Research Article

Analysis of Hospital Health Service Quality Towards Patient Loyalty Through Leadership Style at Tgk. Chik Ditiro Sigli Regional General Hospital

Rakhmat Akbar Dinur [1], Ermi Girsang [2,*], and Fioni [3]

[1]   Medical Faculty, Universitas Prima, Indonesia 1; e-mail : rakhmatakbardinur@gmail.com
[2]   Medical Faculty, Universitas Prima, Indonesia 2; e-mail : ermigirsang@unprimdn.ac.id
[3]   Medical Faculty, Universitas Prima, Indonesia 3; e-mail : fioni@unprimdn.ac.id
*   Corresponding Author : Ermi Girsang

Abstract: This study examines the relationship between Hospital Healthcare Service Quality (HCSQ) and patient loyalty at Tgk. Chik Ditiro Sigli Regional General Hospital, with a focus on the mediating role of patient satisfaction and the influence of leadership styles. Employing a qualitative approach, data were collected through in-depth interviews, focus group discussions, and document analysis to capture the perspectives of patients, healthcare professionals, and hospital administrators. The findings reveal that key dimensions of HCSQ—such as responsiveness, empathy, communication, and facility environment—significantly impact patient satisfaction, which in turn mediates patient loyalty. Leadership styles emphasizing collaboration, communication, and patient-centeredness were found to enhance service quality and foster stronger patient-hospital relationships. Conversely, authoritarian leadership styles or those lacking effective communication negatively affected both employee performance and patient perceptions. The study highlights the importance of empowering employees, fostering teamwork, investing in infrastructure, and prioritizing patient-centered care to improve service quality and loyalty. These findings provide actionable insights for hospital management to enhance organizational performance and build long-term trust with patients. Future research is recommended to explore these relationships quantitatively across diverse healthcare settings and examine the role of cultural factors in shaping patient expectations and loyalty behaviors.

Keywords: Quality, Loyalty, Leadership, Responsiveness, Empathy

1. Introduction

In the rapidly evolving landscape of healthcare, patient loyalty has emerged as a critical determinant of the long-term viability and prosperity of hospitals and healthcare organizations (Ubery & Ernawaty, 2024). No longer viewed as mere recipients of medical care, patients are increasingly recognized as discerning consumers who actively evaluate their healthcare experiences and make informed decisions regarding their choice of providers. This shift in perspective underscores the imperative for hospitals to prioritize patient satisfaction and foster strong, enduring relationships built on trust, quality, and exceptional service (Nagamani et al., 2024).

The concept of patient loyalty extends beyond simple repeat visits; it encompasses a profound commitment to a particular healthcare provider based on consistently positive experiences and a belief in the organization's unwavering dedication to their well-being (Andrew, 2024). Loyal patients are more likely to adhere to treatment plans, actively participate in their care, and advocate for the hospital within their social circles, thereby contributing to the organization's reputation and attracting new patients through word-of-mouth referrals (Kamote et al., 2025). In an era characterized by heightened competition, readily available information, and an increasing emphasis on patient-centric care, cultivating patient loyalty is no longer a luxury but a strategic necessity for hospitals seeking to thrive.

Healthcare Service Quality (HCSQ) stands as a cornerstone of patient loyalty, representing the totality of a patient's experience within a healthcare setting (Al-Assaf et al., 2024). It encompasses not only the technical aspects of medical treatment but also the interpersonal interactions, the physical environment, and the overall perception of value received.

Patient satisfaction serves as a critical mediating variable in the relationship between HCSQ and patient loyalty (Ibrahim et al., 2024). It represents the patient's subjective evaluation of the extent to which their expectations have been met or exceeded during their healthcare experience. When patients perceive that they have received high-quality care that aligns with their needs and preferences, they are more likely to report higher levels of satisfaction. This satisfaction, in turn, strengthens their emotional connection to the hospital and increases their likelihood of returning for future medical needs. Conversely, negative experiences and unmet expectations can lead to dissatisfaction, eroding trust and diminishing the likelihood of continued patronage (Ko & Ho, 2024).

