

Instruments for assessing level of consciousness in adults and the elderly: integrative review

Instrumentos para a avaliação do nível de consciência em adultos e idosos: revisão integrativa

Instrumentos para evaluar el nivel de conciencia en adultos y ancianos: revisión integradora

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ABSTRACT

Objective: to identify, in the literature, scientific evidence on the instruments that assess level of consciousness in adult and elderly patients. **Method:** this integrative literature review was carried out in February 2020, with articles published between 2010 and 2020, in the information sources: LILACS, CINAHL, PubMed®/Medline, Web of Science, EBSCO and Scopus. Studies were selected using the application Rayyan. **Results:** 884 articles were identified, of which 19 met the inclusion criteria. Eight rating scales were identified, most evaluating the items: eye opening, motor response, verbal response, breathing pattern and brainstem reflexes. The Coma Recovery Scale-Revised was the most used and the Full Outline of Unresponsiveness scale was considered the most complete to assess awareness. **Conclusion:** the scales were found to share similar domains and evaluation mechanisms and to be reliable and effective for measuring level of consciousness in adults and the elderly.

Descriptors: Consciousness; Patients; Adult; Aged; Questionnaires.

RESUMO

Objetivo: identificar na literatura evidências científicas sobre os instrumentos que avaliam o nível de consciência de pacientes adultos e idosos. **Método:** revisão integrativa de literatura, realizada em fevereiro de 2020, com artigos publicados entre 2010 e 2020, nas fontes de informação: LILACS, CINAHL, PubMed®/Medline, Web of Science, EBSCO e Scopus. Adotou-se o aplicativo Rayyan para a seleção dos estudos. **Resultados:** identificaram-se 884 artigos, destes, 19 atenderam aos critérios de inclusão. Foram identificadas oito escalas de avaliação. A maioria delas avalia os itens: abertura ocular, resposta motora, resposta verbal, padrão respiratório e reflexos tronco encefálicos. A escala *Coma Recovery Scale-Revised* foi a mais utilizada e a escala *Full Outline of Unresponsiveness*, considerada a mais completa para avaliar a consciência. **Conclusão:** verificou-se que as escalas possuem semelhança em seus domínios e mecanismos de avaliação e são confiáveis e efetivas para mensurar o nível de consciência de adultos e idosos.

Descritores: Estado de consciência; Pacientes; Adulto; Idoso; Questionários.

RESUMEN

Objetivo: identificar en la literatura evidencia científica sobre los instrumentos que evalúan el nivel de conciencia de pacientes adultos y ancianos. **Método:** revisión integradora de la literatura, realizada en febrero de 2020, con artículos publicados entre 2010 y 2020, en las fuentes de información: PubMed®/Medline, LILACS, CINAHL, Web of Science, EBSCO y Scopus. Se adoptó la aplicación Rayyan para seleccionar los estudios. **Resultados:** Se identificaron 884 artículos, de los cuales 19 cumplieron con los criterios de inclusión. Se identificaron ocho escalas de calificación. La mayoría de ellos evalúa los ítems: apertura ocular, respuesta motora, respuesta verbal, patrón de respiración y reflejos del tronco encefálico. La escala *Coma Recovery Scale-Revised* fue la más utilizada y la escala *Full Outline of Unresponsiveness* fue considerada la más completa para evaluar la conciencia. **Conclusión:** se verificó que las escalas tienen similitudes en sus dominios y mecanismos de evaluación y son confiables y efectivas para medir el nivel de conciencia de adultos y ancianos.

Descritores: Estado de conciencia; Pacientes; Adulto; Anciano, Cuestionarios.

INTRODUCTION

Identifying the level of consciousness constitutes one of the most important parameters of neurological assessment and is conceptualized as an analysis of the degree of behavioral alertness that the individual presents reflected by primordial structures of the Central Nervous System (CNS), such as the brainstem and other brain areas^{1,2}. The change in the level of consciousness is considered one of the first signs of change in the clinical status that an adult or older adult patient presents when experiencing an illness³.

Thus, assessing the level of consciousness is an essential care practice in providing care to adults and older adults, as it enables the health team to determine the severity or clinical change of this population through their behavioral changes, ranging from being fully alert to being in a deep coma⁴.

