

Nursing care for coping with patients with Parkinson's disease

Os cuidados de enfermagem para o enfrentamento de pacientes com doença de Parkinson

Cuidados de enfermería para el afrontamiento del paciente con enfermedad de Parkinson

Clarissa da Silva¹, Walquiria Lene dos Santos², Márcia da Silva Leite³, Maria Liz Cunha de Oliveira⁴

How to cite: Silva C, Santos WL, Leite MS, Oliveira MLC. Nursing care for coping with patients with Parkinson's disease. 2024; 13(2): 448-59. Doi: <https://doi.org/10.36239/revisa.v13.n2.p448a459>

REVISA

1. Faculty of Science and Education Sena Aires. Valparaíso de Goiás, Goiás, Brazil. <https://orcid.org/0009-0005-9183-4696>

2. Faculty of Science and Education Sena Aires. Valparaíso de Goiás, Goiás, Brazil. <https://orcid.org/0009-0005-2245-1739>

3. Faculty of Science and Education Sena Aires. Valparaíso de Goiás, Goiás, Brazil. <https://orcid.org/0000-0001-6489-5234>

4. Faculty of Science and Education Sena Aires. Valparaíso de Goiás, Goiás, Brazil. <https://orcid.org/0000-0002-5945-1987>

Received: 29/01/2023
Accepted: 18/03/2023

RESUMO

Objetivo: descrever o cuidado de pacientes com doença de Parkinson. **Metodologia:** A pesquisa de revisão bibliográfica integrativa com abordagem qualitativa resultou em uma matriz mais detalhada apresentando um total de 10 artigos. **Resultados:** Desta forma, o trabalho proporcionou uma visão abrangente e aprofundada dos cuidados de enfermagem necessários ao enfrentamento eficaz da doença de Parkinson, incorporando o conhecimento atualizado da literatura, a descrição detalhada da doença, a importância da rede de apoio social e as estratégias adotadas pelos pacientes para enfrentar os desafios inerentes à doença. **Conclusão:** A assistência prestada por um enfermeiro especializado em doença de Parkinson auxilia na redução dos sintomas motores e na melhoria da qualidade de vida dos pacientes, pois o enfermeiro além de direcionar o plano de cuidados para atender às necessidades do paciente e de sua família, ele guia o paciente na busca pela autonomia, sempre respeitando seus limites e complexidades. Portanto, a qualidade de vida dos indivíduos com Doença de Parkinson está diretamente proporcional ao cuidado especializado do enfermeiro.

Descritores: Cuidados de Enfermagem; Diagnóstico; Autocuidado; Tratamento; Doença de Parkinson.

ABSTRACT

Objective: The general objective of the study is to describe the care of patients with Parkinson's disease. **Methodology:** The integrative bibliographic review research with a qualitative approach resulted in a more detailed matrix presenting a total of 10 articles. **Results:** In this way, the work provided a comprehensive and in-depth view of the nursing care necessary to effectively cope with Parkinson's disease, incorporating updated knowledge from the literature, a detailed description of the disease, the importance of the social support network and the strategies adopted by patients to face the challenges inherent to the disease. **Conclusion:** The assistance provided by a nurse specialized in Parkinson's disease helps to reduce motor symptoms and improve the quality of life of patients, as the nurse, in addition to directing the care plan to meet the needs of the patient and their family, he guides the patient in the search for autonomy, always respecting their limits and complexities. Therefore, the quality of life of individuals with Parkinson's Disease is directly proportional to the specialized care provided by nurses.

Descriptors: Nursing Care; Diagnosis; Self-care; Treatment; Parkinson's Disease.

RESUMEN

Objetivo: El objetivo general del estudio es describir la atención de los pacientes con enfermedad de Parkinson. **Metodología:** La investigación de revisión bibliográfica integradora con enfoque cualitativo resultó en una matriz más detallada presentando un total de 10 artículos. **Resultados:** De esta manera, el trabajo aportó una visión integral y profunda de los cuidados de enfermería necesarios para afrontar eficazmente la enfermedad de Parkinson, incorporando conocimientos actualizados de la literatura, una descripción detallada de la enfermedad, la importancia de la red social de apoyo y las estrategias adoptadas por los pacientes para afrontar los desafíos inherentes a la enfermedad. **Conclusión:** La asistencia brindada por una enfermera especializada en la enfermedad de Parkinson ayuda a reducir los síntomas motores y mejorar la calidad de vida de los pacientes, ya que la enfermera, además de orientar el plan de cuidados para satisfacer las necesidades del paciente y su familia, orienta al paciente en la búsqueda de su autonomía, respetando siempre sus límites y complejidades. Por tanto, la calidad de vida de las personas con Enfermedad de Parkinson es directamente proporcional a la atención especializada brindada por las enfermeras.

