

Role of Physiotherapy and Social work in Parkinson's Disease: A Collaborative Approach

Authors:

1. Ankit Agrawal, Physiotherapist

2. Jijo M Abraham, Assistant professor, Faculty of Social Work, The Maharaja Sayajirao

University of Baroda

Abstract

Being a chronic Neuro-degenerative disease, the Parkinson's disease is known for its hazardous effect on functional life at later stage of human life. Multiple professionals are involved in the management of Parkinson's disease. This article light upon the collaborative approach of Physiotherapy and Social work in such patients. In addition to this, this article also gives idea that how this approach can improve patients' functional life that are living in different care settings according to their functional level determined by different assessment systems. At the end, this article demands rigorous research in the social work field which would make social worker unavoidable and more inclusive in management of chronic disease.

Keywords: Parkinson's, Physiotherapy, Social work, assessment, geriatric

Introduction

Parkinson's Disease (PD) is considered as second most common neurodegenerative disorder which is mostly characterized by motor symptoms such as rigidity, postural instability, bradykinesia and resting tremor (suerbier, 2015, p. 137). Incidence of PD increases with increasing age due to age-related neural vulnerability and males are more prone to this disease than females (suerbier, 2015, p. 104). To diagnose Parkinson's disease, MRI is best tool because there are not any disease specific laboratory tests are discovered yet. (Nocholas B Galifianakas, 2014, p. 143). Patient suffering from PD require multi-facet approach as a long term treatment. PD is non curable disease but symptomatic treatment can improve quality of life in patients. Apart from medicines, other therapies like Physiotherapy, Occupational therapy,

Sessions with psychosocial worker are more effective to cope with symptoms of PD (Nicholas B Galifianakas, 2014, pp. 145-146).

The physiotherapist solves movement deficit by his extensive and accurate knowledge of movement (edwards, 2002). In PD, physiotherapist aims to maintain maximum level of mobility and independence. Social workers in health care settings conduct different kind of assessments (Eg. BPSS assessment, Suicide assessment, Geno-gram, family technology assessment) to understand social factors affecting individual (Jonathen B. Singer, 2018). But patients suffering from PD need more attention due to old age and their vulnerability of getting psychological syndromes such as dementia and depression which negatively impact their quality of social lives.

In 21st century, Old age population does not want to stick with one kind of treatment approach or therapy to fulfill to amplify their quality of life in better way. There are so many studies which have been conducted to prove effectiveness this interdisciplinary approach. In this systematic literature review, we will understand effectiveness of this interdisciplinary approach particularly in combination of physiotherapy and social work in life of Parkinson patients.

Physiotherapy in Parkinson's disease

Parkinson's disease is chronic neurological disease which primarily characterized by movement and postural symptoms. In PD, functional abilities are reduced as making patient more dependable for their daily life activities. Parkinson's disease is also known as motor syndrome in which movement disorders are considered as markers of disease. Though to provide quality treatment for these movement and postural symptoms proper assessment must be done which have inclusion criteria such as patient resources, multi-disciplinary staff development and patient outcomes (Jane Johnson, 2013). There are many assessment procedures are developed to understand severity of symptoms in PD but there are some standard assessment formats which primarily focus on movement disorders in PD. There are three assessment formats: 1) Unified Parkinson's disease rating scale, 2) Movement Disorder society sponsored Unified Parkinson's disease rating scale, 3) Hoehn and Yahr Stage Scale. Unified Parkinson's disease rating scale was developed

in 1980's focusing majorly on motor symptoms (P. Martinez-Martin, 1994). But in 2001, Movement Disorder Society sponsored some changes in same and scale was updated and renamed in Movement Disorder Society-Sponsored Revision of the Unified Parkinson's Disease Rating Scale (MDS-UPDRS) (Christopher G. Goetz B. C.-M., 2008). Both scales are very reliable and consistent in measuring severity of symptoms in movement, gait, posture and activities in daily life in PD patients (Christopher G. Goetz B. C.-M., 2008). The updated version of UPDRS scale also includes non-motor symptoms. The third scale, Hoehn and Yahr Stage scale is widely accepted scale but this scale is more focused on postural instability in PD with less focused areas such as movement difficulties and non-motor symptoms (Christopher G. Goetz W. P., 2004).