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In nursing, assessing the level of consciousness is considered one of the fundamental starting points for systematizing nursing care in an objective, reproducible and universal way, which is enabled by adopting clinical assessment instruments⁵. Thus, this care practice includes monitoring the patient, performing interventions, and defining diagnoses, and therefore it should not be performed based on imprecise judgments conditioned to a subjective assessment^{4,5}.

In this context, adopting scales to assess the level of consciousness which are easy to apply and capable of rapidly identifying dysfunctions or changes in neurological parameters represents important progress to guarantee adequate treatment for each case⁴⁻⁶. Numerous scales have been developed and tested in recent decades to clinically assess the level of consciousness of adult and older adult patients, especially the Glasgow Coma Scale⁶, a broad instrument which guides identifying a patient's state of consciousness, generates a score and subsidizes the most appropriate clinical decision making. However, it is noteworthy that level of consciousness assessment scales are generally intended to standardize monitoring clinical evolution, effective communication between health teams, and effectively, safely and reliably identify this neurological parameter through reliable theoretical frameworks and submission to rigorous validation processes^{6,7}.

The scales and other instruments for performing a neurological examination in assessing the level of consciousness of critically ill patients represent a marked advance in ensuring the quality of care provided. Therefore, it is necessary that these scales are easily applicable and enable early recognition of changes and/or variations in the patient's neurological parameters^{4,5}.

Although a variety of constructs which are designed to assess an individual's level of consciousness have already been developed, there is an important scientific gap regarding exploring studies which clearly present the main existing instruments for this purpose⁸. In addition to this scenario, there is an incipience of manuscripts which address the domains and structure of each scale, the mechanisms for assessing the level of consciousness and its effectiveness, even with the need to understand the neurological status of an adult patient for assertive decision-making in their care and treatment^{7,8}, and also a limited number of scales that fulfill this purpose and which are validated for Brazilian Portuguese.

This lack of scientific production on the subject can make it difficult to determine the most reliable and appropriate instrument for this purpose, which negatively impacts the quality of care provided to patients and in relation to their safety⁸. Before being considered adequate for their application, these scales need to provide specific, pertinent and educational information for health assessment so that measurements can provide scientifically significant results through the reliability and validity analysis of these instruments⁸.

Given the relevance of assessing the level of consciousness of adult and older adult patients based on validated and comprehensive instruments and the need to scientifically deepen this area, the following question arises: "What are the instruments which assess the level of consciousness of adult and older adult patients in an in-hospital environment?". Therefore, this study aims to identify scientific evidence in the literature on instruments which assess the level of consciousness of adult and older adult patients.

METHOD

This is an integrative literature review, a type of study which enables synthesizing and analyzing scientific knowledge already produced on a given topic, supported by the Statement for Reporting Systematic Reviews and Meta-Analyses of Studies (PRISMA), a theoretical-methodological framework composed by a 27-item checklist and a four-step flowchart which supports the quality of review studies. Six steps were taken to prepare the review: (1) define the research question; (2) establish inclusion and exclusion criteria by searching the literature; (3) define the information to be extracted from the studies; (4) evaluate the included studies; (5) interpret the results; and (6) synthesize the data⁹.

In the first stage, the theme that addressed the instruments for assessing the level of consciousness of adult and older adult patients and their assessment mechanisms was identified, formulating the research question based on the Population - Interest Phenomenon - Context (PICo) strategy¹⁰: "What are the instruments that assess the level of consciousness of adult and older adult patients in an in-hospital environment?". The letter "P" - population, was represented by adult and older adult patients; the letter "I" - intervention, was represented by identification of instruments to assess the level of consciousness; and the acronym "Co" - context, was represented by an intra-hospital environment.

Next, the inclusion criteria were then defined in the second stage: primary studies which answered the research question, published between 2010 and 2020 and without language limitation. Review studies, theses, dissertations, opinion articles, comments, essays, previous notes, manuals, books, book chapters, obituaries and articles that addressed instruments to assess the level of consciousness of other populations which were not configured by adults and older adults and in an in-hospital environment were excluded.

The following sources of information were used: US National Library of Medicine National Institutes Database of Health (PubMed®/Medline), *Literatura Latino-americana e do Caribe em Ciências da Saúde (LILACS)*, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Web of Science, EBSCO Information Services and SciVerse Scopus.

