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## Nursing Care for Patients with Parkinson's Disease

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### Abstract:

Nursing care for patients with Parkinson's disease requires a comprehensive approach that addresses both the physical and psychological needs of individuals suffering from this progressive neurological disorder. Nurses play a crucial role in monitoring symptoms such as tremors, rigidity, and bradykinesia, while also assessing the patient's ability to perform activities of daily living (ADLs). A pivotal aspect of care involves providing education to patients and their families about the disease, treatment options, and lifestyle modifications, such as exercise and nutritional adjustments, that can help manage symptoms. Nurses must also be vigilant about potential complications, including falls, skin integrity issues, and the effects of medication side effects, ensuring timely interventions to mitigate these risks. In addition to physical care, emotional and psychosocial support are fundamental components of nursing care for Parkinson's patients. Many individuals experience depression, anxiety, or social isolation related to their diagnosis. Nurses can facilitate support by creating a therapeutic environment, encouraging open communication, and connecting patients with support groups and mental health resources. Personalized care plans should include strategies to enhance psychosocial well-being, such as involving patients in social activities and therapies that promote cognitive function. Collaboration with interdisciplinary teams, including occupational and physical therapists, is essential to optimize care and improve the overall quality of life for patients.

**Keywords:** Parkinson's Disease, Nursing Care, Symptoms Management, Activities of Daily Living (ADLs), Education and Support, Complications Prevention, Emotional Support, Psychosocial Well-being, Interdisciplinary Collaboration.

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### Introduction:

Parkinson's disease (PD) is a progressive neurodegenerative disorder characterized by motor dysfunction, including tremors, rigidity, bradykinesia, and postural instability. It affects millions of individuals worldwide, with an estimated prevalence of 1% in those aged over 60 years, significantly impacting the quality of life and functional abilities of patients. The pathophysiology of Parkinson's disease is primarily associated with the degeneration of dopaminergic neurons in the substantia nigra, leading to an imbalance of

neurotransmitters within the basal ganglia system that is essential for motor control. As the understanding of PD advances through research, attention has increasingly focused on the multifaceted nature of the disease, encompassing not only the motor symptoms but also non-motor manifestations such as cognitive impairment, depression, and autonomic dysfunction [1].

Given the complexity of Parkinson's disease, nursing care plays a pivotal role in managing the condition and improving the overall well-being of patients. Nurses serve as frontline healthcare

providers and critical members of interdisciplinary teams, delivering essential care and support to those living with the disease. Their role extends beyond the physical management of symptoms; it encompasses holistic care that addresses psychological, social, and spiritual needs. Effective nursing care can significantly influence disease trajectory, enhancing patient adherence to treatment plans, promoting self-management, optimizing functional capabilities, and ultimately improving the quality of life for both patients and their families [2].

The importance of specialized nursing interventions for patients with Parkinson's disease cannot be overstated. As the disease progresses, patients may experience fluctuating motor symptoms that complicate daily activities, necessitating nursing assessments and tailored care strategies. Interventions may include assisting with medication management, mobility enhancement, nutrition, bowel and bladder care, and education on fall prevention. Furthermore, advanced practice nurses, such as clinical nurse specialists and nurse practitioners, may take on expanded roles in coordinating care, monitoring disease progression, and providing direct therapeutic interventions. This multidimensional approach not only emphasizes symptom management but also fosters a nurturing environment where patients feel empowered to participate in their own care [3].

Research has demonstrated the crucial role of psychosocial support in improving outcomes for individuals living with Parkinson's disease. Nurses are uniquely positioned to provide education and emotional support not only to patients but also to their caregivers, mitigating the psychological burden associated with caregiving. Effective communication skills, empathy, and the ability to build rapport are essential attributes for nurses working with this patient population. Through patient education, nurses can equip patients with tools and knowledge to better understand the disease process, engage in shared decision-making regarding treatment options, and adopt healthy lifestyle changes that can positively influence their health outcomes [4].

In addition to direct patient care, nursing research contributes to the development of evidence-based practices aimed at enhancing care for patients with Parkinson's disease. Studies examining the efficacy of various nursing interventions, such as individualized exercise programs or cognitive-

behavioral strategies, can provide insightful evidence to inform clinical practice. Moreover, nursing research in this field can shed light on the gaps in care and identify areas needing further study, thereby advancing the knowledge base essential for improving patient-centered care [5].

Despite the critical role of nursing care in managing Parkinson's disease, various challenges persist. The progressive nature of the condition means that care strategies must be continuously adapted to meet changing patient needs. Additionally, the increasing prevalence of Parkinson's disease necessitates an adequate supply of trained nursing professionals who are well-versed in the complexities of the disease. Professional development and continuing education for nurses specializing in Parkinson's care are essential to ensure high-quality patient outcomes [6].

