Quality Indicators for Residential Long-Term Care for the Elderly: A Scoping Review

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Abstract

The objective of this study was to review the existing literature on the evaluation of care in residential homes for elderly, considering its quality through quality indicators, using secondary databases. A systematic search was conducted, following the PRISMA guidelines for scoping reviews. One hundred and ten studies were included, in which 1,239 indicators were identified. More than half of the identified indicators (N=663, 53%) were linked to outcomes, with about 33% (N=413) related to structure, and 14% (N=175) to process indicators. The most frequently studied indicators as dependent variables were: "Pressure ulcer," "Staffing issues," and "Psychotropic Drug Use." As independent variables, indicators relating to structure were prominent: "Facility characteristics," "Resident characteristics," and "Staffing Issues". There is a broad consensus around a care approach centered on clinical and structural aspects, in accordance with the profile of residents, and reflecting historical concerns about quality of care and patient safety that were the origin of quality assessment systems, and which remain the focus of concerns to this day.

Keywords
Long-term care, quality indicators, quality assessment, ageing

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Indicadores de Calidad de los Cuidados Residenciales para Personas Mayores: Revisión Sistemática Exploratoria

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Resumen
El objetivo de este estudio fue revisar la literatura existente sobre la evaluación de la atención en residencias para personas mayores, evaluando su calidad a través de indicadores, utilizando bases de datos secundarias. Se realizó una búsqueda sistemática siguiendo las pautas PRISMA para revisiones sistemáticas exploratorias. Se incluyeron 110 estudios en los cuales se identificaron 1,239 indicadores. Más de la mitad de los indicadores identificados (N=663, 53%) estaban relacionados con resultados clínicos, aproximadamente el 33% (N=43) estaban relacionados con la estructura y 14% (N=175) estaban relacionados con indicadores de proceso. Los indicadores más estudiados como variables dependientes fueron: "Úlcera por presión", "Problemas de personal" y "Uso de psicotrópicos." Sin embargo, como variables independientes, destacaron los indicadores relacionados con la estructura: "Problemas de personal", "Características de las instalaciones" y "Características de los residentes". Hay un amplio consenso en torno a un enfoque de atención centrado en aspectos clínicos y estructurales, de acuerdo con el perfil de los residentes y reflejando preocupaciones históricas sobre la calidad de la atención y la seguridad del paciente que fueron el origen de los sistemas de evaluación de la calidad y que siguen siendo el centro de preocupaciones en la actualidad.

Palabras clave
Cuidados a largo plazo, indicadores de calidad, evaluación de calidad, envejecimiento

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In recent decades, we have witnessed a rapid demographic aging of Western societies. The Organization for Economic Co-operation and Development (OECD) projections for 2050 indicate a deepening of this trend, estimating an average 10% increase in OECD, 2021 populations over 65 years old. Specifically, the population aged 80 and over is expected to more than double (from 4.6% to 9.8%) (OECD & Union, 2013). More than half of this age group will require assistance to meet their daily living needs. This demographic context translates into an increased demand for social and health care, which, coupled with rising unit costs of services and the growing relative burden of this expenditure on each country’s public spending, puts long-term care at the top of public policy concerns in many countries.

The public debate on the quality of services provided to this sector of the population usually arises under three main scenarios, according to Gori et al. (2015). The first occurs when scandalous situations of abuse and neglect that occur within care facilities are disclosed. The second is related to the public expenditure allocated to these types of services and its effectiveness in meeting increasing demand. The third is about the ability of these services to respond to the increasingly complex needs of the population. Recently, the COVID-19 pandemic has exposed some of the sector’s vulnerabilities (Belmin et al., 2021; Chen et al., 2020; Olivia & Longobardo, 2022), putting the focus of discussion on care safety issues and the scarcity of staff affecting aging populations across the OECD (OECD, 2021). All these concerns are linked to the availability of information about the quality of services provided and the incentives that exist for the development of services suitable for users.

The evaluation of long-term care (LTC) quality is not an easy concept to define, nor is its measurement easy to carry out due to the degenerative nature of old age and the multiplicity of structures involved (Kohler & Wunderlich, 2001). The most widely accepted model in the literature is advocated by Donabedian (1988), who argues that quality of care results from the interaction of three main elements: structure, process, and outcome. According to the author, better structures increase the likelihood of better processes, and both increase the likelihood of better outcomes (Joling et al., 2018). Structure indicators reflect service attributes, such as human, material and organizational resources; process indicators relate to how the service is provided, such as infection control procedures; and outcome indicators measure the impact that care has on the recipients of care, such as pressure ulcers or mortality. It is this model that will be used to conduct our analysis of quality indicators.

