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Self-Reported Outcome Measures for Activities of Daily Living in Patients with Parkinson's Disease: A Narrative Review

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ABSTRACT

Background: Parkinson's disease (PD) is a progressive neurodegenerative disorder characterized by both motor and non-motor impairments that significantly affect activities of daily living (ADL). Accurate assessment of ADL is essential for rehabilitation planning, monitoring disease progression, and evaluating treatment outcomes. Self-reported outcome measures provide valuable patient-centered insights into functional performance in everyday life and complement clinician-based assessments.

Objective: To review the available self-reported measures used to assess activities of daily living in individuals with Parkinson's disease and summarize their psychometric properties, clinical utility, strengths, and limitations.

Methods: This narrative review was conducted following the Scale for the Assessment of Narrative Review Articles (SANRA) guidelines. A literature search was performed using PubMed, Scopus, and Google Scholar to identify studies published between 2000 and 2026. Search terms included Parkinson's disease, activities of daily living, self-reported measures, disability assessment, patient-reported outcomes, and psychometric properties. Studies describing the development, reliability, validity, responsiveness, and clinical applicability of self-reported ADL instruments in Parkinson's disease were included.

Results: Several self-reported ADL measures were identified, including the Schwab and England Activities of Daily Living Scale, Barthel Index, Lawton-Brody Instrumental Activities of Daily Living Scale, Penn Parkinson's Daily Activities Questionnaire, Pfeffer Functional Activities Questionnaire, Functional Status Questionnaire, Patient-Specific Functional Scale, Activities of Daily Living Questionnaire, Parkinson's Disease Activities of Daily Living Scale, Self-Assessment Parkinson's Disease Disability Scale (SPDDS), and the Movement Disorder Society–Unified Parkinson's Disease Rating Scale (MDS-UPDRS) Part II. Disease-specific instruments, particularly the SPDDS, PDAQ, and MDS-UPDRS Part II, demonstrated strong psychometric properties and greater sensitivity in detecting Parkinson's disease-related disability.

Conclusion: Self-reported ADL measures provide valuable patient-centered information that complements clinician-administered assessments. Selecting an appropriate assessment tool based on the clinical objective and stage of disease can

facilitate comprehensive evaluation, individualized rehabilitation planning, and effective monitoring of functional changes in individuals with Parkinson's disease.

Keywords: Parkinson's disease; activities of daily living; self-reported measures; patient-reported outcomes; disability assessment; rehabilitation.

INTRODUCTION

Parkinson's disease (PD) is the second most common neurodegenerative disorder worldwide after Alzheimer's disease and affects approximately 1% of individuals over 60 years of age. [2,3] The prevalence of PD continues to rise because of population ageing and increased life expectancy, making it a significant global public health concern. [1,3]

Pathologically, PD is characterized by the progressive degeneration of dopaminergic neurons in the substantia nigra pars compacta, resulting in dopamine deficiency within the basal ganglia. This neurodegenerative process leads to a combination of motor and non-motor manifestations that progressively impair functional independence and quality of life. [2,3]

The cardinal motor symptoms of PD include bradykinesia, resting tremor, rigidity, and postural instability. In addition to these motor impairments, patients commonly experience non-motor symptoms such as cognitive dysfunction, depression, anxiety, autonomic disturbances, fatigue, and sleep disorders. These non-motor manifestations often contribute substantially to disability and may negatively influence daily functioning, sometimes even more than motor symptoms. [2,4]

As the disease progresses, individuals experience increasing difficulty performing activities of daily living (ADL). Activities of daily living include both basic activities (BADL), such as feeding, bathing, dressing, grooming, toileting, and mobility, and instrumental activities (IADL), including shopping, meal preparation, medication management, transportation, financial management, and communication. Progressive impairment in these activities reduces independence, increases caregiver burden, and adversely affects health-related quality of life [6,7]

