Recommendations for the communication of quality indicators data in long-term care: A rapid review protocol

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Abstract

Background

Since the mid-19th century, the work of Florence Nightingale has placed improving care quality at the heart of the nursing profession. Over a century later, quality indicators have been developed and used as a care quality improvement strategy in long-term care and other healthcare settings in high- and middle-income countries. In the literature, quality indicators are presented as key factors for assessing the quality of care, identifying areas to improve, and fostering care improvement initiatives. For quality indicators to effectively work as care improvement tools, data needs to be understandable and actionable, which points to the importance of the communication of quality indicators data. Yet, to date, no review has systematically examined how to communicate quality indicators data to foster correct understanding and care quality improvement in long-term care.

Objectives

Our rapid review aims to develop recommendations for the communication of care quality indicators data in long-term care for older people. More specifically, it will examine:

(1) which data presentation or reporting formats or features support correct understanding of quality indicators data by healthcare professionals and managers in long-term care facilities for older people, policymakers, potential care users, and their relatives; and

(2) which communication features or strategies may support healthcare professionals and managers in long-term care facilities for older people in utilising quality indicators data to foster care quality improvement.

Methods

We will conduct a rapid review of the literature, based on guidance from the Cochrane Rapid Review Methods Group. We will search Medline (Ovid), Embase, and APA PsycInfo for published studies on the communication of quality indicators in long-term care for older people. Two independent reviewers will screen titles and abstracts then full texts of selected articles, using inclusion criteria based on a Participants-Interventions-Outcomes

framework. A descriptive narrative summary will present our main findings in the form of recommendations.

Discussion

Our review will present recommendations on how to communicate quality indicators data in a clear and comprehensible manner, and in ways that foster care quality improvement. Its findings will be relevant to a wide audience interested in understanding and improving care quality through the development and use of quality indicators.

Review registration

The present protocol was registered on Zenodo on 17 October 2023

Keywords

quality indicators, health care; communication; quality of health care; long-term care; aged; systematic review; benchmarking

Background

Since the mid-19th century, the work of Florence Nightingale has placed improving care quality at the heart of the nursing profession (Brooks 2014). Over a century later, in the context of global population ageing, rising healthcare costs, weaknesses in health financing policies, unequal access to care, varying quality of services, and human resource crises, policymakers and academics have paid increasing attention to healthcare systems performance, more particularly care quality improvement (Kelley and Hurst 2006; Meskó, Hetényi, and Győrffy 2018; Rudnicka et al. 2020; Thomson et al. 2022). One way to assess and improve performance and foster improvement is to develop and deploy indicators assessing quality of care (Kelley and Hurst 2006), on which this review focuses.

In long-term care settings, where challenges such as insufficient funding and human resources, increasing demand for services, and lack of quality controls are particularly acute (Spasova, Baeten, and Vanhercke 2018; Scales 2021), efforts to develop quality indicators are well under way. Starting in the US in the mid-1990s (Karon and Zimmerman 1996), quality indicators have been developed and used as a care quality improvement strategy in countries including Australia, New Zealand, Canada, Norway, the UK, Sweden, Belgium, the Netherlands, Denmark, and Switzerland (Nakrem 2015; Osińska, Favez, and Zúñiga 2022).

Care quality indicators can be broadly understood as "standardized, evidence-based measures" of selected aspects of care quality (Agency for Healthcare Research and Quality 2023). When reported in the form of benchmarks, they offer the possibility to identify and monitor areas requiring improvement and care quality issues at facility, regional, national or international level, to compare institutions and regions and track their evolution in quality over time, and to drive evidence-based care quality improvement (Karon and Zimmerman 1996; Donaldson et al. 2005; Frijters et al. 2013). Moreover, communication strategies such as the public reporting of facilities' care quality indicators results have been found to stimulate care providers to invest in quality improvement, as it enables potential care users to compare across facilities and choose best performing ones (Mor 2005).

Whilst care quality indicators provide avenues to improve the quality of care in quantifiable areas, they might not adequately capture qualitative, individualised, or relational elements that are key contributors to the quality of care (Nothacker et al. 2021). Moreover, critical

observers of the marketisation of long-term care have highlighted the limits of the neoliberal view of competition and consumer choice as drivers for quality and efficiency in the sector (Walker, Druckman, and Jackson 2022). Studies have shown that increased competition is associated with lower quality of care, increased access to information may be used to justify higher costs of care, and consumers are likely to struggle (physically and psychologically) to switch care providers based on performance or satisfaction (ibid). Against this backdrop, it is important to differentiate care quality indicators as instruments deployed to heighten competition in market-driven care systems – which raises important ethical issues and risks creating problematic dynamics – and as ways to empower care providers to drive care quality improvements.