Since the 1990s, many countries have implemented legislation to prevent abuse, encouraged the dissemination of complaints procedures, and given consumers more power in dealing with certain concerns (OECD & Union, 2013). Information based on valid, reliable, and timely data is fundamental to any strategy for monitoring and evaluating care (Kohler & Wunderlich, 2001). For example, in the USA, the strategy for improving the quality of long-term care services was implemented from 1987 through reform under the Omnibus Budget Reconciliation Act (OBRA) (Hawes et al., 1997). The most important element of this was the creation of a standardized, comprehensive assessment instrument, mandatory for all residents in long-term care facilities - the Resident Assessment Instrument (RAI). It consists of a set of assessment protocols, known as the Minimum Data Set (RAI-MDS), which provides comprehensive information about the functionality, cognition, clinical status, emotional state, and social status of each resident. Its use became mandatory for all residents upon admission, and thereafter at
quarterly intervals, whenever a significant change occurred in a resident’s situation (Zimmerman, 2003; Zimmerman et al., 1995). The implementation of RAI-MDS is the cornerstone of the system, serving as the basis for reimbursement systems for funding entities (through the Resource Utilization Groups system - RUGs), as well as a quality measurement and monitoring system aimed at consumers, professionals, policymakers, providers, researchers, and other stakeholders (Mor, 2006). RAI-MDS is used in several countries worldwide as the basis for collecting information to construct quality indicators (Hutchinson et al., 2010).

There are several types of recent reviews related to the measurement of quality in long-term care facilities for the elderly. From these we can identify three main types of analysis. First, there are those analyses that focus on the relationship of a particular indicator with overall care quality, such as studies on the relationship between staff ratios and the quality of care, for example those by Armijo-Olivo et al. (2020) and Chadborn et al. (2021). Second, there are those whose analysis consists of either characterizing a particular quality indicator, such as the global review by Anthony et al. (2019) which focused on the prevalence and incidence of pressure ulcers in various countries. Third, there are those where care quality is analyzed based on a specific type of population or context, such as the systematic reviews by Robins et al. (2021) that analyze the development of quality indicators for dementia care. A recent systematic review (Osińska et al., 2022) analyzed the quality indicators in residential long-term care, specifically those employed for public reporting.

The objective of this review is to obtain an overview of the evaluation of care quality through quality indicators, using secondary databases in long-term care facilities for the elderly. We aim to achieve a broad overview of which indicators are investigated in this type of analysis and context, which indicators are studied as dependent and independent variables, and which indicators are most frequently used to measure quality.

**Methods**

**Protocol and Registration**

This review based on the reporting structure of the PRISMA extension for scoping reviews (PRISMA-ScR), including checklist and explanation (Tricco et al., 2018), as well as a flowchart of the process of including and/or excluding studies (Figure 1). It also follows the guidelines of the same reference.

**Selection of Sources**

The databases were searched from 1990, the year in which RAI-MDS was introduced in the USA (Zimmerman et al., 1995). For formal academic publications, a search was conducted in three databases: MEDLINE (via PubMed), Web of Science, and Scopus. Additionally, the databases of four Portuguese universities were searched: University of Aveiro, University of Porto, University of Lisbon and University of Coimbra.
Search

To capture articles related to quality assessment based on indicators, the following terms were used: "Quality Indicators," "Quality Indicator," "Care Outcomes," "Quality assessment," "Quality measure," and "Care performance." Terms were included to specify the target population of the research: "Older Adults," "Elderly," "Aged," and "Older people." Finally, to specify the context in which quality assessment had been conducted, the following terms were included: "Long-Term Care," "Nursing Home," "Long-Term Care Facilities," "Long-Term Care Settings," "Residential Long-Term Care," and "Long-Term Care Homes." In the preliminary searches conducted, it was noticed that several studies were included focusing on quality indicators in palliative care or end-of-life care facilities, hospitals, or acute or short-term care, identified through the following terms: "Palliative Care," "End-of-life care," "Hospice Care," "Acute Care," and "Hospital Care." These terms were used as filters in our search. The search limits were applied to titles and abstracts. The inclusion/exclusion criteria are specified in Table 1.

