

Healthcare Management Practices and Patient Satisfaction in Saudi Arabia: A Conceptual Framework Integrating Staff Training and Service Quality as Mediating Factors

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Abstract:

Patient satisfaction is a critical indicator of healthcare quality and organizational effectiveness. This paper presents a comprehensive conceptual framework examining the relationship between healthcare management practices (HMPs) and patient satisfaction in Saudi Arabia, with staff training and service quality serving as mediating variables. Drawing upon the Resource-Based View (RBV), SERVQUAL model, and Donabedian's healthcare quality framework, this study integrates theoretical perspectives to explain how management practices translate into patient satisfaction outcomes. The proposed framework posits that HMPs directly influence patient satisfaction while also operating through dual mediating pathways via staff training and service quality enhancement. Seven hypotheses are developed addressing direct and indirect relationships among constructs. This conceptual contribution advances understanding of satisfaction determinants within the Saudi Vision 2030 healthcare transformation context, offering theoretical foundations for empirical investigation and practical guidance for healthcare administrators seeking to improve patient outcomes.

Keywords — Healthcare management practices, patient satisfaction, staff training, service quality, conceptual framework, Saudi Vision 2030, SERVQUAL, Resource-Based View.

I. INTRODUCTION

Patient satisfaction has emerged as a fundamental indicator of healthcare system effectiveness, reflecting the degree to which healthcare services meet patient needs, expectations, and preferences [1]. In contemporary healthcare management, patient satisfaction extends beyond simple service delivery metrics to encompass comprehensive assessments of care quality, provider competence, communication effectiveness, and overall healthcare experience [2]. Research consistently demonstrates that satisfied patients exhibit better treatment adherence, improved health outcomes, stronger provider relationships, and greater healthcare system trust [3].

The Kingdom of Saudi Arabia has undertaken substantial healthcare system transformation through the Vision 2030 national development strategy, positioning patient satisfaction improvement as a central objective [4]. The National Transformation Program explicitly targets enhanced healthcare quality, access, and efficiency through systematic management reforms, workforce development, and service delivery innovations [5]. These ambitious objectives require healthcare organizations to understand the complex factors influencing

patient satisfaction and develop evidence-based strategies for improvement.

Healthcare management practices (HMPs) represent organizational-level activities encompassing planning, organizing, directing, and controlling healthcare resources to achieve organizational objectives [6]. Effective management practices ensure efficient resource utilization, quality assurance, staff coordination, and patient-centered service delivery [7]. However, the relationship between management practices and patient satisfaction is not necessarily direct; rather, management effectiveness may operate through intermediate mechanisms including workforce capability development and service quality enhancement [8].

Staff training constitutes a critical management function directly influencing healthcare worker competencies, clinical skills, and service orientation [9]. Well-trained healthcare professionals demonstrate superior clinical decision-making, enhanced communication abilities, and greater empathy in patient interactions [10]. Training investments represent strategic organizational commitments that translate management priorities into workforce capabilities affecting patient care quality and satisfaction [11].

Service quality represents the comprehensive assessment of healthcare service characteristics relative to patient expectations and established standards [12]. The multidimensional nature of healthcare service quality encompasses technical competence, interpersonal interactions, physical environment, accessibility, and continuity of care [13]. Service quality mediates between organizational inputs and patient satisfaction outcomes, reflecting how management practices and trained workforce capabilities translate into patient-experienced service delivery [14].

Despite growing recognition of these interconnected factors, limited research has systematically examined how healthcare management practices influence patient satisfaction through staff training and service quality mechanisms within the Saudi Arabian healthcare context [15]. This gap is particularly significant given the ongoing healthcare transformation initiatives and the need for evidence-based strategies to achieve Vision 2030 objectives. This paper addresses this gap by presenting a comprehensive conceptual framework integrating theoretical perspectives to explain the relationships among healthcare management practices, staff training, service quality, and patient satisfaction.

II. LITERATURE REVIEW

A. Healthcare Management Practices

Healthcare management practices encompass the systematic activities and processes through which healthcare organizations plan, organize, direct, and control resources to achieve organizational objectives [6]. These practices span strategic planning, human resource management, quality assurance, financial management, and operational coordination [16]. Effective healthcare management creates organizational conditions conducive to high-quality patient care delivery [17].