Descritores: Atención de Enfermería; Diagnóstico; Autocuidado; Tratamiento; Enfermedad de Parkinson.

Introduction

About 1% of the elderly over 65 years of age are affected by Parkinson's Disease, as shown by WHO data. Projections indicate that in 2030, about an average of 8 million individuals over the age of 50 will have the disease. In Brazil, epidemiological studies are supposed to have 220 thousand carriers of the disease in the age group of 60 and 69 years, a prevalence of 07 per 1000 individuals.¹

Elderly people affected by Parkinson's Disease have alterations in cognitive functions, which can be impaired from dementia to cognitive reduction, reducing quality of life.²

For a nursing teaching structure focused on patients with Parkinson's, interconnected care is necessary, so that they can manage and perform self-care. In addition, telemedicine emerges as a promising tool, offering wide possibilities for effective application in the context of Parkinson's disease.³

The overall aim of the study was to report on nursing care for patients with Parkinson's disease. The specific objectives of the research were: to explore the most recent literature on Parkinson's disease, to detail the characteristics of Parkinson's disease and to investigate the social support network and coping strategies adopted by patients with this condition.

Method

Integrative literature review research with a qualitative approach. The guiding question of this research was: "How can nursing help the elderly in coping with Parkinson's disease".

In the retrospective search, publications written in Portuguese and English were included. The search was carried out in the following electronic databases: Cochrane, Virtual Health Library, Scientific Electronic Library Online - SciELO, Library and PubMed Advanced Search Builder. For the search in the databases, the Boolean descriptors "AND" and "OR" were established using the DeSC/Mech Health Science Descriptors, the keywords were: "Parkinson's Disease", "Nursing Care", "Diagnosis", "Self-Care"; "Nursing Care", "Diagnosis", "Self-Care"; Treatment". As inclusion criteria, online publication articles were used using a time frame of five years, from 2019 to 2023.

Chart 1 - Survey of the articles selected in the review regarding authors/year, title, objective, nursing care for patients with Parkinson's disease and conclusion. (N=10). Goiás, 2024.

Authors/ Year	Title	Objetivo	Nursing Care for Patients with Parkinson's Disease	Conclusion
Ho et al. (2021)	Management of Depression and Anxiety in Parkinson's Disease	To propose solutions to deal with depression and anxiety in patients with Parkinson's Disease, using a case study analysis.	Nursing care can help keep the wound clean and dry, control infection and promote the healing process, can help manage pain and malaise, provide comfort and relief to patients, can help improve patients' quality of life by providing them with emotional and social support, and facilitating their treatment and participation in daily activities.	The article concludes that nursing care is important in the management of chronic wounds. Holistic nursing care can help improve wound healing, reduce pain and discomfort, and improve patients' quality of life.
Ferreira et al. (2021)	Technological gerontology for fall prevention: nursing care for the elderly with Parkinson's disease	To analyze how technological gerontology contributes to the preventive care of falls in elderly patients with Parkinson's Disease.	To prevent falls in elderly people with Parkinson's, it is crucial to ensure a safe environment, remove obstacles, encourage the use of non-slip footwear, and promote exercises to improve balance and mobility. In addition, constant supervision and proper administration of medication are key to minimizing risks.	They concluded that measures such as a safe environment, non-slip footwear, constant supervision, careful administration of medications, and exercises to improve balance and mobility are fundamental to this approach to fall prevention in older adults with Parkinson's disease. This integrated approach aims to ensure safety and quality of life.
Chen et al. (2021)	The Effectiveness of Specialized Nursing Interventions for Patients With Parkinson's Disease: A Randomized Controlled Trial Protocol.	To analyze the impact of nurses specialized in the treatment of Parkinson's in reducing motor problems and increasing the well-being of individuals with Parkinson's disease (PD).	Skilled nursing care for patients with Parkinson's disease includes accurate medication administration, monitoring for side effects, promoting mobility, adapting the environment, psychological support, educating patients and their caregivers, and periodic evaluations. These measures aim to improve the patient's quality of life and function.	Skilled nursing care for patients with Parkinson's disease includes accurate medication administration, monitoring for side effects, promoting mobility, adapting the environment, psychological support, educating patients and their caregivers, and periodic evaluations. These measures aim to improve the patient's quality of life and function.

