Study Design. Retrospective Database Analysis. Objective. The purpose of this study was to assess characteristics and outcomes of patients with Parkinson's disease (PD) undergoing lumbar spine surgery for degenerative conditions. Methods. The Nationwide Inpatient Sample was examined from 2002 to 2011.

Patients were included for study based on ICD-9-CM procedural codes for lumbar spine surgery and substratified to degenerative diagnoses. Incidence and baseline patient characteristics were determined. Multivariable analysis was performed to determine independent risk factors increasing incidence of lumbar fusion revision in PD patients. Results. PD patients account for 0.9% of all degenerative lumbar procedures. At baseline, PD patients are older (70.7 versus 58.9, $p < 0.0001$) and more likely to be male (58.6% male, $p < 0.0001$). Mean length of stay (LOS) was increased in PD patients undergoing lumbar fusion (5.1 days versus 4.0 days, $p < 0.0001$) and lumbar fusion revision (6.2 days versus 4.8 days, $p < 0.0001$). Costs were 7.9% ($p < 0.0001$) higher for lumbar fusion and 25.2% ($p < 0.0001$) higher for lumbar fusion revision in PD patients. Multivariable analysis indicates that osteoporosis, fluid/electrolyte disorders, blood loss anemia, and insurance status are significant independent predictors of lumbar fusion revision in patients with PD. Conclusion. PD patients undergoing lumbar surgery for degenerative conditions have increased LOS and costs when compared to patients without PD.

Pharmacoacupuncture for Idiopathic Parkinson's Disease: A Systematic Review of Randomized Controlled Trials.

Author(s): Cho, Ki-Ho; Kim, Tae-Hun; Jung, Woo-Sang; Moon, Sang-Kwan; Ko, Chang-Nam; Cho, Seung-Yeon; Jeon, Chan-Yong; Choi, Tae Young; Lee, Myeong Soo; Lee, Sang-Ho; Chung, Eun Kyoung; Kwon, Seungwon

Source: Evidence-based Complementary & Alternative Medicine (eCAM); Jun 2018 ; p. 1-8

Abstract: Introduction. Pharmacoacupuncture is a new acupuncture treatment that stimulates acupuncture points by injecting herbal medicine into them. Recently, pharmacoacupuncture has been widely used in the treatment of idiopathic Parkinson's disease in traditional East Asian medicine. The purpose of this systematic review is to evaluate the efficacy and safety of pharmacoacupuncture in the treatment of idiopathic Parkinson's disease. Methods. The following electronic databases were searched for studies published in or before December 2016: Medline, Cochrane Central Register of Controlled Trials (CENTRAL), EMBASE, OASIS, and CNKI, without language restriction. The main outcome assessed was the total Unified Parkinson's Disease Rating Scale (UPDRS) score. The details of the pharmacoacupuncture intervention, such as the herbal medicine and acupuncture points used, were also investigated. Results. From 138 studies, 3 randomized controlled trials were included; the number of patients analyzed was 134. Most of the studies showed considerable methodological flaws. There was heterogeneity of the intervention type and treatment duration in the included studies. Therefore, we could not conduct a meta-analysis. In one study, adjunctive bee venom pharmacoacupuncture therapy significantly improved total UPDRS scores compared with conventional therapy alone. Another study, which used adjunctive Kakkonein pharmacoacupuncture, did not reveal significant improvement compared with conventional therapy alone. A third study reported that Mailuoning pharmacoacupuncture was able to significantly improve the modified Webster Symptom Score when compared with no treatment. Adverse events related to the pharmacoacupuncture were reported in only one case, itching caused by the bee

venom. Conclusions. Our findings regarding the efficacy of pharmacoacupuncture as a therapy for idiopathic Parkinson's disease are currently inconclusive. Further large and rigorous clinical trials are needed.

The Effects of Mindfulness Meditation-Based Complex Exercise Program on Motor and Nonmotor Symptoms and Quality of Life in Patients with Parkinson's Disease.

