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Impact Of Organizational Management On Surgical Practice And Patient Safety In Health Services

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Abstract
Organizational management plays a critical role in surgical practice, directly influencing patient safety, clinical outcomes, and the efficiency of surgical services. Surgical environments are highly complex, involving multidisciplinary teams, advanced technologies, and time-sensitive decision-making. Failures in organizational management—such as inadequate scheduling, insufficient staffing, poor communication, and lack of standardized protocols—can increase surgical complications, adverse events, and preventable errors. This study aimed to analyze the impact of organizational management on surgical practice and patient safety in health services. An applied and exploratory study was conducted using a narrative literature review of scientific publications from 2013 to 2023. The results indicate that effective organizational management improves surgical workflow, reduces intraoperative and postoperative complications, and strengthens patient safety culture. Conversely, managerial weaknesses are associated with increased surgical errors, professional burnout, and compromised quality of care. Strengthening management strategies in surgical services is essential to ensure safer surgical care and better clinical outcomes.

Keywords: *Health services. Organizational management. Patient safety. Surgical practice.*

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I. Introducion

Surgical care represents one of the most complex and high-risk components of health systems, requiring precise coordination among professionals, technologies, and organizational processes. Unlike other areas of healthcare, surgery is characterized by time-critical decisions, invasive procedures, and a narrow margin for error, making patient safety highly dependent on effective organizational management (Jiang *et al*., 2025).

Organizational management in surgical services encompasses planning, coordination of human and material resources, workflow organization, leadership, and performance monitoring. Failures in these managerial components can compromise surgical efficiency, increase the incidence of adverse events, and negatively affect

clinical outcomes. Consequently, surgical safety cannot be dissociated from management quality (Pasquer *et al*., 2024).

Evidence suggests that a substantial proportion of surgical complications and preventable adverse events arise from systemic and organizational failures rather than from individual technical incompetence. Communication breakdowns, inadequate staffing, poor scheduling, and lack of standardized protocols are recurrent factors associated with surgical errors and patient harm (Viswanathan *et al*., 2025).

The operating room is a highly dynamic environment that demands continuous interaction between surgeons, anesthesiologists, nurses, and support staff. Inadequate organizational structures increase cognitive overload, fatigue, and stress among surgical teams, impairing decision-making and increasing the likelihood of intraoperative and postoperative complications (Rahmani *et al*., 2025).

Patient safety has emerged as a global priority in surgical care, particularly after international initiatives such as the World Health Organization's Surgical Safety Checklist demonstrated that organizational interventions can significantly reduce morbidity and mortality. These findings reinforce the concept that safety in surgery is fundamentally an organizational responsibility (Elbahi *et al*., 2025).

Effective organizational management contributes to the standardization of surgical processes, optimization of operating room flow, and better allocation of resources. These factors support clinical practice by reducing variability, minimizing delays, and ensuring that surgical teams operate under safer and more predictable conditions (Vladu *et al*., 2024).

Conversely, weak management structures may foster unsafe environments characterized by poor communication, fragmented care, and a punitive culture that discourages error reporting. Such environments hinder learning from adverse events and undermine continuous improvement in surgical safety (Vikan *et al*., 2023).

In this context, the present study aims to analyze the impact of organizational management on surgical practice and patient safety in health services, emphasizing how managerial processes influence surgical performance, professional practice, and patient outcomes.

II. Methodology

This study is characterized as applied and exploratory research, using a narrative literature review as its methodological approach. The objective was to synthesize scientific evidence on the relationship between organizational management, surgical practice, and patient safety in health services.

The literature search was conducted through the Virtual Health Library (VHL) and the following databases: PubMed, Medline, SciELO, Lilacs, and Google Scholar. Searches were performed using combinations of the descriptors "organizational management," "surgical practice," "operating room management," "patient safety," and "health services," in English.

The inclusion criteria comprised peer-reviewed articles published between 2013 and 2023 that addressed organizational or managerial aspects of surgical services and their impact on clinical practice or patient safety outcomes. Studies focusing on hospital management, surgical workflow organization, leadership in surgical teams, and safety protocols were included. Editorials, opinion papers, and studies unrelated to surgical settings were excluded.

Data extraction was performed by identifying recurrent themes related to management structures, organizational processes, safety culture, and surgical outcomes. The analysis emphasized qualitative synthesis, allowing for the identification of patterns, convergences, and gaps in the literature regarding how organizational management influences surgical care and patient safety.