Furthermore, there is a growing need for comprehensive care models that integrate nursing practices with other healthcare disciplines to address the multifactorial needs of patients with Parkinson's disease. Interdisciplinary collaboration can facilitate a more cohesive approach to care, allowing for better management of symptoms and improvements in overall care delivery [7].

### **Assessment and Diagnosis: Nursing Considerations:**

Parkinson's disease (PD) is a progressive neurodegenerative disorder characterized primarily by motor symptoms such as tremors, rigidity, bradykinesia, and postural instability. It results from the degeneration of dopaminergic neurons in the substantia nigra and is not only a medical issue but also significantly affects the quality of life of patients and their families. Therefore, nursing considerations in the evaluation and diagnosis of patients with Parkinson's disease are essential to ensure comprehensive care, leading to early intervention, effective management of symptoms, and support for both patients and their families [8].

Parkinson's disease typically manifests in adulthood, with most individuals diagnosed after the age of 60. The etiology remains largely unknown, but a combination of genetic, environmental, and lifestyle factors has been implicated in its development. Besides the classic motor symptoms, patients often experience non-motor symptoms such as cognitive changes, mood disturbances, sleep disorders, pain,

and autonomic dysfunction, warranting a holistic approach to care [9].

### Initial Evaluation

The initial evaluation of a patient suspected of having Parkinson's disease involves a thorough medical history and comprehensive neurological examination. Nurses play a crucial role in this process, first by gathering pertinent information regarding:

- **Medical History:** This includes documenting the onset and progression of symptoms, any history of family members with similar disorders, and exposure to toxins or drugs that might exacerbate symptoms [10].
- **Symptom Assessment:** Understanding the patient's perception of their symptoms, including when they began and their severity, is essential. This often involves asking patients to describe their experiences with tremors, stiffness, and changes in balance or coordination [10].

A standardized assessment tool, such as the Unified Parkinson's Disease Rating Scale (UPDRS), may be employed to measure the severity of symptoms and track progression over time. The nurse's observations during this evaluation can provide valuable insights into the patient's functional abilities and specific challenges they face [10].

### Diagnostic Tests

While there is no definitive test for Parkinson's disease, specific diagnostic procedures can assist in confirming the diagnosis and ruling out other conditions. Nurses must understand and communicate the purpose and implications of these tests. Common diagnostic advancements include:

- **Imaging Studies:** Dopamine transporter (DAT) imaging, such as Single Photon Emission Computed Tomography (SPECT), can help to visualize dopamine deficiencies in the brain, providing evidence supporting PD diagnosis [11].
- **Neuropsychological Testing:** Since cognitive decline can accompany PD, these

assessments may help determine the extent of cognitive function and guide future management.

In addition to these tests, nurses must monitor for side effects of medications used in the diagnostic process [11].

### Nursing Considerations in Diagnosis

Nurses have a pivotal role in the diagnosis of PD through the following considerations:

1. **Holistic Assessment:** Nurses must conduct comprehensive assessments that include not only the physical but also the psychological and social aspects of the patient's life. This may involve evaluating the patient's mental health, social support systems, and daily activities [12].
2. **Patient Education:** Providing education about the disease itself, its progression, and available treatment options can empower patients and families. Nurses should address myths and common misconceptions about Parkinson's disease, fostering a clearer understanding that promotes adherence to prescribed therapies.
3. **Collaboration with the Healthcare Team:** Nurses function as key members of the healthcare team, facilitating communication between physicians, therapists, dietitians, and social workers. This collaboration is crucial in obtaining a multidimensional view of the patient's needs and establishing an effective management plan.
4. **Identifying Issues beyond the Diagnosis:** Nurses should be attuned to the screening for non-motor symptoms, given their substantial impact on quality of life. Regular assessment for depression, anxiety, and changes in cognition is important, as these can influence treatment compliance and overall prognosis [12].
5. **Crisis Intervention:** During the evaluation and diagnosis phase, families may experience heightened anxiety and uncertainty. Nurses should be prepared to provide emotional support and counseling,

aiding families in navigating their concerns and preparation for caregiving roles [12].

### Ongoing Assessment and Management

Following the initial diagnosis, ongoing assessments and evaluations are crucial in adapting treatment plans to the evolving nature of the disease. Since Parkinson's disease is characterized by progressive motor and non-motor symptoms, regular follow-ups to assess symptom management, medication efficacy, and side effects should be prioritized. Nurses can employ various strategies such as:

- **Monitoring Medication Regimens:** Given the complex medication schedules often required for managing Parkinson's disease, nurses must educate patients about their treatment plans, including potential side effects and the importance of medication adherence [13].
- **Implementing Lifestyle Modifications:** Encouraging participation in physical therapy, occupational therapy, and speech therapy as well as promoting a balanced diet can help improve mobility and overall well-being. Nurses should also advocate for regular exercise, which has been shown to have positive effects on both motor and cognitive symptoms.
- **Facilitating Support:** Connecting patients and their families to support groups and community resources can alleviate feelings of isolation and provide additional coping strategies [13].