Author(s): Son, Hye Gyeong; Choi, Eun-Ok

Source: Asian Nursing Research; Jun 2018; vol. 12 (no. 2); p. 145-153

Abstract: Purpose The present study was to examine the effect of a meditation-based exercise program on the motor and non-motor symptoms of Parkinson's disease (PD). Methods Sixty three PD patients who were recruited from a university hospital were randomly assigned to the experimental group (n = 33) and to the control group (n = 30). Participants completed an 8-week Mindfulness Meditation-based Complex Exercise Program (MMBCEP) that included 6 sessions. Before and after the intervention, the Six-Minute Walk Test (6MWT), elastic band pull, chair stand test, and 2.45-meter walk test were administered for the motor symptoms and the Korean Version of Geriatric Depression Scale, The State-Trait Anxiety Inventory (STAI), the Korean-Montreal Cognitive Assessment, Parkinson's Disease Sleep Scale (PDSS), Activities of Daily Living (ADL), and the Quality of Life of Patients with Parkinson's Disease (PDQL) were administered for non-motor symptoms. Results Significant improvements in the motor symptoms (i.e., muscle strength (lower and upper extremity), balance, and muscle endurance) and in the non-motor symptoms (i.e., anxiety, depression, cognitive functions, sleep disturbance, quality of life, and activities of daily living) were observed. Conclusions MMBCEP, a complex exercise program-based on mindfulness meditation, is associated with increased motor symptoms, decreased emotional disturbances (anxiety and depression) and sleep disturbance, and improved cognitive functions, quality of life, and activities of daily living. Future research should test the effects of MMBCEP with more representative PD patients.

Association between diabetes and subsequent Parkinson disease: A record-linkage cohort study.

Author(s): De Pablo-Fernandez, Eduardo; Goldacre, Raph; Pakpoor, Julia; Noyce, Alastair J; Warner, Thomas T

Source: Neurology; Jun 2018

Abstract: OBJECTIVE To investigate the association between type 2 diabetes mellitus (T2DM) and subsequent Parkinson disease (PD).METHODSLinked English national Hospital Episode Statistics and mortality data (1999-2011) were used to conduct a retrospective cohort study. A cohort of individuals admitted for hospital care with a coded diagnosis of T2DM was constructed, and compared to a reference cohort. Subsequent PD risk was estimated using Cox regression models. Individuals

with a coded diagnosis of cerebrovascular disease, vascular parkinsonism, drug-induced parkinsonism, and normal pressure hydrocephalus were excluded from the analysis. RESULTS A total of 2,017,115 individuals entered the T2DM cohort and 6,173,208 entered the reference cohort. There were significantly elevated rates of PD following T2DM (hazard ratio [HR] 1.32, 95% confidence interval [CI] 1.29-1.35; $p < 0.001$). The relative increase was greater in those with complicated T2DM (HR 1.49, 95% CI 1.42-1.56) and when comparing younger individuals (HR 3.81, 95% CI 2.84-5.11 in age group 25-44 years). CONCLUSIONS We report an increased rate of subsequent PD following T2DM in this large cohort study. These findings may reflect shared genetic predisposition and/or disrupted shared pathogenic pathways with potential clinical and therapeutic implications.

Technology-enabled management of communication and swallowing disorders in Parkinson's disease: a systematic scoping review.

Author(s): Theodoros, Deborah; Aldridge, Danielle; Hill, Anne J; Russell, Trevor

Source: International journal of language & communication disorders; Jun 2018

Abstract: BACKGROUND Communication and swallowing disorders are highly prevalent in people with Parkinson's disease (PD). Maintenance of functional communication and swallowing over time is challenging for the person with PD and their families and may lead to social isolation and reduced quality of life if not addressed. Speech and language therapists (SLTs) face the conundrum of providing sustainable and flexible services to meet the changing needs of people with PD. Motor, cognitive and psychological issues associated with PD, medication regimens and dependency on others often impede attendance at a centre-based service. The access difficulties experienced by people with PD require a disruptive service approach to meet their needs. Technology-enabled management using information and telecommunications technologies to provide services at a distance has the potential to improve access, and enhance the quality of SLT services to people with PD. AIMSTo report the status and scope of the evidence for the use of technology in the management of the communication and swallowing disorders associated with PD. METHODS & PROCEDURES Studies were retrieved from four major databases (PubMed, CINAHL, EMBASE and Medline via Web of Science). Data relating to the types of studies, level of evidence, context, nature of the management undertaken, participant perspectives and the types of technologies involved were extracted for the review. MAIN CONTRIBUTION A total of 17 studies were included in the review, 15 of which related to the management of communication and swallowing disorders in PD with two studies devoted to participant perspectives. The majority of the studies reported on the treatment of the speech disorder in PD using Lee Silverman Voice Treatment (LSVT LOUD®). Synchronous and asynchronous technologies were used in the studies with a predominance of the former. There was a paucity of research in the management of cognitive-communication and swallowing disorders. CONCLUSIONS & IMPLICATIONS Research evidence supporting technology-enabled management of the communication and swallowing disorders in PD is limited and predominantly low in quality. The treatment of the speech disorder online is the most developed aspect of the technology-enabled management