<p>Iwasa et al. (2021)</p>	<p>How home nursing care varies for patients with Parkinson's disease according to the level of disease advancement patients in Hoehn and Yahr levels III, IV, and V</p>	<p>Identify nurses' clinical interventions for patients at home at each Hoehn and Yahr (HY) level of disease.</p>	<p>Nurses play a crucial role in the home care of Parkinson's patients at different stages of the Hoehn and Yahr scale. This includes education in the early stages, careful administration of medications, adaptation of the environment to prevent falls, assistance with daily activities in the advanced stages, and ongoing emotional support to patients and families at all stages of the disease.</p>	<p>The study highlighted that nurses play a crucial role in the home care of Parkinson's patients, adapting to the specific needs of each stage of the disease. Its interventions include education, medication administration, environmental adaptation, assistance with daily activities, and emotional support, contributing to patients' quality of life throughout disease progression.</p>
<p>Connor et al. (2020)</p>	<p>Quality and Extent of Implementation of a Nurse-Led Care Management Intervention: Care Coordination for Health Promotion and Activities in Parkinson's Disease (CHAPS)</p>	<p>To analyze the effects of an 18-month, telephone nurse-led intervention called the Coordination of Care for Health Promotion and Activities in Parkinson's Disease (CHAPS) in a randomized controlled trial.</p>	<p>Evaluate remote monitoring, analyze the impact on quality of life, measure adherence, and clinical outcomes and patient satisfaction.</p>	<p>The study concludes that nurse-led telephone intervention (CHAPS) for patients with Parkinson's disease demonstrated a positive impact on quality of life, adherence and clinical outcomes. The comparison with the control group reinforces its relative efficacy, signaling that this approach can be useful in providing continuous and effective support to patients over time.</p>
<p>Munster et al. (2021)</p>	<p>Towards integrated and personalized care in Parkinson's disease: a framework proposal for the training of Parkinson's nurses.</p>	<p>It establishes a framework for prenatal care training based on the analysis of the available literature on PD care needs.</p>	<p>This framework aims to equip nurse practitioners with comprehensive skills to deliver high-quality, patient-centered care at all stages of Parkinson's Disease.</p>	<p>Based on this literature, the importance of approach, continuous updating, and teamwork are key elements to ensure the provision of quality care and align practices with advances in the understanding of the disease. This framework aims to enable nurses to provide appropriate and compassionate care at all stages of PD, for the well-being of those undergoing treatment.</p>

<p>Radder et al. (2020)</p>	<p>The cost-effectiveness of specialized nursing interventions for people with Parkinson's disease: the NICE-PD study protocol for a randomized controlled clinical trial</p>	<p>To compare the cost-effectiveness of skilled Parkinson's disease nursing care (PDNS) with one that is not PDNS at all stages of the disease.</p>	<p>By comparing the cost-effectiveness of nursing care in Parkinson's disease (PDNS) to non-PDNS care at all stages of Parkinson's disease, we run individualized assessments, implement specific protocols, provide specialized training, and it is important to individualize interventions.</p>	<p>Cost assessment should be comprehensive, considering tangible and intangible benefits, with rigorous analysis of data records and promotion of interdisciplinary communication. This approach aims to provide clear information about the effectiveness and efficiency of PDNS specialty care compared to standard care.</p>
<p>Connor et al. (2022)</p>	<p>Fidelity in implementing a complex nurse-led RCT-tested intervention, coordination of care for health promotion and activities in Parkinson's disease (CHAPS) in addressing challenges in care management</p>	<p>To assess the fidelity of the CHAPS Model to the Chronic Care Model, which defines six fundamental components of the model that were actually used in the new CHAPS intervention.</p>	<p>Assess the appropriateness of the CHAPS model to the chronic care model, where nursing includes specialized training, continuous supervision, consistent feedback, integrating the daily practice of continuing education, proper registration, and effective communication</p>	<p>Therefore, during the study it was found that these measures aim to ensure that nurses consistently adopt the essential elements of the chronic care model in the CHAPS intervention and provide effective care consistent with the principles of the model.</p>
<p>Gui, Zhou (2021)</p>	<p>High-quality nursing intervention can improve the quality of life of negative emotions and the activity of daily living of elderly patients with Parkinson's disease.</p>	<p>To identify the effect of excellence nursing intervention on poor emotions, well-being, and everyday activities of elderly patients with Parkinson's disease (PD)</p>	<p>In older people undergoing treatment with Parkinson's disease (PD), care includes comprehensive assessment, development of personalized interventions, emotional support, patient and family education, effective communication, ongoing assessment, multidisciplinary involvement, promotion of therapeutic activities, and detailed record keeping.</p>	<p>The study highlights these measures aimed at combating negative emotions, improving quality of life and promoting autonomy in patients' daily activities.</p>
<p>Hellqvist (2021)</p>	<p>Promotion of self-care in nursing meetings with people affected by long-term conditions - a</p>	<p>To study the process of self-care and disease control in individuals affected by Parkinson's Disease,</p>	<p>In nursing care related to the study of the self-care process and disease management in people with Parkinson's, it is critical to conduct individualized assessments,</p>	<p>Therefore, the application of a care model guides the systematic and comprehensive provision of support for self-management in the clinical context. These practices aim</p>