### Personalized Care Plans: Tailoring Interventions to Patient Needs:

Parkinson's disease (PD) is a progressive neurodegenerative disorder that affects motor function and overall quality of life. Characterized by tremors, stiffness, slowness of movement, and balance difficulties, PD presents unique challenges that vary widely among individuals. As the understanding of the complexities of Parkinson's disease continues to evolve, so does the recognition of the need for personalized care plans that address the distinct needs of each patient. Parkinson's disease is primarily characterized by the loss of dopamine-producing neurons in the brain. This deficit leads to the hallmark motor symptoms but also affects non-motor functions, including

cognitive decline, mood disorders, sleep disturbances, and autonomic dysfunction. The variability in symptoms and the rate of disease progression necessitate an individualized approach to treatment, emphasizing the importance of personalized care plans. Furthermore, each patient has different life circumstances, support systems, and treatment responses, necessitating tailored interventions that align with their specific needs [14].

### Importance of Personalized Care Plans

Personalized care plans are centered around the concept of patient-centered care, tailoring medical management to fit the individual's lifestyle, preferences, and specific symptoms. The rationale for personalized care plans includes:

1. **Improved Outcomes:** Personalized interventions can lead to improved symptom management and enhanced quality of life. By directly addressing the unique challenges that each patient faces, healthcare providers can optimize treatment outcomes [15].
2. **Increased Engagement:** When patients feel that their care plans are designed specifically for them, they are more likely to engage in their own care. This engagement is essential for adherence to treatment regimens and active participation in therapies.
3. **Holistic Management:** PD affects multiple dimensions of health beyond just motor function. Personalized care plans allow for a more holistic approach that considers both physical and mental health, as well as social and emotional well-being [15].
4. **Flexibility and Adaptability:** Parkinson's disease is progressive; hence, a personalized care plan needs to be flexible and adaptable. Regular reviews and adjustments to the plan can accommodate changes in symptoms and treatment responses over time [15].

### Key Components of Personalized Care Plans

Creating effective personalized care plans for patients with Parkinson's disease involves several key components:

1. **Comprehensive Assessment:** The initial step in designing a personalized care plan is a thorough assessment of the patient's medical history, current symptoms, and overall health. This assessment should include an evaluation of motor symptoms, non-motor symptoms, cognitive function, and the impacts of PD on daily living activities [16].
2. **Goal Setting:** Patients should be encouraged to set realistic and achievable goals based on their symptoms and personal aspirations. These goals should align with the patient's values and priorities, whether they involve maintaining independence, improving mobility, or enhancing social engagement.
3. **Multidisciplinary Approach:** Effective management of Parkinson's disease often requires a team of healthcare professionals, including neurologists, physical therapists, occupational therapists, speech therapists, psychologists, and social workers. This interdisciplinary team collaborates to address various aspects of care and ensures that the care plan is comprehensive and coordinated [16].
4. **Medication Management:** Pharmacological treatment is usually a cornerstone of managing PD. Personalizing medication regimens involves considering the individual's response to medications, the timing of doses, potential side effects, and interactions with other treatments [17].
5. **Rehabilitation and Supportive Therapies:** Tailored rehabilitation programs, including physical therapy, occupational therapy, and speech therapy, can significantly enhance mobility and daily function. These therapies should be personalized to address specific deficits in strength, balance, or speech, and should evolve as the disease progresses.
6. **Psychosocial Support:** Addressing the psychological and social aspects of Parkinson's disease is critical. Support groups, counseling, and education for both patients and caregivers can empower individuals and help them cope with the challenges posed by the disease [17].

7. **Regular Monitoring and Reevaluation:** Parkinson's disease is dynamic, and care plans must be subject to continuous evaluation and modification. Regular follow-up appointments allow for the tracking of symptom progression and the efficacy of interventions, which inform necessary adjustments to the care plan [17].

### Collaborating with Patients and Caregivers

The active involvement of patients and caregivers in the development and implementation of personalized care plans is paramount. Empowering patients to share their experiences, preferences, and concerns enables healthcare providers to design better-suited interventions. Additionally, caregiver input can provide insights into the patient's daily challenges and support needs, while also recognizing that caregivers themselves often require training and resources to support patients effectively [18].

### Management of Motor Symptoms: Strategies and Techniques:

Parkinson's disease (PD) is a progressive neurodegenerative disorder that mainly affects movement. It is characterized by a range of motor symptoms, including tremors, bradykinesia (slowness of movement), rigidity, and postural instability. These symptoms can significantly impact the daily lives of individuals with Parkinson's, making it crucial to explore effective management strategies. As of my last knowledge update in October 2023, advancements in research and treatment options have provided patients and caregivers with various techniques to support better motor function and overall quality of life [18].