Eligibility Criteria

Table 1

Inclusion/Exclusion Criteria

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population</strong></td>
<td></td>
</tr>
<tr>
<td>• People aged over 65 years, residing in long-term care facilities for the elderly.</td>
<td>• Long term residents under 65 years of age.</td>
</tr>
<tr>
<td>• People selected based on specific conditions (e.g., cancer, dementia).</td>
<td>• People selected based on specific conditions (e.g., cancer, dementia).</td>
</tr>
<tr>
<td><strong>Types of studies</strong></td>
<td></td>
</tr>
<tr>
<td>• Studies that analyze one or more indicators (Structure, Process, and Outcome).</td>
<td>• Experimental studies.</td>
</tr>
<tr>
<td>• Quantitative approach.</td>
<td></td>
</tr>
<tr>
<td>• Analyses based on secondary databases. (Studies using primary and secondary databases will be included for result comparison between the two data sources).</td>
<td></td>
</tr>
<tr>
<td><strong>Context</strong></td>
<td></td>
</tr>
<tr>
<td>• Residential contexts providing long-term care (institutionalization for more than 90 days).</td>
<td>• Studies exclusively focusing on non-residential contexts (e.g., home care, day centers).</td>
</tr>
<tr>
<td>• Analyses exclusively centered on structures not included in the concept of long-term care: acute care, hospital care, primary care, respite care.</td>
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</tr>
</tbody>
</table>
Selection of Sources of Evidence and Data Charting Process

All references were inserted and managed in EndNote, and duplicates were removed. One author (NL) screened the articles by titles and abstracts, according to the inclusion criteria, and ineligible studies were discarded. Any uncertainties regarding the inclusion of articles were clarified with the second author (JM). Subsequently, the selection was based on full-text articles. Studies that were assessed through full reading, and which did not meet the inclusion criteria, were excluded. The final inclusion of articles was agreed upon by the two authors (NL and JM).

The data were extracted into a Microsoft Excel sheet by the first investigator and then verified by the second investigator. Data extracted included author, year of publication, country of origin, objective, study design, sample size, data source and collection, and quality indicators used in each study, distinguishing between those used as dependent or independent variables, and classifying them as structure, process, or outcome indicators Donabedian (1988).

An assessment of study quality was not a selection criterion because the scoping review aimed only to report on the breadth of literature on the analyzed topic.

Results

A total of 1,837 articles were retrieved from the searched databases from the year 1990 until December 2022. After duplicates had been removed, 1,135 articles were examined through title and abstract screening, of which 184 were selected for full-text analysis, with reference the inclusion criteria. Of these, 74 articles were excluded for the following reasons: full-text access was not possible for 15 articles; 15 were not based on secondary database analyses; 15 did not use quantitative analysis methods; 23 did not assess care quality through quality indicators; three did not pertain to the population residing in the defined long-term care facilities; and three did not involve a population over 65 years of age. The remaining 110 articles were considered eligible for the review (Figure 1).
Description of Included Studies

A total of 110 studies published between 1997 and 2022 were included. Of the 110 studies, 66% (N=76) originate from the USA, which unequivocally leads in the publication of this type of research, as shown in the Figure 2. An increase in the number of published studies, and from a greater diversity of countries, was observed from 2013 onwards, with 2018 having the highest number of publications. We found that most studies have national databases as their data source, such as Taiwan’s National Health Insurance (Chang et al., 2015) database, the German’s Association of Health Insurance Companies database (Reichert & Stroka, 2018), the Korean’s National Health Insurance Service database (Shin & Hyun, 2015), and others. However, the most representative in this review are the databases from the Centres for Medicare and Medicaid Services (CMS), particularly those containing RAI-MDS assessments, present in 55 studies. The most frequently used average samples have a mean number of 3,937 facilities and 34,632 residents. The use of secondary databases allows for the utilization of large-scale samples, which would otherwise make the research considerably more costly (see S1 Appendix).
Quality Indicators