Research demonstrates that management practices significantly influence healthcare organization performance. Adebayo et al. [18] found that leadership effectiveness and strategic planning capabilities predicted hospital performance outcomes. Lee et al. [19] demonstrated that participative management styles enhanced staff engagement and care quality. Mane et al. [20] identified resource allocation practices as critical determinants of service delivery effectiveness.

Within Saudi Arabia, healthcare management has received increasing attention as organizations pursue Vision 2030 transformation objectives. Alasiri and Mohammed [21] identified management capacity gaps affecting healthcare quality in Saudi hospitals. Sallam and Alhakimi [22] found that management practices directly influenced organizational performance in Saudi healthcare contexts. These studies highlight the importance of effective management while suggesting the need for deeper understanding of the mechanisms through which management influences patient outcomes.

B. Staff Training in Healthcare

Staff training represents systematic organizational investments in workforce knowledge, skills, and competencies [23]. In healthcare contexts, training encompasses clinical skills development, communication enhancement, technology utilization, patient safety protocols, and service orientation [24]. Training effectiveness determines whether organizational investments translate into improved workforce performance and patient care quality [25].

Evidence supports the positive impact of training on healthcare outcomes. Ong et al. [26] demonstrated that simulation-based training improved clinical competencies and patient safety. Mahmoud et al. [27] found that communication skills training enhanced patient-provider interactions and satisfaction. Alqarni et al. [28] reported that continuous professional development programs improved healthcare worker performance in Saudi settings.

Training effectiveness depends on organizational support, program design, and implementation conditions [29]. Management practices influence training through resource allocation, program prioritization, and creating environments supportive of learning transfer [30]. This suggests that training serves as a mechanism through which management practices influence patient outcomes, rather than an independent factor operating in isolation.

C. Service Quality in Healthcare

Healthcare service quality represents the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge [31]. Service quality encompasses multiple dimensions including technical quality (clinical competence), functional quality (service delivery process), and environmental quality (physical facilities and amenities) [32].

The SERVQUAL framework, developed by Parasuraman et al. [33], conceptualizes service quality across five dimensions: tangibles (physical facilities and equipment), reliability (dependability and accuracy), responsiveness (willingness to help), assurance (knowledge and courtesy), and empathy (individualized attention). Healthcare adaptations of SERVQUAL have demonstrated strong relationships between perceived service quality and patient satisfaction [34].

Within Saudi healthcare contexts, studies have documented service quality variations and their associations with patient satisfaction. Alodhialah et al. [35] found significant relationships between perceived service quality dimensions and patient satisfaction in Saudi hospitals. Alsari et al. [36] demonstrated that service quality improvements following Vision 2030 initiatives positively influenced patient perceptions. These findings support service quality as a proximate determinant of patient satisfaction that transmits organizational capability effects.

D. Patient Satisfaction

Patient satisfaction reflects patients' cognitive and emotional evaluations of their healthcare experiences relative to expectations [37]. Satisfaction encompasses assessments of care quality, provider interactions, service accessibility, physical environment, and overall experience [38]. Satisfied patients demonstrate better treatment adherence, positive word-of-mouth, and continued healthcare relationship engagement [39].

Research identifies multiple determinants of patient satisfaction including provider communication, waiting times, facility conditions, treatment outcomes, and perceived care quality [40]. Ferreira et al. [1] demonstrated that management practices indirectly influenced satisfaction through service delivery improvements. Friedel et al. [41] found that staff competencies mediated between organizational factors and patient satisfaction outcomes.

Within Saudi Arabia, patient satisfaction has received increasing policy attention as healthcare organizations pursue quality improvement objectives [4]. Studies document satisfaction variations across healthcare settings and identify improvement priorities aligned with Vision 2030 objectives [42]. However, comprehensive frameworks explaining the mechanisms linking management practices to satisfaction outcomes remain underdeveloped in the Saudi context.

III. THEORETICAL FRAMEWORK

A. Resource-Based View Theory

The Resource-Based View (RBV), developed by Barney [43], posits that organizational performance derives from valuable, rare, inimitable, and non-substitutable resources and capabilities. Applied to healthcare contexts, RBV suggests that management practices develop organizational resources including human capital, organizational processes, and service delivery capabilities that generate competitive advantages manifested in superior patient outcomes [44].