The search for studies took place in February 2020 through the health descriptors available on the Health Sciences Descriptors Portal (DeCS) in the Virtual Health Library (VHL) and through the controlled descriptors of the Medical Subject Headings, identified with the respective search strategy specific for each selected database validated by a librarian are described below.

The following controlled descriptors in the Medical Subjects Headings (MeSH) in English were identified in PubMed®/MEDLINE and Scopus: Consciousness Disorders; Patients; Adult; and adopted the keyword: Scales. The following strategy was used: ("*Consciousness Disorders*" AND [scales] AND *patients* AND *adult*). The controlled descriptors in LILACS were present in the Health Sciences Descriptors (DeCS) in Portuguese: *Transtornos da Consciência; Pacientes; Adulto*. The keyword *Escala* and its English and Spanish versions were adopted. The following strategy was carried out: ("*Transtornos da Consciência*" OR "Consciousness Disorders" OR "*Trastornos de la Conciencia*" AND [escalas OR scales] AND *pacientes* OR *patients* AND *adulto* OR *adult*).

The controlled descriptors in CINAHL were identified in Titles/Subjects in the English language: Consciousness Disorders; Patients; Adult. The keyword Scale was adopted. The following strategy was used: ("*Consciousness Disorders*" AND [scales] AND *patients* AND *adult*). Next, the following controlled descriptors in English were used in the Web of Science: Consciousness Disorders; Patients; Adult, and the keyword Scale. The following strategy was adopted: TS=("*Consciousness Disorders*" AND [scales] AND *patients* AND *adult*).

The controlled descriptors in EBSCO were present in the Health Sciences Descriptors (DeCS) in Portuguese: *Transtornos da Consciência; Pacientes; Adulto*. The keyword *Escala* was adopted, and its versions in English and Spanish. The following strategy was carried out: ("*Transtornos da Consciência*" OR "Consciousness Disorders" OR "*Trastornos de la Conciencia*" AND [escalas OR scales] AND *pacientes* OR *patients* AND *adulto* OR *adult*). Finally, the following controlled descriptors in English were used in Scopus: Consciousness Disorders; Patients; Adult, and the keyword Scales was adopted. The following strategy was carried out: ("Consciousness Disorders" AND [scales] AND *patients* AND *adult*).

Next, titles and abstracts were initially read to select the studies through the inclusion and exclusion criteria, made possible by the free single-version web review program called Rayyan Qatar Computing Research Institute (Rayyan QCRI), found at link: <https://rayyan.qcri.org>, which eliminates duplicate articles and streamlines the initial screening using a reliable semi-automation process, and incorporates a high level of usability and efficiency into the process¹¹. After selection by titles and abstracts, ten studies which caused divergence among the researchers were presented to a third party responsible for making the inclusion or exclusion decision, and then a full reading was carried out to define the final sample.

The information to be extracted from each study was then defined in the third stage using the criteria of a validated instrument by Ursi and Galvão¹², following an approach which includes: study, journal, objective, type of study, results/conclusions and the level of evidence classification. To do so, the Agency for Healthcare Research and Quality (AHRQ) categories were used to classify the level of evidence of the selected studies, covering six levels: level 1: meta-analysis of multiple randomized controlled clinical trials; level 2: individual studies with experimental design; level 3: quasi-experimental studies; level 4: descriptive studies (non-experimental) or qualitative approach; level 5: case or experience reports; level 6: expert opinions¹³. Lastly, individual reading of the studies included in full, critical evaluation and interpretation of results along with the synthesis of knowledge occurred in the fourth stage.

RESULTS

This integrative review identified *a priori* 884 studies and their selection is demonstrated through the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)¹⁴, as shown in Figure 1 below.