Assessment of ADL is therefore an essential component of comprehensive Parkinson's disease management. Functional assessment assists clinicians in determining disease severity, identifying rehabilitation needs, monitoring disease progression, and evaluating treatment outcomes. Although clinician-administered outcome measures remain the cornerstone of clinical evaluation, they may not always reflect the difficulties patients encounter in their everyday environments because motor performance often fluctuates and environmental demands vary. [8,9,11]

Patient-reported outcome measures (PROMs) have gained increasing importance in both clinical practice and research because they provide valuable information regarding patients' perceptions of their functional abilities and everyday challenges. Self-reported ADL measures are generally easy to administer, cost-effective, and less time-consuming while capturing aspects of disability that may not be readily observed during routine clinical examinations. These instruments also support patient-centred care by incorporating the individual's perspective into rehabilitation planning and outcome evaluation [9,10,11]

Several self-reported instruments have been developed to evaluate activities of daily living in individuals with Parkinson's disease. These measures differ in terms of the domains assessed, psychometric properties, administration methods, and clinical applicability. While some instruments provide a rapid estimate of overall functional independence, others offer a more comprehensive assessment of motor, cognitive, and disease-specific limitations. Selecting the most appropriate assessment tool is therefore essential for accurate functional evaluation, individualized

rehabilitation planning, and monitoring disease progression. [11,12]

The purpose of this narrative review is to provide a comprehensive overview of self-reported measures used to assess activities of daily living in individuals with Parkinson's disease. The review also summarizes the psychometric properties, clinical utility, advantages, and limitations of these instruments to assist clinicians and researchers in selecting appropriate outcome measures for clinical practice and rehabilitation research.

REVIEW OF LITERATURE

Schwab and England Activities of Daily Living Scale (S&E)

The **Schwab and England Activities of Daily Living Scale (S&E)** is one of the earliest disease-specific instruments developed to evaluate functional independence in individuals with Parkinson's disease. First described by Schwab and England in 1969, the scale provides a simple global estimate of a patient's ability to perform everyday activities independently and has remained widely used in both clinical practice and research. [15]

The instrument employs a single-item percentage rating ranging from 100%, indicating complete independence, to 0%, representing complete dependence or a vegetative state. Patients or clinicians select the percentage that best reflects the individual's overall functional ability. Scores between 80% and 100% generally indicate independent functioning, whereas progressively lower scores reflect increasing dependence on assistance for daily activities. [15]

One of the major strengths of the S&E scale is its simplicity. It requires minimal training, can be completed within a few minutes, and is easy to interpret, making it suitable for routine clinical assessment as well as large-scale research studies. In addition, the scale has demonstrated acceptable reliability and moderate correlations with disease severity, disability, and health-related quality of life in individuals with Parkinson's disease. [15,6,7]

Despite these advantages, several limitations have been reported. Because the S&E is based on a single global rating, it does not provide detailed information regarding individual functional domains or specific activities contributing to disability. Furthermore, the broad percentage categories may reduce its sensitivity to subtle functional changes, particularly during the early stages of Parkinson's disease or following rehabilitation interventions. [11]

Although newer disease-specific outcome measures have been developed, the Schwab and England Scale continue to serve as a practical screening tool for estimating overall functional independence. However, for comprehensive rehabilitation assessment, it is often recommended that the scale be used in combination with more detailed self-reported or clinician-administered instruments. [11]

Barthel Index (BI)

The **Barthel Index (BI)** is one of the most widely used instruments for assessing functional independence in neurological rehabilitation. Although it was originally developed for individuals recovering from stroke, it has also been applied to patients with Parkinson's disease to evaluate their performance in basic activities of daily living (ADL). [16]

The Barthel Index assesses ten fundamental self-care and mobility activities, including feeding, bathing, grooming, dressing, bowel and bladder control, toilet use, transfers, ambulation, and stair climbing. The cumulative score reflects the individual's level of independence, with higher scores indicating greater functional ability [16]

Several studies have demonstrated that the Barthel Index possesses satisfactory reliability and validity when used in individuals with Parkinson's disease. Owing to its straightforward scoring system and ease of administration, it is commonly used in both clinical and research settings. The widespread acceptance of the instrument also facilitates comparisons across studies and different neurological populations.