III. Results And Discussion

The analyzed literature demonstrates that organizational management is a central determinant of safety and performance in surgical services. Studies consistently indicate that surgical outcomes are not exclusively dependent on technical skill but are strongly influenced by how services are structured, coordinated, and managed at the institutional level (Figure 1) (Pasquer *et al*., 2024).

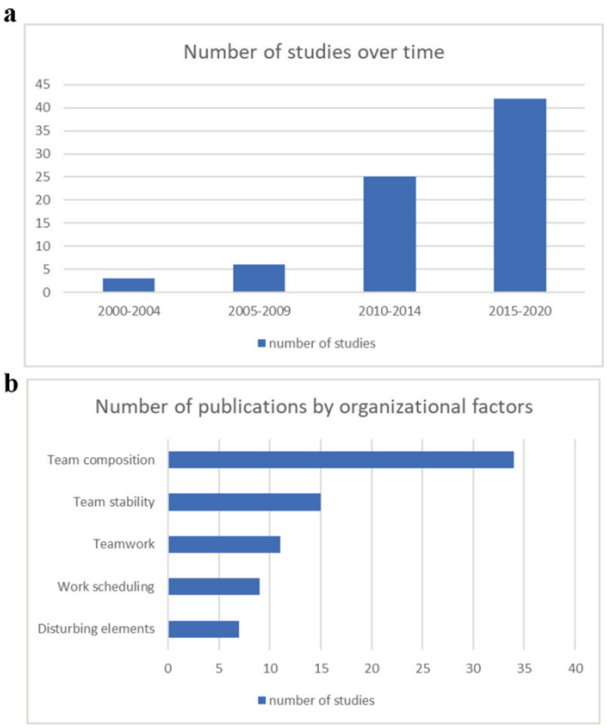

Figure 1. (a) Number of studies distributed by publication period. (b) Number of publications categorized according to organizational factors. Legend: Organizational factors were defined as follows: *Team composition* refers to the number and level of experience of surgeons, residents, anesthetists, and nurses, as well as professional relationships within the surgical team, including supervised work, resident involvement, and interactions between surgeons, residents, nurses, and anesthetists. *Team stability* refers to the number of prior collaborations among team members (surgeon–resident, surgeon–anesthetist, surgeon–nurse) and the turnover of surgical and anesthetic staff between procedures or during the same procedure. *Teamwork* includes the assessment of teamwork, leadership, and intra-team communication, including communication failures. *Disturbing elements* include the number, type, and duration of disruptive events during surgical procedures. *Work scheduling* refers to the organization of surgical schedules, including procedure order, schedule modifications, use of dedicated operating rooms, patient turnover, and workload overlap.

One of the most frequently identified organizational factors impacting surgical practice is operating room management. Inefficient scheduling, lack of coordination between surgical teams, and frequent delays were associated with prolonged operative times and increased exposure to intraoperative risks, negatively affecting patient safety (Figure 2) (Chatmongkolchart *et al*., 2020).

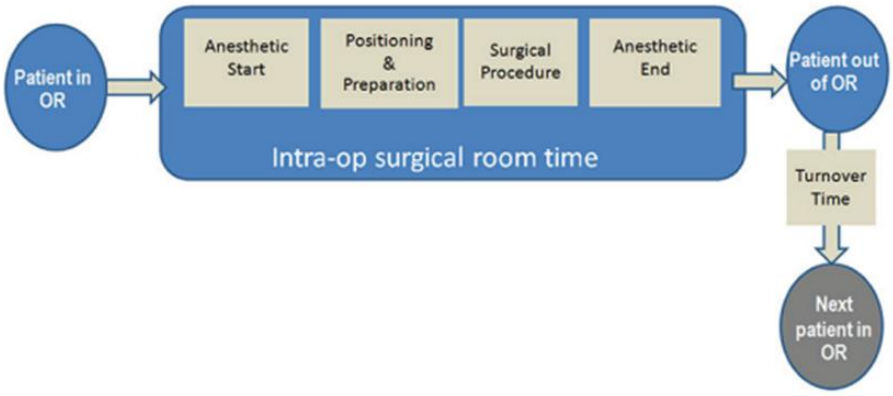

Figure 2. Timeline illustrating the operating room workflow from patient entry to room turnover for the subsequent procedure. The figure highlights key intraoperative phases—including anesthesia induction, patient positioning and preparation, surgical procedure, and anesthesia emergence—as well as turnover time between cases. This process-based representation emphasizes how operating room management, scheduling efficiency, and coordination among surgical and anesthetic teams influence operative duration, workflow continuity, and exposure to intraoperative risks, with direct implications for surgical performance and patient safety.