pathway. Future research needs to address technology-enabled management of cognitive-communication and swallowing disorders and the use of a more diverse range of technologies and management approaches to optimize SLT service delivery to people with PD.

"The whole perimeter is difficult": Parkinson's disease and the conscious experience of walking in everyday environments.

Author(s): Parry, Ross; Buttelli, Olivier; Riff, Jacques; Sellam, Narjis; Vidailhet, Marie; Welter, Marie-Laure; Lalo, Elodie

Source: Disability and rehabilitation; Jun 2018 ; p. 1-8

Abstract: **PURPOSE** This study sought to characterize the way patients with Parkinson's disease consciously perceive and respond to their surroundings while walking in everyday situations. **METHOD** A qualitative research program designed around an ecological data collection protocol was employed. A convenience sample of 14 patients with a diagnosis of Parkinson's disease and a history of gait difficulties were recruited. Details regarding patients' subjective experience of walking in everyday environments were obtained using first person interviewing techniques with the support of video footage from their daily-life activity. Interview transcripts were analyzed using an interpretive phenomenological approach in order to derive key themes. **RESULT** The sense of proximity and the way in which an individual perceived themselves with respect to their surroundings appeared central to the way patients organized their locomotor behavior. Further to this, the patient relationship to different features and obstacles appeared conditioned by prior experiences in those circumstances. Patients described managing gait difficulties by consciously regulating their walking trajectory and gaze with respect to their environment. **CONCLUSION** Perceptual challenges, visual flow and the dynamic valence of features in the patient's surroundings may have important effects upon the gait stability of patients with Parkinson's disease and warrant further attention in planning rehabilitation interventions. Implications for rehabilitation Walking abilities of patients with Parkinson's disease should be conceptualized in terms of perceptuomotor coupling to a given environment. The functional significance of a patient's environment is dynamic and might be seen to vary in accordance with their physical capacities. Valency, or the subjective relationship between a patient and their surrounds, appears to be an important component of the "fit" between a person and their environment. Novel rehabilitation strategies for the management of parkinsonian gait disturbances might seek to integrate psychological, sensorimotor and environmental elements in order to have individually tailored, ecologically valid home assessment and community rehabilitation programs.

Use of anti-Parkinson medication during pregnancy: a case series.

Author(s): Tüfekçioğlu, Zeynep; Hanağası, Haşmet; Yalçın Çakmaklı, Gül; Elibol, Bülent; Esmeli Tokuçoğlu, Figen; Kaya, Zeynep Ece; Ertan, Sibel; Özekmekçi, Sibel; Emre, Murat

Source: Journal of neurology; Jun 2018

Abstract: INTRODUCTION Experience about the use and safety of anti-Parkinson (anti-PD) medication during pregnancy is scarce. METHODS We have retrospectively evaluated the course and outcome of pregnancy in PD patients who used anti-PD medication during their pregnancy. RESULTS 14 PD patients who used anti-PD medication during part or whole of their pregnancy were included. Dopamine agonists were used in 13 patients, levodopa/benserazide in 4, levodopa/carbidopa/entacapone in 1, rasagiline in 7, amantadine in 4, and biperiden in 1 patient. Nine patients were on combination treatment at the time of their pregnancy. During their whole pregnancy, dopamine agonists had been used in six patients, levodopa in four, and rasagiline in one. Four patients experienced adverse outcomes: one had spontaneous abortion while receiving pramipexole, one elderly mother gave birth to a child with Down syndrome, while receiving pramipexole and rasagiline, in one case, there was fetal distress under levodopa/benserazide, piribedil, and rasagiline which resolved spontaneously, in one case, one of the twins did not survive after the birth while the mother was receiving pramipexole and rasagiline. In none of these cases an association with the use of anti-PD medication and adverse outcomes was clearly established. In one patient, motor symptoms worsened despite high dose levodopa, four others experienced transient worsening upon dose reduction. CONCLUSION Results in our case series suggest that levodopa, rasagiline, pramipexole, and ropinirole alone or in combination with each other may be considered relatively safe during pregnancy. Expected benefits and risks should be considered when prescribing anti-PD medication in pregnant women.