	proposed model to guide clinical care	emphasizing the fundamental help of health care to achieve this goal. A nursing model is proposed to guide nurses in providing self-management support during the clinical care encounter.	develop personalized self-care plans, provide clear education, promote independence, set realistic goals, offer hands-on training, conduct periodic assessments, provide ongoing emotional support, and, when appropriate, integrate health technologies.	to enable patients to independently manage the challenges associated with Parkinson's disease, thereby improving their quality of life.
--	---------------------------------------	--	---	---

During the search and selection of the researched articles, it was possible to observe that the publications of the years covered addressed nursing interventions, nursing care with a view to improving Parkinson's symptoms, continuing education for workers on Parkinson's disease, health education and self-care for Parkinson's disease.

The analysis of the articles on nursing care in people with Parkinson's disease, according to the defined descriptors, led to the categorization of the data into five categories: "Health education for patients with Parkinson's disease", "Self-care in Parkinson's", "Guidelines and training in the treatment of Parkinson's disease", "Nursing interventions to support caregivers and people with Parkinson's disease" and "Nursing care to improve the clinical picture of Parkinson's disease". Parkinson".

Health education for patients with Parkinson's disease

In the category entitled "Health education for patients with Parkinson's disease", studies have shown that effective management of depression and anxiety in patients with Parkinson's disease requires accurate assessment, individualized treatments, and appropriate patient education. In this scenario, nurses have an essential role, understanding the implications and the correct management of mood disorders in PD. They are important in implementing the treatment plan, cooperating with the multidisciplinary team, and educating patients and caregivers. Health care, therefore, proves to be fundamental for the treatment of Parkinson's disease. ⁴

Thus, it is emphasized how important it is to provide quality care provided by nurses who have specialized knowledge in Parkinson's disease, directly influencing quality of life. ⁵

Care for patients with Parkinson's disease includes monitoring the disease with interventions to address mental and reproductive function, sleep and fatigue, and caregiver burden, mobility, orthostatic hypotension, medication consistency, nutritional issues, and disease management. ⁵

Self-care in Parkinson's

Regarding the item "Self-care in Parkinson's", studies have shown that self-care is essential in living with the disease in individuals with Parkinson's, and

this study showed a care model created to help nurses support the clinical self-management of patients with Parkinson's. The results indicated that there are deficiencies for self-care, presenting difficulties to manage care, requiring health education, especially regarding symptoms, aiming that knowledge expands health planning and actions, in order to control the deleterious effects of the disease and its interference in the performance of activities in daily living. The participation of nursing in the promotion of self-care emerges as an important factor in the self-management of patients with Parkinson's disease. ⁶

Technologies aimed at aging and everything that involves this stage of life, especially when the prevention of falls is done with patients with Parkinson's Disease, including nursing care. To understand the development of education, older adults are invited to study geriatric technology for at least 6 years in order to promote nursing care using the principles of educational technology as a method of supporting participation and future impact. ⁷

