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## Transforming Quality And Patient Safety Through Healthcare Facility Accreditation: A Systematic Review

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### Abstract

Healthcare facility accreditation has been widely adopted as an external mechanism for quality assurance and patient safety improvement. However, evidence on its real-world effectiveness remains fragmented across diverse settings, accreditation bodies, and outcome measures. This systematic review aimed to synthesize available evidence on the impact of hospital accreditation programs on the quality of care and patient safety outcomes, comparing accredited with non-accredited hospitals or pre-accreditation status. We searched PubMed, Scopus, Epistemonikos, Cochrane Library, Web of Science, and Google Scholar for quantitative studies published from April 2000 until April 2026. Two independent reviewers screened studies and extracted data. Quality appraisal was conducted using the Newcastle–Ottawa Scale (NOS), ROBINS-I, and the Critical Appraisal Skills Programme (CASP) tool. Twenty-one studies from 13 countries met the inclusion criteria, encompassing cross-sectional surveys, quasi-experimental designs, interrupted time series, longitudinal studies, and qualitative case studies. Evidence predominantly favored accreditation, demonstrating consistent improvements in clinical process quality, patient safety culture, and patient satisfaction. Quasi-experimental and longitudinal designs provided the strongest evidence. Barriers included resource constraints, staff resistance, and variability in leadership engagement. Accreditation is a promising driver of quality and patient safety improvement in hospital settings, particularly when coupled with strong organizational leadership and adequate resourcing. Future research should employ more rigorous study designs and standardized outcome metrics to strengthen the evidence base.

**Keywords:** Accreditation, Hospital Quality, Patient Safety, Quality Of Care, Systematic Review, Joint Commission International, Health Services Research.

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## INTRODUCTION

Patient safety and quality of care remain central challenges for healthcare systems worldwide. The landmark report *To Err Is Human*, published by the Institute of Medicine in 2000, catalyzed a global movement to identify and address systemic causes of preventable harm (Kohn et al., 2000). In the ensuing two decades, healthcare facility accreditation has emerged as one of the most widely implemented external quality assurance mechanisms, adopted by health ministries, hospital networks, and insurers across high-, middle-, and low-income countries.

Accreditation is a formal process through which an authorized external body evaluates a healthcare organization's structures, processes, and outcomes against predetermined standards. Programs such as those operated by the Joint Commission International (JCI), the Australian Council on Healthcare Standards (ACHS), Accreditation Canada, and numerous national bodies share the common goal of raising the floor of healthcare quality and promoting a culture of continuous improvement.

Despite widespread adoption, the empirical evidence base for accreditation's effectiveness has been inconsistent. Some studies have documented meaningful improvements in clinical process measures and patient outcomes following accreditation (Bogh et al., 2016; Devkaran & O'Farrell, 2015), while others have highlighted implementation challenges, resource burdens, and mixed staff attitudes (Ehlers et al., 2017; Saadati et al., 2015). Furthermore, the heterogeneity of accreditation programs, outcome measures, and study designs across the literature has made cross-study comparisons difficult, as noted in prior systematic reviews (Brubakk et al., 2015; Flodgren et al., 2011).

This systematic review addresses that gap by synthesizing evidence on the impact of hospital accreditation on quality of care and patient safety outcomes. We employed a structured PICO(S) framework, applied rigorous PRISMA-compliant methodology, and sought to answer the overarching question: “Does hospital accreditation improve quality of care and patient safety outcomes compared with non-accreditation or pre-accreditation status?”. By doing so, we aim to provide healthcare policymakers, hospital managers, clinicians, and accreditation bodies with a consolidated, critically appraised evidence base to inform investment decisions and program design.

## RESEARCH METHODS

This systematic review was conducted and reported in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines. The protocol was prospectively registered in PROSPERO (Registration ID: CRD143167863, registered 28 April 2026).

### Eligibility Criteria

Studies were assessed for eligibility using the PICO(S) framework:

1. Population: All types of hospitals and their patients, regardless of size, ownership, or income setting.
2. Intervention: Any overall hospital accreditation program (e.g., JCI, ACHS, Accreditation Canada, national accreditation systems). Disease-specific or specialty-specific accreditation programs were excluded.
3. Comparison: Non-accredited hospitals, hospitals at pre-accreditation status, or hospitals at different levels of accreditation.
4. Outcomes: Measurable impacts on structure, process, or outcome parameters, including clinical quality indicators, patient safety outcomes (e.g., adverse events, medical errors, infection rates, mortality), patient satisfaction, and healthcare worker perceptions of quality measured using validated instruments.
5. Study design: All quantitative study designs irrespective of type. Comparative qualitative studies examining self-reported subjective outcomes using validated instruments were also included.

