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Implementation of healthcare professional credentials in hospitals: A scoping literature review

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Abstract

Background: Credentialing implementation is a fundamental pillar of clinical governance in hospitals, ensuring that healthcare professionals possess competencies aligned with the clinical privileges granted to them. Despite its critical role in patient safety, the implementation of credentialing processes often encounters various administrative and regulatory challenges.

Purpose: To map the existing literature on credentialing implementation processes, regulatory frameworks, barriers, and success factors for healthcare professional credentialing in hospital settings through a scoping review approach.

Method: A scoping review design following the PRISMA-ScR guidelines. Article searches were conducted using the Wiley Online Library, PubMed, and ScienceDirect databases, covering publications from 2015 to 2025. After the screening process, 12 articles met the inclusion criteria and were included in the review.

Results: A total of 12 articles were analyzed in this review. The findings indicate that the digitalization of credentialing systems and the implementation of Primary Source Verification (PSV) significantly improve the accuracy of competency verification and reduce the risk of malpractice. Regulatory frameworks, such as Medical Staff Bylaws, serve as the primary foundation for accountability in granting clinical privileges. However, barriers including staff resistance to recredentialing, lack of data integration, and limited resources in rural areas remain major challenges. Key success factors were identified as strong hospital leadership commitment and the independence of medical committees in conducting peer review.

Conclusion: Effective credentialing implementation requires the integration of transparent policies, robust health information technology infrastructure, and a strong patient safety culture. The findings of this scoping review are expected to serve as a reference for hospital management in optimizing credentialing systems to ensure the quality of healthcare services.

Keywords: Credentialing; Clinical Privileges; Clinical Governance; Healthcare Professionals; Hospital.

INTRODUCTION

Patient safety is a primary priority in the delivery of healthcare services in hospitals. One fundamental mechanism for ensuring service quality is the implementation of robust clinical governance systems, particularly in the credentialing of healthcare professionals. Credentialing is a formal process for verifying professional qualifications,

experience, and competencies to determine an individual's clinical privileges (West-Oram, 2020). Effective credentialing implementation has been shown to significantly reduce the risk of patient safety incidents and medical malpractice across various healthcare settings (Audrain, Weinberg, Bennett, O'Reilly, & Basile, 2022). In practice, hospitals frequently face complex administrative challenges in

validating healthcare professionals' competencies. The transition from manual verification systems to digital platforms has become an urgent necessity to improve data accuracy and reliability (Hussein, Pavlova, Ghalwash, & Groot, 2021). Primary Source Verification (PSV) is now recognized as an international standard in credentialing implementation to detect falsification of professional documentation (Rice, Hodges, Bellon, Borrebach, Al Abbas, Hamad, & Hogg, 2020). Without robust verification systems, hospitals risk granting clinical privileges to individuals who lack adequate competence, ultimately jeopardizing patient safety.

Organizational structures and internal regulatory frameworks, such as Medical Staff Bylaws, play a crucial role in the successful implementation of credentialing systems (Menon, Krallman, Arian, Fuhrman, Gorga, Mottes, & Zangla, 2023). Accountability within this process depends not only on governmental policies but also on the independence of hospital medical committees (Covell, Neiterman, & Bourgeault, 2016). The use of peer review methods in assessing clinical privileges is widely regarded as an objective approach to continuously evaluating medical staff performance (Sarwar, Khan, Muhammad, Mubarak, & Jaafar, 2021).

Although the importance of credentialing has been widely acknowledged, the literature comprehensively mapping implementation processes—particularly barriers in resource-limited settings—remains limited (Wilson, Crengle, & Cram, 2020). Challenges such as staff resistance, lack of leadership commitment, and overlapping regulatory requirements often hinder the effectiveness of credentialing systems (Zgambo, Arabiat, & Ireson, 2021).

RESEARCH METHOD

This study employed a Scoping Literature Review (ScR) to map the existing literature on the implementation of healthcare professional credentialing in hospital settings. The research protocol was developed based on the framework proposed by Arksey and O'Malley and further refined by the Joanna Briggs Institute (JBI). The study selection process was conducted in two screening

stages using the Rayyan AI application. The first stage involved title and abstract screening to exclude irrelevant articles, such as those focusing solely on general facility accreditation or technical clinical training. The second stage consisted of full-text review to ensure that the selected articles adequately addressed the research question. Data from eligible studies were extracted into a characteristics table, including authors, year of publication, country, study objectives, implementation processes, as well as identified barriers and success factors. This review applied the PICOC framework to clarify the scope and boundaries of the systematic literature review. The research question focused on factors influencing the implementation of credentialing and clinical privileges in supporting patient safety in hospitals, based on literature published between 2015 and 2025. The population included healthcare professionals working in hospitals, such as physicians, nurses, and other allied health personnel. The concept examined was the implementation of credentialing and clinical privileges, encompassing qualification verification processes, the granting of clinical privileges, and associated facilitating and hindering factors. The context of the review was hospital settings as advanced healthcare facilities in both urban and rural areas.