Guidelines and training in the treatment of Parkinson's disease

Regarding the category "Guidelines and training in the treatment of Parkinson's disease" The readings on the theme presented the role of the specialist nurse for Parkinson's disease (EEDP), their specific competencies and skills for carrying out care, including aspects related to education, correct use of medication, assistance to caregivers, and orthostatic hypotension. Notoriously, the emphasis was directed to care directed to the empowerment of information and topics relevant to self-care, such as fall prevention, activities for daily living.⁸

Therefore, in order to qualify the treatment for Parkinson's disease, it is necessary to consolidate concepts from previous work and create an educational program addressing Parkinson's disease, its symptoms, treatments, and special considerations for care and administration of medications. Nurses develop vigorous work of educating the team with a view to reducing the deleterious and avoidable effects of hospitalizations. Thus, the reinforcement of educational programs aimed at improving nursing care represents an important opportunity, favoring a favorable prognosis for patients with PD. ⁹

Nursing interventions to support caregivers and people with Parkinson's disease

For the category: "Nursing interventions to support caregivers and people with Parkinson's disease" the nursing approach needs to be adjusted to the requirements of both patients and their caregivers. To achieve this purpose, it is crucial to assess the complex and personalized care needs of individuals with Parkinson's disease. In addition, specific nursing interventions are delivered in collaboration with other health professionals and are cost-effective, allowing the development of patient-centered treatment plans from a self-management perspective. ¹⁰

The feasibility of the study, translated as: It's hard work, but it's worth it: Advances in Nursing Science, is highlighted by its correlation with previous research, such as the one that evaluated intervention in daily living and brain stimulation, highlighting the importance of these approaches. As a conclusion,

this study points to the imperative of reinforcing the need for specialized nursing care in Parkinson's disease, signaling that research on the role of nurses, specific competencies and care coordination can contribute significantly to the well-being of people undergoing treatment by aligning with the identified clinical demands.¹¹⁻¹²

To support this analysis, it is emphasized that high-quality nursing practices contribute to the reduction of negative emotions and the improvement of quality of life, satisfaction, and daily activities of elderly people with Parkinson's disease.¹³

In one study, a nurse-led care management program for Parkinson's disease was created. According to the authors, counseling, emotional support, and medication management were the most frequently addressed topics. Effective implementation of the intervention demonstrated good quality and improved care offered to PD patients.¹⁴⁻¹⁵

According to other studies, the most difficult issues are related to the needs related to the disease, the complexity of the patient, planning guidelines and effective nursing actions. Consequently, active exercise utilizes a combined tool to improve the quality of treatment in Parkinson's disease.¹⁶

The researched articles demonstrate the importance and need to provide care also for families, permeating the quality of life in Parkinson's Disease and care in the various stages of the disease and improving functions. However, there is a need for further comparative studies on specialized nursing interventions for caregivers and people with PE in advanced settings.¹⁷⁻¹⁸

Nursing care to improve the clinical picture of Parkinson's disease

In the category related to Nursing care to improve the clinical picture of Parkinson's disease, it was possible to understand that the literature demonstrates that care for people with Parkinson's disease goes beyond basic and hospital routines, involving interventions such as medication guidance, laboratory tests, nutritional support, help in the rehabilitation of motor functions, instructions for adequate sleep habits, emotional support and monitoring of the disease, including both psychological counseling and targeted training.¹³

The demand for nursing care in nursing homes is high, especially for patients in advanced stages of diseases, including Parkinson's disease. However, the residents of these houses show great satisfaction with their living situation, even in the face of the worsening of the disease. Thus, the quality of nursing care in nursing homes offers complete and recognized care for people with this disease and their families. Meeting the specific needs required by the disease emerges as the best alternative for patients with Parkinson's in the advanced stages, as well as for their families.¹⁹

From this perspective, improving the clinical care provided by nurses to patients in their homes throughout the various stages of the disease is essential, seeking to match it to the care provided in specialized nursing homes. The application of protocols based on the stages of the disease can be an effective strategy to ensure the provision of appropriate and effective care by trained nursing professionals.²⁰

The nurse not only guides the care plan to meet the needs of the patient and his family, but also has a fundamental role in instructing the patient in the search for autonomy, always considering their limits and complexities. In short, the quality of life of patients with Parkinson's disease is closely related to the specialized care provided by the nurse. ⁵

Conclusion

Considering that nursing care in Parkinson's Disease is of paramount importance, we can say that specialized specialties play an essential role in controlling symptoms and improving patients' quality of life. According to studies and research, nurses play an important role in the care of these people, through the application of treatment plans, multidisciplinary assessments, patient education, adoption of self-management strategies, recommendation of good clinical practices and prevention of hospital complications. Therefore, the specialized care offered by nurses has a direct impact on the quality of life of patients with Parkinson's Disease, as their interventions have a favorable cost-benefit ratio to improve the quality of care provided.