Human resource management emerged as a critical element in surgical safety. Insufficient staffing levels, inadequate distribution of workloads, and excessive working hours were linked to fatigue among surgeons and anesthesiologists, increasing the likelihood of technical errors and impaired clinical judgment during surgical procedures (Xie; Duff; Munday, 2024).

Communication failures within surgical teams were recurrently described as major contributors to adverse events. Breakdowns in information transfer during preoperative briefings, intraoperative handovers, and postoperative care transitions compromised continuity of care and increased the risk of preventable complications (Douglas *et al*., 2021).

The presence of standardized organizational protocols was strongly associated with improved surgical outcomes. Institutions that implemented structured processes, such as surgical safety checklists and standardized clinical pathways, demonstrated reductions in postoperative complications, surgical site infections, and mortality rates (Treadwell; Lucas; Tsou, 2013).

Leadership style within surgical services significantly influenced safety culture. Studies highlighted that supportive and participatory leadership models encouraged teamwork, accountability, and adherence to safety practices (Figure 3), while hierarchical and punitive management approaches discouraged error reporting and learning from adverse events (Harton; Skemp, 2022).

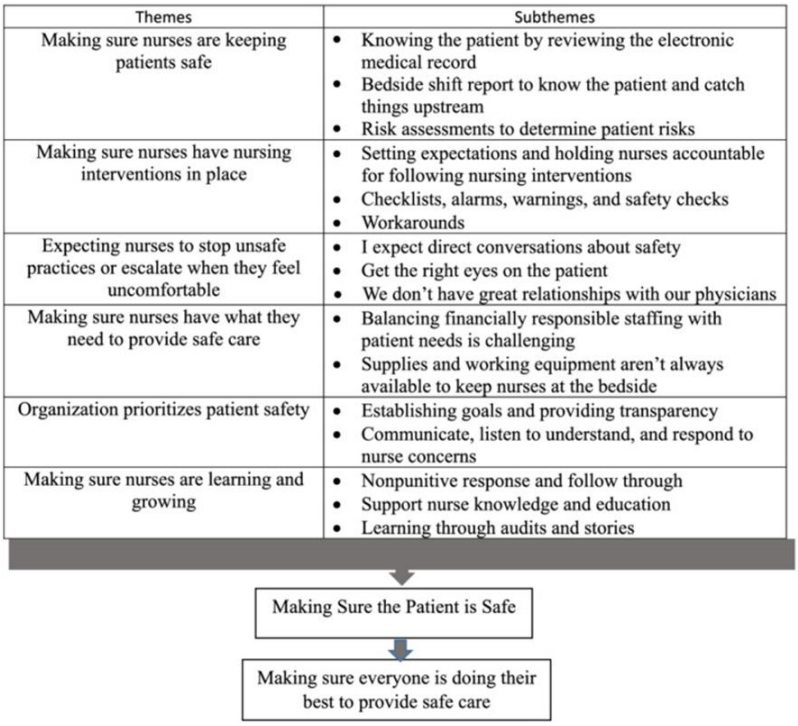

Figure 3. Conceptual framework illustrating nurse leaders' experiences with patient safety culture. The model presents six core leadership themes—ensuring patient safety, implementing nursing interventions, encouraging escalation of unsafe practices, providing adequate resources, prioritizing patient safety at the organizational level, and promoting continuous learning and professional development. These themes, supported by sixteen subthemes, demonstrate how supportive, participatory, and nonpunitive leadership approaches foster teamwork, accountability, open communication, and adherence to safety practices, ultimately ensuring that all healthcare professionals contribute to the delivery of safe patient care.

Resource availability and infrastructure management were also identified as determinants of surgical safety. Inadequate availability of surgical instruments, malfunctioning equipment, and insufficient access to intensive care units compromised intraoperative performance and postoperative recovery, increasing patient risk (Barbosa; Dias, 2025).

Organizational pressure for productivity and efficiency, when not aligned with safety priorities, was associated with negative outcomes. Excessive emphasis on surgical volume and turnover times often led to rushed procedures, incomplete safety checks, and increased stress among surgical teams (Silva; Carvalho, 2025).