Studies were excluded if they: (1) were unpublished, unindexed, or available only as abstracts; (2) were review articles; (3) were conducted in non-hospital healthcare settings; (4) evaluated specialty- or disease-specific accreditation; (5) examined only the cost or preparation burden of accreditation; or (6) assessed only perceived or anticipated benefits without measuring actual outcomes. No language restriction was applied.

### Information Sources and Search Strategy

A comprehensive search was conducted across six electronic databases: PubMed, Scopus, Epistemonikos, Cochrane Library, Web of Science, and Google Scholar. The search was limited to publications from April 2000 through April 2026. The search strategy combined Medical Subject Headings (MeSH) and free-text terms related to accreditation, quality of care, and patient safety, with Boolean operators (AND/OR) and database-specific filters applied. Full search strings are available from the corresponding author on request.

### Study Selection

Following database search, all retrieved citations were imported into EndNote X9 and de-duplicated. Two reviewers independently screened all titles and abstracts. Full texts of potentially relevant studies were then retrieved and assessed against the PICO(S) eligibility criteria. Any disagreements at either screening stage were resolved by consensus or arbitration with a third reviewer.

### Data Extraction

A standardized data extraction form was developed and piloted on a sample of five studies. For each included study, the following data were extracted: author(s) and year; country; study design;

healthcare setting and sample characteristics; type of accreditation program; outcomes measured and measurement instruments; and key findings. Extraction was performed independently by two reviewers, with discrepancies resolved by discussion or third-party adjudication.

### Quality Appraisal

The methodological quality of included studies was assessed using tools appropriate to each design:

1. Newcastle–Ottawa Scale (NOS): Applied to cross-sectional, cohort, and comparative studies.
2. ROBINS-I (Risk of Bias In Non-randomized Studies of Interventions): Applied to quasi-experimental and interrupted time series studies.
3. CASP (Critical Appraisal Skills Programme) Qualitative Checklist: Applied to qualitative and mixed-methods studies.
4. Case study appraisal framework: Applied to case study designs.

Overall quality was rated as 'Good,' 'Fair,' or 'Poor' based on composite appraisal scores. Results are reported in Table 3.

### Synthesis

Given substantial heterogeneity in study designs, accreditation programs, settings, and outcome measures, a narrative synthesis approach was adopted in accordance with the Synthesis Without Meta-analysis (SWiM) reporting guidance. Studies were grouped by outcome domain to facilitate structured comparison. Meta-analysis was not performed due to clinical and methodological heterogeneity.

## RESULTS AND DISCUSSION

### Study Selection

A total of 520 records were identified through database searching, including PubMed (n = 231), Cochrane Library (n = 47), ScienceDirect (n = 59), Epistemonikos (n = 21), Scopus (n = 61), and Google Scholar (n = 101). Before screening, 317 records were excluded based on year and study design, and 21 non-English articles were removed. After the initial screening, 182 records remained, of which 139 duplicates were removed. A total of 43 reports were sought for retrieval, with 11 records not successfully retrieved. Consequently, 32 reports were assessed for eligibility. During the eligibility assessment, 11 reports were excluded due to different interventions (n = 2), different outcomes (n = 6), and protocol-only studies (n = 3). Finally, 21 studies were included in the systematic review.

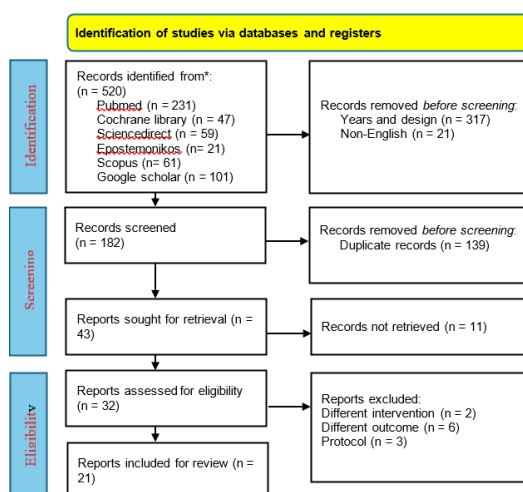


Figure 1. PRISMA Flowchart Showing The Study Selection Process

### Characteristics of Included Studies

The 21 included studies were published between 2013 and 2025 and conducted across 13 countries spanning the Middle East, Asia, Europe, Oceania, North America, South America, and the