After conducting these assessments, Physiotherapist set some short term and long term goals with patient and patient's caregivers or relatives. Goal setting session is highly influenced by patient's residential setting and severity of symptoms. If patient's condition is severe then patient is mostly admitted in hospital setting, end of life care setting or Emergency room care setting. In these settings, patient's medical condition is overseen by multiple professionals but majorly pharmacological treatment is given in timely manner throughout day and caregiver/relatives of patient are well informed about patient's condition (Paul Tuite, 2009). In such settings, there are more chances that patient is bed-ridden and goals of physiotherapist include to maintain tone of skeletal muscles in manner that patient can perform basic activities of daily life such as bathing, eating, wearing clothes, toiletry activities etc (Paul Tuite, 2009). In such scenario, physiotherapist focus on full pain-free range of movements and strengthening of muscles of limbs, strengthening of core muscles, transfer activities (ex. Transfer from bed to wheelchair/standing with walker) (Lovgreen, 2000).

Patients of PD who are living in assisted living communities, home care are more dependent on secondary type of caregivers such as trained nursing staff, Physiotherapists, Social workers and home health aide/support workers (Paul Tuite, 2009). In these settings, patient requires support due to unable to live independently but patient is required less attention than emergency room or hospital setting. In assisted living setting, patient attends various activities such as fitness classes, recreational and social activities,

disease focused group therapy sessions. Either in home care setting or assisted living setting, Physiotherapist is more focused on complex activities such as walking, hand – eye co-ordination activities, balancing activities and group exercise sessions (Paul Tuite, 2009).

Social Work in Parkinson's Disease

Social Work is considered to be practice profession and clinical social workers play a very important role in assisting the professional medical practitioners. Thus the need of integrated care has increased. Integrated care is increasingly being recognized globally as a preferred model of services that can positively impact access to services, efficiency and quality of care, especially for complex chronic illnesses (Valentijn, Schepman, Opheij, & Bruijnzeels, 2013; WHO, 2016, 2017). Whether focused on clinical integration of services (micro level), organizational and/or professional integration (meso level) or system integration (macro level), the goal is to reduce fragmentation of services and offer persons with complex medical and behavioral health needs the experience of continuous and coordinated care across professionals, institutions and health and well-being sectors (Valentijn et al., 2013).

PD, a chronic neurodegenerative illness, is an exemplar of a medical condition requiring integrated and collaborative inter-professional care. Social workers are increasingly playing an essential role on PD-specialty care teams, especially given research findings in the past decade demonstrating that non-motor symptoms, particularly depression and anxiety (among others), significantly affect patient and caregiver quality-of-life (QOL), often even more than PD motor impairment (Erickson & Muramatsu, 2004)

Clinical Social workers are key professionals in dealing with the psychosocial complications of PD at every stage and improving quality of life for Persons with Parkinson's and care partners (González & Breslow, 2008). The work begins at the time of diagnosis and can continue with the family past the patient's demise. Among the varied clinical social work practices and interventions for PD-affected families are:

Comprehensive Biopsychosocial Assessment including development of an individualized treatment plan. The clinical social worker is continually assessing the PWP, caregiver's and family's unique situation and overall functioning, support systems and coping mechanisms to provide the right type and level of

individualized care and support. The social worker's contribution to patient and family-centered care is evident at every stage of PD. The work includes assessing a patient's current functioning at all levels, including extent of physical and cognitive disability, mood and depression, pain, the impact of stigma associated with PD and their effect on the emotional capacities of the PWP. Identifying the PWP's and caregiver's social support systems provides important information about needed social work interventions, given that individuals and families are part of complex and interacting physical, emotional, social and environmental systems (Hepworth, Rooney, Rooney, & Strom-Gottfried, 2009). Assessing the care partner's physical and psychological functioning is equally important as, more often than not, demands for increased hours spent caring for the PWP as the disease progresses can also result in increased caregiver strain (Bhimani, 2014).