The integration between surgical units and other hospital sectors, such as sterilization services, laboratories, and postoperative care units, proved essential for safe surgical practice. Fragmented organizational structures resulted in delays, cancellation of procedures, and failures in postoperative monitoring (Figure 4) (Reddy *et al*., 2025).

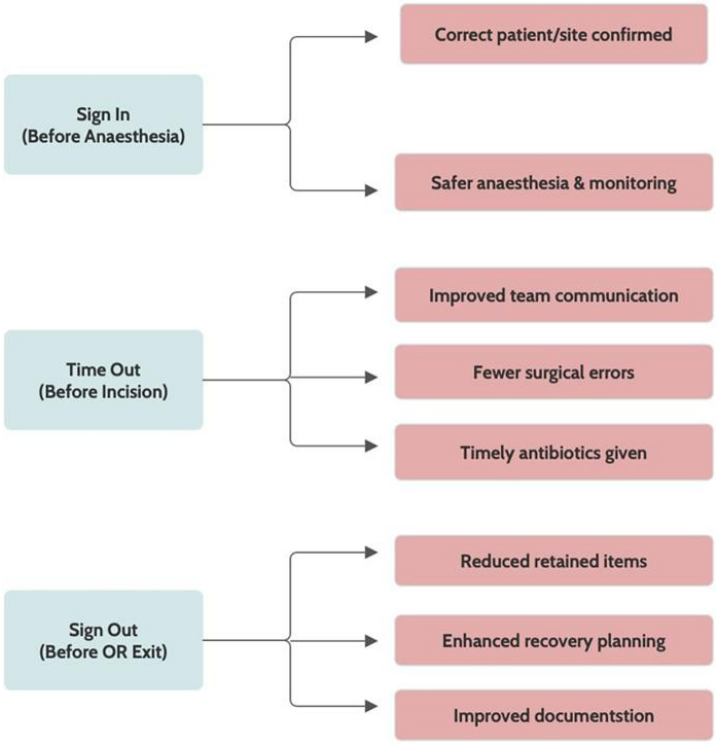

Figure 4. Schematic representation of the Surgical Safety Checklist phases—Sign In (before anesthesia), Time Out (before skin incision), and Sign Out (before operating room exit)—and their associated safety outcomes. The figure illustrates how structured communication and coordinated actions across surgical, anesthetic, nursing, and support services contribute to correct patient and site identification, safer anesthesia and monitoring, improved team communication, reduction of surgical errors and retained items, timely administration of antibiotics, enhanced recovery planning, and improved documentation. This process highlights the importance of organizational integration among surgical units and other hospital sectors to prevent delays, procedural failures, and postoperative monitoring deficiencies.

Training and continuing education were shown to be effective organizational strategies for improving surgical safety. Institutions that invested in simulation-based training, team communication exercises, and safety-oriented education reported improved adherence to protocols and enhanced team performance (Elendu *et al*., 2024).

The studies also emphasized the importance of safety culture as an organizational outcome. A culture characterized by transparency, shared responsibility, and non-punitive responses to errors facilitated early identification of risks and promoted continuous improvement in surgical services (Braun *et al*., 2020).

Incident reporting systems were identified as valuable managerial tools when properly implemented. Organizations that encouraged reporting and systematically analyzed adverse events were better able to identify latent failures and implement corrective measures, reducing the recurrence of surgical erros (Kumah *et al*., 2024). Conversely, weak organizational management was consistently associated with higher rates of adverse surgical events. Poor coordination, lack of accountability, and absence of performance monitoring created unsafe environments where errors were more likely to occur and less likely to be addressed (Mistri; Badge; Shahu, 2023).

Overall, the evidence indicates that strengthening organizational management in surgical services is fundamental to improving patient safety and clinical outcomes. Investments in leadership, standardized processes, workforce management, and safety culture are essential strategies for reducing preventable harm and enhancing the quality of surgical care.

IV. Final Considerations

Organizational management has a profound impact on surgical practice and patient safety. Ineffective management contributes to surgical errors, professional burnout, and increased patient risk, whereas structured and safety-oriented management improves surgical outcomes and care quality.

Strengthening organizational management in surgical services requires investments in leadership, process standardization, and safety culture development. Incorporating management principles into surgical training and continuing medical education is essential to prepare surgeons for the organizational challenges of modern healthcare.

References

[1]. Braun, B. I. Et Al. Culture Of Safety: Impact On Improvement In Infection Prevention Process And Outcomes. Curr Infect Dis Rep. 2020;22(12):34. Doi: 10.1007/S11908-020-00741-Y. Epub 2020 Dec 2.