Cardiac abnormalities in Parkinson's disease and Parkinsonism.

Author(s): Scorza, Fulvio A; Fiorini, Ana C; Scorza, Carla A; Finsterer, Josef

Source: Journal of clinical neuroscience : official journal of the Neurosurgical Society of Australasia; Jul 2018; vol. 53 ; p. 1-5

Abstract: OBJECTIVES Though there is increasing evidence for primary cardiac disease in Parkinson's disease (PD) and Parkinsonism (PS), this evidence is hardly included in the general management of these patients. METHODS Literature review. RESULT SPD is one of the most common age-related neurodegenerative disorders. Epidemiological studies have shown that PD is accompanied by high rates of premature death compared with the general population. In general, death in PD/PS is usually caused by determinant factors such as pneumonia, cerebrovascular, and cardiovascular disease. There is a significant body of literature demonstrating involvement of the heart in PD/PS. Cardiac involvement in PD/PS includes cardiac autonomic dysfunction, cardiomyopathy, coronary heart disease, arrhythmias, conduction defects, and sudden cardiac death (SCD), and sudden unexpected death in Parkinson's disease (SUDPAR). CONCLUSIONS Cardiac abnormalities found in PD/PS are manifold but the most prominent is cardiac autonomic dysfunction. The frequency of coronary heart disease in PD is a matter of debate. Only rarely reported in PD/PS are cardiomyopathies, arrhythmias, and sudden cardiac death, and SUDPAR. It is particularly recommended that PD/PS

patients are more intensively investigated cardiologically as soon as the diagnosis is established. Early recognition of cardiac involvement is important for preventing SCD and SUDPAR.

Noninvasive options for 'wearing-off' in Parkinson's disease: a clinical consensus from a panel of UK Parkinson's disease specialists.

Author(s): Fackrell, Robin; Carroll, Camille B; Grosset, Donald G; Mohamed, Biju; Reddy, Prashanth; Parry, Miriam; Chaudhuri, Kallol Ray; Foltynie, Tom

Source: Neurodegenerative disease management; Jul 2018

Abstract: In the past 4 years, two adjunctive treatment options to levodopa have been licensed for use in the UK in patients with Parkinson's disease (PD) and motor fluctuations: opicapone, a third-generation catechol-O-methyl transferase inhibitor, and safinamide, a monoamine oxidase B inhibitor. This clinical consensus outlines the practical considerations relating to motor fluctuations and managing wearing-off in patients with PD, and provides a clinical insight to adjunctive treatment options, including opicapone and safinamide. Practice-based opinion was provided from a multidisciplinary steering Group of eight UK-based movement disorder and PD specialists, including neurologists, geriatricians and a nurse specialist, from England, Scotland and Wales.

Pain in Parkinson's disease: facts and uncertainties.

Author(s): Antonini, A; Tinazzi, M; Abbruzzese, G; Berardelli, A; Chaudhuri, K R; Defazio, G; Ferreira, J; Martinez-Martin, P; Trenkwalder, C; Rascol, O

Source: European journal of neurology; Jul 2018; vol. 25 (no. 7); p. 917

Abstract: Pain is one of the most common and troublesome non-motor symptoms of Parkinson's disease (PD). It can appear at any time during the disease and is often present before diagnosis. However, there is little or no consensus on its definition. An expert group of clinicians with relevant research experience met to review the existing evidence and to identify gaps in our understanding leading towards AUTHOR: 'understanding towards' has been changed to 'understanding leading towards'. Please check and confirm that this is appropriate an optimized therapy of pain in PD. Key findings from epidemiologic, neurophysiologic, neuroimaging and clinical studies are reviewed. In each case, the evidence base is limited by wide variations in the definitions of pain applied, study methodologies and populations evaluated. Disease-related and medical conditions trigger spontaneous pain in patients with PD, which is then abnormally processed and results in painful manifestations in specific body parts. Dopaminergic medications, such as rotigotine, as well as opiate analgesics, such as oxycodone, have shown positive results but future studies with more detailed pain characterization at inclusion are warranted.

