

BMJ Open Patient perceptions of outcomes used to evaluate in-hospital handover interventions: a rapid review of qualitative data

Jessica M Ryan ^{1,2}, Linda Biesty^{3,4,5}, Anastasija Simiceva,¹
Declan Devane ^{3,4,5}, Walter Eppich,⁶ Dara O Kavanagh,^{1,7} Petek Eylul Taneri,⁵
Deborah A McNamara ^{8,9}

To cite: Ryan JM, Biesty L, Simiceva A, *et al*. Patient perceptions of outcomes used to evaluate in-hospital handover interventions: a rapid review of qualitative data. *BMJ Open* 2025;**15**:e100883. doi:10.1136/bmjopen-2025-100883

► Prepublication history and additional supplemental material for this paper are available online. To view these files, please visit the journal online (<https://doi.org/10.1136/bmjopen-2025-100883>).

Received 18 February 2025

Accepted 16 July 2025

ABSTRACT

Objectives High quality handover is critical for patient safety and care continuity. Existing practice is based on a weak evidence base in which the patient voice is poorly captured. The aim of this study was to identify outcomes of importance to patients, families and carers regarding interventions to improve in-hospital handover between healthcare practitioners.

Design A rapid systematic review of qualitative literature was carried out after prospective registration with PROSPERO and was reported in accordance with Preferred Reporting Items for Systematic Reviews and Meta-Analyses and Enhancing Transparency in Reporting the Synthesis of Qualitative Research guidelines.

Data sources The Ovid MEDLINE database was searched.

Eligibility criteria Qualitative or mixed-methods studies reporting patient, family or caregiver perspectives on in-hospital handovers were eligible for inclusion.

Data extraction and synthesis Synthesis was informed by the best-fit framework approach using a published taxonomy of handover-related outcomes and the Core Outcome Measures in Effectiveness Trials taxonomy. Outcomes were reported according to two distinct types of handover: bedside (patient-involved) and provider-focused (patient-uninvolved).

Results A total of 34 studies, including 1262 participants across a range of specialties and predominantly high-income settings, were analysed. 53 bedside and 31 provider-focused handover outcomes were identified according to four domains; adverse events, quality of patient care, quality of handover and patient/caregiver satisfaction. Bedside handover studies frequently reported outcomes relating to patient engagement and communication with healthcare staff. One study was carried out in a low income country; however, outcomes identified were broadly similar.

Conclusions These findings expand the known outcomes for evaluating handover interventions and highlight the importance of prioritising the patient and public perspective in research. This work will contribute to developing a core outcome set for trials in surgical handover but can also be applied to handover practices for any other discipline within the hospital environment.

PROSPERO registration number CRD42023493367.

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ Comprehensive search terms were used, guided by the SPIDER tool, and developed with an information specialist.
- ⇒ To identify outcomes, text was extracted verbatim from papers, and synthesis was carried out using the best-fit framework approach.
- ⇒ Identified outcomes were organised under both a handover-specific taxonomy and the Core Outcome Measures in Effectiveness Trials taxonomy.
- ⇒ Rapid review methodology sacrifices the depth and comprehensiveness of a full systematic review in favour of efficiency.
- ⇒ Low- and middle-income setting representation was limited, which may impact the generalisability of the findings.

INTRODUCTION

Healthcare handover involves exchanging information about a patient between healthcare professionals during the transfer of responsibility for their care.¹ It is a cornerstone of highly reliable hospital care. However, many handovers lead to care failures² due to omissions of information,³ and staff identify an unacceptable level of risk to patients associated with the process.⁴ Poor handovers disrupt patient flow⁵ and incur significant costs. Handover-related errors waste staff time, compromise credibility and create tension within teams.⁶ Malpractice claims associated with communication failures and poor handovers are more expensive to defend.⁷ Dean *et al* extrapolated cost savings of up to £3.8 million per year from an improved surgical handover process in one 419-bedded hospital.⁵

Handover is a crucial process that is often targeted by healthcare improvement initiatives. While much guidance exists, high-quality evidence supporting safe and effective



© Author(s) (or their employer(s)) 2025. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ Group.

For numbered affiliations see end of article.

Correspondence to

Dr Jessica M Ryan;
jessicaryan@rcsi.ie

practices remains limited. The most recent systematic review of handover found significant methodological variation between studies,⁸ and the only meta-analysis of healthcare handover demonstrated a high level of publication bias and heterogeneity.⁹ This heterogeneity partly stems from the wide range of outcome and process measures used,^{8,9} reflecting the absence of a core outcome set for handover.

A core outcome set (COS) would provide the necessary methodological foundation for improving handover research through standardised measurement and reporting. A COS is a standardised set of outcomes that should be measured and reported, as a minimum, in all clinical trials in specific areas of healthcare.¹⁰ Standardising outcome measurement and reporting helps to enhance study comparability and reduce publication bias. COS development involves identifying an initial list of outcomes deemed important to key stakeholders through, for example, a systematic review of quantitative literature and a review of qualitative literature exploring patient perspectives, followed by a consensus process to finalise the outcomes for inclusion in the COS.^{10,11}

Unfortunately, current handover research demonstrates a critical gap in stakeholder engagement, with patient perspectives on key outcomes notably absent from the literature. Incorporating patient and public perspectives ensures that outcomes of importance to patients are captured,¹² which are often missing in clinical trials.¹³ Handover literature reports outcomes with limited input from stakeholders other than healthcare workers.^{8,9} A recent systematic review of provider-focused surgical handover identified 55 discrete outcomes, none of which were patient-reported.⁸ Considering the significant risk associated with handover failures,^{4,6,7} future research must demonstrate a more comprehensive understanding of its impact on all stakeholders.

This rapid review of qualitative literature aims to identify outcomes valued by patients, families and carers regarding interventions to improve in-hospital handover between healthcare practitioners (HCPs). This work supports the development of a COS for trials in surgical handover but can also be applied to any other discipline within the hospital environment.