Despite these advantages, the Barthel Index primarily focuses on basic self-care activities and may not adequately identify early functional limitations commonly observed in Parkinson's disease. Many patients remain independent in basic ADL while experiencing difficulties with more complex instrumental tasks such as medication management, financial activities, or community mobility. Consequently, ceiling effects may occur in patients with mild disease, limiting its sensitivity to early functional decline. [16,17]

Overall, the Barthel Index remains a valuable measure of basic functional independence but should ideally be complemented by disease-specific or instrumental ADL measures to obtain a more comprehensive assessment of disability in Parkinson's disease. [11,16]

Lawton–Brody Instrumental Activities of Daily Living Scale (IADL)

The **Lawton–Brody Instrumental Activities of Daily Living (IADL) Scale** was developed to assess higher-level functional activities required for independent community living. Unlike measures that primarily evaluate basic self-care, this instrument focuses on more complex daily activities that require cognitive processing, executive functioning, planning, and social participation.[17]

The scale evaluates eight domains: telephone use, shopping, food preparation, housekeeping, laundry, transportation, medication management, and financial management. These activities often become impaired before basic ADL in individuals with Parkinson's disease, making the IADL scale particularly useful for detecting early functional decline. [17,18]

The Lawton–Brody IADL Scale has demonstrated excellent psychometric properties, including high inter-rater reliability and good internal consistency across older adult and Parkinson's disease populations. It has also been recommended by the Movement Disorder Society as a useful measure of functional disability because of its ability to identify subtle changes in everyday functioning. [17,18]

One of the principal strengths of the instrument is its sensitivity to early disability, allowing clinicians to identify functional impairments before substantial dependence develops. This facilitates timely rehabilitation interventions aimed at maintaining independence and community participation.[18]

Nevertheless, certain limitations should be considered. Performance may be influenced by educational level, cultural background, socioeconomic status, and traditional family roles. Furthermore, patients with significant cognitive impairment may require caregiver assistance or proxy reporting to complete the questionnaire accurately. [17,11]

Penn Parkinson's Daily Activities Questionnaire (PDAQ)

The **Penn Parkinson's Daily Activities Questionnaire (PDAQ)** is a disease-specific instrument developed to evaluate the impact of cognitive impairment on everyday functioning in individuals with Parkinson's disease. As cognitive dysfunction is increasingly recognized as a major contributor to disability, the PDAQ was designed to assess functional activities that depend on executive functioning, memory, attention, and problem-solving abilities rather than motor performance alone.[14]

The questionnaire includes activities such as medication management, financial handling, remembering appointments, organizing daily schedules, and completing complex tasks that require cognitive processing. By focusing on cognitively demanding activities, the PDAQ provides valuable insight into functional limitations that may not be identified through conventional motor-based assessments. [14,5]

Validation studies have demonstrated excellent psychometric properties for the PDAQ, including high test–retest reliability, strong construct validity, and significant correlations with objective cognitive assessments and observed functional performance. The instrument has also shown

good discriminative ability in differentiating individuals with Parkinson's disease dementia from those with normal cognition or mild cognitive impairment.[14]

A major advantage of the PDAQ is its disease-specific design and emphasis on cognitive aspects of daily functioning. It enables clinicians to identify cognitive-related disability at an early stage, facilitating timely interventions and individualized rehabilitation planning. However, because the questionnaire primarily evaluates cognitive function, it is less sensitive to motor-related disability and should ideally be used alongside instruments assessing physical function to obtain a comprehensive evaluation of activities of daily living. [11,14]

Pfeffer Functional Activities Questionnaire (PFAQ)

The **Pfeffer Functional Activities Questionnaire (PFAQ)** was originally developed to assess functional impairment associated with cognitive decline in older adults. Although it is commonly completed by caregivers or informants, modified self-report versions have also been used in individuals with Parkinson's disease to evaluate cognitive-related functional limitations.[19]