Does Parkinson Disease Increase the Risk of Perioperative Complications After Total Hip Arthroplasty? A Nationwide Database Study.

Author(s): Newman, Jared M; Sodhi, Nipun; Dalton, Sarah E; Khlopas, Anton; Newman, Richard P; Higuera, Carlos A; Mont, Michael A

Source: The Journal of arthroplasty; Jul 2018; vol. 33 (no. 7S); p. S162

Abstract: BACKGROUND Parkinson disease (PD) is the second most common neurodegenerative disorder in the United States, affecting over 1 million people. As part of the disease process, PD can cause poor bone quality and other musculoskeletal problems that can affect a patient's quality of life. With advances in treatment, PD patients can be more active and may be candidates for total hip arthroplasty (THA). However, there is a paucity of literature on the outcomes of THA in PD patients. Therefore, the purpose of this study was to evaluate the perioperative outcomes of PD patients who underwent THA. Specifically, we assessed: (1) perioperative surgical and medical complications; (2) lengths of stay (LOSs); and (3) total hospital charges. METHODS Using the Nationwide Inpatient Sample, patients who had PD and underwent THA between 2002 and 2013 were identified. With the use of propensity scores, PD patients were matched in a 1:3 ratio to patients without PD by the year of surgery, age, gender, race, Charlson/Deyo score, and insurance type. This yielded a total of 10,519 PD and 31,679 non-PD THA patients. Regression analyses were used to compare the risk of perioperative complications (any, surgical, medical), the percent differences in mean LOS, and the percent differences in total hospital charges. RESULTS Compared with the matched cohort, PD patients had a 52% higher risk for any complication (odds ratio [OR] = 1.52; 95% confidence interval [CI], 1.37-1.69), a 30% higher risk for any surgical complication (OR = 1.30; 95% CI: 0.88-1.91), and a 54% higher risk for any medical complication (OR = 1.54; 95% CI, 1.38-1.71). Specifically, PD patients were more likely to have postoperative delirium (OR = 2.61; 95% CI: 1.77-3.85), altered mental status (OR = 3.01; 95% CI: 1.35-6.71), urinary tract infection (OR = 1.34; 95% CI: 1.09-1.76), and blood transfusion (OR = 1.62; 95% CI: 1.44-1.82). Also, PD patients had a mean LOS that was 8.57% longer ($P < .0001$), and mean total hospital charges that were 3.85% higher ($P < .0001$). CONCLUSION Orthopedic surgeons and neurologists should be involved in the preoperative counseling of PD patients regarding their potential increased risks associated with THA, which could help optimize their preoperative care. Furthermore, the risk of complications and higher costs could potentially lead to the development of different reimbursement methods in this population of patients.

Subjective and psychological well-being in Parkinson's Disease: A systematic review.

Author(s): Vescovelli, F; Sarti, D; Ruini, C

Source: Acta neurologica Scandinavica; Jul 2018; vol. 138 (no. 1); p. 12-23

Abstract: OBJECTIVES The aim of this review is to summarize studies investigating subjective and psychological well-being in patients with Parkinson's disease

(PD). MATERIALS AND METHODS A systematic and integrative review according to PRISMA criteria was performed with a literature search from inception up to September 2017 in multidisciplinary databases (PubMed, Scopus, Web of Knowledge) by combining together key words related to PD and well-being. Studies were included if: their full-text was available; they involved PD patients; focused on the selected positive dimensions; written in English. Case studies, conference proceedings, abstract, dissertations, book chapters, validation studies and reviews were excluded. Data extracted from the studies included sample characteristics, the positive dimension investigated, type of measure, study aims, design and results. One reviewer extracted details and commented results with other reviewers. The studies' quality was assessed following Kmet, Lee, and Cook. RESULTS Out of 1425 studies extracted, 12 studies (9 quantitative, 2 qualitative, 1 mixed methods) involving 2204 patients with PD were included. Most of the studies had a cross-sectional design and/or evaluated the effect of physical rehabilitation on well-being. Articles documented that the illness could impair well-being for its progressive impact on patients' motor autonomy. Preserving motor and musculoskeletal functioning facilitate patients' experience of well-being, social contribution and the maintenance of their job. CONCLUSIONS Research on positive resources in PD is still scarce compared to other chronic illnesses. The few available investigations suggest the need of preserving motor abilities by proper rehabilitation programs for maintaining and/or promoting patients' well-being and life engagement.