Parkinson's disease arises when dopamine-producing neurons in the brain begin to deteriorate. The loss of dopamine affects the brain's ability to coordinate movement, leading to the hallmark symptoms. Although the exact cause of PD remains unclear, factors such as genetics, environmental influences, and age contribute to its onset. The disease progresses differently for each individual, and managing motor symptoms often involves a multifaceted approach tailored to each patient's unique needs [19].

### Pharmacological Approaches

One of the primary methods for managing motor symptoms in Parkinson's disease is pharmacological intervention. Medications are designed to address the neurotransmitter imbalance caused by the degeneration of dopamine-producing neurons. Among the most common medications prescribed are dopamine agonists and levodopa [19].

1. **Levodopa:** This medication is converted into dopamine in the brain, and it is often considered the gold standard for treating Parkinson's. While effective in alleviating symptoms, it is essential to monitor for potential long-term complications, such as motor fluctuations and dyskinesia (involuntary movements). Physicians typically start patients on a low dose and adjust it as needed [20].
2. **Dopamine Agonists:** These drugs mimic dopamine effects in the brain. They can be used alone in the early stages of the disease or in conjunction with levodopa as the disease progresses. Common examples include pramipexole and ropinirole [20].
3. **MAO-B Inhibitors:** These medications help block the enzymatic breakdown of dopamine, thus increasing its availability in the brain. They can provide symptomatic relief, especially in the early stages of PD [21].

Regular consultations with a neurologist experienced in managing Parkinson's disease are vital to tailor medication regimens based on symptom severity and side-effect profiles.

### Physical Therapy and Exercise

Physical therapy plays an integral role in managing motor symptoms. Evidence increasingly demonstrates that exercise can yield substantial benefits for individuals with Parkinson's disease. Movement programs can improve balance, strength, flexibility, and overall mobility [22].

1. **Exercise Programs:** Activities such as aerobic exercise, resistance training, and flexibility workouts can combat the effects of rigidity and slowness. Low-impact exercises such as walking, swimming, and cycling are generally beneficial. Dance and tai chi have also been shown to improve balance and coordination [22].

2. **Specific Rehabilitation Exercises:** Physical therapists can develop tailored exercise regimens focusing on enhancing specific motor functions. For instance, gait-training exercises can help improve walking patterns, while strength-training exercises may reduce stiffness [22].
3. **Occupational Therapy:** Occupational therapists can help patients develop strategies to maintain independence in daily activities, adapting their environments and routines to better accommodate motor symptoms [22].

### Speech and Swallowing Therapy

Speech therapy can also be an essential element when managing motor symptoms, particularly for those experiencing dysphagia (difficulty swallowing) and speech difficulties, which are common in later stages of Parkinson's disease [23].

1. **Speech-Language Pathologists (SLPs):** These professionals can assist in pacifying speech issues, promoting clearer articulation, and improving voice volume through tailored exercises [23].
2. **Swallowing Exercises:** Techniques and exercises designed to strengthen the muscles involved in swallowing can help prevent aspiration and maintain nutrition.

### Mindfulness and Cognitive Techniques

Mental well-being is closely tied to physical health in Parkinson's disease. Cognitive-behavioral techniques and mindfulness practices can help manage the psychological aspects of living with a chronic illness [24].

1. **Mindfulness Practices:** Mindfulness and meditation have been shown to alleviate some challenges faced by Parkinson's patients. Such practices can help reduce stress and anxiety, especially during episodes of motor fluctuations.
2. **Cognitive Behavioral Therapy (CBT):** CBT can empower patients to develop coping strategies to manage the emotional toll of the disease, minimizing its impact on motivation and engagement in physical activities [24].

### Assistive Technologies

The advent of technology has opened new avenues for managing motor symptoms effectively. Assistive devices can promote safety and independence in daily life.

1. **Mobility Aids:** Walkers, canes, and rollators can help enhance mobility and prevent falls. Wearable devices that track movement can provide valuable feedback on physical activity levels and symptoms [25].
2. **Smart Home Technology:** Smart home systems can be programmed to assist with reminders for medication, therapy schedules, and daily activities, providing cognitive support that reflects the individual's lifestyle.

### Support Networks and Education

Participation in support groups can offer emotional backing and practical advice to patients and their caregivers. Being part of a community that shares similar challenges can instill a better understanding of the disease and coping strategies [26].

1. **Patient and Caregiver Workshops:** Educational programs enable patients and caregivers to learn about Parkinson's, treatments, and management strategies. This knowledge is empowering and can lead to better adherence to treatment plans.
2. **Support Groups:** Connecting with individuals facing similar challenges fosters camaraderie and provides a platform for sharing experiences and resources [26].

### Non-Motor Symptoms: Psychological and Cognitive Care Approaches:

Parkinson's disease (PD) is a progressive neurodegenerative disorder predominantly associated with motor dysfunction, including tremors, rigidity, and bradykinesia. However, an array of non-motor symptoms often accompanies these visible motor impairments, severely impacting the quality of life for many patients. These non-motor symptoms encompass a broad spectrum of psychological and cognitive challenges, the significance of which is frequently overshadowed by the more noticeable physical symptoms. Understanding and addressing these non-motor symptoms is essential for holistic patient care,

necessitating effective psychological and cognitive care approaches tailored to the unique needs of individuals living with Parkinson's disease [27].