RBV provides theoretical foundations for understanding how management practices develop workforce capabilities through training investments. Trained healthcare professionals represent human capital assets that enhance organizational capacity for quality service delivery [45]. Management practices that systematically develop and deploy human capital resources create conditions conducive to patient satisfaction improvement.

B. SERVQUAL Model

The SERVQUAL model, developed by Parasuraman, Zeithaml, and Berry [33], conceptualizes service quality as the gap between customer expectations and perceived service performance across five dimensions. Healthcare adaptations of SERVQUAL have demonstrated strong predictive validity for patient satisfaction outcomes [34]. The model provides frameworks for understanding how organizational capabilities translate into patient-perceived service quality affecting satisfaction evaluations.

SERVQUAL dimensions capture both technical and functional aspects of healthcare service delivery. Tangibles reflect organizational resource investments in facilities and equipment. Reliability and responsiveness reflect trained workforce capabilities. Assurance and empathy reflect staff competencies developed through training programs. Thus, SERVQUAL provides mechanisms linking management resource decisions and training investments to patient-experienced service quality.

C. Donabedian's Quality Framework

Donabedian's [46] structure-process-outcome framework provides foundational understanding of healthcare quality determinants. Structure encompasses organizational characteristics including facilities, equipment, and human resources. Process encompasses activities involved in care delivery. Outcomes encompass the effects of care on patient health status and satisfaction. This framework suggests causal pathways from organizational structures (management practices) through processes (trained staff delivering services) to outcomes (patient satisfaction).

Integrating Donabedian's framework with RBV and SERVQUAL provides comprehensive theoretical foundations for the proposed conceptual model. Management practices represent structural inputs that develop organizational capabilities. Staff training enhances process capabilities through workforce development. Service quality reflects the patient-experienced manifestation of organizational processes. Patient satisfaction represents the outcome assessment of healthcare delivery effectiveness.

IV. CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

A. The Proposed Conceptual Model

Building upon the theoretical foundations, this study proposes a conceptual framework positioning healthcare management practices as the primary antecedent factor influencing patient satisfaction through two parallel mediating pathways: staff training and service quality. The framework acknowledges both direct effects of management practices on satisfaction and indirect effects operating through the development of workforce capabilities and service quality enhancement.

The conceptual model integrates theoretical perspectives to explain how management practices translate into patient satisfaction outcomes. From an RBV perspective, management practices develop organizational resources and capabilities. Staff training represents human capital development that enhances workforce competencies. Service quality reflects the patient-experienced manifestation of organizational capabilities. Patient satisfaction represents the ultimate outcome assessment of healthcare delivery effectiveness.

B. Direct Effect of Healthcare Management Practices

Healthcare management practices directly influence patient satisfaction through multiple mechanisms. Effective management ensures adequate resource allocation for patient care, establishes quality assurance systems, creates patient-centered organizational cultures, and develops responsive service delivery processes [47]. Management practices that prioritize patient needs and systematically address service delivery create conditions conducive to positive patient experiences [48].

Based on theoretical reasoning and empirical evidence, the following hypothesis is proposed:

H1: Healthcare management practices have a significant positive direct effect on patient satisfaction.

C. Healthcare Management Practices and Staff Training

Management practices significantly influence staff training through resource allocation, program design decisions, and organizational support for learning [49]. Organizations with effective management systematically assess training needs, develop comprehensive programs, and create environments supportive of skill development and application [50]. Management commitment to workforce development determines whether training investments achieve their intended capability enhancement objectives [51].

H2: Healthcare management practices have a significant positive effect on staff training effectiveness.

D. Healthcare Management Practices and Service Quality

Management practices influence service quality through infrastructure investments, process design, quality assurance systems, and organizational culture development [52]. Effective management establishes service standards, monitors quality indicators, addresses service failures, and continuously improves delivery processes [53]. These management activities directly shape the service quality that patients experience during healthcare encounters [54].

H3: Healthcare management practices have a significant positive effect on service quality.

E. Staff Training and Patient Satisfaction

Trained healthcare staff demonstrate superior clinical competencies, communication skills, and patient-centered attitudes that enhance patient experiences [55]. Training develops workforce capabilities for effective patient interaction, clinical decision-making, and responsive service delivery [56]. Patients interacting with well-trained healthcare professionals report higher satisfaction due to perceived competence, effective communication, and empathetic care [57].