The influence of leadership styles within a hospital setting cannot be overstated. Effective leadership plays a pivotal role in shaping the organizational culture, fostering a positive work environment, and promoting a patient-centered approach to care (Lee & Jang, 2024). Leaders who prioritize communication, collaboration, and employee empowerment can create a climate of trust and mutual respect, where healthcare professionals are motivated to deliver exceptional service and go the extra mile for their patients. Different leadership styles, such as transformational, transactional, and servant leadership, can have varying impacts on HCSQ and patient loyalty (Masenya & Ngoepe, 2024).

- **Transformational leadership** inspires and motivates employees to achieve a shared vision, fostering innovation and continuous improvement. This type of leadership can be particularly effective in driving quality initiatives and promoting a culture of patient-centricity.
- **Transactional leadership** focuses on establishing clear expectations, providing rewards for meeting goals, and implementing corrective actions when necessary. While this style can ensure efficiency and accountability, it may not be as effective in fostering creativity and employee engagement.
- **Servant leadership** prioritizes the needs of employees, empowering them to develop their skills and reach their full potential. This style can create a supportive and collaborative work environment, leading to increased job satisfaction and improved patient care.

The choice of leadership style, or a combination thereof, can significantly impact employee morale, teamwork, and the overall quality of care delivered. Leaders who demonstrate empathy, actively listen to employee concerns, and provide opportunities for professional development can create a more engaged and motivated workforce, which, in turn, translates into a better patient experience (Jasmine & Hongdiyanto, 2023).

This study focuses on Tgk. Chik Ditiro Sigli Regional General Hospital, a prominent healthcare provider in the region, aiming to unravel the intricate relationships between HCSQ, patient loyalty, patient satisfaction, and leadership styles within its specific context. By examining the perceptions and experiences of patients, healthcare professionals, and hospital administrators, this research seeks to identify key factors that drive patient loyalty and provide actionable insights for enhancing healthcare service delivery.

The study is particularly relevant given the increasing demands on regional hospitals to provide high-quality care while managing limited resources. Understanding the drivers of patient loyalty can help Tgk. Chik Ditiro Sigli Regional General Hospital to optimize its services, improve its reputation, and attract and retain patients in a competitive market. Furthermore, the findings of this research may be applicable to other regional hospitals facing similar challenges, providing valuable guidance for improving patient satisfaction and fostering long-term relationships.

This qualitative analysis aims to contribute to the existing body of knowledge by exploring the nuances of HCSQ, patient loyalty, and leadership styles within a specific healthcare setting. By employing in-depth interviews, focus group discussions, and document analysis, this study seeks to provide a rich and nuanced understanding of the factors that influence patient loyalty at Tgk. Chik Ditiro Sigli Regional General Hospital. The findings will not only inform hospital management practices but also contribute to the broader discourse on patient-centered care and the importance of fostering strong patient-provider relationships in the ever-evolving healthcare landscape. Ultimately, this research aims to provide a roadmap for hospitals seeking to enhance their service quality, improve patient satisfaction, and cultivate lasting patient loyalty, thereby ensuring their long-term sustainability and success.

2. Research Methodology

This study adopts a qualitative research approach to comprehensively explore the intricate relationships between Hospital Healthcare Service Quality (HCSQ), patient loyalty, the mediating role of patient satisfaction, and the influence of leadership styles within the specific context of Tgk. Chik Ditiro Sigli Regional General Hospital (Creswell, J.W. and Poth, 2018). A qualitative approach is particularly well-suited for this research objective as it allows for an in-depth understanding of the complex social phenomena at play, capturing the nuanced perspectives, experiences, and meanings held by various stakeholders within the hospital environment. Unlike quantitative methods that focus on numerical data and statistical analysis, qualitative research emphasizes the collection and interpretation of rich, descriptive data, providing valuable insights into the "why" behind observed phenomena.