Non-motor symptoms of Parkinson's disease can include a range of psychological and cognitive challenges such as depression, anxiety, apathy, cognitive impairment, hallucinations, and sleep disturbances. These symptoms can manifest at various stages of the disease and may even precede the motor symptoms. For instance, some studies suggest that mood disorders such as depression and anxiety can occur years before the motor characteristics develop, highlighting the need for early recognition and intervention [28].

Psychological symptoms are particularly insidious as they can significantly affect a patient's emotional well-being, leading to withdrawal from social interactions, a decrease in motivation, and a diminished quality of life. Cognitive impairment in Parkinson's disease can range from mild cognitive changes to more severe forms of dementia. The cognitive challenges often include executive dysfunction, impaired attention, and difficulties in verbal fluency and memory. These cognitive and psychological issues can complicate the management of Parkinson's disease, influencing the overall treatment outcomes [29].

### Importance of Psychological Care Approaches

Given the profound impact of non-motor symptoms on patients and their families, psychological care approaches are crucial. Psychosocial interventions aim to alleviate depressive symptoms, reduce anxiety, and foster coping strategies among patients. Here are some of the most commonly employed psychological care approaches:

1. **Cognitive Behavioral Therapy (CBT):** CBT has emerged as an effective treatment modality for managing depression and anxiety in Parkinson's patients. This structured, goal-oriented therapy focuses on identifying and changing negative thought patterns and behaviors. Therapy sessions aim to equip patients with tools to manage their emotions, thus reducing the severity of psychological distress associated with PD [30].
2. **Mindfulness and Relaxation Techniques:** Mindfulness-based interventions, including meditation and

yoga, have shown promise in enhancing emotional well-being and reducing stress levels. Such techniques encourage patients to focus on the present moment, fostering awareness and acceptance of their condition. By promoting relaxation, these strategies can help mitigate anxiety and improve overall mental health [30].

3. **Support Groups and Psychosocial Support:** Community support plays a vital role in managing the psychological symptoms associated with Parkinson's disease. Support groups provide a platform for sharing experiences, which can alleviate feelings of isolation and helplessness. The emotional support that individuals receive from peers who understand the challenges of Parkinson's can be invaluable in fostering resilience and promoting emotional well-being [31].
4. **Pharmacologic Interventions:** In cases of moderate to severe depression and anxiety that do not respond to psychotherapy or lifestyle changes, pharmacological interventions may be necessary. Antidepressants and anxiolytics can be prescribed to help manage these symptoms, although careful consideration by a healthcare professional is essential to minimize potential interaction with other Parkinson's medications [31].

### Cognitive Care Approaches

In addition to psychological support, cognitive care approaches specifically aim to address cognitive deficits associated with Parkinson's disease. These approaches focus on enhancing cognitive function and maintaining the quality of life for individuals experiencing cognitive decline.

1. **Cognitive Rehabilitation:** This intervention involves tailored activities designed to improve specific cognitive deficits. Cognitive rehabilitation can include exercises to enhance memory, attention, and problem-solving skills. Personalized goals and strategies are developed to help patients manage their cognitive challenges in daily life [32].
2. **Computerized Cognitive Training:** Advanced technology has enabled the

development of computerized programs aimed at cognitive enhancement. These programs, often gamified, provide engaging exercises that target various cognitive skills. Studies suggest that regular use of such training might lead to improvements in attention and memory, thereby positively affecting daily functioning [32].

3. **Occupational Therapy:** Occupational therapists play a critical role in helping patients adapt to cognitive changes. Strategies may include environmental modifications, use of assistive devices, and training in daily living skills to maintain independence. By emphasizing cognitive strengths, therapists can help patients develop compensatory strategies to manage challenges more effectively [33].
4. **Family Involvement:** Engaging family members in cognitive care approaches is essential. Education for families about the cognitive and psychological dimensions of Parkinson's can foster a more supportive environment. Family members can learn to recognize cognitive fluctuations, practice patience, and assist in implementing cognitive strategies effectively in daily interactions [33].

### Comprehensive Care Integration

Integrating psychological and cognitive care into the overall treatment framework for patients with Parkinson's disease is paramount. A comprehensive approach requires close collaboration among neurologists, psychologists, psychiatrists, occupational therapists, and other allied health professionals. Regular assessments should be conducted to monitor both motor and non-motor symptoms, ensuring a holistic understanding of each patient's experience.

Regular multidisciplinary team meetings can facilitate communication between healthcare providers, enabling them to cultivate a more cohesive treatment plan. This will ensure that psychological and cognitive issues are addressed alongside motor challenges, ultimately promoting a better quality of life for individuals living with Parkinson's disease [34].