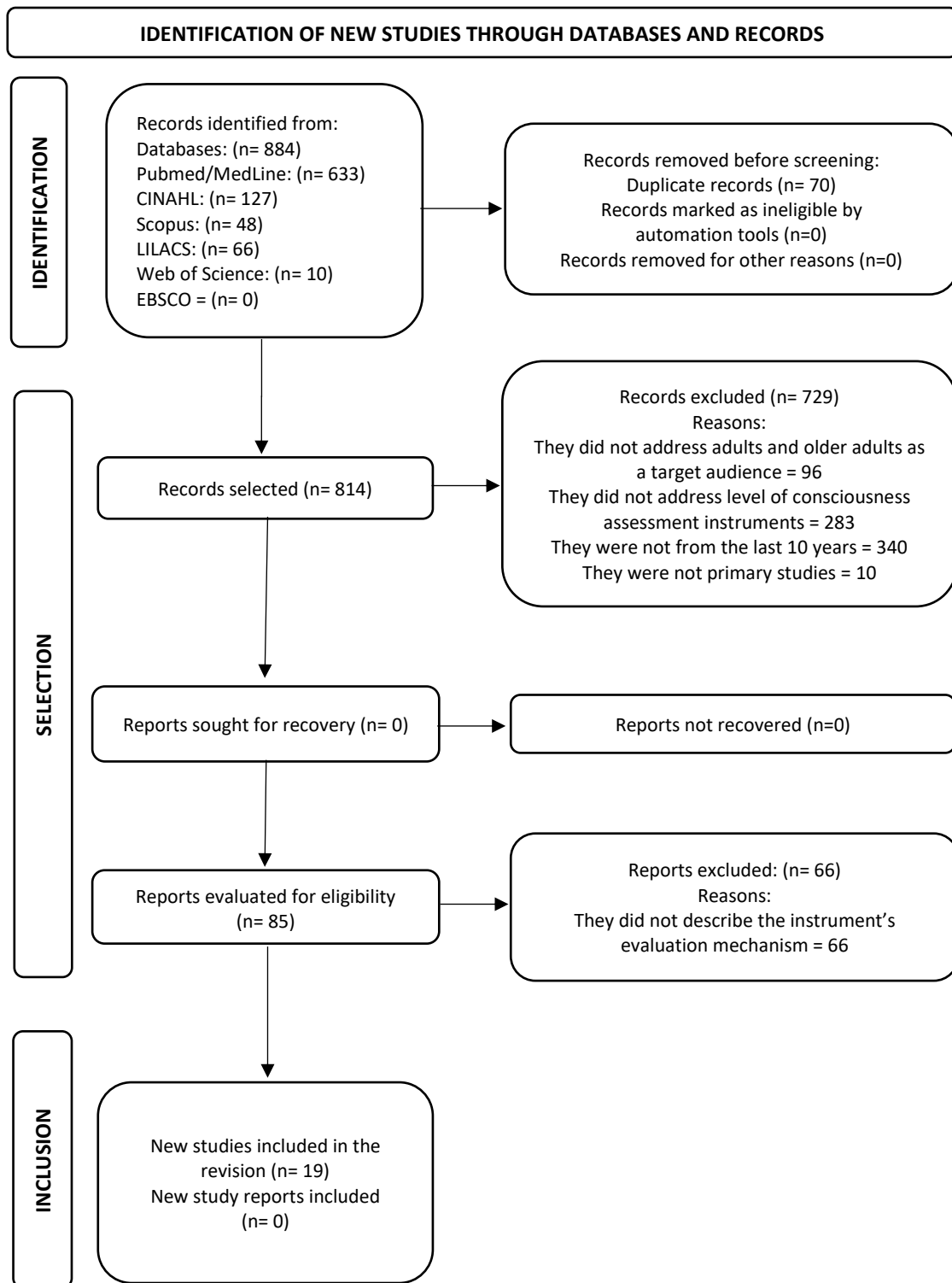


FIGURE 1: Presentation of the study selection which composed the sample of this integrative review, according to Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). Uberaba, MG, Brazil, 2020.

Source: Page et al., 2020¹⁴.

CINAHL: Cumulative Index to Nursing and Allied Health Literature; LILACS: *Literatura Latino-Americana e do Caribe em Ciências da Saúde*.

The characterization of the studies included in the sample is presented in Figure 2, presented below.