METHODS

Search strategy

A rapid review is an accelerated form of systematic review, designed to be completed within a shorter timeframe¹⁴ and has previously been used to inform the development of COS.^{15–17} We prospectively registered this rapid qualitative literature review with PROSPERO (CRD42023493367) and reported it in accordance with Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines¹⁸ and the Enhancing Transparency in Reporting the Synthesis of Qualitative Research statement.¹⁹ Methodologically, the review was guided by previous qualitative

syntheses designed to identify patient-reported outcomes for COS development.^{15,20}

We searched Ovid MEDLINE from database inception to June 2025, using a preplanned search strategy developed with an information specialist (online supplemental Appendix S1). Ovid MEDLINE was chosen as the sole database due to its excellent coverage (92.3%)^{21–23} and based on previous similar rapid reviews to identify patient-reported outcomes, which also used a single database.^{15–17} To further increase the coverage of our search, we screened reference lists of included studies, related reviews and the Core Outcome Measures in Effectiveness Trials (COMET) database (<https://www.comet-initiative.org/>) for additional relevant studies. These methods are recommended when timeframes are restricted.^{24,25}

We developed our review question using the SPIDER tool.²⁶ We included qualitative and mixed-methods²⁷ English language studies reporting qualitative empirical findings on the perspectives of patients who had previously been admitted to the hospital, their families or carers, regarding handover between HCPs in-hospital or within the same institution (table 1). To ensure alignment with contemporary understanding of patient-involved care, the review protocol was retrospectively amended to only include studies published within the past 20 years.

Study screening and selection

Two independent reviewers (JR and AS) applied inclusion and exclusion criteria to citations and abstracts prior to reviewing full texts. Reviewers then met to discuss findings and finalise the list of full texts for inclusion. A third reviewer (LB) resolved any disagreements.

Data extraction

We developed a data extraction template in Microsoft Excel (16.91, 2024 Microsoft), and two reviewers (JR and AS) piloted it. After finalising the template, reviewers independently extracted data from five papers chosen by purposeful random sampling²⁸ to represent different categories of handover identified from full-text reviews, including bedside (patient-involved; n=4)^{29,30} and provider-focused (patient-uninvolved; n=3)^{30–32} handover. Inter-reviewer agreement was 82.2%, calculated as the ratio of similarly extracted text excerpts to total extracts. Reviewers resolved disagreements by reviewing qualitative data inclusion criteria. JR and AS then extracted data (online supplemental table S2) from 50% of the remaining studies each,¹⁵ after discussing the initial extraction with the third reviewer (LB).

Verbatim text reporting qualitative empirical findings on patient and public perspectives regarding in-hospital handover between HCPs was extracted from the results and discussion sections of included studies. We primarily extracted data from the results sections. However, where authors provided more detailed elaboration of key findings within the discussion, provided it remained explicitly grounded in the results, this content was also included.

Table 1 Inclusion and exclusion criteria

Spider	Inclusion criteria	Exclusion criteria
Sample	Patients who have previously been admitted to hospital, their families or carers	▶ Healthcare practitioners ▶ Researchers ▶ Methodologists
Phenomenon of interest	Handover between healthcare practitioners in-hospital or within the same institution (for example, shift-to-shift handover within a nursing home)	Handovers between institutions or organisations (for example, hospital to general practitioner, hospital to nursing home)
Design	▶ Interviews ▶ Focus groups ▶ Free text survey responses ▶ Ethnography ▶ Journaling	Studies reported in languages other than English
Evaluation	Studies reporting qualitative empirical findings on the perspectives, opinions, experiences, attitudes, views, beliefs, etc, of the sample	Quantitative analysis
Research type	▶ Qualitative studies ▶ Mixed-methods studies	▶ Quantitative studies ▶ Mixed-methods studies where data analysis is purely quantitative

Any text that reflected author commentary beyond the data was not extracted.

Data synthesis

We collated extracted text using Microsoft Word (V.16.92, 2024 Microsoft). Two reviewers (JR and AS) conducted synthesis using the best-fit framework approach^{33 34} with a taxonomy of outcomes specific to handover research.⁸ To support future COS development, we re-categorised synthesised outcomes using the COMET taxonomy.³⁵ We tabulated results in Microsoft Excel (V.16.91, 2024 Microsoft) and reported them according to two distinct types of handover: bedside (patient-involved) and provider-focused (patient-uninvolved; see online supplemental table S3 for examples).

Quality assessment

The value of critical appraisal for qualitative synthesis remains debated.³⁶ Following consultation with our methodological experts (LB and DD), we opted against critical appraisal since it would not influence study selection or outcome identification.

Statistics

We analysed data with Stata (V.17.0 2021, StataCorp, Texas, USA) and present descriptive data as absolute values and percentages, and continuous data as medians and interquartile ranges. We compared outcome counts between bedside and provider-focused handover studies using the Wilcoxon rank-sum test. All tests of significance were two-tailed, with p value <0.05 indicating statistical significance.

Patient and public involvement

Patients or the public were not involved in the design, conduct or reporting of this study. However, patient and public partners were involved as key stakeholders in the

development of a COS for surgical handover, which was a separate, consensus-based body of work carried out using the findings of the current review.

RESULTS

Search results

We identified 34 papers for inclusion,^{29–32 37–66} screened 3415 database citations and conducted full-text reviews of 132 papers (figure 1). The list of reports excluded during full text review is available as a supplementary file (online supplemental table S4).

Study characteristics

Interviews were the most commonly used method of data collection, employed in 85% (n=29) of studies (online supplemental table S5). Other data collection methods used included handover observations, open-ended survey responses, ethnography, field notes, focus groups and journaling. Most studies used thematic (n=15) or content analysis (n=10).