For quality indicators to effectively work as care improvement tools, enabling care actors to target priority areas and translate performance scores into improvement practices, data needs to be understandable and actionable (Barbazza, Klazinga, and Kringos 2021). In this regard, communication strategies – at the level of institutional data or of larger regional, national, or international benchmarks – play an important role in facilitating general understanding of quality indicators. These strategies offer possibilities to enhance interpretation of individual quality indicators scores and may lead to improved targeting of data-informed quality actions. Yet, as revealed by a preliminary literature search, quality measures are not always correctly understood (Gerteis et al. 2007). Studies have thus explored how to present data in a way that facilitates correct understanding and interpretation (Mattke et al. 2003; Gerteis et al. 2007; Boyce et al. 2010; Damman et al. 2016). Another strand of the literature has examined the links between communication strategies such as public reporting of quality indicators results and quality improvement in long-term care (Castle 1999; Rodrigues et al. 2014; Poldrugovac et al. 2022). However, no review has systematically examined how to communicate quality indicators data to foster correct understanding and care quality improvement in long-term care facilities for older people.

Objective

This rapid review aims to develop recommendations for the communication of quality indicators data in long-term care for older people, in a way that facilitates data-informed care quality improvement. More specifically, this review will investigate:

1. which presentation or reporting formats or features support correct understanding of quality indicators data by healthcare professionals and managers in long-term care facilities for older people, policymakers, potential care users, and their relatives (review question 1, RQ1); and

2. which communication features and strategies may support or encourage healthcare professionals and managers in long-term care facilities for older people in utilising quality indicators data to foster care quality improvement (review question 2, RQ2).

Methods

We will conduct a rapid review of the literature based on published guidance from the Cochrane Rapid Reviews Methods Group (Garritty et al. 2021). The primary aim of this review is to deliver a timely synthesis of the best available evidence to assist policymakers and long-term care actors in improving quality indicators data communication strategies. Indeed, communicating clear and actionable data is key to empowering long-term care facilities to use quality indicators for care quality improvement. In this context, a rapid review design is best suited to meet policy priorities whilst ensuring methodological quality and rigour.

The present protocol was prepared using the Cochrane Collaboration Protocol template.[1]

Criteria for considering studies for this review

The inclusion and exclusion criteria and key definitions discussed in the pages below are summarised in Appendix 1.

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[1] https://endoc.cochrane.org/sites/endoc.cochrane.org/files/public/uploads/CMED_protocol_template.pdf

Types of studies

Inclusion criteria: we will include research articles that have utilised quantitative, qualitative, or mixed methodologies and reviews (systematic reviews, meta-analyses, and scoping reviews) based on empirical evidence – i.e., including primary studies with quantitative, qualitative, or mixed-methods research designs.

Exclusion criteria: studies based on non-empirical evidence, such as opinion papers or theoretical studies, will be excluded. Protocols and studies only reported as abstracts will also be excluded.

Types of study participants

Inclusion criteria: we plan to investigate studies that have examined the communication of quality indicator data in terms of target audiences' understanding and use of the data, irrespective of who is communicating the data.

For research question 1, we will consider the following target audiences of quality indicators data: healthcare professionals and managers working in long-term care facilities for older people, policymakers, potential care users and their relatives.

For research question 2, we will consider healthcare professionals and managers in long-term care facilities for older people as the main users of data for quality improvement. Studies that consider residents and relatives' involvement in data-informed decision-making regarding the quality of care will also be included.

Definition: in this review, long-term care facilities are understood as establishments offering health services, supervision, and assistance, amongst other services, to older residents who require residential long-term care. Older people are defined as people aged 60 years and older.

Exclusion criteria: for research question 2, we will exclude studies that consider the use of quality indicators data by potential care users and their relatives for selecting healthcare institutions.

Types of interventions

Inclusion criteria: we will include studies that have examined the communication of quality indicator data (e.g., data visualisation and presentation tools, communication channels, formats, and strategies) in terms of target audiences' understanding and use of the data for care quality improvement.

We will focus on quality indicators pertaining to the care of residents in terms of care processes (e.g., medication reviews, advance care planning, use of physical restraints, use of psychotropic medication) or resident outcomes (e.g., incidence of pain, falls, pressure ulcers, malnutrition, quality of life).

Definition: In this review, communication is understood in broad terms, as the exchange or transmission of quality indicators data.

Exclusion criteria: we will not consider quality indicators measuring structural or financial aspects of care institutions (e.g., number of beds, staffing, cost per resident).

Type of outcome measures

All outcomes pertaining to the comprehension or use of quality indicator data for care quality improvement reported in the included studies will be considered, such as:

- accuracy and ease of data interpretation, errors, preferences
- translation of data into action (e.g., priority setting, evidence-based guidelines, internal quality improvement initiatives), improving trends in indicators data

Search methods for identification of studies

Based on input from co-authors, our science librarian (BK) will develop specific search strategies for each database, namely Medline (Ovid), Embase, and APA PsycInfo. Keywords will include (but not be limited to): "Quality Indicators, Health Care", "Communication", "Data Display", "Nursing Homes", "Homes for the Aged", "Long-Term Care", "Comprehension", "Understanding", and "Quality Improvement". The search algorithm developed for Ovid Medline can be found in Appendix 2. If we detect additional relevant

keywords during our search, we will modify our strategy to incorporate these terms and document changes. We will limit our search to materials published in English since 2000.