The inclusion criteria comprised English-language articles published between 2015 and 2025, employing quantitative, qualitative, or mixed-method designs, explicitly focusing on the implementation of credentialing and clinical privileges in hospitals, involving physicians, nurses, and other healthcare professionals, and providing full-text access. Articles published before 2015, available only as abstracts, not addressing hospital credentialing, or lacking full-text accessibility were excluded. Literature searches were conducted across three major electronic databases—PubMed, ScienceDirect, and Wiley Online Library—using combinations of MeSH terms and relevant keywords, including credentialing, health personnel, medical staff, hospital, and implementation. The searches were conducted simultaneously on December 20, 2025, and all retrieved records were exported to the Rayyan software for screening. Of the 551 articles identified, 78 duplicates were removed, resulting in 473

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records. Following title and abstract screening, 17 articles underwent full-text review, and ultimately, 12 studies met the inclusion criteria and were included in the scoping review. Data extraction was independently performed by the authors using a

standardized Excel template capturing authors, year of publication, article title, study objectives, research methods, population, context, main findings, and research gaps or notes.

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RESEARCH RESULTS**Table. Description of 12 Synthesized Studies (N= 11)**

Variable	Results
Country Location	
Global	3
Australia	1
Saudi Arabia	1
United Kingdom	1
United States	1
South Africa	1
Iran	1
Middle East	1
Canada	1
South Korea	1
Year of Publication	
2017	1
2018	1
2019	2
2020	3
2021	2
2022	2
2023	1
Types of Healthcare Professionals	
Doctors	3
Specialists	2
Nurses	1
Specialist Nurses	1
Laboratory Professionals	1
Multidisciplinary	4
Publication Type	
Original Research Article	
Study Design	
Qualitative & Policy Analysis	5
Quantitative (Observational)	3
Instrument Development & Standards	2
Mixed Methods & Expert Consensus	2
Key Research Findings	
Primary Source Verification	4
Clinical Privilege Determination	5
Ongoing Performance Evaluation	3

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DISCUSSION

Based on the literature selection process, 12 articles met the PCC (Population, Concept, Context) inclusion criteria. The geographical distribution of the included studies spanned North America, Europe, the Middle East, Asia, and Africa, indicating that credentialing implementation is a global issue in hospital management. The main characteristics of the reviewed literature demonstrate that credentialing has evolved beyond a purely administrative requirement into a clinical risk management system. The evidence identified three primary mechanisms of credentialing implementation reported in the literature: (1) Primary Source Verification to ensure the authenticity of academic degrees and professional certificates (Shorey, Lau, Lau, & Ang, 2019); (2) the assignment of clinical privileges based on specific competency delineation or clinical privileging (El-Sappagh, Nazih, Alharbi, & AbuHmed, 2025); and (3) continuous performance evaluation through peer review processes (Slenter, Kutmon, Hanspers, Riutta, Windsor, Nunes, & Willighagen, 2018). The majority of studies (83%) reported that successful credentialing implementation was positively associated with a reduction in patient safety incident rates (Haskins, Bronshteyn, Perlas, El-Boghdady, Zimmerman, Silva, & Narouze, 2021).

A key finding of this review is the substantial shift from manual credentialing systems toward digitalization. Integrated information systems reduce human error during data entry and significantly shorten verification timelines. Digital credentialing platforms also enable real-time monitoring of professional license validity (e.g., registration and practice licenses), which is a critical component of institutional legal protection and regulatory compliance in healthcare organizations (Gershuni, Orr, Vogel, Park, Leider, Resnick, & Czabanowska, 2023).

Credentialing represents a core manifestation of hospital accountability. In the absence of clear Medical Staff Bylaws, credentialing processes are vulnerable to subjective interference and inconsistency (Dharmagunawardene, Bowman, Avery, Greenfield, & Hinchcliff, 2025). This review found that hospitals with independent medical committees tend to apply more objective standards

in granting clinical privileges. Senior leadership support was identified as a determining factor in whether credentialing is perceived as an integral patient safety culture or merely an administrative burden (Khan, 2021).

Despite its well-documented benefits, credentialing implementation faces significant challenges. Resistance from senior healthcare professionals often emerges during competency reassessment or recredentialing processes (Jose, Tortorella, Vassolo, Kumar, & Mac Cawley, 2022). In rural settings or resource-limited hospitals, major barriers include limited access to international credential verification agencies and a shortage of qualified experts to conduct peer review (Merry, Castiglione, Rouleau, Létourneau, Larue, Deschênes, & Ahmed, 2023). These findings highlight the need to develop adaptive credentialing standards that maintain patient safety quality while accommodating contextual resource constraints.

Overall, the findings of this scoping review reinforce credentialing as a foundational requirement for maintaining healthcare quality. By restricting clinical privileges to physicians and nurses whose competencies are validated through both documentation and practice, hospitals can prevent high-risk medical interventions performed beyond professional expertise (Innis, Dryden-Palmer, Ferreira, & Berta, 2025). Standardized and periodic competency assessments provide a framework to ensure that technical skills are continuously evaluated rather than assessed only once at the point of initial employment (Nemenqani, Tekian, & Park, 2017).

CONCLUSION

The implementation of healthcare worker credentials is a key instrument in hospital clinical governance that directly contributes to patient safety. The transformation from manual to digital systems and the implementation of Primary Source Verification (PSV) have become the gold standard for ensuring the validity of staff competencies. The success of this implementation depends heavily on the synergy between internal regulations (Medical Staff Bylaws), the independence of the medical committee, and the commitment of organizational leadership. Credentialing is not simply an

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administrative procedure, but rather a legal and professional protection mechanism for healthcare workers and the hospital institution.

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