The questionnaire assesses higher-order instrumental activities of daily living, including financial management, shopping, meal preparation, remembering appointments, managing medications, and other tasks requiring executive functioning and memory. Since these activities are frequently affected by cognitive impairment, the PFAQ serves as a useful measure for detecting functional decline associated with Parkinson's disease dementia and mild cognitive impairment. [5,19]

Studies have demonstrated good reliability and satisfactory validity of the PFAQ in identifying cognitive-related disability. The instrument is particularly valuable when cognitive impairment is suspected, as it provides complementary information regarding the patient's ability to function independently in everyday life.[19]

Despite these strengths, the accuracy of self-reported responses may decrease as cognitive impairment progresses because patients may have reduced insight into their functional abilities. In such situations, caregiver or informant reports are often recommended to improve the accuracy of the assessment. Consequently, the PFAQ is best interpreted in conjunction with clinical evaluation and, where appropriate, collateral information from family members or caregivers. [5,19]

Functional Status Questionnaire (FSQ)

The **Functional Status Questionnaire (FSQ)** is a multidimensional patient-reported outcome measure designed to evaluate overall health-related functioning. Unlike conventional ADL assessment tools that primarily focus on physical performance, the FSQ provides a broader evaluation by incorporating physical, psychological, social, and role functioning.[20]

In Parkinson's disease, disability extends beyond motor impairment. Non-motor manifestations such as depression, anxiety, fatigue, sleep disturbances, and cognitive dysfunction substantially influence daily functioning and quality of life. Consequently, multidimensional instruments such as the FSQ provide a more comprehensive assessment of the disease burden than measures limited to physical disability alone. [4,7,20]

The modified Functional Status Questionnaire (mFSQ) has been applied in neurological populations and has demonstrated satisfactory reliability and validity, with reported reliability coefficients ranging from 0.75 to 0.90. The instrument has also shown acceptable responsiveness in evaluating functional limitations associated with chronic neurological disorders.[20]

A major strength of the FSQ is its holistic approach to patient assessment. By evaluating emotional well-being, social participation, and role performance in addition to physical function, it enables clinicians to identify factors that may influence rehabilitation outcomes but are often overlooked by traditional ADL

measures. Such comprehensive assessment facilitates interdisciplinary management and individualized rehabilitation planning.[20,11]
Despite these advantages, certain limitations should be considered. Some items related to occupational activities may be less applicable to retired individuals, who constitute a large proportion of the Parkinson's disease population. Furthermore, the multidimensional nature of the questionnaire increases administration time compared with simpler ADL assessment tools, which may limit its routine use in busy clinical settings.[20]

Patient-Specific Functional Scale (PSFS)

The **Patient-Specific Functional Scale (PSFS)** is an individualized outcome measure that allows patients to identify activities they find difficult because of their health condition. Rather than assessing a standardized list of tasks, the PSFS focuses on activities that are personally meaningful to each individual, making it particularly suitable for patient-centred rehabilitation.[22]
Patients are asked to identify three to five activities that they are unable to perform or experience difficulty performing and rate each activity on an 11-point scale ranging from 0 (unable to perform the activity) to 10 (able to perform the activity at the pre-disease level). This individualized approach enables clinicians to monitor functional improvement based on patient-specific rehabilitation goals.[22]
The PSFS has demonstrated good reliability, validity, and responsiveness across a variety of musculoskeletal and neurological conditions. In individuals with Parkinson's disease, the scale is particularly useful because functional limitations vary according to disease severity, symptom profile, occupational demands, and personal priorities. Consequently, the PSFS facilitates goal-oriented rehabilitation and supports shared decision-making between patients and healthcare professionals. [22,23]
One of the principal advantages of the PSFS is its flexibility and clinical relevance. Since patients select activities that are meaningful to them, the instrument is highly responsive to changes following rehabilitation interventions and is frequently used by physiotherapists and occupational therapists to evaluate treatment outcomes.[22]
However, because each patient identifies different functional activities, direct comparisons between individuals are difficult. The lack of standardization may also reduce its suitability for large epidemiological studies or clinical trials where uniform outcome measures are preferred. Nevertheless, the PSFS remains a valuable tool for individualized rehabilitation and patient-centred clinical practice. [22,23]

