(REVIEW ARTICLE)

Psychometric instruments to assess decision-making skills in clinical-legal settings: A scoping review

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Abstract

The assessment of decision-making capacity in patients with severe and persistent psychiatric disorders constitutes a highly complex clinical, ethical, and legal challenge. This scoping review aimed to identify, describe, and analyze the main psychometric instruments used to assess decision-making capacity in diverse clinical settings. To this end, a systematic literature search was conducted in specialized databases (PubMed, Scopus, SciELO, PsycINFO, and Web of Science) following the methodological guidelines of the Joanna Briggs Institute (JBI). Sixteen studies published between 2015 and 2025 were selected after applying rigorous inclusion and exclusion criteria.

The results show that the most widely used instrument is the MacArthur Competence Assessment Tool for Treatment (MacCAT-T), due to its comprehensive approach to the domains of comprehension, appreciation, reasoning, and expression of choice. Other relevant instruments were also identified, such as the Aid to Capacity Evaluation (ACE), the UBACC, and the CCTI, each with particular strengths depending on the context of application. However, important limitations persist, such as the lack of cultural adaptations and poor standardization in Spanish-speaking populations. Furthermore, it is concluded that the available instruments are useful and reliable, but their effective application requires careful integration with clinical protocols, adequate staff training, and ethical and legal considerations. As such, the study contributes to clarifying the current landscape of tools available for assessing decision-making capacity, highlighting their importance in protecting patient autonomy in highly vulnerable contexts.

Keywords: Decision-Making Capacity; Psychometric Instruments; Psychiatric Disorders; Cancer; Euthanasia; Assisted Suicide

1. Introduction

In clinical-legal contexts, the assessment of decision-making capacity in patients with severe and persistent psychiatric disorders is an ethical and professional challenge that requires objective and standardized tools [1]. The present work aims to identify, describe and analyze the main psychometric instruments used to assess such capacity among them the MacCAT-T [1], the ACE [2], the UBACC [3] and the CCTI [4] in order to determine their degree of validity, reliability and cultural adaptability.

Based on the hypothesis that, although there are numerous internationally validated tests, their optimal applicability depends on a scaled protocol and careful adaptation to the particularities of each population, therefore, a scoping review was developed following the guidelines of the Joanna Briggs Institute [5] Because, this approach allows to systematically map the psychometric properties of each instrument and its conditions of use.

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Therefore, this article offers a scoping review whose purpose is to map and analyze the main psychometric instruments used to assess decision-making ability in adults. First, the most widespread tools are identified, focusing on their psychometric properties, validity, reliability and sensitivity, and on the clinical contexts where they have been applied. Next, cultural adaptations and methodological gaps identified in the literature are explored in order to propose lines of improvement and recommendations for their systematic use in clinical practice and in legal frameworks. Finally, the scope and limitations of each instrument are identified and a comparison of their results in different clinical populations is made.

In addition, the research question guiding the study is the following

- What is the degree of validity, reliability and clinical applicability of the main psychometric instruments for assessing decision-making capacity in patients with severe and persistent mental disorders, and how are they adapted to different cultural contexts and specific populations?
- From this question, we hope to provide evidence that will facilitate the unification of criteria in the assessment of decision-making capacity and promote the development of more robust tools that are more sensitive to the needs of different groups of patients.
- On the other hand, the study is important because it provides a comparative framework that facilitates the unification of criteria in the assessment of decisional competence, reinforces the protection of patient autonomy and lays the groundwork for the development of clinical guidelines and training programs for mental health and forensic professionals.

2. Material and methods

The study is framed in a documentary and descriptive research, characterized by the systematic analysis of bibliographic sources and previous studies without direct intervention in the studied reality. Since, documentary research involves the collection, organization and interpretation of existing information, while the descriptive approach seeks to detail and characterize the phenomenon in question: the assessment of decisional capacity in patients with severe and persistent psychiatric disorders [6]. To this end, we adopted the scoping review method recommended by the Joanna Briggs Institute (JBI), which delimits its research question using the PCC (Population/Concept/Context) framework and employs clear inclusion and exclusion criteria [5].