Setting and population

A total of 1262 patients, parents, guardians, family members and caregivers were included across the 34 studies (online supplemental table S5). The most common healthcare specialties included were surgery, medicine, the intensive care unit, obstetrics and psychiatry, and 56% (n=19) of studies evaluated perspectives of nursing or midwifery handover only. Studies primarily came from high-income countries, including Australia (n=12), the USA (n=9) and the UK (n=4), among others. We found bedside and provider-focused handover outcomes in 25^{29303238–4043464749–5355–5961–66} and 17^{30–32373841–4548505459606266} studies, respectively. Studies evaluating patient perceptions of bedside handover^{29 40 46 47 49 51–53 55–58 61 63–65}

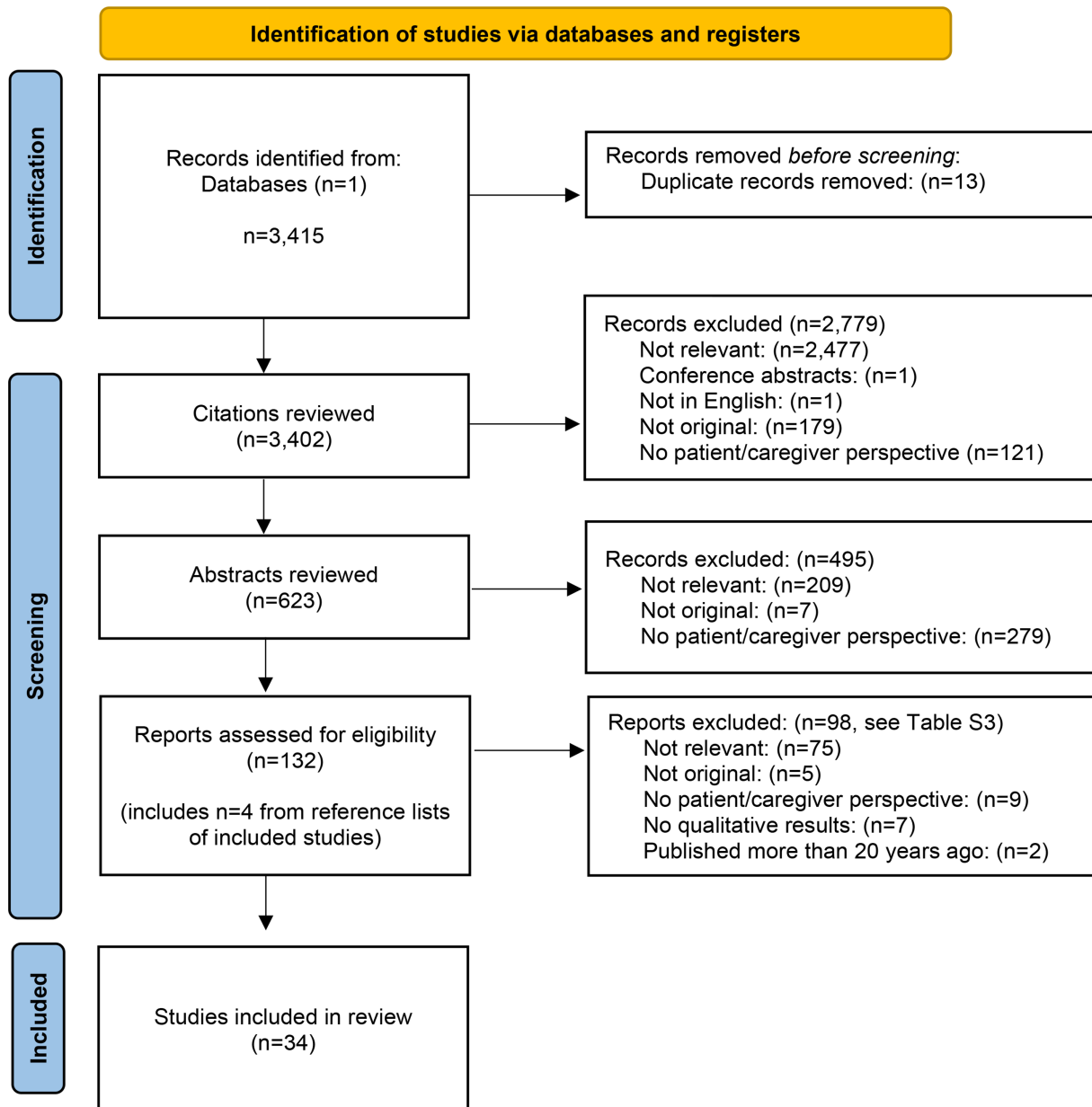


Figure 1 PRISMA flow diagram. PRISMA, Preferred Reporting Items for Systematic Reviews and Meta-Analyses. From Page *et al.*¹⁸

reported significantly higher numbers of outcomes than those only reporting perceptions of provider-focused handover^{31 37 41 42 44 45 48 54 60 62 66} (14 (8–20) vs 6 (4–8), $t=-3$, $p=0.0006$).

Bedside (patient-involved) handover

A total of 53 bedside handover outcomes were synthesised from 25 studies^{29 30 32 38–40 43 46 47 49–53 55–59 61–66} (table 2) with a median of 14 (8–20) outcomes per study. Most studies (72%, $n=18$) reporting bedside handover outcomes evaluated the perspectives of nursing or midwifery handover only.^{29 30 40 46 47 49 51–53 55–59 61 63–65} These were reported across four domains: adverse events ($n=2$ outcomes), quality of patient care ($n=2$), quality of handover ($n=19$) and patient/caregiver satisfaction ($n=30$).