We identified a total of 1,239 indicators that were grouped into 20 domains, as presented in Table 2. The first 12 domains correspond to those defined by the research team at the Center for Health Systems Research and Analysis (CHSRA) of the University of Wisconsin-Madison, during the development of the MDS quality indicators (Zimmerman, 2003). The remaining indicators were grouped into seven additional domains, defined by reference to their common theme. There were also 40 indicators that did not fit into any of the predefined domains, resulting in a domain labeled as "Others". In Table 2, in the column labeled "quality indicator," we can see a summary of the different variables, which correspond to the indicators with the names as they appear in the studies, and which have been grouped under each domain. Overall, we find that the measurement of quality is done through a mix of structure, process, and outcome (SPO) indicators. More than half of the analyzed indicators (N=663, 53%) are related to outcome, approximately 33% (N=403) are related to structure, and 14% (N=116) with process indicators. This confirms the prevailing view of the advantage of using outcome indicators (Mant, 2001; Nakrem et al., 2009), which are considered more accurate, since deviations from the structural and process conditions of care will have an impact on the health
conditions of the care recipients (Castle & Ferguson, 2010). We also observe that the domain analyzed in the highest number of studies (N=63) is "Skin Care," corresponding to the indicator "Pressure Ulcer," while the least analyzed domain is "Sensory Function and Communication" (Jorgensen et al., 2018; Mukamel et al., 2003).

Table 2

Quality Indicators Classification

<table>
<thead>
<tr>
<th>Quality Indicators</th>
<th>Indicators</th>
<th>Number of studies</th>
<th>Structure/Process/Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S</td>
<td>P</td>
<td>O</td>
</tr>
<tr>
<td><strong>Accidents</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Falls; Fractures; Number of adverse events; Prevalence of any injury</td>
<td>36</td>
<td>30</td>
<td>36</td>
</tr>
<tr>
<td><strong>Behavioral and emotional patterns</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavior Programs; Behavioral symptoms; Depression or Depression symptoms; Mental and Psychiatric Condition; Mood Problem; Other</td>
<td>83</td>
<td>39</td>
<td>83</td>
</tr>
<tr>
<td><strong>Sensory function and communication</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to communicate; Verbal Behavior</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Clinical management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospitalizations; Medication Use Pattern; Pain; Sleep Pattern; Multidrug-resistant Organism; Number of Discharges; Treatment</td>
<td>115</td>
<td>57</td>
<td>65</td>
</tr>
<tr>
<td>Quality Indicators</td>
<td>Indicators</td>
<td>Number of studies</td>
<td>Structure/Process/Outcome</td>
</tr>
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<tr>
<td></td>
<td>Practices; Vaccination; Do-Not-Resuscitate Orders; Appropriate Treatment; Care Plan Methodology; Complex Healthcare; Dental Care; Health Status; Other</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Cognitive Functioning</td>
<td>Cognitive Performance; Cognitive Status; Dementia; Mental and Psychiatric Condition</td>
<td>26</td>
<td>32</td>
</tr>
<tr>
<td>Elimination and continence</td>
<td>Bladder or Bowel Incontinence; Catheter Use</td>
<td>69</td>
<td>39</td>
</tr>
<tr>
<td>Infection Control</td>
<td>Urinary Tract Infections; Infection</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>Nutrition and eating</td>
<td>Dehydration; Feeding Tube; Food Service Characteristics; Hydration; Nutritional Status; Nutrition Issues; Weight Loss; Other</td>
<td>50</td>
<td>30</td>
</tr>
<tr>
<td>Physical Functioning</td>
<td>Bedfastness; Contractures; Functional</td>
<td>98</td>
<td>46</td>
</tr>
<tr>
<td>Quality Indicators</td>
<td>Indicators</td>
<td>Number of studies</td>
<td>Structure/Process/Outcome</td>
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<tr>
<td>Performance (ADL); Mobility; Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychotropic drug use</td>
<td>Inappropriate antipsychotic use; Prevalence of antipsychotic use</td>
<td>63</td>
<td>52</td>
</tr>
<tr>
<td>Quality of Life</td>
<td>Physical Restraints; Quality of life measure; Satisfaction Survey; Social Engagement</td>
<td>63</td>
<td>25</td>
</tr>
<tr>
<td>Skin care</td>
<td>Pressure Ulcer</td>
<td>77</td>
<td>63</td>
</tr>
<tr>
<td>Staffing Issues</td>
<td>Total nurse staffing; Total staff hours per resident day; Staffing ratios; Turnover; Education; Training; Staff skill mix; Temporary and full-time employment; Other</td>
<td>142</td>
<td>42</td>
</tr>
<tr>
<td>Regional Characteristics</td>
<td>Facility’s location class (urban, large town, small town and isolated areas); Competition (Herfindahl Index); Geographic</td>
<td>36</td>
<td>25</td>
</tr>
<tr>
<td>Quality Indicators</td>
<td>Indicators</td>
<td>Number of studies</td>
<td>Structure/Process/Outcome</td>
</tr>
<tr>
<td>-------------------</td>
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<td>--------------------------</td>
</tr>
<tr>
<td>Number of studies; Per capita income; Other</td>
<td>Regulatory Deficiencies Citation</td>
<td>Number of deficiencies citation; Type and severity of deficiencies citations; Other</td>
<td>33</td>
</tr>
<tr>
<td>Residents Characteristics</td>
<td>Age; Gender; Race/ethnicity; Marital Status; Length of stay; Resident case mix; Other</td>
<td>80</td>
<td>37</td>
</tr>
<tr>
<td>Facility Characteristics</td>
<td>Size; Ownership types (public providers, Not for Profit providers and for-Profit providers); Special Care Units; Chain membership; Occupancy rate; other</td>
<td>126</td>
<td>52</td>
</tr>
<tr>
<td>Funding Issues</td>
<td>Residents by payer category; Prices; Cost Efficiency; Medicaid occupancy and reimbursement</td>
<td>30</td>
<td>22</td>
</tr>
<tr>
<td>Composite Quality Measure</td>
<td>Five-star quality ranking; Composite quality measure (28</td>
<td>234</td>
<td>21</td>
</tr>
</tbody>
</table>
Types of Quality Indicators