[2]. Chatmongkolchart, S. Et Al. Causes And Effects Of Inefficient Operating Room Flow During Working Hours In A University Hospital. J Med Assoc Thai 2020;103(9): 897-903.

[3]. Douglas, R. N. Et Al. Communication Failures Contributing To Patient Injury In Anaesthesia Malpractice Claims. Bja, Volume 127, Issue 3p470-478september 2021.

[4]. Elbahi, M. K. Et Al. Perioperative Patient Safety And Surgical Complications: A Comprehensive Review Of Current Evidence And Improvement Strategies. Cureus 17(12): E99959, 2025. Doi 10.7759/Cureus.99959

[5]. Elendu, C. Et Al. The Impact Of Simulation-Based Training In Medical Education: A Review. Medicine (Baltimore). 2024 Jul 5;103(27):E38813. Doi: 10.1097/Md.0000000000038813. Pmid: 38968472; Pmcid: Pmc11224887.

[6]. Harton, L.; Skemp, L. Medical-Surgical Nurse Leaders' Experiences With Safety Culture: An Inductive Qualitative Descriptive Study. J Nurs Manag. 2022 Oct;30(7):2781-2790. Doi: 10.1111/Jonm.13775. Epub 2022 Sep 13.

[7]. Jiang, A. Et Al. Current Application Status And Innovative Development Of Surgical Robot. Med Research, Volume1, Issue3 December 2025 Pages 378-396.

[8]. Kumah, A. Et Al. Using Incident Reporting Systems To Improve Patient Safety And Quality Of Care. Glob J Qual Saf Healthc. 2024 Feb 28;7(4):228-231. Doi: 10.36401/Jqsh-23-39.

[9]. Mistri, I. U.; Badge, A.; Shahu, S. Enhancing Patient Safety Culture In Hospitals. Cureus. 2023 Dec 27;15(12):E51159. Doi: 10.7759/Cureus.51159.

[10]. Pasquer, A. Et Al. Operating Room Organization And Surgical Performance: A Systematic Review. Patient Saf Surg. 2024 Jan 29;18(1):5. Doi: 10.1186/S13037-023-00388-3.

[11]. Rahmani, V. Et Al. Mental Fatigue Of Operating Room Nurses And Its Relationship With Missed Perioperative Nursing Care: A Descriptive-Analytical Study. Bmc Res Notes. 2025 Jul 16;18(1):302. Doi: 10.1186/S13104-025-07380-3.

[12]. Reddy, C. Et Al. Transforming Surgical Care And Safety: Dissecting The Impact Of Checklists In The Global South. Front Surg. 2025 Nov 17;12:1664277. Doi: 10.3389/Fsurg.2025.1664277.

[13]. Silva, F. S.; Carvalho, G. H. F. De. The Impacts Of Employee Turnover On Workers' Health In The United States Of America. Revista Jrg De Estudos Acadêmicos, Brasil, São Paulo, V. 8, N. 19, P. E082300, 2025. Doi: 10.55892/Jrg.V8i19.2300.

[14]. Treadwell, J. R.; Lucas, S.; Tsou, A. Y. Surgical Checklists: A Systematic Review Of Impacts And Implementation. Bmj Qual Saf. 2014 Apr;23(4):299-318. Doi: 10.1136/Bmjqs-2012-001797. Epub 2013 Aug 6.

[15]. Vikan, M. Et Al. The Association Between Patient Safety Culture And Adverse Events - A Scoping Review. Bmc Health Serv Res. 2023 Mar 29;23(1):300. Doi: 10.1186/S12913-023-09332-8.

[16]. Viswanathan, N. Et Al. Surgical Team Communication And Intraoperative Errors: A Cross-Sectional Study. Bioinformation. 2025 Sep 30;21(9):3214-3217. Doi: 10.6026/973206300213214.

[17]. Vladu, A. Et Al. Enhancing Operating Room Efficiency: The Impact Of Computational Algorithms On Surgical Scheduling And Team Dynamics. Healthcare 2024, 12(19), 1906; Https://Doi.Org/10.3390/Healthcare12191906.

[18]. Xie, A.; Duff, J.; Munday, J. Perioperative Nursing Shortages: An Integrative Review Of Their Impact, Causal Factors, And Mitigation Strategies. J Nurs Manag. 2024 Aug 19;2024:2983251. Doi: 10.1155/2024/2983251.