### **Patient and Family Education: Empowering Through Knowledge:**

In the rapidly evolving landscape of healthcare, the significance of patient and family education cannot be overstated. This vital component of the healthcare continuum serves not only to bridge the knowledge gap but also to empower patients and their families to play an active role in managing health conditions effectively. By fostering a culture of informed decision-making, healthcare providers can enhance patient outcomes, improve compliance with treatment plans, and ultimately, contribute to the holistic well-being of patients [35].

Patient and family education refers to the process of providing information, resources, and support to patients and their families regarding health conditions, treatment options, and lifestyle adjustments needed for optimal health management. It encompasses a wide array of topics, ranging from disease prevention to medication management and the nuances of navigating the healthcare system [35].

To establish a robust educational framework, healthcare institutions often employ a variety of strategies aimed at enhancing understanding. These can include individualized teaching sessions, comprehensive informational brochures, interactive multimedia content, and even technology-driven platforms such as telehealth consultations. The goal is to deliver information in a way that meets the unique needs of each patient and their family, taking into consideration factors such as age, cultural background, literacy levels, and personal preferences [35].

Research consistently demonstrates that informed patients are more likely to engage in their healthcare actively and adhere to prescribed interventions. Education fosters a sense of ownership, which is crucial for behavior change. Understanding the details of a diagnosis or the importance of a medication regimen allows individuals to make informed decisions that align with their values and lifestyle preferences [36].

Moreover, effective patient and family education can mitigate feelings of anxiety and uncertainty that often accompany medical conditions. Knowledge serves as a powerful antidote to fear; when patients and their families are well-informed, they are better equipped to cope with the emotional and psychological toll of illness. This empowerment can

lead to improved mental health outcomes, as patients feel more in control and capable of managing their health journey [37].

Despite the apparent benefits of patient and family education, several barriers can hinder its effectiveness. Communication gaps between healthcare providers and patients often arise due to medical jargon, time constraints during consultations, and varying health literacy levels. Patients may leave medical appointments with an inadequate understanding of their health status or treatment plan, leading to confusion and non-compliance [38].

Additionally, cultural factors play a critical role in the efficacy of education initiatives. Health beliefs, language barriers, and differing perceptions of illness can impede comprehension and acceptance of medical advice. Therefore, addressing these barriers requires a tailored approach to education that respects individual backgrounds and preferences [38].

### **Strategies for Successful Patient and Family Education**

To overcome these challenges, healthcare providers must adopt strategies that promote effective communication and enhance comprehension. Here are several techniques that can transform patient and family education into an empowering experience:

1. **Clear and Simple Language:** Providers should aim to use clear and straightforward language, avoiding medical jargon whenever possible. Using analogies and everyday comparisons can help translate complex information into more understandable concepts [39].
2. **Active Engagement:** Encouraging questions and discussions during consultations fosters an interactive learning environment. When patients actively participate in the conversation, they are more likely to retain information and feel valued in their care.
3. **Visual Aids:** Charts, diagrams, and visuals can simplify complicated topics and enhance understanding. Visual aids facilitate the learning process, particularly for individuals who may struggle with verbal explanations [39].

4. **Customized Materials:** Providing educational materials that cater to various literacy levels and languages ensures accessibility and inclusivity. Offering handouts, brochures, or digital content that patients can take home promotes continued learning and reinforcement of information.
5. **Family Involvement:** Engaging family members in the educational process can expand the support system available to the patient. Families often play a crucial role in adherence to treatment plans and lifestyle changes, and their involvement can lead to better health outcomes.
6. **Follow-Up and Reinforcement:** Continuous education is necessary for long-term success, as initial education sessions alone are often insufficient. Regular follow-up consultations, reminder calls, and additional resources can reinforce the information provided [39].

#### The Role of Technology in Education

In recent years, technology has emerged as a powerful ally in patient and family education. Telehealth platforms, mobile health applications, and online resources have made health information more accessible than ever. Patients can now access educational materials on demand, participate in virtual consultations, and connect with healthcare professionals in real time [40].

The integration of technology also facilitates remote monitoring and feedback, allowing patients to track relevant health metrics and receive instant guidance from their providers. Such innovations not only promote patient autonomy but also enable providers to tailor education based on real-time data, ensuring that interventions are timely and relevant [40].

#### The Role of Interdisciplinary Collaboration in Parkinson's Care:

Parkinson's disease, a progressive neurodegenerative disorder characterized by motor symptoms such as tremors, rigidity, bradykinesia, and postural instability, significantly affects the quality of life of those diagnosed with it. Beyond the motor symptoms, individuals with Parkinson's often experience a myriad of non-motor symptoms, including cognitive decline, sleep disturbances, emotional changes, and autonomic dysfunctions. Managing this multifaceted condition necessitates a

holistic approach, wherein interdisciplinary collaboration among healthcare professionals plays a vital role [41].