Our analysis of quality indicators consisted of determining which indicators were investigated as dependent and independent variables in each study. We found that, on average, in each study, authors analyzed 11.6 (SD: 8.3) indicators, with 47 being the maximum number of indicators studied in a single study (Laine et al., 2005), and two indicators as the minimum number, observed in four studies (Berlowitz et al., 2000; Bowblis et al., 2012; Wei et al., 2014; Williams et al., 2016).

Figure 3 shows the indicators studied as dependent variables (N=41), and Figure 4 shows the corresponding independent variables (N=46), each associated with the number of studies. Comparing the two graphs, in general, there is a predominance of clinical outcome indicators as dependent variables, while for independent variables there is a greater predominance of structural indicators, except for the “staffing issues” indicator, which often appears analyzed both as a dependent and independent variable.

From the indicators studied as a dependent variable (Figure 3), excluding the case of the “staffing issues” indicator, we observe that they predominantly reflect an evaluation of care quality centered on clinical aspects, namely, "pressure ulcer," "psychotropic drug use," and "functional performing," translating a certain specialization of long-term care in the assessment of this type of clinical outcomes.

Additionally, indicators related to more subjective areas, such as perception of care quality or family participation, have limited representation. For instance, we must reach the 22nd position on the graph (Figure 3) to find the "Social Engagement" indicator, and addressed in
four studies (Hjaltadottir et al., 2012; Jensdóttir et al., 2003; Kang-Yi et al., 2011; Phillips et al., 1997; Winblad et al., 2017) (which includes variables like "absent family contacts" or "have little or no activity"). Furthermore, we find only four studies dedicated to evaluating resident and family satisfaction (Bowblis & Applebaum, 2017; Jeon et al., 2019; Josefsson et al., 2017; Li et al., 2016; Williams et al., 2016), highlighting the lack of consensus surrounding this type of indicator as a measure of quality of care evaluation.

As an independent variable (Figure 4), we see that predominantly studied indicators are structural, namely, the indicators "Facility characteristics," "Staffing issues," and "Resident Characteristics," which represent the basic structures necessary to provide care. These indicators are straightforward to measure, as they are based on objective and typically available information, but there is a widespread consensus that they are limited in their ability to measure quality of care (Castle & Ferguson, 2010). The first clinical outcome indicator studied as an independent variable is "functional performing," appearing in the 4th position on the graph (Figure 4), demonstrating a broad consensus around this indicator, considering that it is also one of the most studied as a dependent variable, and it is also one of the variables that most directly impacts the logistical structure of Long-term Care Facilities (LTCF).

