*IOSR Journal of Business and Management (IOSR-JBM)*
*e-ISSN:2278-487X, p-ISSN: 2319-7668. Volume 27, Issue 11. Ser. 7 (November. 2025), PP 09-13*
*www.iosrjournals.org*

# Functional Assessment Instruments for Older Adults: An Integrative Literature Review

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***Abstract:***
***Background****: Population aging has intensified the need to understand and evaluate the functionality of older adults, considering the inherent complexity of the physical, cognitive, and social changes that accompany this stage of life. This study presents a narrative literature review of the main instruments used to measure elderly functionality, encompassing activities of daily living, cognition, frailty, comorbidities, and nutritional status.*
***Materials and Methods****: The search was conducted in national and international scientific databases, including SciELO, PubMed, LILACS, and Google Scholar, using descriptors related to geriatric and functional assessment.*
***Results****: The findings reveal that scales such as Katz, Barthel, and Lawton are widely used to assess autonomy and functional independence, while instruments such as CAM, 10-CS, and SPMSQ assist in investigating cognitive deficits. Frailty, in turn, is addressed through tools such as FRAIL, CFS, and the ICOPE protocol, which broaden the multidimensional understanding of aging. Additionally, the CIRS and MNA complement the assessment by considering comorbidities and nutritional status.*
***Conclusion:*** *It is concluded that integrating these tools enables a comprehensive approach, promoting early interventions, better prognosis, and person-centered care for older adults.*
***Key Word****: Functionality; Older adults; Geriatric assessment; Frailty; activities of daily living.*

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Date of Submission: 14-11-2025 Date of Acceptance: 29-11-2025

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## I. Introduction

The significant increase in the elderly population over recent decades has driven profound changes in the demands placed on health systems. As life expectancy rises, the challenges associated with managing chronic conditions, functional decline, cognitive changes, and increased vulnerability to adverse outcomes become more evident. In this context, understanding the functionality of older adults plays a central role, as it reflects their ability to maintain autonomy, perform daily activities, and preserve quality of life. Functional assessment goes beyond the simple identification of diseases, incorporating physical, cognitive, emotional, and social dimensions that directly influence the well-being and prognosis of this population[1],[2].

The literature shows that the aging process is multifactorial and heterogeneous, strongly influenced by biological, psychological, social, and environmental factors. Thus, different individuals may present distinct trajectories of functional loss or maintenance, requiring assessment approaches that are both comprehensive and sensitive to the particularities of each older adult. In this context, validated instruments play a fundamental role in identifying early changes, guiding clinical decisions, and supporting public policies aimed at comprehensive care[3],[4].

Furthermore, functional assessment is considered one of the pillars of Comprehensive Geriatric Assessment (CGA), recognized as an essential method for organizing elderly care across different levels of healthcare, from hospital settings to primary care. The use of standardized scales allows for more accurate measurement of performance in basic and instrumental activities of daily living, cognitive status, frailty, nutritional condition, and comorbidity burden. In this way, such tools strengthen interdisciplinary clinical practice and contribute to safer decision-making aligned with the real needs of the older population [5, 6, 7].

In this context, understanding the set of scales that compose functional assessment and their clinical applications becomes essential to improving care for older adults. Thus, the aim of this literature review is to synthesize the main tools used in the evaluation of elderly functionality, discussing their foundations, purposes, and relevance to clinical practice and the planning of individualized care.

## II. Material And Methods

This study is a narrative literature review carried out with the aim of gathering, analyzing, and synthesizing scientific evidence regarding the main scales and instruments used to assess the functionality of older adults. The search was conducted in the SciELO, PubMed, LILACS, and Google Scholar databases, using combinations of descriptors in Portuguese and English, such as "funcionalidade," "idosos," "frailty," "cognitive assessment," "geriatric scales," and "comprehensive geriatric assessment." Articles published within the period defined for the study, available in full text, and addressing directly or indirectly the dimensions related to functionality such as activities of daily living, cognition, frailty, nutritional status, and comorbidities were included.

The selection of studies occurred in successive stages: screening of titles, analysis of abstracts, and subsequent full-text evaluation of the selected articles. Duplicate materials, articles unrelated to the central theme, and studies whose scope did not align with the proposed objectives were excluded. After screening, the eligible studies were organized, categorized, and analyzed descriptively, with attention to their theoretical contributions, main findings, and clinical relevance. The methodological process sought to ensure rigor, clarity, and coherence in the development of the final synthesis, providing a broad and updated overview of the assessment of functionality in older adults.

Figure 1- Flowchart illustrating the methodological steps of the narrative literature review, including study design, database search, keyword selection, study screening, and data analysis.

## III. Result and Discussion

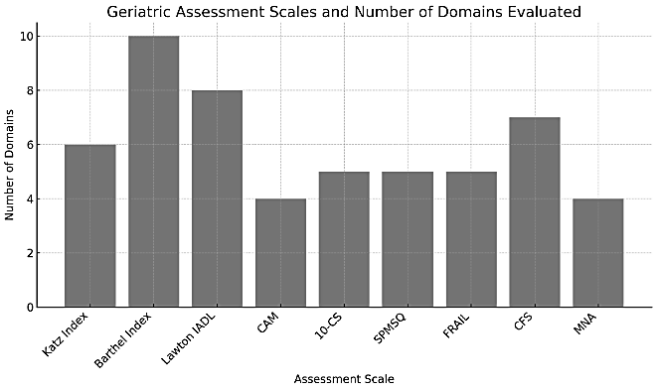
The assessment of elderly functionality examines and considers the individual's ability to perform daily activities and maintain self-care. The complexity of these activities can be evaluated using various scales, which are described below[8]. Basic activities of daily living are the simplest self-care tasks, such as being able to perform personal hygiene, feed oneself, walk, and perform transfers (for example, from bed to a wheelchair). The scales used to assess the ability to perform these tasks should be quick to apply, and the main ones are the Katz Index and the Barthel Index. Both assess key components such as bathing, dressing, toileting, transferring, continence, and feeding, with the Barthel Index additionally evaluating ambulation and the ability to climb stairs. Based on these parameters, individuals are classified as independent or dependent for each function[8],[9].