STUDY / JOURNAL	OBJECTIVES	TYPE OF STUDY / LEVEL OF EVIDENCE*	RESULTS/CONCLUSION
E15/ <i>IEEE Trans. Neural Syst. Rehabil. Eng.</i> ¹⁵	Propose a new computer interface based on audiovisual stimuli to assess the level of consciousness.	Randomized Experimental study/2	The assessment based on the new computer interface is a more sensitive object when compared to the clinical assessment scale in patients.
E16/ <i>J. Pain Symptom Manage.</i> ¹⁶	Investigate the Complexity Index (CIs).	Retrospective Observational study/4	A correlation between CIs and the Coma Recovery Scale-Revised (CRS-R) was identified.
E17/ <i>Neurol. Sci.</i> ¹⁷	Assess the level of consciousness of patients with the Nociception Coma Scale-Revised (NCS-R) and the CRS-R.	Correlation study/4	The correlation between NCS-R and CRS-R scores can be useful in the clinical evaluation of patients.
E18/ <i>Neurol. Sci.</i> ¹⁸	Evaluate the diagnostic validity of the Brief Post-Coma Scale (BP-CS) by comparing it with the Coma Recovery Scale Revised.	Experimental study/3	The BP-CS showed significant correlations with the scales commonly used in people with impaired consciousness.
E19/ <i>Neuropsychol. Rehabil.</i> ¹⁹	Validate the Italian version of the NCS-R.	Methodological study/6	NCS-R retained the psychometric properties.
E20/ <i>Neurocrit. Care</i> ²⁰	Validate the Persian version of the Full Outline of Unresponsiveness (FOUR) scale.	Methodological study/6	FOUR is a reliable and valid scale for evaluating unconscious patients.
E21/ <i>Plos One</i> ²¹	Determine the clinical signs that lead to an accurate assessment of consciousness.	Descriptive study/6	There was an association of the Motor Behavior Tool (MBT) and CRS-R scores with the level of consciousness and outcome prediction.
E22/ <i>Clin. J. Pain.</i> ²²	Evaluate the clinical utility of NCS-R.	Descriptive study/6	The NCS-R is a useful tool for assessing the level of consciousness.
E23/ <i>BMC Neurology.</i> ²³	Analyze the effectiveness of the CRS-R.	Observational study/4	The use of CRS-R can minimize the risk of misclassifying the level of consciousness.
E24/ <i>BMC Neurology</i> ²⁴	Validate the FOUR scale in the Chinese version.	Methodological study/6	The FOUR scale is reliable for assessing the level of consciousness in brain injury.
E25/ <i>Arch. PhysMed. Rehabil.</i> ²⁵	Assess the internal validity and reliability of the CRS-R.	Observational study/4	The CRS-R is a psychometrically sound and robust measurement tool.
E26/ <i>J. Neurol.</i> ²⁶	Use electroencephalography to assess level of consciousness.	Descriptive study/6	Electroencephalography and CRS-R parameters provide significant clinical relevance.
E27/ <i>Arch. Phys. Med. Rehabil.</i> ²⁷	Describe the clinical characteristics and evolutionary pattern of patients with brain injury.	Cohort study/4	CRS-R provides an immediate prognosis for the minimally conscious state and the vegetative state.
E28/ <i>Anaesth. Intensive Care</i> ²⁸	Investigate the usefulness of the FOUR scale.	Observational study/4	FOUR is useful for evaluating patients with Acute Stroke.
E29/ <i>Neurologic Critical Care</i> ²⁹	Examine the interobserver reliability of the FOUR scale.	Methodological study/6	FOUR proved to be excellent and reliable in five different hospitals.
E30/ <i>Intern. Emerg. Med.</i> ³⁰	Validate the Italian version of the FOUR scale.	Methodological study/6	FOUR provides more neurological detail than the Glasgow Coma Scale (GCS).
E31/ <i>Neurocrit. Care</i> ³¹	Compare the FOUR and GCS scale.	Experimental study/3	FOUR is valid when compared to GCS in predicting prognosis.
E32/ <i>Brain Injury</i> ³²	Validate the Italian version of the CRS-R.	Methodological study/6	The CRS-R discriminates patients in a vegetative and minimally conscious state.
E33/ <i>Pain</i> ³³	Validate the NCS-R.	Methodological study/6	The NCS-R is a sensitive tool to assess nociception.

FIGURE 2: Characterization of studies included in the integrative review. Uberaba, MG, Brazil, 2020.

Source: Elaborated by the author, 2020.

*Agency for Healthcare Research and Quality, 2016

Figure 3, below, presents the main scales, the mechanism used by the instruments to assess the consciousness of adults and older adults, and the studies that address the scales.