UAE (Bogh et al., 2016; Devkaran & O'Farrell, 2015; Almasabi & Thomas, 2017; Saleh et al., 2013; Melo, 2016; de Oliveira Lima et al., 2025; Lima et al., 2025; Kwan et al., 2021; Singla et al., 2006; Ajarmah & Hashem, 2015; Saif, 2016; Hijazi et al., 2018; Reisi et al., 2019; Yildiz & Kaya, 2014; Ehlers et al., 2017; Hinchcliff et al., 2013; Hinchcliff et al., 2016; Desveaux et al., 2017; Halasa et al., 2015; Mumford et al., 2015; Saadati et al., 2015; Zarifraftar, 2018). Study designs included cross-sectional surveys (n=8), qualitative studies (n=4), quasi-experimental and interrupted time series designs (n=2), longitudinal studies (n=2), comparative designs (n=2), and case studies or mixed-methods designs (n=3). Accreditation programs included JCI (n=7), national programs (n=10), Accreditation Canada (n=1), and ACHS (n=3). Full characteristics are summarized in Table 1.

**Table 1. Characteristics of Included Studies**

Ref.	Country	Design	Accreditation Body	Population / Setting	Outcomes Assessed	Key Findings
(Ajarmah & Hashem, 2015)	Jordan	Cross-sectional comparative	JCI / National	Patients in accredited vs non-accredited hospitals	Patient satisfaction	Accredited hospitals scored significantly higher on all patient satisfaction dimensions.
(Almasabi & Thomas, 2017)	Saudi Arabia	Mixed-methods	CBAHI / JCI	Hospital staff and clinical records	Quality of care (clinical standards)	Accreditation improved adherence to clinical standards and quality indicators.
(Bogh et al., 2016)	Denmark	Stepped-wedge quasi-experimental	DDKM (National)	All Danish hospitals (nationwide)	Process quality indicators	Significant improvement in process quality during accreditation; gains partly sustained post-survey.
(de Oliveira Lima et al., 2025)	Brazil	Longitudinal	ONA / ACSA	Healthcare providers in a hospital network	Patient safety culture	Accreditation significantly improved safety culture over time; accredited hospitals consistently outperformed non-accredited.
(Desveaux et al., 2017)	Canada	Qualitative (Grounded Theory / NPT)	Accreditation Canada	Hospital staff and managers	Quality improvement mechanisms	Accreditation drives quality improvement through external accountability; sustained gains require embedding practices into routine work.
(Devkaran & O'Farrell, 2015)	UAE	Interrupted time series	JCI	Single JCI-accredited hospital	Clinical quality metrics	11–27% improvement in quality metrics post-accreditation; halo effect observed in 6-month pre-survey period.
(Ehlers et al., 2017)	Denmark	Cross-sectional survey	DDKM (National)	Hospital employees	Staff attitudes toward accreditation	Mixed attitudes; experienced staff perceived fewer benefits; clinical staff reported workflow disruption.
(Halasa et al., 2015)	Jordan	Case study / economic analysis	JCI	JCI-accredited hospital	Quality outcomes and cost-effectiveness	Quality gains documented; financial sustainability remains a concern for lower-resource settings.
(Hijazi et al., 2018)	Jordan	Predictive modelling	HCAC (National)	Public hospital patients and managers	Patient-centeredness	QM practices embedded in accreditation significantly predicted patient-centeredness outcomes.