The Pattern of Hospital Admissions Prior to Care Home Placement in People With Parkinson's Disease: Evidence of a Period of Crisis for Patients and Carers.

Author(s): Klaptocz, Joanna; Gray, William K; Marwood, Sophie; Agarwal, Mitali; Ziegler, Joseph; Webb, Zoszka; Prabhakar, Meghna; Hand, Annette; Oates, Lloyd; McDonald, Claire; Walker, Richard W

Source: Journal of aging and health; Jul 2018 ; p. 898264318786125

Abstract: OBJECTIVES We hypothesized that the number and length of hospital admissions in people with Parkinson's disease (PD) would increase immediately prior to admission to a care home relative to those who were able to continue living at home or who died. METHOD PD patients at Hoehn and Yahr Stages III to V were followed-up over two and a half years with deaths and care home placements recorded. Hospital admissions data were collected over this period. RESULTS Of 286 patients included in the study, 7.3% entered a care home and 28.3% died. In the final 120 days prior to the study exit point (care home placement, death, or continued living at home), longer hospital stay was significantly associated with care home placement, after adjusting for the competing risk of death. CONCLUSION Our data provide evidence that, for many people with PD, a period of crisis is reached immediately prior to care home placement.

Experience of care for Parkinson's disease in European countries: A survey by the European Parkinson's Disease Association.

Author(s): Schrag, A; Khan, K; Hotham, S; Merritt, R; Rascol, O; Graham, L;
European Parkinson's Disease Association

Source: European journal of neurology; Jun 2018

Abstract: BACKGROUND Few studies report on experience of care for Parkinson's disease (PD) from patients' own point of view. METHODS Analysis of a survey in 11 European countries on self-reported access to services and satisfaction with different aspects of care. RESULTS 1,775 people with PD (PwP) participated with disease duration ranging from <1 to 42 years. Initial referral to specialists had taken <3 months in most but medication reviews occurred every 3 months in only 10%, every 6 months in 37%, once a year in 40%, and every two years or less frequently in 13%. Waiting times to therapists were usually at ≥ 4 months. Satisfaction with care was highest for involvement of PwP in decisions (63% of respondents satisfied) and involvement of family/carer (62%) followed by communication with PwP (57%), information received (54%), frequency of treatment reviews (52%), suitability of treatment for the individual condition and circumstances (52%), but lowest for availability and accessibility of treatment when needed (48%) and collaborations between healthcare professionals in delivering care (41% satisfied). The main factors associated with overall satisfaction scores with care were the overall satisfaction with initial consultation ($r=0.26$, $p<0.0001$), the sensitivity with which the diagnosis was communicated, the quantity of information provided (both $r=0.24$, $p<0.0001$) and the frequency of medication review ($r=0.17$, $p<0.0001$). CONCLUSION More coordinated and responsive care, tailored to the individual, with regular and timely medication reviews and treatment referrals, is likely to improve satisfaction with care in current health care pathways. This article is protected by copyright. All rights reserved.

Mobility device use in people with Parkinson's disease: A 3-year follow-up study.

Author(s): Kader, M; Jonasson, S B; Iwarsson, S; Odin, P; Nilsson, M H

Source: Acta neurologica Scandinavica; Jul 2018; vol. 138 (no. 1); p. 70-77

Abstract: OBJECTIVES This study aimed to investigate how the use and perceived unmet need of mobility devices (MD) in people with Parkinson's disease (PD) evolve over a 3-year period. METHOD The study reports baseline assessments ($n = 255$) and comparisons for participants with complete data at baseline and the 3-year follow-up ($n = 165$). Structured questions addressed the use and perceived unmet need of various MDs indoor and outdoor (eg, canes, wheeled walkers, and manual and powered wheelchairs). McNemar tests were used to investigate differences over time. RESULTS In the total sample at baseline, 30% and 52% of the participants reported using MDs indoors and outdoors, respectively. Among those with complete data also at the 3-year follow-up, the proportion of participants using MDs increased significantly ($P < .001$) from 22% to 40% for indoors and from 48% to 66% for outdoors, with transition of MD toward more assistive potential (ie, wheeled walker and manual wheelchair). Wheeled walkers were the most commonly used MD indoors as well as outdoors on both occasions. Among the users of multiple MDs,