Data collection and analysis

Selection of studies

Our search results will be exported to the Rayyan software (Ouzzani et al. 2016). Duplicates will be removed. Using the selection grid with the inclusion and exclusion criteria discussed above (see Appendix 1), two reviewers (EP, VDG) will independently review the abstract and title of every article retrieved. All selected articles will then be reviewed as full text. Disagreements will be solved by consensus. If no consensus can be reached, a third reviewers will be contacted to resolve any disagreement. The search and study selection process will be presented in a Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) flow diagram.

Data extraction and management

A data extraction template will be piloted then used by one reviewer (EP) to extract key data pertaining to participants and interventions characteristics and outcome measures. A second reviewer (NW) will check extracted data for accuracy and completeness.

Assessment of risk of bias in included studies

One reviewer (EP) will analyse risk of bias using a validated tool for included study designs, such as the ROBINS-I tool for assessing risk of bias in non-randomised studies (Sterne et al. 2016). A second reviewer (NW) will verify the results of the analysis.

Data synthesis

We will synthesise evidence in tabular form and narratively, in the form of recommendations for the communication of quality indicators data.

Funding

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Appendix 1 – Inclusion and exclusion criteria and key definitions

	Include	Exclude	Definitions
A. Types of studies	• research articles with quantitative, qualitative, or mixed methodologies • reviews (systematic, scoping, meta-analyses) based on empirical evidence – i.e., including primary studies with quantitative, qualitative, or mixed-methods designs	• studies based on non-empirical evidence (e.g., opinion papers, theoretical studies) • protocols • studies only reported as abstracts	
B. Types of study participants	RQ1 quality indicators data target audiences: • healthcare professionals and managers working in long-term care facilities for older people • policymakers • potential care users and relatives		Long-term care facilities: establishments offering health services, supervision, and assistance, amongst other services, to older residents who require residential long-term care
	RQ2 quality indicators data target audiences: • healthcare professionals and managers in long-term care facilities for older people • residents and relatives involved in data-informed decision-making regarding care quality	RQ2: • potential care users and relatives using quality indicators data for selecting healthcare institutions	Older people: people aged 60 and older
	Participants communicating data: any		
C. Types of interventions	RQ1: • assessing quality indicators data presentation or reporting formats or features in terms of target audiences' understanding or preference		Communication: exchange or transmission of quality indicators data

	<u>RQ2:</u> • assessing quality indicators data communication features or strategies in terms of target audiences' use of data for care quality improvement		<u>Care quality indicators</u>: "standardized, evidence-based measures" of selected aspects of care quality
	Care quality indicators pertaining to: • resident care processes (e.g., medication reviews, advance care planning, use of physical restraints, use of psychotropic medication) • resident outcomes (e.g., incidence of pain, falls, pressure ulcers, malnutrition, quality of life)	Quality indicators measuring structural or financial aspects of care institutions (e.g., number of beds, staffing, cost per resident)	
D. Type of outcome measures	All outcomes pertaining to the comprehension or use of quality indicator data for care quality improvement reported in included studies, such as: <u>RQ1:</u> • accuracy and ease of data interpretation • errors in data interpretation • preferences in terms of reporting formats <u>RQ2:</u> • translation of data into action (e.g., priority setting, evidence-based guidelines, internal quality improvement initiatives) • improving trends in indicators data		
E. Timeframe	Studies published between 2000 and 2023	Studies published before 2000	
F. Language of publication	English	All other languages	

Appendix 2 – Search strategy for Ovid MEDLINE(R) and Epub Ahead of Print, In-Process, In-Data-Review & Other Non-Indexed Citations, Daily and Versions 1946 to October 17, 2023

1. Quality Indicators, Health Care/ or ("quality indicator*" or "quality measure*" or "performance indicator*" or "comparative performance information" or "quality information" or "performance score" or "outcomes measurement").mp.

2. Communication/ or Data Display/ or (display* or visual* or format* or report*).mp.

3. exp Nursing Homes/ or Homes for the Aged/ or Long-Term Care/ or ("long-term care" or (home* adj1 aged) or "nursing home*" or "residential home*" or "residential facilit*" or "nursing facility*" or "institutional care" or "skilled nursing facilit*" or "care home*" or "residential care" or "residential aged care" or "aged care" or "institutional elderly care").mp.

4. (comprehension or understanding or interpret* or preference or improve*).mp. or "Quality Improvement"/

5. 1 and 2 and 3 and 4

6. Limit 5 to 2000-2023