H4: Staff training has a significant positive effect on patient satisfaction.

F. Service Quality and Patient Satisfaction

Service quality serves as the most proximate determinant of patient satisfaction, reflecting patients' evaluations of care experiences relative to expectations [58]. High service quality across tangible, reliability, responsiveness, assurance, and empathy dimensions generates positive satisfaction evaluations [59]. The service quality-satisfaction relationship represents one of the most robust findings in healthcare services research [60].

H5: Service quality has a significant positive effect on patient satisfaction.

G. Mediating Effects

The proposed framework posits that staff training and service quality serve as parallel mediating mechanisms transmitting the effects of healthcare management practices to patient satisfaction outcomes. Management practices influence satisfaction indirectly by developing workforce capabilities through training and establishing service quality through organizational processes. These mediation pathways explain how distal management factors translate into proximate patient experience determinants [61].

H6: Staff training mediates the relationship between healthcare management practices and patient satisfaction.

H7: Service quality mediates the relationship between healthcare management practices and patient satisfaction.

TABLE I
SUMMARY OF RESEARCH HYPOTHESES

H	Hypothesis Statement	Relationship
H1	HMPs have positive effect on Patient Satisfaction	Direct
H2	HMPs have positive effect on Staff Training	Direct
H3	HMPs have positive effect on Service Quality	Direct
H4	Staff Training has positive effect on Patient Satisfaction	Direct
H5	Service Quality has positive effect on Patient Satisfaction	Direct
H6	Staff Training mediates HMPs → Patient Satisfaction	Indirect
H7	Service Quality mediates HMPs → Patient Satisfaction	Indirect

Note: HMPs = Healthcare Management Practices

V. DISCUSSION

A. Theoretical Contributions

The proposed conceptual framework advances theoretical understanding of patient satisfaction determinants in several significant ways. First, the framework integrates multiple theoretical perspectives—Resource-Based View, SERVQUAL, and Donabedian's quality framework—into a coherent explanatory model. This integration addresses the

limitation of single-theory approaches that capture only partial aspects of the complex satisfaction phenomenon [62].

Second, the framework explicates the mediating mechanisms through which healthcare management practices influence patient satisfaction outcomes. By identifying staff training and service quality as parallel mediating pathways, the model moves beyond direct-effect conceptualizations to capture the nuanced processes through which management influence operates [63]. This theoretical specification enables more precise hypothesis testing and intervention design.

Third, the framework bridges healthcare management and services marketing literature streams, which have largely developed independently. By positioning management practices as antecedent factors within a service quality-satisfaction framework, the model creates theoretical linkages that can stimulate cross-disciplinary research and knowledge exchange [64].

B. Practical Implications

The framework offers actionable guidance for healthcare administrators and policymakers seeking to improve patient satisfaction. For management development, the model identifies specific practice domains requiring attention including resource allocation, quality assurance, and workforce development [65]. Healthcare organizations should assess management capabilities across these domains and address identified gaps.

For workforce preparation, the dual-mediation model suggests that comprehensive approaches addressing both training investments and service quality enhancement are essential for satisfaction improvement. Organizations should invest in training programs that develop clinical competencies, communication skills, and patient-centered attitudes while simultaneously establishing service quality standards and monitoring systems [66].

For Vision 2030 healthcare transformation, the framework provides evidence-based guidance for achieving patient satisfaction objectives. Policymakers should recognize that satisfaction improvement requires integrated strategies addressing management practices, workforce development, and service quality rather than isolated interventions targeting single factors [67].

C. Future Research Directions

The proposed framework generates multiple avenues for empirical investigation. Cross-sectional studies can test the hypothesized relationships and assess the relative strength of direct and mediated pathways. Longitudinal designs can examine how relationships evolve over time and whether effects sustain across implementation phases [68].

Comparative studies across healthcare settings, specialties, and regions can assess framework generalizability and identify contextual moderators. Research examining potential moderating factors including organizational size, ownership

type, and patient characteristics would enhance understanding of boundary conditions [69].

Qualitative investigations can provide deeper understanding of the mechanisms through which management practices influence training effectiveness and service quality outcomes. Mixed-methods approaches combining quantitative hypothesis testing with qualitative mechanism exploration offer promising research designs [70].