Adverse events and quality of patient care

Two outcomes were reported in relation to adverse events, including the occurrence of error^{46 47 49 55 61} and occurrence of near misses.^{46 49 52 55} The quality of patient care domain included staff provision of handover-related education to patients^{46 59 61 64} and bedside manner.⁵⁸

Quality of handover

All 25 bedside handover studies reported outcomes relating to handover quality. This domain was subdivided into two categories: (1) quality of the handover process ($n=7$ outcomes) and (2) quality of the patient-provider interaction ($n=12$). Handover process outcomes were largely logistical and studies most commonly referred to the accuracy of verbal handover

Table 2 Bedside handover outcomes

Outcome domain and definition	Outcome
Adverse events Outcomes in this area relate to unexpected and harmful events that can happen during a patient's hospital stay	Occurrence of error
	Occurrence of near misses
Quality of patient care These outcomes focus on factors relating to the quality or standard of patient care delivered	Staff provision of handover-related education to patients
	Staff bedside manner
Quality of handover These outcomes refer to how effectively important information about a patient's care is communicated from one healthcare provider to another. A high-quality handover ensures that all necessary details are shared clearly, reducing the risk of errors and improving patient safety	Occurrence of bedside handover
	Duration of handover
	Method of handover
	Time of handover
	Location of patient-involved handover
	Accuracy of verbal handover information
	Post-handover staff knowledge of patients
	Level of staff distraction associated with patient involvement in bedside handover
	Patient interjections during handover
	Staff clarity of language/use of jargon
	Questions asked by patients/caregivers during handover
	Staff inclusion of patients or support people in handover
	Staff introduction of other staff members
	Providing patients with a choice regarding their own handover involvement
	Providing patients with a choice regarding involvement of family members in handover
	Staff acknowledgement of patient or support people questions or concerns
	Staff use of appropriate non-verbal communication
	Patient/caregiver knowledge acquisition during handover
	Information shared or clarified by patients/caregivers during handover
Patient/caregiver satisfaction These outcomes measure how satisfied patients are with processes within the hospital during their stay	Patient perceived quality of care
	Patient perceived continuity of care
	Patient perceived interprofessional collaboration
	Patients needing to repeat information with new staff members
	Patient perceived staff knowledge of patients
	Patient level of confidence in healthcare team
	Patient level of familiarity with staff
	Patient perceived staff miscommunication
	Patient perceived level of staff empathy
	Patient feeling of autonomy/empowerment
	Patient feeling listened to and valued by staff
	Patient feeling treated like an individual
	Patient perceived level of involvement in decision-making and care
	Patient perceived opportunity for social interaction with staff
	Patient/carer satisfaction with bedside handover process
	Patient perceived quality of handover
	Patient perceived safety of handover
	Patient perceived level of involvement in handover
	Patient comprehension of information
	Patient/caregiver ability to hear handover content
	Patient perceived privacy/confidentiality surrounding the handover process

Continued

Table 2 Continued

Outcome domain and definition	Outcome
	Patient agreement with information discussed at handover
	Patient anxiety surrounding information discussed at handover
	Patient perceived staff care discussing sensitive information
	Patient perceived ability to ask questions or raise concerns during handover
	Patient perceived acknowledgement by staff of questions or concerns during handover
	Patient perceived ability to share/clarify information during handover
	Patient perceived acquisition of health information during handover
	Patient perceived transparency of handover process
	Patient comfort level with involvement in bedside handover

information^{32 40 43 47 49 52 57 59 61 62 65} and the occurrence of bedside handover.^{32 43 47 49 51 53 56 59 61 65} The patient-provider interaction category focuses on communication between patients and staff during bedside handover; in this category, inclusion of patients or support persons in handover,^{29 32 38 39 46 47 50–53 56–59 61 63–65} the occurrence of staff introductions,^{29 38 39 46 47 49 50 52 57–59 61 64–66} patient/carer knowledge health acquisition^{29 30 32 39 46 47 49 50 52 53 55 57 61 63} and sharing or clarifying of information by patients/caregivers^{29 32 40 43 46 49 52 55 57 61 63–65} were frequently mentioned.

Patient/caregiver satisfaction

A total of 30 outcomes pertained to patient/caregiver satisfaction, making this the largest bedside handover domain. These outcomes were grouped into two categories: (1) satisfaction with overall care (n=14 outcomes) and (2) satisfaction with the handover process (n=16 outcomes). The most commonly reported outcomes relating to satisfaction with overall care were patient/caregiver familiarity with staff,^{29 46 47 49 52 53 57–59 61 64 65} confidence in the healthcare team^{46 47 51 53 56 57 61 62 64 65} and patients feeling listened to and valued.^{29 47 49 51 57 58 61 64 65} For satisfaction with the handover process, frequently mentioned outcomes included patient-perceived handover involvement,^{29 32 38 39 43 46 47 49–53 55–59 61–65} acquisition of health information,^{29 30 32 39 46 47 49–53 55 57–59 61–65} perceived ability to share or clarify information during handover,^{29 32 40 43 46 47 49 51 52 55–58 61 64 65} comprehension of information shared,^{29 30 32 39 46 47 50 52 53 57 59 61 63–65} privacy and confidentiality^{46 47 49 51–53 55–58 61 63 64} and overall satisfaction with the bedside handover process.^{30 40 43 46 47 49 51–53 55 58 63 65}

Provider-focused (patient-uninvolved) handover

A total of 31 outcomes were synthesised from 17 studies^{30–32 37 38 41–45 48 50 54 59 60 62 66} (table 3) with a median of 6 (4–8) outcomes per study. More than half (n=9) of these solely assessed perspectives of provider-focused handover (online supplemental table S5). These were reported across four domains: adverse events (n=1 outcome, the occurrence of error^{45 50 60}), quality of patient care, quality of handover and patient/caregiver satisfaction.

Quality of patient care

11 outcomes were identified in this domain. The most frequently reported were patient/caregiver perceptions of quality of care,^{50 54 59 60 66} inadequate or delayed treatment^{32 50 60} and staff provision of handover-related education to patients.^{59 66}

Quality of handover

Of the nine outcomes within this domain, the occurrence of handover was the most commonly identified,^{30–32 37 38 41 42 44 45 48 50 54 59} followed by post-handover staff knowledge of patients^{30 32 38 41–43 45 59 60 62} and accuracy of verbal and written handover documentation.^{31 32 41 42 45 50 59 60}

Patient/caregiver satisfaction

A total of 10 patient/carer satisfaction outcomes were identified. Within this domain, perceived staff miscommunication,^{31 32 41–43 45 48 50 54 60} inter-professional collaboration^{32 38 41 43 44 48 50 54 60} and staff knowledge of patients^{30 32 38 42 43 45 60 62} were the most commonly reported.