Activities of Daily Living Questionnaire (ADLQ)

The **Activities of Daily Living Questionnaire (ADLQ)** is a patient-reported instrument developed to evaluate self-perceived functional disability across a broad range of daily activities. The questionnaire has been widely used to assess functional dependence associated with cognitive impairment and has subsequently been evaluated in individuals with Parkinson's disease. [24]
The ADLQ comprises 20 items that assess both basic and instrumental activities of daily living. Each item is scored according to the level of difficulty experienced by the individual, providing a detailed profile of functional ability and dependence. This comprehensive approach enables clinicians to identify specific areas of impairment that may require rehabilitation interventions. [24]
Studies have reported excellent psychometric properties for the ADLQ, including high internal consistency, with Cronbach's alpha values ranging from 0.96 to 0.97, and strong test–retest reliability. These findings support its usefulness as a reliable measure for evaluating patient-perceived disability over time.[24]
One of the major strengths of the ADLQ is its ability to detect subtle functional limitations across multiple domains of daily living. The questionnaire provides a comprehensive

assessment of disability and may be particularly valuable for monitoring functional changes during rehabilitation. However, administration requires more time than simpler screening instruments, and cultural adaptation with psychometric validation is recommended before its application in different populations.[24]

Parkinson's Disease Activities of Daily Living Scale (PADLS)

The **Parkinson's Disease Activities of Daily Living Scale (PADLS)** is a disease-specific instrument designed to provide a rapid assessment of overall disability related to activities of daily living in individuals with Parkinson's disease. Unlike multidimensional assessment tools, the PADLS employs a single-item rating scale that reflects the patient's perception of how Parkinson's disease affects every day functioning.[12]

Despite its simplicity, the PADLS has demonstrated satisfactory reliability and validity. Validation studies have reported acceptable agreement, with significant correlations between PADLS scores and measures of motor disability, quality of life, depressive symptoms, and social participation. These findings suggest that the scale provides a useful estimate of global functional status in individuals with Parkinson's disease [12,11]

The principal advantage of the PADLS is its ease of administration. The instrument requires only a few minutes to complete, making it suitable for routine outpatient practice, large-scale screening programmes, and situations where rapid functional assessment is required.[12]

However, because the PADLS consists of a single global rating, it lacks the ability to identify specific functional deficits or determine which daily activities contribute most to disability. Consequently, it should be considered a screening tool and used alongside more comprehensive assessment instruments when detailed rehabilitation planning is required.[11]

Movement Disorder Society–Unified Parkinson's Disease Rating Scale (MDS-UPDRS) Part II

The Movement Disorder Society–Unified Parkinson's Disease Rating Scale (MDS-UPDRS) is widely regarded as the gold standard for evaluating disease severity in Parkinson's disease. Part II specifically assesses the motor experiences of daily living from the patient's perspective and therefore represents one of the most clinically relevant patient-reported components of the scale.[8]

Part II consists of 13 items that evaluate difficulties related to speech, saliva and drooling, chewing and swallowing, handwriting, dressing, hygiene, turning in bed, tremor, walking, balance, freezing, and other motor-related daily activities. Each item is scored on a five-point ordinal scale ranging from 0 (normal) to 4 (severe impairment), with higher total scores indicating greater disability.[8]

Extensive validation studies have demonstrated excellent psychometric properties, including high internal consistency, strong construct validity, excellent inter-rater reliability, and responsiveness to changes in disease severity. Owing to these characteristics, the MDS-UPDRS Part II has become one of the most widely accepted outcome measures in clinical practice and research involving Parkinson's disease. [8,25]

Although Part II incorporates patient-reported information, administration generally requires guidance from a trained healthcare professional to ensure standardized interpretation of individual items. In addition, the instrument evaluates a broad range of Parkinson's disease symptoms rather than focusing exclusively on functional activities. Nevertheless, because of its excellent psychometric performance and widespread acceptance, it remains an indispensable component of comprehensive Parkinson's disease assessment. [8,25]