VI. CONCLUSION

This paper has presented a comprehensive conceptual framework explicating the relationships between healthcare management practices, staff training, service quality, and patient satisfaction. By integrating Resource-Based View theory, the SERVQUAL model, and Donabedian's quality framework, the proposed model provides theoretically grounded foundations for understanding how management practices translate into patient satisfaction outcomes within the Saudi Arabian healthcare context.

The dual-mediation structure acknowledges that management influence operates through both workforce capability development (staff training) and service delivery enhancement (service quality), offering nuanced understanding that can inform more effective intervention strategies. The seven framework hypotheses provide testable propositions for empirical validation and theoretical refinement.

As Saudi Arabia pursues Vision 2030 healthcare transformation objectives, understanding the factors influencing patient satisfaction becomes increasingly critical. This framework contributes to that understanding by illuminating how healthcare management practices can be leveraged to develop workforce capabilities and enhance service quality, ultimately improving patient satisfaction outcomes. For healthcare administrators, policymakers, and researchers, the framework offers both theoretical insight and practical guidance for achieving healthcare excellence.

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REFERENCES

- [1] D. C. Ferreira, R. C. Marques, and A. M. Nunes, "Pay-for-performance in healthcare: A systematic review," *Health Policy*, vol. 127, pp. 51-62, 2023.
- [2] A. A. Alhazmi, "Patient satisfaction with primary healthcare services," *J. Health Manag.*, vol. 23, no. 2, pp. 245-258, 2021.
- [3] M. S. Doyle, "Patient satisfaction and healthcare quality," *Int. J. Qual. Health Care*, vol. 34, no. 3, pp. 178-186, 2022.
- [4] Kingdom of Saudi Arabia, "Saudi Vision 2030," 2016. [Online]. Available: <https://www.vision2030.gov.sa/>
- [5] H. Alsari, S. Alharbi, and M. Alzahrani, "Healthcare transformation under Vision 2030," *Saudi Med. J.*, vol. 45, no. 4, pp. 312-320, 2024.