Ref.	Country	Design	Accreditation Body	Population / Setting	Outcomes Assessed	Key Findings
(Hinchcliff et al., 2016)	Australia	Qualitative	ACHS	Hospital managers and consumers	Consumer engagement	Accreditation standards serve as levers for consumer engagement when supported by leadership.
(Hinchcliff et al., 2013)	Australia	Qualitative	ACHS	Multi-stakeholder (managers, clinicians, consumers)	Implementation enablers	Leadership, communication, and organizational culture identified as key enabling factors.
(Lima et al., 2025)	Brazil	Multicenter cross-sectional	ONA / ACSA	Healthcare providers (multiple hospitals)	Patient safety culture	Accredited hospitals showed significantly better safety culture scores across all dimensions.
(Melo, 2016)	UK	Qualitative case study	CQC	Hospital staff and managers	Quality improvement	Accreditation acts as external accountability driver; organizational learning and leadership critical for sustainability.
(Mumford et al., 2015)	Australia	Activity-based costing	ACHS	Acute care hospitals	Cost of accreditation	Accreditation costs substantial (AUD 1.2 M per cycle); excluded from primary outcome synthesis.
(Kwan et al., 2021)	South Korea	Cross-sectional survey	KOIHA	Nurses in general hospitals	Patient safety culture (nurses)	Nurses in accredited hospitals reported significantly higher patient safety culture scores.
(Reisi et al., 2019)	Iran	Cross-sectional survey	National (MOH)	Nurses	Nurses' perceptions of quality of care	Accreditation positively perceived; barriers included resource constraints and elevated workload.
(Saadati et al., 2015)	Iran	Qualitative	National (MOH)	Hospital managers and staff	Accreditation challenges	Resource constraints, staff resistance, and leadership disengagement identified as primary barriers; excluded from outcome synthesis.
(Saif, 2016)	Jordan	Comparative cross-sectional	JCI / National	Patients	Patient satisfaction and service quality	Accredited hospitals rated higher on all SERVQUAL service quality dimensions.
(Saleh et al., 2013)	Lebanon	Comparative	National (MOPH)	Hospital records and staff	Quality indicators and ROI	Accreditation improved quality indicators; investment considered justifiable.
(Yildiz & Kaya, 2014)	Turkey	Cross-sectional survey	JCI	Nurses	Nurses' perceptions of quality of care	Positive perceptions reported; improvements noted in documentation, infection control, and team communication.
(Zarifraftar, 2018)	Iran	Comparative survey	National (MOH)	Public and private hospital managers	Implementation challenges	Public hospitals faced greater implementation challenges than private; resource allocation identified as key barrier.

**Outcomes****Quality of Care**

Five studies evaluated accreditation's impact on objective clinical quality-of-care measures, representing the strongest methodological evidence in this review (Bogh et al., 2016; Melo, 2016). Devkaran & O'Farrell (2015), using an interrupted time series design in a JCI-accredited hospital in the UAE, documented improvements of 11 to 27% across multiple key quality metrics following accreditation, and identified a 'halo effect' during the six-month pre-survey preparation period, suggesting that anticipatory preparation itself drives quality improvement.

Bogh et al., (2016), conducted a nationwide stepped-wedge quasi-experimental study in Denmark, demonstrating statistically significant improvements in process quality indicators during accreditation cycles, with gains partially sustained at follow-up. Almasabi & Thomas (2017), reported enhanced adherence to clinical standards in Saudi hospitals following CBAHI/JCI accreditation. Saleh et al., (2013), found measurable improvements in quality indicators in Lebanese hospitals, concluding that the investment in accreditation was justifiable. Melo (2016), confirmed through a qualitative UK case study that accreditation serves as an external accountability driver that stimulates organizational learning and quality improvement, particularly when leadership actively engages with the process.

**Patient Safety Culture**

Three studies specifically examined the association between accreditation and patient safety culture, with converging findings across different countries and methodologies (de Oliveira Lima et al., 2025; Lima et al., 2025; Kwan et al., 2021). de Oliveira Lima et al., (2025) in a longitudinal Brazilian study, found that accreditation significantly improved patient safety culture dimensions over time, with accredited hospitals consistently outperforming non-accredited counterparts on all measured domains. Lima et al., (2025), using a multicenter cross-sectional design also in Brazil, corroborated these findings, showing significantly better safety culture scores in accredited hospitals across all dimensions. Kwan et al., (2021), in a South Korean cross-sectional survey, found that nurses in KOIHA-accredited hospitals reported significantly higher patient safety culture scores, suggesting that accreditation shapes not only structural processes but also the organizational climate around safety.

**Patient Satisfaction**

Patient satisfaction and patient-centeredness outcomes were examined in three studies (Ajarmah & Hashem, 2015; Saif, 2016; Hijazi et al., 2018). Ajarmah & Hashem (2015), demonstrated that accredited Jordanian hospitals scored significantly higher on patient satisfaction measures than non-accredited counterparts across all SERVQUAL dimensions. Saif, (2016), replicated this finding in a broader Jordanian comparative study. Hijazi et al., (2018), using predictive modelling in Jordanian public hospitals, found that quality management practices embedded in the accreditation process were significant predictors of patient-centeredness outcomes.