Self-Assessment Parkinson's Disease Disability Scale (SPDDS)

The **Self-Assessment Parkinson's Disease Disability Scale (SPDDS)** is a disease-specific self-report instrument developed to evaluate disability associated with Parkinson's disease from the patient's perspective. Brown et al. first demonstrated that individuals with parkinsonism can accurately report their own disability, supporting the clinical value of patient-reported assessment in the evaluation of functional status.[26]

The SPDDS consists of 24 items assessing a broad range of activities and functional abilities commonly affected by Parkinson's disease. Each item is scored using a five-point Likert scale, producing a total score ranging from 24 to 120, with higher scores indicating greater disability and functional impairment.[27]

The questionnaire evaluates several domains of everyday functioning, including mobility, self-care, transfers, communication, and other activities essential for independent living. Unlike global disability measures, the SPDDS provides detailed information regarding specific functional limitations, allowing clinicians to identify activities that require targeted rehabilitation interventions.[27]

The SPDDS has demonstrated excellent psychometric properties, including high internal consistency, good construct validity, and excellent reliability. Biemans et al. reported excellent internal consistency (Cronbach's $\alpha = 0.97$) and high reliability ($\rho = 0.97$), together with significant correlations with the Hoehn and Yahr staging system, the Sickness Impact Profile (SIP68), and observed performance of daily activities, supporting the validity of the instrument for assessing disability in individuals with Parkinson's disease living at home.[27]

Another important advantage of the SPDDS is its practicality in routine clinical settings. The questionnaire can generally be completed within 10 minutes, making it feasible for both outpatient assessment and research. Its disease-specific design enables comprehensive evaluation of disability while minimizing administration burden for both patients and clinicians. Furthermore, because the instrument is completed by the patient, it provides valuable insight into perceived functional limitations that may not be fully captured through clinician-administered assessments alone.[26,27]

Several studies have demonstrated significant associations between SPDDS scores and disease duration, motor impairment, functional independence, and health-related quality of life, supporting its usefulness in monitoring disease progression and evaluating rehabilitation outcomes. Owing to its comprehensive coverage of activities affected by Parkinson's disease, the SPDDS is particularly valuable for physiotherapy practice, where identifying specific activity limitations is essential for goal setting, individualized treatment planning, and monitoring functional improvement over time.[27]

Among the currently available self-reported instruments reviewed in this article, the SPDDS appears to be one of the most comprehensive measures of disability in Parkinson's disease because of its disease-specific design, strong psychometric properties, broad assessment of daily functioning, and practical clinical applicability. The availability of culturally adapted versions, together with further cross-cultural validation studies, may facilitate wider international use of the instrument in both clinical practice and rehabilitation research.

DISCUSSION

Assessment of activities of daily living (ADL) is a fundamental component of the comprehensive management of Parkinson's disease (PD). As the disease progresses, motor and non-motor impairments increasingly affect an individual's ability to perform both basic and instrumental daily activities, resulting in reduced independence, diminished quality of life, and increased caregiver burden. Accurate evaluation of these functional limitations is therefore essential for rehabilitation planning,

monitoring disease progression, and evaluating treatment outcomes. [9,11]

This review demonstrates that a wide range of self-reported instruments is available for assessing ADL in individuals with Parkinson's disease. Although these instruments share the common objective of evaluating functional ability, they differ considerably in their conceptual framework, domains assessed, psychometric properties, clinical applicability, and responsiveness to disease-related disability. Consequently, no single instrument is appropriate for every clinical or research setting, and the selection of an outcome measure should be guided by the purpose of assessment, disease severity, and patient characteristics.[11]

One of the principal advantages of self-reported ADL measures is their ability to capture disability from the patient's perspective. Unlike clinician-administered assessments, which are performed in structured clinical environments, patient-reported instruments reflect the difficulties individuals encounter during routine activities at home and in the community. Brown et al. demonstrated that individuals with parkinsonism are capable of accurately reporting their functional disability, supporting the incorporation of self-reported outcome measures into routine clinical evaluation. Patient-reported assessments therefore complement clinician-based measures by providing valuable information regarding perceived disability, participation restrictions, and treatment priorities.[9,26]