Supportive Counseling is essential in helping the PWP and family to explore underlying feelings of anger, depression, anxiety and apathy associated with increasing functional loss and dependency on others for activities of daily living. Moreover, assisting the care partner is a critical and continuous role for the PD-specialized social worker. The care partner needs to be helped to empathize with the PWP experience and find ways to cope constructively with feelings of resentment, depression, anger, fears and feelings of hopelessness or helplessness. These dynamics often impose significant shifts in the spousal or partner relationship, including the loss of interpersonal and/or sexual intimacy, and mutuality over time (Carter et al., 2008). Hence, the task for the social worker will be to facilitate adjustment, open and/or maintain communication between the PWP, care partner and family, and help the patient and PD-affected family re-define adaptation, reframe their experience of living with PD and improve quality of life for these clients. Also important are the following supportive services:

Providing PD information helps the PWP and care partner or family understand the unpredictable nature of disease manifestations and impact of PD in their lives.

Psycho-educational techniques (a) facilitate empathy and attunement practices in helping care partners to be aware of the PWP's functioning, and (b) improve communication and preserve gains made in the relationship between the PWP, care partner and/or family.

Case Management, including both care coordination and advocacy, are essential services for PD-affected families. Among these are: Developing and coordinating with PWP, care partner and community resources, and their inclusion on the clinical or medical care team to assure a comprehensive and continuous care plan for the PWP.

Advocating and linking the PWP with community resources to improve health and ensure patient safety, including referral to support groups and community wellness programs being developed at many PD Centers of Excellence for PWP and caregivers.

Connecting the PWP and care partner with service systems, transition care and planning for advanced directives and future providers. The social worker assists the PD patient and their care partner in accessing various services to enhance their quality of life.

It is essential for the social worker to be well informed about medical terminology, the disease manifestations and progression, various treatment interventions in their own discipline, the role of other professions on the team, and the latest research available in the PD field. PD work can be challenging, creating a need for social workers to practice self-care and to develop their own support system to deal with the host of emotionally charged issues in PD work.

Conclusion

Treatment approaches differ according to patient's physical and psychosocial condition. Sometimes healthcare professionals are unaware about social environment of patient which may have negative impact on patient's health and functionality in daily life. This gap may be produced by financial stress or lack of quality care by their caregivers which can be filled by social workers who meet these patients regular basis who can help them to cope with such stressful social conditions (Chen, 2014).

As for Example in USA, There are some programs run especially for elders as interdisciplinary approach such as the Program for All-inclusive Care for Elderly (PACE) and the Geriatric Resource for Assessment

and Care for Elders (GRACE). Not only these programs are well-known model of team based care but also they are very effective in chronic diseases (Josette Rivera, 2014).

In such interdisciplinary approach, social workers are lost somewhere in this crowd. Social worker is integral member of management and evaluation teams for elder people which mainly aim to bring elder patients back to their community using different resources of same community (Wagner, 2000). This also justifies high requirement of research to highlight role of social workers in chronic disease management in elder population.

References

Allen, M. P. (2018). Health care and work with older adults and caregivers. In E. P. Janna C heyman, *Health and social work: Practice, Policy and Research* (p. 221). Denver: Springer Publishing company.

Bhimani, R. (2014). Understanding the burden on caregivers of people with Parkinson's: A scoping review of the literature. *Rehabilitation Research and Practice*, 2014, 1–8

Carter, J. H., Stewart, B. J., & Archbold, P. G. (2008). Family caregiving. In: Family caregiving. In S.A. Factor & W.J. Weiner, (Eds.), *Parkinson's disease: Diagnosis and Clinical Management (2nd ed., Ch. 60, pp. 759–770)*. New York: Demos Medical Publishing

Chan, H. (2014). The social context of older adults. In A. c. Brie Williams, *Current diagnosis and treatment: Geriatrics* (p. 15). New York: McGraw-hill Education.