Studies conducted in low- and middle-income countries

One mixed-methods study⁶⁷ was carried out in Uganda, classified as a low-income country at the time of publication in 2015 and included 30 patient participants interviewed about their experience of labour ward handover.⁵⁰

Eight bedside handovers and 13 provider-focused handover outcomes were identified in this study. The bedside handover outcomes included three of the most commonly reported overall: the patient/caregiver's perceived level of involvement in the handover, the perceived acquisition of health information during the handover and the staff inclusion of patients or support people in the handover. Two of the three most commonly reported provider-focused handover outcomes, handover occurrence and perceived staff miscommunication, were also identified. Two outcomes were unique to this study: delayed post-handover patient review and the handover method.

DISCUSSION

Of the 3415 qualitative studies of healthcare handover screened, 34 studies reported the perspectives of 1262

Table 3 Provider-focused handover outcomes

Outcome domain and definition	Outcome name
Adverse events Outcomes in this area relate to unexpected and harmful events that can happen during a patient's hospital stay	Occurrence of error
Quality of patient care These outcomes focus on factors relating to the quality or standard of patient care delivered	Patient perceived quality of care
	Inadequate investigation
	Inadequate treatment
	Delay in receiving appropriate treatment
	Delay in receiving appropriate investigation
	Delayed post-handover patient review
	Staff compliance with management plan
	Staff compliance with patient preferences
	Staff provision of handover-related education to patients
Quality of handover These outcomes refer to how effectively important information about a patient's care is communicated from one healthcare provider to another. A high-quality handover ensures that all necessary details are shared clearly, reducing the risk of errors and improving patient safety	Appropriately-timed discharge
	Length of hospital stay
	Handover occurrence
	Method of handover
	Availability of handover documentation
	Accuracy of verbal handover content
	Accuracy of written handover documentation
	Post-handover staff knowledge of patients
	Staff perceived clarity of transfer of patient responsibility
Patient/caregiver satisfaction These outcomes measure how satisfied patients are with processes within the hospital during their stay	Transfer of handover-related Information to nursing staff
	Insufficient staff available around handover time
	Patient/carer satisfaction with the handover process
	Patient perceived interprofessional collaboration
	Patient level of confidence in the healthcare team
	Patient level of familiarity with staff
	Patient perceived staff knowledge of patients
	Patient perceived consistency in management
	Patient perceived continuity of care
	Patient perceived staff miscommunication
	Patient perceived transparency of handover process

Continued

Table 3 Continued

Outcome domain and definition	Outcome name
	Patients needing to repeat information with new staff members

patients, caregivers and family members. Outcomes were synthesised and reported according to two distinct categories of handover: bedside (patient-involved) and provider-focused (patient-uninvolved), comprising 53 and 31 outcomes, respectively. Studies evaluating bedside handovers included text pertaining to a greater number of outcomes compared with those evaluating provider-focused handovers. Patients value their own involvement in bedside handover due to the potential for them to become familiar with healthcare staff,²⁹ correct inaccurate information, ask questions⁵² and be involved in decision-making about their care,⁵⁰ emphasising the value of transparency and engagement. For provider-focused handovers, key concerns included whether the handover occurred, its accuracy and the effective transfer of information.

The outcomes identified here differ notably from those identified in the quantitative handover literature. A recent systematic review of provider-focused surgical handover identified 55 discrete outcomes⁸ for developing a COS.⁶⁸ An additional 20 outcomes can be added to this list based on the findings of the current review, suggesting that the patient and public perspective has been largely neglected in the handover literature to date. Incorporating this perspective is a key step in developing a COS to ensure that outcomes of importance to patients and caregivers are captured.¹² Considering the significant risk associated with handover failures,^{4 6 7} future research must demonstrate a more comprehensive understanding of its impact on all stakeholders.

Despite being considerably less common in practice, most included studies examined the patient perspective of bedside handovers, resulting in a more significant number of identified outcomes in this area. This imbalance suggests a potential bias in the literature, with the patient perspective being systematically overlooked. Researchers and clinicians may assume that provider-focused handovers do not require patient input due to their interprofessional nature, or that it may be challenging for patients to articulate their perspectives due to a lack of awareness or understanding.^{59 64 66} However, with up to 4000 provider-to-provider handovers occurring daily in some institutions,⁶⁹ this is arguably the predominant method of handover used and presents a more significant risk to patient safety. It is therefore critical that the patient and public voice is heard when making decisions about this particularly error-prone process.^{2-4 70}

Importantly, qualitative analysis of the patient perspective should be conducted by researchers with a contemporary understanding of patient-centred care. During

reference list screening, we identified two older studies from 1998 and 1999 that reflected a tokenistic view of patient involvement.^{71 72} Both demonstrated interpretive bias, likely due to the novelty of patient participation in handover at the time. Given their limited relevance to current patient perspectives of handover, we retrospectively amended our protocol to only include studies published within the past 20 years.

Only one study (3%) was conducted in a low- and middle-income country (LMIC) which may reflect different research priorities. This limits the generalisability of the findings, especially in the context of COS development; however, outcomes identified in this paper were broadly consistent with those observed in high-income countries.⁵⁰ Future COS development in this area should prioritise including perspectives from LMICs to maximise uptake, as unique contextual factors may reveal additional priorities or challenges in these countries.⁷³

There are inherent limitations in rapid review methodology, which prioritises efficiency over the depth and comprehensiveness of a full systematic review. To reduce the risk of missing relevant studies when searching a single database, we used a highly sensitive search strategy that returned over 3000 records. This is much higher than comparable reviews, which identified between 126 and 548 records.^{15–17} Additionally, in similar studies using more than one database, the search results and final included studies were comparable to those identified through MEDLINE alone.^{74 75} Finally, it is likely that no search strategy could identify all possible outcomes of importance to patients and the public, which is why the process of developing a COS includes the perspectives of these stakeholders during the consensus process.¹²

Rapid reviews have been successfully used to inform the development of other COS,^{15–17} and their shorter timelines¹⁴ may help to expedite dissemination and uptake. Our search strategy was designed for efficiency, in line with rapid review methodology. We used one database to limit the need for manual deduplication and saved considerable time during the data extraction phase. After piloting and finalising the extraction template, two reviewers extracted data from five purposively sampled studies to establish agreement, and then independently extracted data from 50% of the remaining studies each. We also opted against critical appraisal, as it would not have influenced study inclusion or outcome identification.