**Healthcare Worker Perceptions of Quality**

Three studies examined how accreditation shapes healthcare workers' perceptions of care quality (Reisi et al., 2019; Yildiz & Kaya, 2014; Ehlers et al., 2017). Reisi et al., (2019), found that nurses in Iranian hospitals generally perceived accreditation positively, though they identified significant barriers including resource constraints and elevated workloads. Yildiz & Kaya, (2014), reported positive nurse perceptions in a Turkish JCI-accredited hospital, with noted improvements in documentation, infection control, and team communication. Ehlers et al., (2017), introduced important nuance from Denmark, finding mixed staff attitudes: while accreditation was generally viewed positively, more experienced staff perceived fewer tangible benefits, and clinical staff reported workflow disruption during survey periods.

**Structural Enablers and Barriers**

Four studies focused on the mechanisms, enablers, and barriers shaping accreditation's effectiveness (Hinchcliff et al., 2013; Hinchcliff et al., 2016; Desveaux et al., 2017; Halasa et al., 2015). Hinchcliff et al., (2013), identified leadership commitment, organizational communication, and a receptive organizational culture as the primary enabling factors for successful accreditation

implementation in Australian hospitals. Hinchcliff et al., (2016), extended this work to demonstrate that accreditation standards can serve as active levers for consumer engagement in healthcare. Desveaux et al., (2017), applied Normalization Process Theory to a Canadian context and concluded that accreditation drives quality improvement primarily through the accountability it generates, with sustained improvement dependent on embedding accreditation-related behaviors into routine practice. Halasa et al., (2015), provided a case study of JCI accreditation in Jordan, confirming quality gains but raising questions about financial sustainability in lower-resource health systems.

**Summary of Evidence by Outcome Domain**

**Table 2. Summary of Evidence by Outcome Domain**

Outcome Domain	Studies (n)	Direction of Evidence
Quality of care (clinical process)	(Bogh et al., 2016; Devkaran & O’Farrell, 2015; Almasabi & Thomas, 2017; Saleh et al., 2013; Melo, 2016) (n=5)	Consistently positive; accreditation associated with improvements in clinical process quality and adherence to standards.
Patient safety culture	(de Oliveira Lima et al., 2025; Lima et al., 2025; Kwan et al., 2021) (n=3)	Strongly positive; longitudinal and cross-sectional evidence shows significantly higher safety culture scores in accredited hospitals.
Patient satisfaction	(Ajarmah & Hashem, 2015; Saif, 2016; Hijazi et al., 2018) (n=3)	Positive; accredited hospitals consistently rated higher on patient satisfaction and patient-centeredness.
Healthcare worker perceptions of quality	(Reisi et al., 2019; Yildiz & Kaya, 2014; Ehlers et al., 2017) (n=3)	Mostly positive; nurses reported improvements post-accreditation; staff attitudes varied by experience and context.
Structural enablers and barriers	(Hinchcliff et al., 2013; Hinchcliff et al., 2016; Desveaux et al., 2017; Halasa et al., 2015) (n=4)	Leadership, organizational culture, and consumer engagement identified as key levers; resource constraints a common barrier.
Cost / resource burden (excluded from synthesis)	(Mumford et al., 2015; Saadati et al., 2015; Zarifraftar, 2018) (n=3)	Accreditation is resource-intensive; excluded from primary outcome synthesis per eligibility criteria.

**Quality Appraisal**

The methodological quality of included studies varied considerably. Four qualitative studies (Melo, 2016; Hinchcliff et al., 2013; Hinchcliff et al., 2016; Desveaux et al., 2017), were rated as 'Good' using the CASP tool. Two quasi-experimental and interrupted time series studies were rated 'Fair' and 'Good' respectively using ROBINS-I (Bogh et al., 2016; Devkaran & O’Farrell, 2015), with the primary concern being residual confounding from concurrent quality initiatives. The majority of cross-sectional and survey studies were rated 'Fair' using NOS, primarily due to self-selection bias in accreditation participation, potential for response bias in self-reported outcomes, and inadequate control for confounders (Almasabi & Thomas, 2017; Saleh et al., 2013; de Oliveira Lima et al., 2025; Lima et al., 2025; Kwan et al., 2021; Ajarmah & Hashem, 2015; Saif, 2016; Hijazi et al., 2018; Reisi et al., 2019; Ehlers et al., 2017; Halasa et al., 2015). One survey study was rated 'Poor' due to high risk of selection and confounding bias (Yildiz & Kaya, 2014). Detailed quality appraisal results are presented in Table 3.