The findings of this review suggest that global assessment tools such as the Schwab and England Activities of Daily Living Scale and the Parkinson's Disease Activities of Daily Living Scale (PADLS) are useful for rapid estimation of overall functional independence. Their ease of administration and minimal time requirements make them suitable for routine clinical screening and busy outpatient settings. However, because both instruments rely on a single global rating, they provide limited information regarding specific functional deficits and may be less sensitive to subtle changes following rehabilitation interventions. [15,12]

Generic measures such as the Barthel Index and the Lawton–Brody Instrumental Activities of Daily Living Scale remain valuable for assessing basic and instrumental daily activities. The Barthel Index is particularly useful in individuals with moderate to advanced disability because it evaluates essential self-care activities. However, ceiling effects may reduce its ability to detect early functional decline in patients with mild Parkinson's disease. In contrast, the Lawton–Brody IADL Scale is more sensitive to impairments in complex activities requiring executive function and community participation, allowing earlier identification of functional deterioration. [16,17]

Cognitive impairment is increasingly recognized as a major contributor to disability in Parkinson's disease. Instruments such as the Penn Parkinson's Daily Activities Questionnaire (PDAQ) and the Pfeffer Functional Activities Questionnaire (PFAQ) specifically assess functional limitations associated with memory, executive dysfunction, and attention. These measures provide valuable information that may not be captured by motor-oriented assessment tools and are particularly useful in individuals with mild cognitive impairment or Parkinson's disease dementia. [14,19]

The Functional Status Questionnaire (FSQ) and the Patient-Specific Functional Scale (PSFS) offer a broader perspective on disability by incorporating multidimensional aspects of functioning and patient-centred rehabilitation goals. While the FSQ evaluates physical, psychological, and social functioning, the PSFS allows individuals to identify activities that are personally meaningful, making it particularly useful for goal setting and monitoring rehabilitation outcomes. These instruments support contemporary rehabilitation practice, which emphasizes individualized care and shared decision-making. [20,22]

Among the disease-specific instruments reviewed, the Self-Assessment Parkinson's

Disease Disability Scale (SPDDS) appears to provide one of the most comprehensive evaluations of functional disability. Unlike global assessment tools, the SPDDS evaluates a broad range of activities affected by Parkinson's disease while maintaining relatively short administration time. The instrument has demonstrated excellent internal consistency, reliability, and construct validity, supporting its use in both clinical practice and research.[26,27] Because the SPDDS identifies specific activity limitations, it is particularly valuable for physiotherapists when establishing rehabilitation goals, planning individualized interventions, and monitoring functional outcomes over time.

The Movement Disorder Society–Unified Parkinson's Disease Rating Scale (MDS-UPDRS) Part II remains one of the most widely accepted patient-reported measures of motor experiences of daily living and continues to serve as an important reference standard in Parkinson's disease research. Its extensive validation and widespread international use facilitate comparison between studies and support its role in comprehensive disease assessment.[8,25]

Despite the advantages of self-reported outcome measures, several limitations should be considered. Cognitive impairment, reduced insight, depression, and anxiety may influence patients' perception of disability, potentially affecting the accuracy of self-reported responses. In individuals with advanced Parkinson's disease or dementia, caregiver or informant reports may therefore complement patient-reported assessments to improve the accuracy of functional evaluation.[4,19]

Another important consideration is the influence of cultural and socioeconomic factors on activities of daily living. Functional expectations, lifestyle, educational background, and healthcare systems vary across populations, which may affect the interpretation of questionnaire responses. Consequently, cross-cultural adaptation and psychometric validation are essential before implementing these instruments in different linguistic and cultural settings. This is particularly relevant for disease-specific measures such as the SPDDS, where culturally adapted versions may improve the accuracy and applicability of disability assessment in diverse populations.[27]

Overall, the findings of this review highlight that self-reported ADL measures should not replace clinician-administered assessments but rather complement them to provide a more comprehensive evaluation of functional status. Selecting an appropriate outcome measure according to the clinical objective, disease stage, and patient characteristics can facilitate individualized rehabilitation planning and improve patient-centred care. Future research should focus on longitudinal validation studies, determination of minimal clinically important differences, digital integration of patient-reported outcome measures, and further cross-cultural adaptation of disease-specific instruments to enhance their applicability in routine clinical practice.