The study period covered publications indexed between January 2015 and 2025 in databases such as PubMed, Scopus, PsycINFO, SciELO and Web of Science, ensuring an updated view of the last decade. Thus, the population of analysis was made up of academic texts, scientific articles and specialized documents that examine psychometric instruments designed to measure decision-making ability in the aforementioned groups; therefore, the selection of the sample followed strong criteria: publications in indexed journals, research published in the last ten years, specific assessment of decision-making ability using psychometric tools, and application in psychiatric patients, since, this systematic process ensures the representativeness and relevance of the analyzed documents, and allows providing a clear and substantiated overview of the options available for the measurement of decision-making competence in complex clinical settings [7].
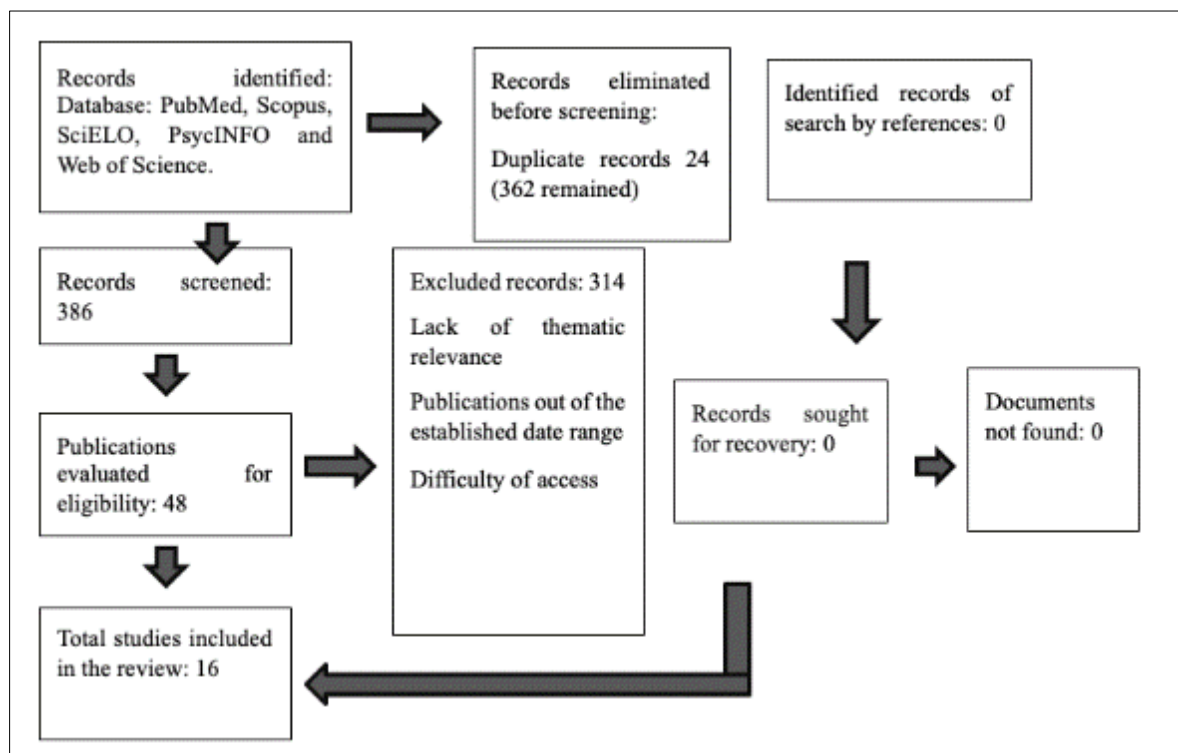
The systematic selection process led to the conformation of a sample of 16 studies that, meeting the defined inclusion criteria: publications indexed between 2015 and 2025, access to the full text, English or Spanish language, and explicit focus on psychometric instruments to assess decision-making capacity in patients with severe psychiatric disorders offers a comprehensive representation of the state of the art. After applying filters in PubMed, Scopus, PsycINFO, SciELO and Web of Science, a two-stage screening (titles and abstracts, followed by full-text reading) was performed to discard non-target papers and ensure the relevance of each paper within the scoping review [5,6,7].