Chen, H. (2014). The social context of older adults. In A. C. Brie A Williams, *Current Diagnosis and treatment: Geriatrics* (pp. 15-18). New York: Mcgraw Hill Education.

Christopher G. Goetz, B. C.-M. (2008). Movement Disorder Society-Sponsored Revision of the Unified Parkinson's Disease Rating Scale (MDS-UPDRS): Scale Presentation and Clinimetric Testing Results. *Movement Disorders* , 2129-2170.

Christopher G. Goetz, W. P. (2004). Movement Disorder Society Task Force Report on the Hoehn and Yahr Staging Scale: Status and Recommendations. *Movement Disorders* , 1020-1028.

edwards, S. (2002). *Neurological Physiotherapy*. Edinburgh: Churchill Livingstone.

Erickson, C. L., & Muramatsu, N. (2004). Parkinson's disease, depression and medication adherence. *Journal of Gerontological Social Work*, 42(3-4), 3-18. doi:10.1300/J083v42n03_02

González-Ramos, G., & Breslow, D. (2008). Social workers in the forefront: Providing care to those living with Parkinson's. *National Parkinson's Foundation. Parkinson Report • Summer 2008*

Hepworth, D. H., Rooney, R. H., Rooney, G., & Strom-Gottfried, K. (2009). *Direct social work practice: Theory and skills (9th ed.)*. Belmont, CA: Brooks/Cole

Jane Johnson, A. J. (2013). Rehabilitation in a neuroscience centre: the role of expert assessment and selection. *British journal of therapy and rehabilitation* .

Jonathen B. Singer, E. B. (2018). Social work assessment. In E. P. Janna C Heyman, *Health and social work: Practice, Policy and research* (p. 68). New York: Springer.

Josette Rivera, S. R. (2014). The Interprofessional team. In A. C. Brie A Williams, *Current Diagnosis and Treatment: Geriatrics* (pp. 19-23). New York: MC Graw Hill.

Lovgreen, H. C. (2000). Rehabilitation, physiotherapy and elderly patients with parkinson's disease. In P. W. Dr Jolyon Meara, *Parkinson's disease and parkinsonism in elderly* (pp. 198-212). Cambridge: Cambridge University Press.

Nocholas B Galifianakas, A. G. (2014). Parkinson Disease and Essential Tremor. In A. C. Brie A Williams, *Current Diagnosis and Treatment Geriatrics* (p. 143). New York: McGraw - Hill Education.

P. Martinez-Martin, A. G.-N.-S. (1994). Unified Parkinson's Disease Rating Scale Characteristics. *Movement Disorder society* , 76-83.

(2009). Nonpharmacological treatment. In C. T. Paul Tuite, *parkinson's disease- a guide to patient care* (pp. 205-212). New York: Springer Publishing Company.

Valentijn, P. P., Schepman, S. M., Opheij, W., & Bruijnzeels, M. A. (2013). Understanding integrated care: A comprehensive conceptual framework based on the integrative functions of primary care. *International Journal of Integrated Care*, 13, 1–12. doi:10.5334/ijic.886

suerbier, A. (2015). Nonmotor symptoms in parkinson's disease. In E. T. Joseph Jankovic, *parkinson's disease and movement disorders* (p. 137). Philadelphia: Wolters Kluwer.

Wagner, E. H. (2000). The role of patient care teams in chronic disease management. *British Medical Journal*, 569-572.

World Health Organisation. (2016, April 15). Framework on integrated, people-centred health services. *Report by the Secretariat. Sixty-Ninth World Health Assembly. Geneva, Switzerland: World Health Organization.*

World Health Organization. (2017) Integrated care for older people (ICOPE): Guidelines on community level interventions to manage declines in intrinsic capacity. *Report by the Department of Ageing and Life Course. Geneva, Switzerland: World Health Organization*