With the exploration of this study, the general objective was achieved, as it described nursing care in the treatment of patients with Parkinson's disease. The specific objectives of the study were also developed because it was possible to know the updated literature on Parkinson's disease, describing the social support network and coping strategies of patients with Parkinson's disease.

The researched articles answered the guiding question, confirming the studies, in order to show that nursing can help the elderly in coping with Parkinson's disease, with care that includes comprehensive evaluation, development of personalized interventions, emotional support, education of the patient and his family, effective communication, continuous evaluation, multidisciplinary involvement, promotion of therapeutic activities and maintenance of detailed records.

Acknowledgment

This study was funded by the authors themselves.

References

1. Silva ABG, Pestana BC, Hirahata FAA, Horta FB de S, Oliveira ESBE. Doença de Parkinson: revisão de literatura / Parkinson's Disease: literature review. Braz. J. Develop. [Internet]. 2021 Jun. 7 [cited 2024 Jan. 3];7(5):47677-98. Available from: <https://ojs.brazilianjournals.com.br/ojs/index.php/BRJD/article/view/29678>
2. Kales HC, Lyketsos CG, Miller EM, Ballard C. Management of behavioral and psychological symptoms in people with Alzheimer's disease: an international Delphi consensus. *Int Psychogeriatr.* 2019;31(1):83-90. doi: <https://doi.org/10.1017/S1041610218000534>
3. Munster M, Stümpel J, Thieken F, Pedrosa D, Antonini A, Côté D, et al. Moving towards Integrated and Personalized Care in Parkinson's Disease: A Framework

Proposal for Training Parkinson Nurses. *Journal of Personalized Medicine*. 2021 Jun 30 [cited 2022 Apr 21];11(7):623. Disponível em: <https://doi.org/10.3390/jpm11070623>

4. Ho H, Jose I, Cheesman M, Garrison C, Bishop K, Taber S, et al. Depression and Anxiety Management in Parkinson Disease. *Journal of Neuroscience Nursing*. 2021 Jun 10 [cited 2022 Apr 21];53(4):170-6. Disponível em: <https://doi.org/10.1097/JNN.0000000000000596>

5. Chen Y, Lu T, Jiang X, Huang X. The effectiveness of specialized nursing interventions for patients with Parkinson disease. *Medicine*. 2021 Jan 15 [cited 2022 Apr 21]; 100(2):e23972. Disponível em: <https://doi.org/10.1097/MD.00000000000023972>

6. Hellqvist C. Promoting Self-Care in Nursing Encounters with Persons Affected by Long-Term Conditions – A Proposed Model to Guide Clinical Care. *International Journal of Environmental Research and Public Health*. [cited 2021 Nov 2]; 2021 Feb 24;18(5):2223. Disponível em: <https://doi.org/10.3390/ijerph18052223>.

7. Ferreira JM, Hammerschmidt KSA, Heideman ITSB, Alvarez AM, Santos SMA, Fabrizzio GC. Gerontotecnologia para prevenção de quedas: cuidado de enfermagem ao idoso com Parkinson. *Revista da Escola de Enfermagem da USP*. [cited 2021 Nov 2]; 2021;55(55). Disponível em: <https://doi.org/10.1590/0034-7167-2018-0704>

8. Balestrino R, Schapira AHV. Parkinson disease. *European Journal of Neurology* [Internet]. [cited 2021 Nov 2]; 2019 Nov 27;27(1):27-42. Disponível em: <https://onlinelibrary.wiley.com/doi/abs/10.1111/ene.14108>

9. Vasconcellos PRO, Rizzotto MLF, Taglietti M. Morbidade hospitalar e mortalidade por Doença de Parkinson no Brasil de 2008 a 2020. *Saúde debate* [Internet]. 2023 Apr;47(137):196-206. Available from: <https://doi.org/10.1590/0103-1104202313714>