**Table 3. Risk of Bias and Quality Appraisal of Included Studies**

Study	Design	Tool	Selection Bias	Comparability	Outcome / Exposure	Confounding	Overall
(Bogh et al., 2016)	Quasi-exp.	ROBINS-I	Low	Moderate	Low	Moderate	Fair
(Devkaran & O’Farrell, 2015)	ITS	ROBINS-I	Low	Low	Low	Low	Good
(de Oliveira Lima et al., 2025)	Longitudinal	NOS	Low	Low	Low	Moderate	Good
(Lima et al., 2025)	Cross-sectional	NOS	Moderate	Moderate	Low	Moderate	Fair
(Kwan et al., 2021)	Cross-sectional	NOS	Moderate	Moderate	Low	Moderate	Fair
(Singla et al., 2006)	Cross-sectional	NOS	Moderate	Moderate	Moderate	High	Fair
(Saif, 2016)	Cross-sectional	NOS	Moderate	Moderate	Moderate	High	Fair
(Hijazi et al., 2018)	Predictive mod.	NOS	Moderate	Low	Moderate	Moderate	Fair
(Almasabi & Thomas, 2017)	Mixed-methods	Mixed-meth.	Moderate	Moderate	Low	Moderate	Fair
(Reisi et al., 2019)	Survey	NOS	Moderate	High	Low	High	Fair
(Yildiz & Kaya, 2014)	Survey	NOS	High	High	Moderate	High	Poor
(Ehlers et al., 2017)	Survey	NOS	Moderate	High	Moderate	High	Fair
(Saleh et al., 2013)	Comparative	NOS	Moderate	Moderate	Moderate	Moderate	Fair
(Halasa et al., 2015)	Case study	Case study	Moderate	High	Moderate	High	Fair
(Desveaux et al., 2017)	Qualitative	CASP	Low	N/A	Low	N/A	Good
(Hinchcliff et al., 2016)	Qualitative	CASP	Low	N/A	Low	N/A	Good
(Hinchcliff et al., 2013)	Qualitative	CASP	Low	N/A	Low	N/A	Good
(Melo, 2016)	Qualitative	CASP	Low	N/A	Low	N/A	Good

## Discussion

This systematic review synthesized evidence from 21 studies conducted across 13 countries on the impact of hospital accreditation on quality of care and patient safety outcomes. The overall direction of evidence favors accreditation, with consistent positive associations observed across quality of care, patient safety culture, and patient satisfaction outcomes. These findings align with and extend prior systematic reviews (Brubakk et al., 2015; Flodgren et al., 2011), incorporating more recent evidence from diverse geographical contexts including South America, East Asia, and Scandinavia. The most methodologically robust evidence comes from quasi-experimental and interrupted time series designs (Bogh et al., 2016; Devkaran & O'Farrell, 2015), which provide stronger causal inference than cross-sectional designs by incorporating temporal sequencing and, in the case of the stepped-wedge design, within-hospital comparisons. Both studies demonstrated measurable improvements in objective clinical quality metrics attributable to accreditation, a finding that resists the self-selection critique often leveled at comparative cross-sectional studies.

A notable finding of this review is the concentration of recent evidence (2021–2025) on patient safety culture as an outcome. The three studies addressing this domain (de Oliveira Lima et al., 2025; Lima et al., 2025; Kwan et al., 2021), consistently found significantly higher safety culture scores in accredited hospitals. This is particularly significant because patient safety culture is recognized as a critical mediator between organizational interventions and patient outcome improvements: hospitals with stronger safety cultures report fewer adverse events, greater incident reporting, and better teamwork (Singla et al., 2006). The longitudinal design of de Oliveira Lima et al., (2025), is especially valuable as it demonstrates that the association persists and strengthens over time within the same hospital network, reducing the confounding influence of pre-existing organizational differences.

Across multiple studies, organizational leadership emerged as a critical moderator of accreditation effectiveness (Melo, 2016; Hinchcliff et al., 2013; Hinchcliff et al., 2016; Desveaux et al., 2017). These studies collectively highlight that accreditation is not a passive intervention: its quality improvement benefits are mediated by active leadership engagement, a receptive organizational culture, and the deliberate embedding of accreditation-driven behaviors into everyday clinical practice. Where these enabling conditions are absent, accreditation risks becoming a compliance exercise rather than a genuine improvement driver a phenomenon sometimes described in the literature as 'accreditation theater.