- [6] P. Enahoro, E. Nwankwo, and O. Oladipo, "Healthcare management practices and organizational performance," *Health Serv. Manag. Res.*, vol. 37, no. 2, pp. 89-101, 2024.
- [7] H. Alzoubi, M. Alshurideh, and B. Kurdi, "Management practices in healthcare," *J. Health Organ. Manag.*, vol. 38, no. 1, pp. 45-62, 2024.
- [8] A. L. Friedel, S. Siegel, and C. Kirstein, "Management effectiveness and patient outcomes," *BMC Health Serv. Res.*, vol. 23, no. 1, pp. 1-15, 2023.
- [9] S. K. Ong, A. Khan, and T. Lee, "Healthcare staff training effectiveness," *J. Contin. Educ. Health Prof.*, vol. 42, no. 3, pp. 178-187, 2022.
- [10] E. H. Rad, A. Mostafavi, and H. Pouragha, "Training and healthcare quality," *Int. J. Health Care Qual. Assur.*, vol. 35, no. 2, pp. 156-170, 2022.
- [11] A. H. Mahmoud, S. Elkholy, and M. Hassan, "Professional development in healthcare," *Nurse Educ. Today*, vol. 132, pp. 106-115, 2024.
- [12] A. Parasuraman, V. Zeithaml, and L. Berry, "SERVQUAL: A multiple-item scale," *J. Retail.*, vol. 64, pp. 12-40, 1988.
- [13] D. Lee, "HEALTHQUAL: Healthcare service quality," *Serv. Bus.*, vol. 11, pp. 235-261, 2017.
- [14] M. Pogorzelska and S. Chlabicz, "Service quality determinants," *BMC Health Serv. Res.*, vol. 22, no. 1, pp. 1-12, 2022.
- [15] A. A. Alasiri and H. Mohammed, "Healthcare quality gaps in Saudi Arabia," *Int. J. Health Plann. Manage.*, vol. 37, no. 4, pp. 1876-1893, 2022.
- [16] C. T. Adebayo, K. Parcell, and M. Fischbein, "Healthcare management and outcomes," *J. Healthc. Manag.*, vol. 69, no. 2, pp. 112-128, 2024.
- [17] K. Lee, S. Kim, and J. Park, "Management styles in healthcare," *Health Care Manage. Rev.*, vol. 48, no. 3, pp. 234-247, 2023.
- [18] C. T. Adebayo et al., "Leadership and hospital performance," *Healthc. Manage. Forum*, vol. 37, no. 1, pp. 45-58, 2024.
- [19] K. Lee et al., "Participative management in hospitals," *J. Nurs. Manag.*, vol. 31, no. 5, pp. 1123-1134, 2023.
- [20] A. B. Mane, N. Khandekar, and S. Patil, "Resource allocation in healthcare," *Health Serv. Res.*, vol. 57, no. 4, pp. 789-802, 2022.
- [21] A. A. Alasiri and H. Mohammed, "Management capacity in Saudi hospitals," *Saudi Med. J.*, vol. 43, no. 8, pp. 845-854, 2022.
- [22] A. Sallam and W. Alhakimi, "Management practices and performance," *J. Health Manag.*, vol. 25, no. 3, pp. 367-382, 2023.
- [23] R. A. Noe, *Employee Training and Development*, 9th ed. New York: McGraw-Hill, 2023.
- [24] P. Cotton, D. Hart, and S. Johnson, "Healthcare training programs," *J. Healthc. Qual.*, vol. 44, no. 2, pp. 89-103, 2022.
- [25] J. Bai, X. Zhang, and L. Wang, "Training effectiveness evaluation," *Hum. Resour. Dev. Q.*, vol. 29, no. 4, pp. 367-389, 2018.
- [26] S. K. Ong et al., "Simulation training in healthcare," *BMJ Simul. Technol. Enhanc. Learn.*, vol. 8, pp. 45-52, 2022.
- [27] A. H. Mahmoud et al., "Communication skills training," *Patient Educ. Couns.*, vol. 107, pp. 234-242, 2024.
- [28] A. M. Alqarni, F. Alharbi, and S. Alzahrani, "CPD in Saudi healthcare," *Saudi Pharm. J.*, vol. 32, no. 3, pp. 456-467, 2024.
- [29] B. D. Blume, J. K. Ford, and T. Baldwin, "Transfer of training," *J. Manage.*, vol. 36, no. 4, pp. 1065-1105, 2010.
- [30] M. Brenig, D. Hintz, and A. Schultz, "Organizational support for training," *Hum. Resour. Manag. J.*, vol. 33, no. 2, pp. 289-308, 2023.
- [31] Institute of Medicine, *Crossing the Quality Chasm*. Washington: National Academies Press, 2001.
- [32] C. Grönroos, "Service quality model," *Eur. J. Mark.*, vol. 18, no. 4, pp. 36-44, 1984.
- [33] A. Parasuraman, V. Zeithaml, and L. Berry, "Conceptual model of service quality," *J. Mark.*, vol. 49, pp. 41-50, 1985.
- [34] R. Ladhari, "Healthcare service quality," *Health Mark. Q.*, vol. 26, pp. 180-198, 2009.
- [35] A. Alodhialah, M. Almutairi, and N. Alshammari, "Service quality in Saudi hospitals," *J. Healthc. Qual. Res.*, vol. 39, no. 2, pp. 112-125, 2024.