Instrumental activities of daily living involve more complex tasks that require greater skill. The main evaluation tool used for these activities is the Lawton Scale, which assesses abilities such as using the telephone, managing finances and medications, moving outside the home, handling household tasks, shopping, and preparing meals[9].

After assessing basic functions, it is possible to advance to more complex levels by beginning cognition evaluation. The main tools used to measure cognitive function include the Confusion Assessment Method (CAM), the 10-Point Cognitive Screener (10-CS), and the Short Portable Mental Status Questionnaire (SPMSQ)[10],[11]. The CAM offers a quick and practical way to evaluate delirium in emergency or hospital settings. It assesses acute onset and/or fluctuating course information often obtained from family members or nursing staff—by asking simple questions such as "Does the behavioral change vary throughout the day?". It also evaluates inattention, which appears as difficulty concentrating or understanding, followed by disorganized thinking and altered level of consciousness. The patient must meet the first criterion for a delirium diagnosis[12],[13],[14].

The 10-Point Cognitive Screener (10-CS) directly assesses domains such as temporal orientation (day, month, and year), memory, recall, and verbal fluency[15]. Unlike the CAM, its use focuses on screening for chronic cognitive deficits, such as mild cognitive impairment and dementia[16],[17]. The SPMSQ is a brief 10-question scale that does not require third-party assistance and does not exclude individuals with physical or visual impairments. Its main purpose is to assess cognitive deficits or worsening of a pre-existing condition. The test includes questions about personal information (such as date of birth, age, mother's name, and address), temporal-spatial orientation, and knowledge of the last two presidents of the country. At the end, the patient is asked to subtract 3 from 20 until reaching zero. This last task proved to be the most challenging for the study sample, which is consistent with the socioeconomic profile of this population[18],[19],[20].

Figure 2- Comparison of major geriatric assessment scales based on the number of functional or cognitive domains evaluated.




Frailty assessment is also an essential component of evaluating elderly functionality. Several important and easy-to-apply scales can be used in both hospitalized and outpatient older adults. The frailer the individual, the greater the impact on their care needs and the more attention required to prevent complications. The FRAIL scale can be used for this purpose, assessing Fatigue, Resistance, Ambulation, Illness, and Loss of Weight, with each item worth one point; a score of three or more indicates frailty[21],[22],[23].

In this context, the Pan American Health Organization (PAHO) developed the Integrated Care for Older People (ICOPE) approach, which includes guidelines focusing on the individual and the community environment, aiming to optimize intrinsic capacity and functional ability to improve quality of life. Its main domains include cognitive capacity, psychological capacity, locomotor capacity, vitality (nutrition), and sensory capacities (vision and hearing). This tool aims to identify early frailty markers, allowing for timely intervention and strengthening prevention. It is easily applicable in primary healthcare settings and seeks to understand the older adult comprehensively, including their relationship with the community[23],[24].

The Clinical Frailty Scale (CFS) considers functional capacity to identify and stratify frailty. It classifies older adults as very fit, fit, managing well, mildly frail, moderately frail, severely frail, or terminally ill. The scale is widely used in hospital environments, especially intensive care, and helps estimate short-term prognosis. Although easy to use, it carries the drawback of evaluator subjectivity, despite detailed descriptions for each category. Nonetheless, it remains an important tool with good accuracy for estimating mortality[24],[25].

Given its complexity, the assessment of elderly functionality requires numerous variables. Beyond the scales mentioned, it is also important to evaluate comorbidities and nutritional status, as both are outcome predictors. The Cumulative Illness Rating Scale (CIRS) can be used to quickly evaluate the severity of comorbidities by considering the affected systems without specifying the organ involved. Understandably, the greater the severity of comorbidities, the greater the need for attention, whether for more aggressive interventions or preventive strategies[25].

In this context, the Mini Nutritional Assessment (MNA) is also noteworthy. This tool provides a simple evaluation using anthropometric data, nutritional status, and changes that may have occurred over the previous three months. It classifies individuals as well-nourished, at risk of malnutrition, or malnourished, and considers recent illness as part of the assessment. It is recognized as an effective screening tool for identifying nutritional risk in older adults and can assist in preventing further nutritional decline, which is particularly critical in individuals already predisposed to this issue[23],[24],[25].

Understanding functionality assessment as a complex mechanism that requires extensive data and multiple variables is essential. Geriatric scales provide a range of information that makes such evaluation possible. With these data, it is feasible to predict mortality, identify complications, and intervene as early as possible to prevent adverse outcomes[26].

## IV. Conclusion

The assessment of older adults' functionality represents an essential component of geriatric care, as it allows for a comprehensive understanding of the capacities, limitations, and needs of this growing population. As demonstrated in this review, standardized instruments that address basic and instrumental activities of daily living, as well as cognitive aspects, nutritional status, frailty, and comorbidities, are fundamental for guiding clinical decisions, identifying risks, and promoting early and effective interventions.

The set of scales analyzed highlights that no single instrument is capable of capturing the full complexity of aging; therefore, an integrated and multidimensional approach remains the most effective strategy to ensure safe, patient-centered care for older adults. Thus, expanding knowledge about these tools and encouraging their use in clinical practice significantly contributes to the improvement of healthcare services, enhancing autonomy, functionality, and quality of life among older individuals.

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