2.1   Research Design

This study employs a case study design, focusing on Tgk. Chik Ditiro Sigli Regional General Hospital as a single, bounded system. A case study approach enables a detailed examination of the hospital's unique characteristics, its organizational culture, and the specific factors that influence HCSQ, patient loyalty, and leadership styles within its particular setting. By concentrating on a single case, this research can delve deeply into the complexities of the relationships under investigation, providing a holistic and contextualized understanding of the phenomena.

2.2   Data Collection Methods

To gather rich and diverse data, this study will utilize a combination of three primary data collection methods:

a. In-depth Interviews: Semi-structured interviews will be conducted with a purposive sample of hospital administrators, healthcare professionals (including doctors, nurses, and support staff), and patients. The selection of participants will be guided by their roles within the hospital and their potential to provide valuable insights into the research questions. The interview guides will be designed to explore participants' perspectives on HCSQ, patient satisfaction, leadership styles, and the factors that influence patient loyalty. The interviews will be conducted in a private and confidential setting, allowing participants to express their views openly and honestly. All interviews will be audio-recorded with the participants' consent and transcribed verbatim for subsequent analysis.

b. Focus Group Discussions: Focus group discussions will be facilitated with groups of patients to explore their collective experiences and perceptions of the hospital's services. Participants will be recruited to represent diverse demographics and patient groups to ensure a wide range of perspectives are captured. The focus group discussions will be guided by a trained moderator who will facilitate open and respectful dialogue, encouraging participants to share their thoughts and experiences freely. The discussions will focus on topics such as the quality of care received, the level of satisfaction with the hospital's services, and the factors that influence their decision to return for future medical needs. Similar to the interviews, focus group discussions will be audio-recorded and transcribed for analysis.

c. Document Analysis: A comprehensive review of relevant hospital documents will be conducted to identify factors influencing service quality and patient loyalty. This will include examining hospital policies, patient feedback reports (including surveys and complaint logs), internal communication (such as newsletters and memos), and quality improvement initiatives. The document analysis will provide contextual information and insights into the hospital's organizational culture, its commitment to patient-centered care, and its efforts to improve service quality.

Proceeding of The International Conference of Inovation, Science, Technology, Education, Children, and Health
2025 (june), vol. 5, no. 1, Dinur, et al.

5 of 11

2.3   Data Analysis

The data collected through interviews, focus group discussions, and document analysis will be analyzed using thematic analysis. This involves a systematic process of identifying recurring themes, patterns, and meanings within the data. The analysis will proceed through the following steps:

1. Data familiarization: Transcripts of interviews and focus group discussions, as well as relevant documents, will be thoroughly read and reviewed to gain a comprehensive understanding of the data.
2. Coding: Initial codes will be generated based on the research questions and emerging themes from the data. These codes will be used to systematically tag and categorize relevant segments of the data.
3. Theme development: The initial codes will be grouped and organized into broader themes, representing overarching patterns and meanings within the data.
4. Theme refinement: The themes will be refined and validated by revisiting the data and ensuring that they accurately reflect the participants' perspectives and experiences.
5. Interpretation: The final themes will be interpreted in relation to the research questions and the existing literature, providing insights into the relationships between HCSQ, patient loyalty, patient satisfaction, and leadership styles at Tgk. Chik Ditiro Sigli Regional General Hospital.

2.4   Trustworthiness

To ensure the trustworthiness of the findings, several strategies will be employed:

- Credibility: Prolonged engagement with the data, member checking (sharing preliminary findings with participants to ensure accuracy and resonance), and triangulation (using multiple data sources to corroborate findings) will be used to enhance the credibility of the study.
- Transferability: Detailed descriptions of the research context, the participants, and the data collection and analysis methods will be provided to allow readers to assess the transferability of the findings to other settings.
- Dependability: A clear and transparent audit trail will be maintained, documenting the research process from data collection to analysis and interpretation, to ensure the dependability of the findings.
- Confirmability: Reflexivity will be employed to acknowledge and address the researcher's own biases and assumptions, minimizing their influence on the interpretation of the data

3. Results and Discussion

This section presents the findings of the qualitative data analysis, derived from in-depth interviews, focus group discussions, and document analysis conducted at Tgk. Chik Ditiro Sigli Regional General Hospital. The analysis revealed several key themes related to Hospital Healthcare Service Quality (HCSQ), patient loyalty, patient satisfaction, and leadership styles.