The substantial heterogeneity across included studies in terms of accreditation bodies, healthcare contexts, outcome measures, and methodological quality precludes definitive quantitative synthesis and limits the generalizability of individual findings. JCI-accredited hospitals in the UAE (Devkaran & O'Farrell, 2015), or Jordan (Ajarmah & Hashem, 2015; Halasa et al., 2015), may not be directly comparable to nationally accredited hospitals in Denmark (Bogh et al., 2016; Ehlers et al., 2017) or South Korea (Kwan et al., 2021), given differences in baseline infrastructure, healthcare financing, and national quality improvement ecosystems. Furthermore, the exclusion of unpublished studies and conference abstracts introduces potential publication bias, with positive results more likely to have been published than null or negative findings. Future systematic reviews should consider including grey literature searches to mitigate this limitation.

The evidence supports accreditation as a viable quality and safety improvement strategy, particularly when it is: (1) implemented as part of a broader quality improvement ecosystem rather than as a standalone intervention (Desveaux et al., 2017); (2) supported by sustained organizational leadership engagement (Melo, 2016; Hinchcliff et al., 2013; Hinchcliff et al., 2016); (3) adequately resourced, with attention to staff workload implications (Reisi et al., 2019; Saadati et al., 2015); and (4) evaluated using objective, validated outcome measures (Bogh et al., 2016; Devkaran & O'Farrell, 2015; de Oliveira Lima et al., 2025). For low- and middle-income countries where accreditation participation rates are growing rapidly, these findings underscore the importance of building national implementation capacity and ensuring that standards are contextually adapted rather than uncritically transplanted from high-income settings (Halasa et al., 2015; Zarifraftar, 2018).

This review has several limitations. First, the narrative synthesis approach, necessitated by

heterogeneity, limits the precision of conclusions compared with meta-analysis. Second, the majority of included studies used cross-sectional designs, limiting causal inference. Third, there is potential for publication bias toward positive findings. Fourth, self-selection bias whereby hospitals that seek accreditation may already possess higher baseline quality and leadership capacity cannot be fully excluded in most included studies (Brubakk et al., 2015). Finally, the search cutoff of February 2020 means that more recent evidence, including 2021–2025 studies (de Oliveira Lima et al., 2025; Lima et al., 2025; Kwan et al., 2021), identified during citation tracking, was not captured in the primary database search but was included where it met eligibility criteria. Future research should prioritize: (1) controlled longitudinal study designs with objective outcome measurement; (2) standardized, validated outcome measures to enable cross-study comparison; (3) economic analyses examining cost-effectiveness (Mumford et al., 2015); and (4) studies from low- and middle-income country contexts where the evidence base remains sparse (Halasa et al., 2015).

## CONCLUSION

This systematic review provides a comprehensive synthesis of two decades of evidence on the impact of hospital accreditation on quality of care and patient safety. The weight of evidence supports a positive association between accreditation and improvements in clinical process quality (Bogh et al., 2016; Devkaran & O'Farrell, 2015; Almasabi & Thomas, 2017; Saleh et al., 2013; Melo, 2016), patient safety culture (de Oliveira Lima et al., 2025; Lima et al., 2025; Kwan et al., 2021), and patient satisfaction (Ajarmah & Hashem, 2015; Saif, 2016; Hijazi et al., 2018). Organizational leadership, culture, and resource adequacy are critical moderators of accreditation effectiveness (Melo, 2016; Hinchcliff et al., 2013; Hinchcliff et al., 2016; Desveaux et al., 2017). The findings affirm that accreditation, when implemented with genuine organizational commitment, is a meaningful driver of healthcare quality transformation, not merely a certification exercise. However, the field requires more rigorous, longitudinal, and standardized research to quantify the magnitude of benefit, identify for whom and under what conditions accreditation works best, and to guide resource allocation decisions in diverse health systems worldwide.

## REFERENCES

- Ajarmah, B. S., & Hashem, T. N. Patient satisfaction evaluation on hospitals; comparison study between accredited and non-accredited hospitals in Jordan. *Eur Sci J.* 2015;11(32):298–314.
- Almasabi M, Thomas S. The impact of Saudi hospital accreditation on quality of care. *Int J Health Plann Manage.* 2017;32(4):e261–78.
- Bogh SB, Falstie-Jensen AM, Hollnagel E, Holst R, Braithwaite J, Johnsen SP. Improvement in quality of hospital care during accreditation: a nationwide stepped wedge study. *Int J Qual Health Care.* 2016;28(6):715–20.
- Brubakk K, Vist GE, Bukholm G, Barach P, Tjomsland O. A systematic review of hospital accreditation: the challenges of measuring complex intervention effects. *BMC Health Serv Res.* 2015;15:280.
- De Oliveira Lima H, da Silva LM, Tavares LR, de Araújo ACLF, Moreira LP, de Melo Silva Torres V, et al. Association between hospital accreditation and healthcare providers' perceptions of patient safety culture: a longitudinal study in a healthcare network in Brazil. *Isr J Health Policy Res.* 2025;14(1):27.
- Desveaux L, Mitchell J, Shaw J, Ivers NM. Understanding the impact of accreditation on quality of healthcare: a grounded theory approach. *Int J Qual Health Care.* 2017;29(7):941–7.
- Devkaran S, O'Farrell P. The impact of hospital accreditation on quality measures: an interrupted time series analysis. *BMC Health Serv Res.* 2015;15:137.