- [36] H. Alsari et al., "Vision 2030 and service quality," *Saudi J. Health Syst. Res.*, vol. 4, no. 1, pp. 23-35, 2024.
- [37] R. Crow, H. Gage, and S. Hampson, "Measurement of satisfaction," *Health Technol. Assess.*, vol. 6, no. 32, pp. 1-244, 2002.
- [38] G. N. Marshall and R. D. Hays, *The Patient Satisfaction Questionnaire Short-Form (PSQ-18)*. Santa Monica: RAND, 1994.
- [39] N. K. Arora, "Patient-provider communication," *Patient Educ. Couns.*, vol. 50, pp. 167-176, 2003.
- [40] J. H. Hibbard and J. Greene, "Patient engagement and satisfaction," *Health Aff.*, vol. 32, no. 2, pp. 207-214, 2013.
- [41] A. L. Friedel et al., "Staff competencies and satisfaction," *J. Nurs. Care Qual.*, vol. 38, no. 3, pp. 234-242, 2023.
- [42] O. A. Osunlaja, T. Olaniyi, and A. Adeyemi, "Patient satisfaction in developing countries," *BMC Health Serv. Res.*, vol. 24, no. 1, pp. 1-14, 2024.
- [43] J. Barney, "Firm resources and sustained competitive advantage," *J. Manag.*, vol. 17, no. 1, pp. 99-120, 1991.
- [44] M. A. Hitt, R. D. Ireland, and R. E. Hoskisson, *Strategic Management*, 13th ed. Boston: Cengage, 2020.
- [45] G. S. Becker, *Human Capital*. Chicago: University of Chicago Press, 1964.
- [46] A. Donabedian, "Quality of care: Problems of measurement," *Am. J. Public Health*, vol. 59, pp. 1833-1836, 1969.
- [47] L. R. Burns et al., "Management practices in hospitals," *Health Care Manage. Rev.*, vol. 48, no. 1, pp. 12-28, 2023.
- [48] S. M. Shortell and A. D. Kaluzny, *Healthcare Management*, 6th ed. New York: Delmar, 2012.
- [49] D. Kirkpatrick, *Evaluating Training Programs*, 3rd ed. San Francisco: Berrett-Koehler, 2006.
- [50] P. J. Decker, F. N. Moore, and J. A. Sullivan, *Healthcare Management*, 2nd ed. Burlington: Jones & Bartlett, 2020.
- [51] H. Zhao, W. Chen, and X. Liu, "Management commitment to training," *Hum. Resour. Dev. Int.*, vol. 26, no. 4, pp. 412-430, 2023.
- [52] V. Zeithaml, M. Bitner, and D. Gremler, *Services Marketing*, 7th ed. New York: McGraw-Hill, 2018.
- [53] J. A. Fitzsimmons and M. J. Fitzsimmons, *Service Management*, 9th ed. New York: McGraw-Hill, 2018.
- [54] C. Lovelock and J. Wirtz, *Services Marketing*, 8th ed. Boston: Pearson, 2016.
- [55] M. A. Shields et al., "Staff training and patient outcomes," *J. Health Econ.*, vol. 31, pp. 335-350, 2012.
- [56] L. H. Aiken et al., "Nurse education and patient mortality," *JAMA*, vol. 290, pp. 1617-1623, 2003.
- [57] P. Buerhaus et al., "Nurse staffing and patient outcomes," *Med. Care*, vol. 45, pp. 1195-1204, 2007.
- [58] R. L. Oliver, *Satisfaction: A Behavioral Perspective*, 2nd ed. New York: Routledge, 2014.
- [59] J. J. Cronin and S. A. Taylor, "Measuring service quality," *J. Mark.*, vol. 56, pp. 55-68, 1992.
- [60] A. S. Mattila, "Service quality-satisfaction relationship," *J. Serv. Mark.*, vol. 15, pp. 480-495, 2001.
- [61] A. F. Hayes, *Introduction to Mediation, Moderation, and Conditional Process Analysis*, 3rd ed. New York: Guilford Press, 2022.
- [62] P. M. Podsakoff et al., "Common method biases," *J. Appl. Psychol.*, vol. 88, pp. 879-903, 2003.
- [63] R. M. Baron and D. A. Kenny, "The moderator-mediator variable distinction," *J. Pers. Soc. Psychol.*, vol. 51, pp. 1173-1182, 1986.
- [64] M. Brady and J. Cronin, "Customer orientation effects," *J. Serv. Res.*, vol. 4, pp. 241-251, 2001.
- [65] J. R. Griffith and K. R. White, *The Well-Managed Healthcare Organization*, 9th ed. Chicago: ACHE, 2019.
- [66] Institute for Healthcare Improvement, "Framework for improving," 2023. [Online]. Available: <http://www.ihl.org>

- [67] World Health Organization, "Quality healthcare," 2023. [Online]. Available: <https://www.who.int/>
- [68] J. F. Hair et al., *Multivariate Data Analysis*, 8th ed. Boston: Cengage, 2019.
- [69] J. W. Creswell and J. D. Creswell, *Research Design*, 5th ed. Thousand Oaks: Sage, 2018.
- [70] A. Bryman, "Integrating quantitative and qualitative research," *Qual. Res.*, vol. 6, no. 1, pp. 97-113, 2006.