An analysis matrix was used to collect and organize the information, in which authorship, year, type of study, objective and summary were recorded. The search strategy was carried out by combining controlled terms (MeSH and descriptors of each database) with free vocabulary, using Boolean operators (AND, OR) and language filters (Spanish and English) and date (2015-2025). Examples of main terms: "decision-making capacity" OR "decisional competence", "psychometric instrument" OR "psychometric instrument", "psychiatric disorders" OR "psychiatric disorders", "euthanasia" OR 'euthanasia', "advance directives" OR "advance directives". Each combination was adapted to each database's own syntax, incorporating parentheses and quotation marks as appropriate [5,6,7].

3. Results and discussion

In the initial identification phase, 386 records were retrieved from the indexed databases PubMed, Scopus, SciELO, PsycINFO and Web of Science using the search strategy. After purging 24 duplicates in the filtering stage, 362 unique studies remained and were subjected to a preliminary review of titles and abstracts. In this eligibility review, 314 articles were discarded for not meeting essential criteria such as direct assessment of decisional competence, use of standardized tools, or focus on psychiatric populations, while the remaining 48 records advanced to full-text assessment to confirm their methodological and thematic relevance.

Finally, 16 studies fully met the inclusion criteria and showed adequate methodological quality for analysis (Figure 1).

Note: Flow diagram based on Page et al. (2021)

Figure 1 Literature Scoping Review

The search provided relevant information on the most widely used psychometric instruments, including the domains assessed, reported validity and reliability, and made it possible to identify the clinical contexts of application (hospital, community mental health, oncology research) and their specific limitations, such as the absence of cultural adaptations or variability in the training of the assessors. In addition, the selected studies agree that the MacArthur Competence Assessment Tool for Treatment (MacCAT-T) is the most widely used instrument for assessing decision-making capacity in patients with severe psychiatric disorders and cancer, present in more than half of the reviewed studies. This instrument probes four fundamental domains: comprehension, appreciation, reasoning and expression of choice, and has demonstrated high convergent validity and inter-rater reliability [8,9].

It is followed by the Aid to Capacity Evaluation (ACE), valued for its brevity and applicability in clinical emergency contexts [2] and the University of California San Diego Brief Assessment of Capacity to Consent (UBACC), especially used in investigations where rapid screening of mild cognitive deficits is required [3]. Complementarily, the Competency to Consent to Treatment Instrument (CCTI) stands out in oncology and psychiatric patients for its integration of cognitive and emotional aspects in decision making [10], while tools such as the SDM-Q-9 and the Karnofsky scale provide indicators of perceived participation and general functionality, respectively. Likewise, the Hospital Anxiety and Depression Scale (HADS) has been used to control how affective symptomatology can bias decisional judgment, with validities between 70% and 75% to detect states of anxiety and major depression [11].

In this case, the psychometric instruments identified in the review show a diverse application depending on the clinical setting and the characteristics of the population being evaluated. The MacCAT-T has been predominantly used in

psychiatric units of university hospitals and in legal expert opinions for euthanasia requests in patients with schizophrenia or bipolar disorder, where its semi-structured format allows in-depth exploration of the domains of comprehension, appreciation, reasoning and expression of choice [8]. For its part, the CEA finds greater utility in outpatient consultations and informed consent studies in oncology, thanks to its brevity and focus on the comprehension of medical information and the expression of choice, which facilitates its use in contexts with time constraints [2].

In research where rapid screening of decisional capacity is required, the UBACC is frequently used, especially in clinical-oncology studies, although it has also been adapted in psychiatric pilots for focus groups with bipolar disorder [3]. The CCTI, with its emphasis on clinical vignettes, has demonstrated value in community mental health units and in forensic expert witnessing, where the assessment of hypothetical scenarios allows for the determination of consistency and stability of judgment in patients with resistant schizophrenia [10]. Taken together, these findings reveal that each test is tailored to specific needs: depth and rigor for judicial or euthanasia protocols (MacCAT-T, CCTI), versus speed and practicality in outpatient and research settings (ACE, UBACC).

Thus, the scoping review employed confirms that the MacCAT-T emerges as the most robust instrument for disaggregating decisional competence [8,9]. However, its time demand (45-60 min) and the need for trained raters highlight the difficulty of reconciling psychometric rigor and practical feasibility in high-pressure clinical settings. On the other hand, shorter tests such as the ACE and UBACC demonstrate utility in rapid screening, although they sacrifice depth in complex reasoning [2,3].