Instrument	Method	Studies
<i>Coma Recovery Scale-Revised (CRS-R)</i>	The CRS-R is composed of 23 items grouped into six subscales: auditory, visual, motor, oromotor, communication and excitation. The lowest score on each subscale represents reflective activity; the highest represents behaviors mediated by cognitive input. The measurement is performed through the sum of the domains and the total score ranges from zero (worst) to 23 (best).	E15, E16, E17, E18, E19, E21, E23, E26, E27, E32
<i>Nociception Coma Scale-Revised (NCS-R)</i>	The NCS-R is evaluated by motor, verbal and facial expression responses. Each subscore ranges from zero to three points, and the total score ranges from zero to 9 points. Measurement is performed by summing the domains.	E17, E19, E22, E33
<i>Glasgow Coma Scale (GCS)</i>	The GCS is evaluated by the following domains: eye opening – 1 to 4 points; verbal response – 1 to 5 points; and motor response – 1 to 6 points. The measurement is performed through the sum of the domains, being classified as mild >13 points, moderate 9 to 12 points, and severe or severe < 8 points.	E15, E22, E24, E20, E29, E28, E31
<i>Full Outline of Unresponsiveness (FOUR)</i>	FOUR is assessed by the domains: eye opening, motor response, brainstem reflexes and breathing pattern, both scored from 0 to 4 points, with 0 being the worst score and 4 the best. The total score ranges from 0 to 16 points and the measurement is performed through the sum of the domains.	E15, E24, E20, E29, E28, E31, E25
<i>Brief Post-Coma Scale (BPCS)</i>	The BPCS is the short scale of the Post-Coma Scale and consists of 7 items that assess eye opening, command follow-up, spontaneous motility, decerebrated and decorticated posture, psychomotor agitation, oral safe feeding ability and the presence of recurrent infections and/or hyperthermia, with three response options: yes (score 0 or 1); sometimes/partially (score 0.5); and not (score 0 or 1). The measurement is performed through the sum of the domains.	E18
<i>Disability Rating Scale (DRS)</i>	The DRS assesses the impairment in the level of consciousness, impairment of self-care cognitive ability and psychosocial impairment, and is rated as none – 0 points; mild – 1 point, partial – 2-3 points; moderate – 4-6 points; moderately severe – 7-11 points; severe – 12-16 points; extremely severe – 17-21 points; vegetative state – 22-24 points and; extreme vegetative state – 25-29 points, and measurement is performed by summing the domains.	E18
<i>Level of Cognitive Functioning (LCF)</i>	The LCF assesses the level of consciousness and generates a classification of the patient into one of eight levels: 1 – no response; 2 – generalized; 3 – localized; 4 – confused-agitated; 5 – confused, inappropriate, non-agitated; 6 – confused-appropriate; 7 – automatic-appropriate; 8 – purposeful-appropriate.	E18
<i>Glasgow Outcome Scale (GOS)</i>	GOS is used in patients with brain injuries and characterizes it in 5 levels according to the sequelae, namely: deceased – 1 point; vegetative state – 2 points; severe disability – 3 points; moderate disability – 4 points; and good recovery – 5 points.	E18

FIGURE 3: Methods for assessing the level of consciousness presented by the scales identified in the sample. Uberaba, MG, Brazil, 2020.

DISCUSSION

All of the manuscripts which composed the sample in this study are configured as studies in the English language, most published in 2012 and in 16 different international journals. No national (Brazilian) studies which met the inclusion criteria were identified, which demonstrates the importance of further scientific research in this area in Brazil³⁴.

The most prevalent type of study in the selected sample was methodological, with emphasis on developing and validating instruments to identify and assess the level of consciousness of adult and older adult patients. Methodological studies enable understanding the content validation procedure and are essential for use in constructing reliable measures and instruments in the field of Nursing, which support knowledge for a safer practice³⁵.

Most studies had a low level of evidence (6), which should serve as an incentive to develop new studies with more robust designs which enable producing better levels of evidence³⁶.

Experimental studies are essential for clinical practice, as they enable reducing risks, prevention, treatment, resolution or management of a health problem, reaching the desired purpose, and may include absence, resolution, successful management of the problem or non-development of complications³⁶.

It is noteworthy that this study gives originality to science in health and nursing by synthesizing the existing scientific evidence on scales which assess the level of consciousness, its domains and assessment mechanisms, contributing to structuring a framework of knowledge that directs to best practices and clinical decisions in this area.