#### Understanding the Importance of an Interdisciplinary Approach

At the heart of effective Parkinson's care lies the recognition that the disease impacts individuals in multifarious ways. The complexity of Parkinson's requires input from various healthcare disciplines, including neurology, nursing, physical therapy, occupational therapy, speech-language pathology, psychology, and social work, among others. Each professional brings unique expertise and perspectives, facilitating a more comprehensive approach to patient care [42].

1. **Neurology:** Neurologists are pivotal in diagnosing Parkinson's disease and managing its progression. They provide essential information about the disease's mechanistic underpinnings, evaluate the efficacy of pharmacological therapies, and monitor side effects [42].
2. **Nursing:** Nurses are essential frontline caregivers who educate patients about their disease, manage medication regimens, and provide emotional support. Their continuous interaction with patients enables them to detect changes in condition and coordinate with other healthcare professionals.
3. **Physical and Occupational Therapy:** Therapists play a crucial role in maintaining and improving a patient's functional abilities. Physical therapists focus on mobility and balance, while occupational therapists help patients manage daily living tasks and adapt their home environments to enhance independence [42].
4. **Speech-Language Pathology:** Speech therapists address communication deficits and swallowing difficulties, which are common in Parkinson's disease. Through specialized exercises and strategies, they help patients maintain their ability to speak clearly and safely eat and drink [42].
5. **Psychology and Social Work:** Mental health professionals address the psychological impacts of Parkinson's, such

as depression and anxiety, providing therapeutic interventions that enhance emotional well-being. Social workers assist patients and families in navigating healthcare systems, accessing resources, and coping with the social repercussions of the disease [42].

### Effective Strategies for Interdisciplinary Collaboration

To foster effective interdisciplinary collaboration in Parkinson's care, several strategies can be employed:

1. **Shared Goals and Responsibilities:** Establishing shared goals among team members creates a unified vision for patient care. Regular meetings can facilitate discussions about care plans, patient progress, and need for adjustments, ensuring that each professional's insights contribute to a cohesive treatment strategy [43].
2. **Communication:** Clear and timely communication is essential. Utilizing electronic health records (EHRs) can enhance data sharing, allowing team members to access up-to-date patient information, treatment notes, and care plans. Regular team briefings and collaborative platforms also promote dialogue and information exchange.
3. **Patient-Centered Care:** Engaging patients in the decision-making process allows them to express their preferences and concerns, thus tailoring the interdisciplinary approach to meet individual needs. Encouraging patient involvement also improves adherence to treatment plans [43].
4. **Cross-Disciplinary Training:** Education on the roles and expertise of different team members can foster mutual respect and understanding. Interdisciplinary training programs can enhance collaboration, as professionals learn how to work together effectively and appreciate each discipline's contribution [43].

### Benefits of Interdisciplinary Collaboration

The beneficial outcomes of interdisciplinary collaboration in Parkinson's care are multifaceted:

1. **Comprehensive Care:** By leveraging the unique skills of each professional, care plans become more holistic, addressing the diverse symptoms and challenges faced by patients. This comprehensive approach may lead to better management of both motor and non-motor symptoms [44].
2. **Enhanced Quality of Life:** Collaborative models of care have demonstrated an ability to improve patients' quality of life. Studies have shown that patients receiving interdisciplinary care report higher satisfaction levels, enhanced function, and reduced symptom severity [45].
3. **Reduced Healthcare Costs:** Effective interdisciplinary care can lead to fewer hospitalizations and emergency room visits by proactively addressing potential complications. This not only improves patient outcomes but also reduces the financial burden on the healthcare system [45].
4. **Empowered Patients and Families:** Collaborative care models encourage patient and family engagement in treatment decisions, resulting in a greater sense of empowerment and ownership over their healthcare process [46].

### Challenges to Interdisciplinary Collaboration

While the benefits of interdisciplinary collaboration are extensive, certain challenges can impede its effectiveness:

1. **Structural Barriers:** Healthcare systems that lack resources, such as inadequate staffing or funding for interdisciplinary teams, can hinder the successful implementation of collaborative care [47].
2. **Professional Silos:** Differing professional cultures and perspectives can create silos, making it difficult for team members to communicate effectively and collaborate harmoniously [48].
3. **Time Constraints:** The existing workloads of individual healthcare professionals can limit opportunities for collaboration, as

schedules become overcrowded with individual patient care responsibilities [49].

4. **Role Clarity:** Ambiguity regarding team members' roles and responsibilities can result in tensions or duplicated efforts. Clear delineation of duties is paramount to ensure smooth collaboration [49].

#### **Future Directions in Nursing Practice for Parkinson's Disease Management:**

Parkinson's disease (PD) is a progressive neurodegenerative disorder characterized by motor symptoms such as tremors, rigidity, bradykinesia, and postural instability, alongside a host of non-motor symptoms including cognitive changes, mood disorders, and sleep disturbances. As the global population ages, the prevalence of Parkinson's disease is expected to rise significantly, necessitating innovative and effective management strategies. Nurses, as frontline healthcare providers, play a critical role in the care and management of individuals living with PD [50].