CONCLUSION

This rapid review expands the available literature, reporting outcomes used to evaluate healthcare handover interventions from a patient perspective. This highlights the importance of integrating the perspectives of all relevant stakeholders in COS development. In addition to the historical focus on provider priorities in the literature, it does not adequately represent low- and middle-income settings. Future research must ensure equitable representation and methodological rigour to create a COS

that is relevant and applicable across diverse healthcare contexts.

Author affiliations

¹Department of Surgical Affairs, Royal College of Surgeons in Ireland, Dublin, Ireland

²The Bon Secours Hospital, Glasnevin, Dublin, Ireland

³School of Nursing and Midwifery, University of Galway, Galway, Co. Galway, Ireland

⁴Health Research Board-Trials Methodology Research Network, University of Galway, Galway, Ireland

⁵Evidence Synthesis Ireland & Cochrane Ireland, University of Galway, Galway, Ireland

⁶Department of Medical Education & Collaborative Practice Centre, University of Melbourne, Melbourne, Victoria, Australia

⁷Department of Surgery, Tallaght University Hospital, Dublin, Ireland

⁸Department of Surgery, Beaumont Hospital, Dublin, Ireland

⁹Office of the President, Royal College of Surgeons in Ireland, Dublin, Ireland

X Declan Devane @decdevane and Deborah A McNamara @dmcmsurg

Acknowledgements The authors would like to thank Killian Walsh, Information Specialist at the RCSI Library in Dublin, Ireland, for assistance with development of the search strategy for this study.

Contributors All named authors met the International Committee of Medical Journal Editors (ICMJE) criteria for authorship of this article, took responsibility for the integrity of the work as a whole, and gave their approval for this version to be published. JR, LB, AS, DD, WE, DOK, PET and DM contributed to the conception or design of the study. JR, LB and AS performed the data analysis. JR, LB and AS contributed to data interpretation and all authors contributed to drafting or revision of the manuscript. JR is the guarantor.

Funding This work was supported by the Medical Protection Society (MPS) Foundation (grant agreement 24416A001) and the Bon Secours Hospital in Dublin, Ireland, via the Royal College of Surgeons in Ireland (RCSI) StAR PhD Programme (grant agreement 22 253A02). The sponsors had no role in study design; in the collection, analysis and interpretation of data; in the writing of the report; or in the decision to submit the article for publication.

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, conduct, reporting or dissemination plans of this research.

Patient consent for publication Not applicable.

Ethics approval Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available upon reasonable request.

Supplemental material This content has been supplied by the author(s). It has not been vetted by BMJ Publishing Group Limited (BMJ) and may not have been peer-reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by BMJ. BMJ disclaims all liability and responsibility arising from any reliance placed on the content. Where the content includes any translated material, BMJ does not warrant the accuracy and reliability of the translations (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages), and is not responsible for any error and/or omissions arising from translation and adaptation or otherwise.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