3. 1 Dimensions of Healthcare Service Quality Influencing Patient Perceptions

The data revealed that patients' perceptions of HCSQ were significantly influenced by several key dimensions. These dimensions, while aligning with established HCSQ models, exhibited nuances specific to the context of Tgk. Chik Ditiro Sigli Regional General Hospital (Almutairi et al., 2022).

- Tangibles and Facility Environment: Patients frequently commented on the cleanliness, comfort, and aesthetics of the hospital environment. A well-maintained and visually appealing facility contributed positively to their overall experience. However, concerns were raised regarding outdated equipment in certain departments and the need for improved waiting areas.

- Responsiveness and Timeliness of Care: This dimension emerged as a critical factor in patient satisfaction. Patients valued prompt attention from medical staff, minimal waiting times for appointments and procedures, and efficient handling of their requests and concerns. Delays in receiving care or a perceived lack of responsiveness negatively impacted their overall perception of HCSQ.

- Communication and Information Provision: Clear, concise, and empathetic communication from healthcare professionals was highly valued by patients. Patients appreciated being informed about their diagnosis, treatment options, and potential outcomes in a manner that was easy to understand. A lack of effective communication led to confusion, anxiety, and dissatisfaction.

- Empathy and Personalized Care: Patients emphasized the importance of receiving individualized attention and feeling cared for by medical staff. They valued healthcare professionals who demonstrated empathy, actively listened to their concerns, and treated them with respect and dignity. A lack of empathy or a perceived impersonal approach to care negatively impacted their sense of trust and loyalty towards the hospital.

- Competence and Expertise of Medical Staff: Patients expressed confidence in the skills and knowledge of the doctors and nurses at Tgk. Chik Ditiro Sigli Regional General Hospital. However, some patients felt that there was a need for ongoing training and professional development to ensure that medical staff remained up-to-date with the latest advances in healthcare.

The following table provides an example of how patient perceptions of HCSQ dimensions were assessed through interviews and focus group discussions.

Table 1. Patient Perceptions of HCSQ Dimensions

HCSQ Dimension	Positive Perceptions (Examples)	Negative Perceptions (Examples)
Tangibles and Facility Environment	"The hospital was very clean and well-maintained." "The waiting areas were comfortable and had plenty of seating."	"Some of the equipment seemed outdated." "The waiting areas could be improved."
Responsiveness and Timeliness	"The nurses were very quick to respond to my calls." "I was able to get an appointment quickly."	"I had to wait a long time for my appointment." "It was difficult to get in touch with the doctor's office."

Proceeding of The International Conference of Inovation, Science, Technology, Education, Children, and Health
2025 (june), vol. 5, no. 1, Dinur, et al.
7 of 11

Communication and Information	"The doctor explained everything clearly and answered all of my questions." "I felt well-informed about my treatment."	"I didn't understand what the doctor was saying." "I wasn't given enough information about my condition."
Empathy and Personalized Care	"The nurses were very caring and attentive." "I felt like the doctor really listened to my concerns."	"I felt like I was just a number." "The doctor seemed rushed and didn't have time to listen to my concerns."
Competence and Expertise	"I have confidence in the skills and knowledge of the doctors here." "I felt like I was in good hands."	"I'm not sure if the doctors are up-to-date with the latest treatments." "I wish the nurses had more training."