The integration of advanced technologies is poised to transform how nurses manage Parkinson's disease. Telehealth has gained immense popularity in recent years, offering patients remote access to healthcare services. For patients with PD, who may struggle with transportation and mobility, telehealth can facilitate regular check-ups, medication management, and monitoring of symptoms. Nurses can utilize telehealth platforms to remotely evaluate patient progress, adjust treatment plans, and provide support, thus reducing the burden of hospital visits [51].

Moreover, wearable technology is increasingly being used in the management of PD. Devices that track movement, sleep patterns, and medication adherence can provide valuable data to healthcare providers. Nurses can leverage this information to better understand a patient's disease progression and adjust interventions accordingly. As the field of nursing incorporates these technologies, continuous training will be essential, ensuring nurses are well-equipped to utilize these tools effectively for patient care [52].

The complexity of Parkinson's disease necessitates a collaborative approach to care. As nursing practice moves forward, a focus on interdisciplinary teamwork will be crucial. Nurses must work alongside neurologists, physical therapists,

occupational therapists, social workers, and dietitians to develop comprehensive care plans tailored to the unique needs of each patient. In an integrated healthcare model, nurses can act as care coordinators, ensuring that all team members communicate effectively and that the patient's care is seamless and centered around their preferences and needs [53].

For example, physical therapists can assist with mobility and balance issues, while occupational therapists can work with patients to adapt their environments to foster independence. Nurses, with their holistic approach, can play a key role in bridging these therapies, providing education on the importance of physical activity, and ensuring patients adhere to recommended interventions [54].

The future of nursing practice in PD management also lies in the development of personalized care models. Recognizing that PD manifests differently in each individual, nurses must advocate for and implement person-centered approaches. This involves comprehensive assessments that consider not just the physical symptoms but also the psychological, social, and environmental factors affecting a patient's well-being [55].

Care plans should be co-created collaboratively with patients, prioritizing their values and goals. For instance, a patient may prioritize maintaining the ability to perform daily activities over management of non-motor symptoms. By embracing shared decision-making, nurses can empower patients, enhance their engagement in their care, and improve overall quality of life [56].

Furthermore, the incorporation of genetic and biological research into nursing practice could significantly enhance the personalization of care. As the understanding of the genetic underpinnings of PD advances, nurses may soon be involved in genetic counseling and risk assessment, allowing for tailored interventions based on a patient's genetic profile [57].

As the landscape of Parkinson's disease management evolves, ongoing education and training for nurses will be fundamental. Traditional nursing education may not fully encompass the complexities of managing chronic neurodegenerative diseases like PD. Therefore, advanced training programs focused on PD must be developed, equipping nurses with specialized knowledge in pharmacological treatments,

therapeutic interventions, and emerging research findings [58].

Simulation-based learning, case studies, and hands-on workshops can enhance nurses' competencies in recognizing and responding to the myriad challenges faced by patients with PD, including dexterity issues, dysphagia, and cognitive fluctuations. Continuous professional development opportunities should also be emphasized, enabling nurses to stay updated on the latest evidence-based practices and interdisciplinary approaches in PD management [59].

Nurses are uniquely positioned to contribute to research initiatives in Parkinson's disease management. By engaging in research, nurses can explore innovative practices, evaluate the effectiveness of existing interventions, and identify unmet needs within the patient population. This approach not only enhances clinical practice but also informs policy and advocacy efforts aimed at improving the healthcare system for individuals with PD [60].

Advocacy is pivotal in raising awareness about Parkinson's disease, emphasizing the importance of funding for research and supporting healthcare reforms that address the needs of this population. Nurses can engage in local and national advocacy efforts, working in conjunction with organizations dedicated to improving care for individuals with PD, such as the Parkinson's Foundation and the Michael J. Fox Foundation [61].

### Conclusion:

In conclusion, nursing care for patients with Parkinson's disease is a multifaceted approach that requires a deep understanding of the disease, its symptoms, and the unique needs of each patient. By employing comprehensive assessment techniques, nurses can develop personalized care plans that address both motor and non-motor symptoms, enhancing the patient's quality of life. Education and support are critical components, enabling patients and their families to navigate the complexities of the disease with confidence and resilience. Furthermore, collaboration with interdisciplinary teams enriches the care experience, ensuring that all aspects of the patient's well-being are addressed.

As advancements in research and treatment continue to evolve, nurses must stay informed and adaptable in their practices. Ongoing professional

development and advocacy for patient-centered care are essential in meeting the challenges posed by Parkinson's disease. Ultimately, the commitment of nursing professionals to provide empathetic, informed, and holistic care is vital in supporting patients through their journey, fostering independence, and improving overall health outcomes in this population.

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