ORCID iDs

Jessica M Ryan <http://orcid.org/0000-0001-6161-9630>

Declan Devane <http://orcid.org/0000-0002-9393-7075>

Deborah A McNamara <http://orcid.org/0000-0003-3975-0485>

REFERENCES

- Cohen MD, Hillgoss PB. The published literature on handoffs in hospitals: deficiencies identified in an extensive review. *BMJ Qual Saf* 2010;19:493–7.
- Bigham MT, Logsdon TR, Manicone PE, et al. Decreasing handoff-related care failures in children's hospitals. *Pediatrics* 2014;134:e572–9.
- Horwitz LI, Moin T, Krumholz HM, et al. Consequences of inadequate sign-out for patient care. *Arch Intern Med* 2008;168:1755–60.
- Ryan JM, Simiceva A, Toale C, et al. Assessing current handover practices in surgery: A survey of non-consultant hospital doctors in Ireland. *Surgeon* 2024;22:338–43.
- Dean J, Phillips G, Turner W, et al. Demonstrating Improved Surgical Communication and Handoff Generates Earlier Discharges (DISCHARGED). *J Patient Saf* 2018;14:e39–44.
- Williams RG, Silverman R, Schwind C, et al. Surgeon information transfer and communication: factors affecting quality and efficiency of inpatient care. *Ann Surg* 2007;245:159–69.
- Humphrey KE, Sundberg M, Milliren CE, et al. Frequency and Nature of Communication and Handoff Failures in Medical Malpractice Claims. *J Patient Saf* 2022;18:130–7.
- Ryan JM, McHugh F, Simiceva A, et al. Daily handover in surgery: systematic review and a novel taxonomy of interventions and outcomes. *BJS Open* 2024;8:zrae011.
- Keebler JR, Lazzara EH, Patzer BS, et al. Meta-Analyses of the Effects of Standardized Handoff Protocols on Patient, Provider, and Organizational Outcomes. *Hum Factors* 2016;58:1187–205.
- Williamson PR, Altman DG, Bagley H, et al. The COMET Handbook: version 1.0. *Trials* 2017;18:280.
- Kirkham JJ, Davis K, Altman DG, et al. Core Outcome Set-Standards for Development: The COS-STAD recommendations. *PLoS Med* 2017;14:e1002447.
- Dodd S, Gorst SL, Young A, et al. Patient participation impacts outcome domain selection in core outcome sets for research: an updated systematic review. *J Clin Epidemiol* 2023;158:127–33.
- Rahimi K, Malhotra A, Banning AP, et al. Outcome selection and role of patient reported outcomes in contemporary cardiovascular trials: systematic review. *BMJ* 2010;341:c5707.
- Ganann R, Ciliska D, Thomas H. Expediting systematic reviews: methods and implications of rapid reviews. *Implement Sci* 2010;5:56.
- Gorst SL, Young B, Williamson PR, et al. Incorporating patients' perspectives into the initial stages of core outcome set development: a rapid review of qualitative studies of type 2 diabetes. *BMJ Open* 2019;9:e000615.
- Mackey DC, Ekegren CL, Baldwin C, et al. Outcome domains measured in randomized controlled trials of physical activity for older adults: a rapid review. *Int J Behav Nutr Phys Act* 2023;20:34.
- Harman NL, Gorst SL, Williamson PR, et al. Scout - sarcoidosis outcomes taskforce. A systematic review of outcomes to inform the development of a core outcome set for pulmonary sarcoidosis. *Sarcoidosis Vasc Diffuse Lung Dis* 2021;38:e2021034.
- Page MJ, McKenzie JE, Bossuyt PM, et al. The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *Int J Surg* 2021;88:105906.
- Tong A, Flemming K, McInnes E, et al. Enhancing transparency in reporting the synthesis of qualitative research: ENTREQ. *BMC Med Res Methodol* 2012;12:181.
- Taneri PE, Devane D, Kirkham J, et al. Outcomes of interventions in neonatal sepsis: A systematic review of qualitative research. *Int J Gynaecol Obstet* 2024;167:547–55.
- Bramer WM, Giustini D, Kramer BMR. Comparing the coverage, recall, and precision of searches for 120 systematic reviews in Embase, MEDLINE, and Google Scholar: a prospective study. *Syst Rev* 2016;5:39.
- Rice DB, Kloda LA, Levis B, et al. Are MEDLINE searches sufficient for systematic reviews and meta-analyses of the diagnostic accuracy of depression screening tools? A review of meta-analyses. *J Psychosom Res* 2016;87:7–13.
- van Enst WA, Scholten R, Whiting P, et al. Meta-epidemiologic analysis indicates that MEDLINE searches are sufficient for diagnostic test accuracy systematic reviews. *J Clin Epidemiol* 2014;67:1192–9.
- Royle P, Waugh N. Literature searching for clinical and cost-effectiveness studies used in health technology assessment reports carried out for the National Institute for Clinical Excellence appraisal system. *Health Technol Assess* 2003;7:iii.
- Oxman AD, Fretheim A, Schünemann HJ, et al. Improving the use of research evidence in guideline development: introduction. *Health Res Policy Syst* 2006;4:12.
- Cooke A, Smith D, Booth A. Beyond PICO: the SPIDER tool for qualitative evidence synthesis. *Qual Health Res* 2012;22:1435–43.
- Noyes J, Booth A, Cargo M, et al. Qualitative evidence. In: *Cochrane handbook for systematic reviews of interventions*. 2019: 525–45.
- Suri H. Purposeful Sampling in Qualitative Research Synthesis. *Qualitative Research Journal* 2011;11:63–75.
- Bradley S, Mott S. Adopting a patient-centred approach: an investigation into the introduction of bedside handover to three rural hospitals. *J Clin Nurs* 2014;23:1927–36.
- Rowe RE, Kurinczuk JJ, Locock L, et al. Women's experience of transfer from midwifery unit to hospital obstetric unit during labour: a qualitative interview study. *BMC Pregnancy Childbirth* 2012;12:129.
- Berube KM, Fothergill-Bourbonnais F, Thomas M, et al. Parents' experience of the transition with their child from a pediatric intensive care unit (PICU) to the hospital ward: searching for comfort across transitions. *J Pediatr Nurs* 2014;29:586–95.
- Chin GSM, Warren N, Kornman L, et al. Patients' perceptions of safety and quality of maternity clinical handover. *BMC Pregnancy Childbirth* 2011;11:58.
- Booth A, Noyes J, Flemming K, et al. Guidance on Choosing Qualitative Evidence Synthesis Methods for Use in Health Technology Assessments of Complex Interventions. Bremen (DE): Integrate-HTA, 2016.
- Flemming K, Noyes J. Qualitative Evidence Synthesis: Where Are We at? *Int J Qual Methods* 2021;20.
- Dodd S, Clarke M, Becker L, et al. A taxonomy has been developed for outcomes in medical research to help improve knowledge discovery. *J Clin Epidemiol* 2018;96:84–92.
- Carroll C, Booth A, Lloyd-Jones M. Should we exclude inadequately reported studies from qualitative systematic reviews? An evaluation of sensitivity analyses in two case study reviews. *Qual Health Res* 2012;22:1425–34.
- Beaton A, O'Leary K, Thorburn J, et al. Improving patient experience and outcomes following serious injury. *N Z Med J* 2019;132:15–25.
- Benham-Hutchins M, Staggers N, Mackert M, et al. "I want to know everything": a qualitative study of perspectives from patients with chronic diseases on sharing health information during hospitalization. *BMC Health Serv Res* 2017;17:529.
- Benham-Hutchins M, Brown SA, Donovan EE, et al. Spanish-Speaking Hispanic Patients' Information-Sharing Preferences During Hospitalization: An Exploratory Pilot Study. *J Particip Med* 2018;10:e10782.
- Bigani DK, Correia AM. On the Same Page: Nurse, Patient, and Family Perceptions of Change-of-shift Bedside Report. *J Pediatr Nurs* 2018;41:84–9.
- Bristol AA, Crist JD, Phillips LR, et al. Family Caregivers' Experiences of Within-Hospital Handoffs for Older Adults in Acute Care. *J Nurs Care Qual* 2018;33:368–74.
- Brooke BS, Slager SL, Swords DS, et al. Patient and caregiver perspectives on care coordination during transitions of surgical care. *Transl Behav Med* 2018;8:429–38.
- Bruton J, Norton C, Smyth N, et al. Nurse handover: patient and staff experiences. *Br J Nurs* 2016;25:386–93.
- Cuzco C, Delgado-Hito P, Marin-Pérez R, et al. Transitions and empowerment theory: A framework for nursing interventions during intensive care unit patient transition. *Enfermería Intensiva (English Ed)* 2023;34:138–47.
- Field K, Prinjsa S, Rowan K. n.d. "One patient amongst many": a qualitative analysis of intensive care unit patients' experiences of transferring to the general ward. *Crit Care* 12.
- Ghosh M, O'Connell B, Nguyen HT, et al. n.d. Patient and Family Involvement in Nursing Bedside Handover: A Qualitative Descriptive Study of Consumer Perceptions of Nursing Care. *Nurs Rep* 15:51.
- Ghosh M, Nosaka K, Saunders R, et al. Patient Perception of Involvement in Nursing Bedside Handover: A Cross-Sectional Study. *J Adv Nurs* 2025.
- Greenway TL, Rosenthal MS, Murtha TD, et al. Barriers to Communication in a PICU: A Qualitative Investigation of Family and Provider Perceptions. *Pediatr Crit Care Med* 2019;20:e415–22.
- Jeffs L, Beswick S, Acott A, et al. Patients' views on bedside nursing handover: creating a space to connect. *J Nurs Care Qual* 2014;29:149–54.
- Kaye DK, Nakimuli A, Kakaire O, et al. Gaps in continuity of care: patients' perceptions of the quality of care during labor ward handover in Mulago hospital, Uganda. *BMC Health Serv Res* 2015;15:190.
- Kerr D, McKay K, Klim S, et al. Attitudes of emergency department patients about handover at the bedside. *J Clin Nurs* 2014;23:1685–93.
- Lu S, Kerr D, McKinlay L. Bedside nursing handover: patients' opinions. *Int J Nurs Pract* 2014;20:451–9.