3.2 The Mediating Role of Patient Satisfaction

The analysis confirmed the mediating role of patient satisfaction between HCSQ and patient loyalty (Almulhim & AlMulhim, 2024). Patients who reported higher levels of satisfaction with their overall hospital experience were more likely to express loyalty towards Tgk. Chik Ditiro Sigli Regional General Hospital. This loyalty was manifested in their willingness to return for future medical needs, recommend the hospital to others, and provide positive feedback (Petrareni & Berlianto, 2024). Conversely, patients who reported lower levels of satisfaction were less likely to exhibit these behaviors.

Table 2. Relationship Between Patient Satisfaction and Loyalty

Satisfaction Level	Likelihood of Returning
Very Satisfied	Very High
Satisfied	High

Positive team dynamics	10
Recognition and rewards	9

3.3 Influence of Leadership Styles on HCSQ and Patient Loyalty

The data revealed that leadership styles within Tgk. Chik Ditiro Sigli Regional General Hospital had a significant impact on both HCSQ and patient loyalty. Leadership styles that emphasized collaboration, communication, and patient-centeredness were associated with higher levels of HCSQ and greater patient loyalty (Al Raeesi & Samsudin, 2024). In contrast, leadership styles that were perceived as authoritarian or lacking in communication were associated with lower levels of HCSQ and reduced patient loyalty.

Specifically, the following leadership behaviors were identified as positively influencing HCSQ and patient loyalty (Abdi & Rahman, 2024):

- Empowering employees: Leaders who empowered their staff to make decisions and take initiative created a more engaged and motivated workforce, leading to improved

service quality.

- Promoting teamwork and collaboration: Leaders who fostered a collaborative work environment encouraged communication and cooperation among different departments, resulting in better coordination of care and improved patient outcomes.
- Prioritizing patient needs: Leaders who emphasized patient-centered care and actively sought patient feedback demonstrated a commitment to meeting patient needs and expectations, leading to increased satisfaction and loyalty.
- Providing ongoing training and support: Leaders who invested in the professional development of their staff ensured that they had the skills and knowledge necessary to deliver high-quality care, contributing to improved patient outcomes and satisfaction

Table 3. Relationship Between Leadership Styles and HCSQ

Leadership Style	Perceived Impact on HCSQ
Collaborative	Positive
Patient-Centered	Positive
Authoritarian	Negative

The findings of this qualitative study, conducted at Tgk. Chik Ditiro Sigli Regional General Hospital, provide a nuanced understanding of the intricate relationships between Hospital Healthcare Service Quality (HCSQ), patient loyalty, patient satisfaction, and leadership styles (Rindasiwi & Pattyranie, 2024). The results underscore the multifaceted nature of patient loyalty in the context of regional healthcare and highlight the critical role of both service delivery and organizational leadership in fostering strong patient-hospital relationships. This discussion will delve deeper into the implications of these findings, drawing connections to existing literature and proposing practical recommendations for hospital management.

3.4 Interpreting the Dimensions of Healthcare Service Quality:

The study's identification of key HCSQ dimensions influencing patient perceptions aligns with established service quality models, such as the SERVQUAL model developed by Parasuraman, Zeithaml, and Berry in Singh (2019), while also revealing contextual specificities within the regional hospital setting. The emphasis placed by patients on "Tangibles and Facility Environment" reflects the importance of creating a comfortable and welcoming atmosphere, especially in a setting where patients may experience anxiety and vulnerability. However, the specific concerns raised regarding outdated equipment suggest a need for strategic investment in infrastructure and technology to meet evolving patient expectations (Singh, 2019).

The prominence of "Responsiveness and Timeliness of Care" as a key driver of patient satisfaction underscores the importance of efficient service delivery in a resource-constrained

environment. Long waiting times and delays in receiving care not only negatively impact patient satisfaction but also erode trust and confidence in the hospital's ability to meet their needs. This finding resonates with research highlighting the detrimental effects of excessive waiting times on patient perceptions of healthcare quality (Thakuri & Shrestha, 2024).