the most common combination was cane and wheeled walker on both occasions. The proportion of participants who reported a perceived unmet need of MDs was 5% at baseline, whereas it was 21%, 3 years later. **CONCLUSION** The use and perceived unmet need of MDs in people with PD increase over time. There is a need for addressing MDs at clinical follow-ups of people with PD, with continuous attention in primary health care and municipality contexts

Feasibility of Smartphone-Based Testing of Interference in Parkinson's Disease.

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Source: Neuro-degenerative diseases; Jun 2018; vol. 18 (no. 2-3); p. 133-142

Abstract: **BACKGROUND** Interference refers to learned associations and established behaviors "interfering" with response to new material. It forms a core pillar of executive functions, which are commonly affected in Parkinson's disease (PD). Cognitive interference test (CIT) forms part of a smartphone application designed for ambulatory assessment in PD. **OBJECTIVE** The aims of this study were to establish that CIT could effectively demonstrate interference and would perform comparably to the Stroop Color-Word Test Victoria version (VST) despite PD-related motor impairment. **METHODS** Ninety-nine patients with PD were recruited. Initial evaluation included CIT, VST, Montreal cognitive assessment (MOCA), and Movement Disorders Society-sponsored revision of the -Unified Parkinson's Disease Rating Scale (MDS-UPDRS-III). A group of patients underwent repeat assessment within 2 weeks. Thirty-four healthy controls were recruited for comparison. **RESULTS** Patients' mean age was 66.2 years, disease duration was 8.7 years, on-state MDS-UPDRS-III was 22, and MOCA total score was 27. CIT effectively generated interference, whereby the total time taken to complete the incongruent task was 20% longer compared to that of the baseline task. CIT key test items demonstrated convergent validity to VST ($r = 0.478-0.644$, $p < 0.0001$) and satisfactory repeatability (intraclass correlation coefficient $0.46-0.808$, $p \leq 0.0002$). Performance on key CIT test parameters deteriorated with increasing age ($r = 0.225-0.478$, $p < 0.01$) and MDS-UPDRS-III total score ($r = 0.354-0.481$, $p < 0.01$). 30 took longer to complete CIT and VST and had lower MOCA-attention sub-score, implying that the degree of motor impairment could not be the sole explanation for reduced CIT performance. **CONCLUSIONS** We established that despite motor impairment, the novel approach of using smartphone technology to test interference in PD patients is feasible.

Pharmacological interventions for anxiety in Parkinson's disease sufferers.

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Source: Expert opinion on pharmacotherapy; Jun 2018 ; p. 1-6

Abstract: INTRODUCTION Anxiety disorders are a common non-motor symptom of Parkinson's disease (PD) with a reported prevalence ranging from 20% to 50%. Although anxiety is associated with Parkinson's disease, anxiety disorders can begin before the onset of motor symptoms, and have been linked to a possible abnormality of dopaminergic, serotonergic, and adrenergic neurons that precedes motor disturbance. Area covered: Several studies have reported the pharmacological treatment of depression in PD, but none have been randomized clinical trials with a primary outcome measure of anxiety. Two trials showed that pharmacological intervention with tricyclic antidepressants or selective serotonin reuptake inhibitors proved beneficial in treating anxiety in PD. However, the effect size was modest. Anxiety is associated with off-periods and improved by L-Dopa, especially in patients with high levels of anxiety. Expert opinion: Decreasing off-periods is important for managing anxiety in patients with motor fluctuations. Minor suggestive data indicate that tricyclic antidepressants and selective serotonin reuptake inhibitors can be helpful with modest effect sizes, but the former can cause additional side effects. Only one study has examined the use of benzodiazepines to treat anxiety in PD, and benzodiazepines cannot be recommended because they increase the risk of falling. Further clinical studies for pharmacological intervention against anxiety are required.

Sources Used

The following databases are searched on a regular basis in the development of this bulletin: British Nursing Index, Cinahl & Medline

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