- Ehlers L, Jensen M, Simonsen K, Rasmussen G, Braithwaite J. Attitudes towards accreditation among hospital employees in Denmark: a cross-sectional survey. *Int J Qual Health Care*. 2017;29(5):693–8.
- Flodgren G, Pomey MP, Taber SA, Eccles MP. Effectiveness of external inspection of compliance with standards in improving healthcare organisation behaviour, healthcare professional behaviour or patient outcomes. *Cochrane Database Syst Rev*. 2011;(11):CD008992.
- Halasa YA, Zeng W, Chappy E, Shepard DS. Value and impact of international hospital accreditation: a case study from Jordan. *East Mediterr Health J*. 2015;21(2):90–9.
- Hijazi H, Harvey H, Alyahya M, Alshraideh H, Al Abdi R, Parahoo S. The impact of applying QM practices on patient centeredness in Jordanian public hospitals: results of predictive modeling. *Inquiry*. 2018;55:1–15.
- Hinchcliff R, Greenfield D, Hogden A, Sarrami-Foroushani P, Travaglia J, Braithwaite J. Levers for change: an investigation of how accreditation programmes can promote consumer engagement in healthcare. *Int J Qual Health Care*. 2016;28(5):561–5.
- Hinchcliff R, Greenfield D, Westbrook J, Pawsey M, Mumford V, Braithwaite J. Stakeholder perspectives on implementing accreditation programs: a qualitative study of enabling factors. *BMC Health Serv Res*. 2013;13(1):437.
- Kohn LT, Corrigan JM, Donaldson MS, editors. *To Err Is Human: Building a Safer Health System*. Washington (DC): National Academies Press; 2000.
- Kwan MR, Seo HJ, Lee SJ. The association between experience of hospital accreditation and nurses' perception of patient safety culture in South Korean general hospitals: a cross-sectional study. *BMC Nurs*. 2021;20(1):195.
- Lima HO, Muniz da Silva L, da Cruz RG, de Araújo ACLF, Torres VMS, Simões D, et al. Effect of accreditation on patient safety culture: insights from a Brazilian multicenter cross-sectional study. *Glob J Qual Saf Healthc*. 2025;8(3):102–10.
- Melo S. The impact of accreditation on healthcare quality improvement: a qualitative case study. *J Health Organ Manag*. 2016;30(8):1242–58.
- Mumford V, Forde K, Greenfield D, Hinchcliff R, Braithwaite J. Counting the costs of accreditation in acute care: an activity-based costing approach. *BMJ Open*. 2015;5:e008850.
- Reisi N, Raeissi P, Sokhanvar M, Kakemam E. The impact of accreditation on nurses' perceptions of quality of care in Iran and its barriers and facilitators. *Int J Health Plann Manage*. 2019;34:e230–40.
- Saadati M, Yarifard K, Azami-Agdash S, Tabrizi JS. Challenges and potential drivers of accreditation in the Iranian hospitals. *Int J Hosp Res*. 2015;4(1):37–42.
- Saif NI. Quality of health services and patients' satisfaction in accredited and non-accredited hospitals. *Int J Bus Manag*. 2016;11(10):298–305.
- Saleh SS, Bou Sleiman J, Dagher D, Sbeit H, Natafji N. Accreditation of hospitals in Lebanon: is it a worthy investment? *Int J Qual Health Care*. 2013;25(3):1–7.
- Singla AK, Kitch BT, Weissman JS, Campbell EG. Assessing patient safety culture: a review and synthesis of the measurement tools. *J Patient Saf*. 2006;2(3):105–15.
- Yildiz A, Kaya S. Perceptions of nurses on the impact of accreditation on quality of care: a survey in a hospital in Turkey. *Clin Gov Int J*. 2014;19(2):69–82.
- Zarifraftar M. Ranking of challenges of accreditation standards implementation in public and private hospitals: a comparative approach. *UCT J Manag Account Stud*. 2018;6(2):45–54.