CONCLUSION

Assessment of activities of daily living (ADL) is fundamental to the comprehensive evaluation and rehabilitation of individuals with Parkinson's disease. As both motor and non-motor manifestations progressively affect functional independence, accurate assessment of daily functioning is essential for identifying activity limitations, planning individualized rehabilitation programmes, monitoring disease progression, and evaluating treatment outcomes.

This narrative review summarizes the currently available self-reported measures used to assess ADL in Parkinson's disease and highlights their respective strengths, limitations, psychometric properties, and clinical applications. Generic instruments such as the Barthel Index and the Lawton–Brody Instrumental Activities of Daily Living Scale remain useful for assessing overall functional independence, whereas disease-specific measures including the Schwab and England Activities of Daily

Living Scale, Parkinson's Disease Activities of Daily Living Scale (PADLS), Penn Parkinson's Daily Activities Questionnaire (PDAQ), Movement Disorder Society–Unified Parkinson's Disease Rating Scale (MDS-UPDRS) Part II, and the Self-Assessment Parkinson's Disease Disability Scale (SPDDS) provide more focused evaluation of disability associated with Parkinson's disease.

The review demonstrates that each instrument has a distinct role depending on the clinical objective, disease stage, cognitive status, and domains of functioning being evaluated. Simple global measures are appropriate for rapid screening, whereas multidimensional and disease-specific instruments provide more detailed information that can guide rehabilitation planning and monitor functional change over time. Therefore, no single assessment tool can be considered universally superior for all clinical or research settings.

Among the disease-specific instruments reviewed, the Self-Assessment Parkinson's Disease Disability Scale (SPDDS) demonstrates strong psychometric properties, comprehensive assessment of functional disability, and good clinical applicability. Its patient-reported format enables clinicians to better understand the individual's perceived activity limitations, making it a valuable adjunct to clinician-administered assessments. When used alongside standardized clinical evaluation, the SPDDS can contribute to patient-centred rehabilitation, individualized goal setting, and longitudinal monitoring of functional outcomes.

Overall, selecting an appropriate self-reported ADL measure should be guided by the purpose of assessment and the characteristics of the individual patient. Future research should focus on further cross-cultural adaptation, psychometric evaluation in diverse populations, responsiveness to rehabilitation interventions, establishment of minimal clinically important differences, and integration of digital patient-reported outcome measures into routine clinical practice. Such efforts will support standardized functional assessment and enhance the quality of rehabilitation for individuals living with Parkinson's disease.

Limitations of the Review

This review has certain limitations that should be acknowledged. As a narrative review, it provides a comprehensive synthesis of the available literature but does not employ the rigorous methodology of a systematic review or meta-analysis. Consequently, a formal risk-of-bias assessment of the included studies was not performed. Although a structured literature search was conducted using multiple electronic databases, only studies published in the English language were included, which may have resulted in the exclusion of relevant evidence published in other languages.

Additionally, the included studies demonstrated variability in study design, sample characteristics, outcome measures, and reported psychometric properties, limiting direct comparison between the different self-reported instruments. Some assessment tools have also been investigated more extensively than others, resulting in differences in the strength of the available evidence. Furthermore, because psychometric properties and clinical applicability may vary across different cultural and linguistic populations, the findings of this review should be interpreted within the context of the populations in which the original instruments were developed and validated.

Despite these limitations, this review provides a comprehensive overview of currently available self-reported measures for assessing activities of daily living in individuals with Parkinson's disease. The findings may assist clinicians and researchers in selecting appropriate assessment tools while highlighting areas requiring further validation and future research.

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