- 53 Lupieri G, Creatti C, Palese A. Cardio-thoracic surgical patients' experience on bedside nursing handovers: Findings from a qualitative study. *Intensive Crit Care Nurs* 2016;35:28–37.
- 54 Malley AM, Young GJ. A qualitative study of patient and provider experiences during preoperative care transitions. *J Clin Nurs* 2017;26:2016–24.
- 55 McMurray A, Chaboyer W, Wallis M, *et al.* Patients' perspectives of bedside nursing handover. *Collegian* 2011;18:19–26.
- 56 Mullen A, Isobel S, Flanagan K, *et al.* Involving Mental Health Consumers in Nursing Handover: A Qualitative Study of Consumer Perspectives. *Issues Ment Health Nurs* 2021;42:730–5.
- 57 Olosoji M, Plummer V, Reed F, *et al.* Views of mental health consumers about being involved in nursing handover on acute inpatient units. *Int J Ment Health Nurs* 2018;27:747–55.
- 58 Olosoji M, Plummer V, Shanti M, *et al.* The benefits of consumer involvement in nursing handover on acute inpatient unit: Post-implementation views. *Int J Ment Health Nurs* 2020;29:786–95.
- 59 Orellana K, Lipman V, Manthorpe J, *et al.* Older care home residents' and their relatives' knowledge, understanding and views of shift handovers: an exploratory, focused-ethnographic qualitative study using interviews and observations. *BMJ Open* 2019;9:e032189.
- 60 Ryan JM, Tomlinson P, Simiceva A, *et al.* Patient perspectives on surgical handover quality: a mixed-methods survey. *Patient Saf Surg* 2025;19:14.
- 61 Street M, Dempster J, Berry D, *et al.* Enhancing active patient participation in nursing handover: A mixed methods study. *J Clin Nurs* 2022;31:1016–29.
- 62 Stutzman SE, Olson DM, Greilich PE, *et al.* The Patient and Family Perioperative Experience During Transfer of Care: A Qualitative Inquiry. *AORN J* 2017;105:193–202.
- 63 Tobiano G, Chaboyer W, McMurray A. Family members' perceptions of the nursing bedside handover. *J Clin Nurs* 2013;22:192–200.
- 64 Van de Velde E, Van Hecke A, Van Cleemput N, *et al.* Nursing handover involving consumers on inpatient mental healthcare units: A qualitative exploration of the consumers' perspective. *Int J Ment Health Nurs* 2021;30:1713–25.
- 65 Wiklund I, Sahar Z, Papadopolou M, *et al.* Parental experience of bedside handover during childbirth: A qualitative interview study. *Sex Reprod Healthc* 2020;24:100496.
- 66 Wray CM, Farnan JM, Arora VM, *et al.* A qualitative analysis of patients' experience with hospitalist service handovers. *J Hosp Med* 2016;11:675–81.
- 67 Development OfEC-oda. ODA recipients: countries, territories, and international organisations. 2024. Available: <https://www.oecd.org/en/topics/sub-issues/oda-eligibility-and-conditions/dac-list-of-oda-recipients.html>
- 68 Ryan JM, Devane D, Simiceva A, *et al.* Surgical Handover Core Outcome Measures (SH-CORE): a protocol for the development of a core outcome set for trials in surgical handover. *Trials* 2024;25:373.
- 69 Vidyarthi A. Triple handoff. In: *AHRQ Web M&M*. 2006.
- 70 Meehan NCW. Transfer of care: focus on handover. 2024. Available: <https://stateclaims.ie/learning-events/transfer-of-care-focus-on-handover>
- 71 Greaves C. Patients' perceptions of bedside handover. *Nurs Stand* 1999;14:32–5.
- 72 Cahill J. Patient's perceptions of bedside handovers. *J Clin Nurs* 1998;7:351–9.
- 73 Karumbi J, Gorst S, Gathara D, *et al.* Awareness and experiences on core outcome set development and use amongst stakeholders from low- and middle- income countries: An online survey. *PLOS Glob Public Health* 2023;3:e0002574.
- 74 Hashem MD, Nallagangula A, Nalamalapu S, *et al.* Patient outcomes after critical illness: a systematic review of qualitative studies following hospital discharge. *Crit Care* 2016;20:345:345.
- 75 Coulman KD, MacKichan F, Blazeby JM, *et al.* Patient experiences of outcomes of bariatric surgery: a systematic review and qualitative synthesis. *Obes Rev* 2017;18:547–59.