A total of 8 scales were identified in this literature review. Among these, the Coma Recovery Scale-Revised stood out, being addressed by eight of the studies. Research on the Coma Recovery Scale-Revised showed its reliability and accuracy in different scenarios to assess consciousness, considering it as a psychometrically solid and robust measurement tool^{15,16,22,23,25-27,32}.

This assertion is corroborated by an integrative literature review study that aimed to identify scientific articles that addressed scales for assessing the level of consciousness specifically in patients with traumatic brain injury, showing that the Coma Recovery Scale-Revised is reliable and assertive for this purpose due to its potential in recognizing the vegetative state and specificity in evaluating the patient's neurobehavioral response; however, it has weaknesses in not evaluating the breathing pattern, making it inapplicable in patients using invasive mechanical ventilation (IMV)⁶.

Even though the Coma Recovery Scale-Revised has been widely pointed out by the studies that comprised the sample of this review, it was observed that the adoption of the Glasgow Coma Scale is common in Brazil and culturally widely used in clinical practice as it is potentially capable to identify neurological disorders and monitor the evolution of the level of consciousness, predict prognosis and standardize language among health professionals³⁷.

With regard to specificities, the Glasgow Coma Scale has a broad assessment of verbal response, which differs from other scales; however, it is important to emphasize that this scale has weaknesses as it is not reliable in assessing the level of consciousness of patients who are sedated, aphasic, using an endotracheal tube or IMV⁶.

Thus, adoption of the Full Outline of Unresponsiveness scale was the most indicated by the studies in this review for ensuring a high level of accuracy in measuring the level of consciousness of critically ill patients on IMV^{20,24,28-31}.

A validation study of the Full Outline of Unresponsiveness scale for the Chinese version indicated this instrument for assessing the level of consciousness and predicting mortality in critically ill patients due to its reliability and for being considered easy to apply³³.

A systematic review carried out in September 2017 emphasizes the reliability and potential of the Full Outline of Unresponsiveness scale in predicting the mortality of critically ill patients, in addition to evaluating patients using IMV³⁸. It is noteworthy that the specificity of this scale is the ability to assess the breathing pattern and brainstem reflexes, and with more accuracy than other instruments in assessing the consciousness of sedated patients, even if it does not obtain 100% reliability in this condition, which can represent a weakness⁶.

The literature points out that this identification and assessment mechanism through the sum of domains such as eye opening, motor response, verbal response, breathing pattern and brainstem reflexes of adult and older adult patients and adopted by the scales is effective and considered reliable to predict the severity indicated by the level of consciousness of this population^{20,24,28-31}.

In short, it was observed that the description of an ideal scale for the assessment of the level of consciousness is one that is able to accurately identify this parameter, which is easy to use, has a high level of interobserver agreement, reproducibility and predictive value and quickly predicts the deterioration of the patient, morbidity and mortality, in addition to being applicable to the largest number of patients^{6,39}.

Study limitations

The main limitation identified in this study was the low level of evidence of the findings and the lack of clarity in the description of the mechanisms to measure the level of consciousness and the methodological path of the selected studies, which made it difficult to understand and identify the way in which the studies were conducted and the evaluation form of the scales presented.

CONCLUSION

The instruments listed to assess the level of consciousness of adults and older adults were: The Coma Recovery Scale-Revised, Nociception Coma Scale-Revised, Glasgow Coma Scale, Full Outline of Unresponsiveness, Brief Post-Coma Scale, Disability Rating Scale, Level of Cognitive Functioning, and Glasgow Outcome Scale.

The Coma Recovery Scale-Revised was the most addressed in the studies, however, the Full Outline of Unresponsiveness scale was considered the most reliable, valid, fast and practical to measure and assess the level of consciousness of adult and older adult patients, mainly because it addresses critically ill patients on invasive mechanical ventilation. The scales are generally similar in their mechanisms for assessing the level of consciousness and mainly address the sum of criteria such as eye opening, motor response, verbal response, breathing pattern and brainstem reflexes, indicating the worst condition of the patient by a lower final score, and the best status by a higher score.

The originality that accompanied all stages of this study since its inception gives it strength and novelty. It is noteworthy that this contributes to teaching, research and healthcare a priori by compiling scientific evidence on the main scales to identify the level of consciousness of adults and older adults and present their assessment mechanisms, which can support the best decision-making for clinical practice for implementing, using and training and developing new methodologically well-elaborated scientific research which proposes to compare, validate and compare their effectiveness.

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