Beyond individual strengths and weaknesses, the findings reveal that the assessment of decision-making ability benefits from a multimodal approach that combines complementary instruments. For example, while the MacCAT-T excels at breaking down logical reasoning and appreciation of long-term consequences, short scales such as the ACE and UBACC allow for rapid detection of deficits in comprehension and choice expression. Integrating these instruments in a stepwise manner starting with agile screening and deepening with a semi-structured interview, this in addition to optimizing the use of clinical time, also provides a more holistic view of decisional competence by capturing both cognitive processes and emotional nuances that may bias judgment [8,3]. This hybrid model, validated in part by reported experiences in psychiatry, suggests avenues for standardized protocols that dynamically adapt to each patient's preliminary findings.

In addition, the heterogeneity observed in the training of evaluators and in the resources available in different clinical settings underscores the need to develop operational guidelines and specific training programs for each tool. It is not enough to choose the right instrument: ensuring its correct application requires training professionals in the interpretation of scores, the identification of possible biases and the effective communication of results to the treating team and the patient. Likewise, the exploration of technological aids such as digital interview administration platforms or automated scoring systems could help reduce the logistical burden without sacrificing the fidelity of the assessment; and these operational and training advances are essential if the solid empirical basis of the instruments is to translate into real improvements in the protection of patients' autonomy and rights.

Therefore, the findings are in line with previous reviews highlighting the moderate-high reliability of MacCAT-T in psychiatric settings [10], while reaffirming recommendations on the need to adapt the instruments to specific cultural contexts. Studies such as the meta-analysis [10] on the inter-rater reliability of the MacCAT-T and the multicenter evaluations of UBACC [3] validate both the consistency and applicability of these methods. However, just as it points out that in Spanish-speaking population, normative gaps persist that limit the generalization of results, confirming the urgency of generating local data [12].

From a clinical perspective, the instruments should be part of a stepwise protocol: an initial screening (ACE, UBACC) to detect possible deficits, followed by an in-depth assessment (MacCAT-T, CCTI) when there are doubts about competence [2,8] Ethically, the correct assessment of decision-making capacity is indispensable to respect the principle of autonomy and ensure truly informed consent, particularly in extreme procedures such as euthanasia or assisted suicide [13,14,15]. As such, lack of cultural adaptations may imply unfair bias in the denial or granting of critical decisions, underscoring the need for safeguards and multidisciplinary oversight.

Although the scoping review provided a comprehensive overview of available instruments, limitations were identified in the heterogeneity of sample designs and the absence of longitudinal studies assessing the temporal stability of the measures. Additionally, most research focuses on hospital settings, neglecting primary and community care, where needs and resources differ significantly [12]. This suggests the desirability of broadening the focus to non-hospital settings and incorporating mixed designs that integrate qualitative perspectives of patients and professionals.

Because of this, and in order to move towards a more equitable and effective assessment, it is recommended that local versions of the instruments be developed with their own psychometric norms, accompanied by standardized training programs for assessors. It is also necessary to investigate the integration of technological tools (e.g., in assisted semi-structured interview applications) that can reduce the time burden without sacrificing data quality. Finally, encouraging cross-national multicenter studies will help to establish global consensus and ensure that patient autonomy protection is consistent, rigorous, and culturally sensitive in all clinical settings.

4. Conclusion

The present scoping review has identified and described the main psychometric instruments used to assess decision-making ability in psychiatric and clinical populations, showing significant differences in terms of depth of measurement, time of application and assessor training requirements. Based on these findings, a hybrid stepwise model is proposed, starting with rapid screening tests (such as ACE or UBACC) and culminating in semi-structured interviews (MacCAT-T or CCTI), which maximizes the efficiency of clinical resources without sacrificing the methodological rigor necessary for a comprehensive assessment of decision-making competence.

Furthermore, this research underscores the urgency of developing operational guides and training programs specific to each tool, as well as culturally adapting the instruments to the Spanish-speaking context. The lack of standardization in evaluator training and the heterogeneity of current protocols represent barriers to comparing results across studies and to consistent implementation in different clinical settings. With these contributions, this work provides a theoretical and practical framework that can guide future multicenter research and the design of local regulations, contributing to improving the quality of care and strengthening informed decision-making in the field of mental health.

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