10. Radder DLM, Lennaerts HH, Vermeulen H, Asseldonk T, Delnooz CCS, Hagen RH, et al. The cost-effectiveness of specialized nursing interventions for people with Parkinson's disease: the NICE-PD study protocol for a randomized controlled clinical trial. *Trials*. 2020 Jan 15 [cited 2022 Apr 21];21(1). Disponível em: <https://doi.org/10.1186/s13063-019-3926-y>

11. Haahr A, Østergaard K, Kirkevold M. "It Is Hard Work, But It Is Worth It." *Advances in Nursing Science*. 2018 Apr [cited 2022 Apr 21]; 41(2):174-87. Disponível em: <https://doi.org/10.1097/ANS.0000000000000208>

12. Vacca VM. Parkinson disease: Enhance nursing knowledge. *Nursing*. [cited 2021 Nov 2]; 2019 Nov;49(11):24-32. Disponível em: <https://doi.org/10.1097/01.NURSE.0000585896.59743.21>

13. Gui Y, Zhou Y. High-quality nursing intervention can improve negative emotions, quality of life and activity of daily living of elderly patients with Parkinson's disease. *American Journal of Translational Research* [Internet]. 2021; [cited 2022 Apr 21]; 13(5):4749-59. Disponível em: <https://pubmed.ncbi.nlm.nih.gov/34150055/>

14. Connor KI, Siebens HC, Mittman BS, Ganz DA, Barry F, Ernst EJ, et al. Quality and extent of implementation of a nurse-led care management intervention: care coordination for health promotion and activities in Parkinson's disease (CHAPS). *BMC Health Services Research*. 2020 Aug 10 [cited 2022 Apr 21];20(1). Disponível em: <https://doi.org/10.1186/s12913-020-05594-8>

15. Jonasson SB, Nilsson MH, Lexell J, Carlsson G. Experiences of fear of falling in persons with Parkinson's disease—a qualitative study. *BMC geriatrics*. [Internet] 2018 [cited 2019 Mar 19]; 18 (44): 1-10. Disponível em: <https://doi.org/10.1186/s12877-018-0735-1>
16. Connor KI, Siebens HC, Mittman BS, Ganz DA, Barry F, McNeese-Smith DK, et al. Implementation fidelity of a nurse-led RCT-tested complex intervention, care coordination for health promotion and activities in Parkinson's disease (CHAPS) in meeting challenges in care management. *BMC neurology* [Internet]. 2022 Jan 24 [cited 2022 Apr 21];22(1):36. Disponível em: <https://pubmed.ncbi.nlm.nih.gov/35073865/>
17. Díez-Cirarda M, Ojeda N, Peña J, Cabrera-Zubizarreta A, Lucas-Jiménez O, Gómez-Esteban JC. et al. Long-term effects of cognitive rehabilitation on brain, functional outcome and cognition in Parkinson's disease. *European Journal of Neurology*. [Internet] 2018 [cited 2019 Aug 27]; 25 (1): 5-12. Disponível em: <https://onlinelibrary.wiley.com/doi/abs/10.1111/ene.13472>
18. Fahn S. The 200-year journey of Parkinson disease: Reflecting on the past and looking towards the future. *Parkinsonism & Related Disorders*. [cited 2021 Nov 2]; 2018 Jan;46(S1-S5):S1-5. Disponível em: <https://doi.org/10.1016/j.parkreldis.2017.07.020>
19. Lex KM, Larkin P, Osterbrink J, Lorenzl S. A Pilgrim's Journey-When Parkinson's Disease Comes to an End in Nursing Homes. *Frontiers in Neurology* [Internet]. 2018 [cited 2022 Apr 21];9(1068):1068. Disponível em: <https://pubmed.ncbi.nlm.nih.gov/30619034/>
20. Iwasa Y, Saito I, Suzuki M. Differences in Home Health Nursing Care for Patients with Parkinson's Disease by Stage of Progress: Patients in Hoehn and Yahr Stages III, IV, and V. *Parkinson's Disease*. 2021 Feb 22 [cited 2022 Apr 21];2021(8834998):1-10. Disponível em: <https://doi.org/10.1155/2021/8834998>

Correspondent Author

Clarissa da Silva
Sena Aires Faculty of Science and Education
Rua Acre, Quadra 02. Lots 17/18 s/n. CEP: 72876-241-
Setor de Chácra. Valparaíso de Goiás, Goiás, Brazil.
clarissasilvaenf@gmail.com