The fact that the “staffing issues” indicator is the most studied as both a dependent and independent variable may result from the circumstance that long-term care is labor-intensive, as well as from the nature of service provision itself, which depends on the interaction between caregiver and the care recipient. This makes the “staffing” variable have a considerable impact on the conditions for care provision as well as on the outcome of care quality (Chen & Grabowski, 2015; Hyer et al., 2013; Werner et al., 2013; Winblad et al., 2017) (see S1 Appendix).
Figure 3
Dependent Variable
Discussion

The present study identifies a significant amount of research (N=110) on the topic of quality assessment in LTCF with 1,239 variables identified, grouped by a standard designation into 79 different quality indicators. It is evident that the quality indicators cover a wide and diverse scope of care, and what is systematically measured is undertaken on a considerable scale,
especially in the USA. This demonstrates a remarkable advance in the ability to measure quality of care since the OBRA reform (Kohler & Wunderlich, 2001; National Academics of Sciences & Medicine, 2022).

The quality outcomes most frequently studied and those that carry the greatest consensus among researchers are "Pressure ulcer," "Functional Performing," and "Psychotropic Drug Use." Considering that most residents in LTCF care over 80 years old (National Academics of Sciences & Medicine, 2022; OECD, 2021), the prominence of indicators such as "Functional Performing" and "Psychotropic Drug Use" in the most studied ones reveals a profile of residents with significant functional dependency and cognitive impairment, particularly dementia. Moreover, in the USA and other OCDE countries, in recent years, there has been a diversification in the offering of long-term care services, including home-based or community-based care options. This has resulted in the redirection of residents with greater care needs to nursing homes (National Academics of Sciences & Medicine, 2022). Consequently, nursing homes have been tasked with attending to residents with more complex care requirements and higher nursing demands (Fry et al., 2018).

The evaluation of quality seems to be influenced by the objectives and interests of regulators, emphasizing the prevention of poor quality, and provision of resident safety, as exemplified by the "Pressure ulcer" indicator. This focus on these clinical issues may neglect other dimensions that consumers and their families may consider important when choosing or evaluating a facility. A recent report on the quality of care in North American nursing homes (National Academics of Sciences & Medicine, 2022) highlights this gap in the system regarding measuring and making certain quality dimensions visible, such as resident and family satisfaction assessment (Castle et al., 2018), quality of life or end-of-life care (Steel et al., 2003), among others.

Simultaneously, there has been an attempt to transition from a traditional care approach to a new one that combines a requirement to meet clinical needs with an emphasis on improving the quality of life. The "Homelike models of care" are an example of this approach (Lehning & Austins, 2010). It seeks to recreate a family-like environment in nursing home facilities, with features such as a domestic setting, small resident groups, and higher staff-to-resident ratios (Gray & Farrah, 2019). In this model, greater importance is given to indicators related to residents' quality of life and their perception of the facility, which was not found to be fully evident in this study.

Another aspect highlighted by this review is the importance of the relationship between staff-related indicators and quality assessment. These indicators encompass variables such as staff-to-resident ratios, staff case mix, qualifications and competencies, turnover, among others. Due to their structural significance, these indicators have garnered significant interest both among researchers and in political discourse, as is evident from their high profile in this review. However, two recent reviews (Armijo-Olivo et al., 2020; Clemens et al., 2021) demonstrate that the evidence regarding the magnitude and direction of the relationship between care quality and staff-to-resident ratios remains inconclusive. This implies that this indicator is likely to continue generating interest in future research investigations.

In this review, the influence of MDS (Minimum Data Set) quality indicators in quality assessment systems in various countries worldwide (Estabrooks et al., 2013) is also
highlighted, along with their impact on the ability to measure the quality of care provided by LTCF. The widespread use of MDS quality indicators has led to a certain standardization of care, facilitated by the adoption of standardized assessment tools, and resulted in a consensus in the selection of specific quality evaluation indicators, as demonstrated in this study.

Conclusion

This study offers an extensive overview of quality indicators used in evaluating care within LTCF. It identifies a comprehensive array of quality indicators, highlighting clinical indicators such as "pressure ulcer," "psychotropic drug use," and "functional performance," along with structural indicators like "staffing issues," as key determinants of quality. The research reflects a widespread consensus on a clinical-focused care approach, aligning with the complex care needs of residents and historical concerns related to patient safety that have driven the development of quality assessment systems. Nonetheless, it also reveals a notable gap in the representation of indicators that measure aspects deemed important by consumers and their families, such as "perception of care quality" or "family participation." This gap underscores the necessity for further research to explore these dimensions more thoroughly. Researchers and policymakers will find this study valuable for navigating and selecting the most suitable quality indicators to meet their objectives.

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References


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