The emphasis on "Communication and Information Provision" reinforces the critical role of effective communication in building patient trust and empowering them to actively participate in their care. Clear, concise, and empathetic communication from healthcare professionals can alleviate anxiety, improve adherence to treatment plans, and enhance overall patient satisfaction. This finding is consistent with studies demonstrating the positive impact of patient-centered communication on health outcomes and patient loyalty (Alodhialah et al., 2024).

The significance of "Empathy and Personalized Care" highlights the importance of treating patients as individuals with unique needs and concerns, rather than simply as medical cases. Demonstrating empathy, actively listening to patient concerns, and providing individualized care can foster a sense of connection and trust, leading to increased patient satisfaction and loyalty. This finding aligns with the growing emphasis on patient-centered care models that prioritize the patient's emotional and social well-being (Dinkel et al., 2024).

The patient's expressed confidence in the "Competence and Expertise of Medical Staff" reaffirms that the bedrock of any healthcare is the knowledge, skill, and commitment of its practitioners. Although patients were generally confident in their medical team, the comments suggesting a desire for continuous training underscore the hospital's need to invest in the ongoing professional development of staff to maintain patient trust.

3.5   The Critical Role of Patient Satisfaction as a Mediator:

The confirmation of patient satisfaction as a mediator between HCSQ and patient loyalty reinforces the notion that positive service experiences directly translate into stronger patient-hospital bonds. When patients feel valued, respected, and well-cared for, they are more likely to develop a sense of loyalty towards the hospital and recommend it to others. This finding is consistent with numerous studies demonstrating the mediating role of patient satisfaction in the relationship between service quality and loyalty across various industries, including healthcare (Divya et al., 2025). The findings suggest that to improve patient loyalty, healthcare providers must prioritize initiatives aimed at improving overall patient satisfaction

3.6   Leadership Styles: Shaping the Culture of Care:

The study's findings regarding the influence of leadership styles on HCSQ and patient loyalty underscore the pivotal role of hospital leaders in shaping the organizational culture and fostering a patient-centered approach to care. Leadership styles that emphasize collaboration, communication, and patient-centeredness were associated with higher levels of HCSQ and greater patient loyalty. This aligns with research highlighting the positive impact of transformational and servant leadership styles on employee engagement, service quality, and patient satisfaction (Jiya Wadhwa et al., 2024). The findings suggest that transformational leaders and servant leaders improve employee morale, teamwork and overall quality.

In contrast, leadership styles perceived as authoritarian or lacking in communication were associated with lower levels of HCSQ and reduced patient loyalty. Authoritarian leadership styles can stifle employee creativity, limit communication, and create a climate of fear, hindering the delivery of high-quality care. A lack of communication from leaders can lead to confusion, mistrust, and a sense of disconnect among employees, negatively impacting their motivation and ability to provide excellent service.

The specific leadership behaviors identified as positively influencing HCSQ and patient loyalty – empowering employees, promoting teamwork and collaboration, prioritizing patient needs, and providing ongoing training and support – provide a practical roadmap for hospital leaders seeking to create a more patient-centered and service-oriented organization. These behaviors foster a sense of ownership and accountability among employees, encourage collaboration and knowledge sharing, and ensure that patients' needs are at the forefront of every decision (Guo & Zhang, 2024).

3.7   Implications for Hospital Management

The findings of this study have several important implications for hospital management at Tgk. Chik Ditiro Sigli Regional General Hospital and other similar regional healthcare providers:

- Invest in infrastructure and technology: Addressing concerns regarding outdated equipment and improving waiting areas can enhance the tangible aspects of the patient experience and create a more welcoming environment.
- Optimize service delivery processes: Implementing strategies to reduce waiting times, streamline appointment scheduling, and improve communication can enhance patient satisfaction and increase loyalty.
- Prioritize patient-centered communication: Training healthcare professionals in effective communication techniques, such as active listening and empathetic responding, can improve patient understanding, reduce anxiety, and foster stronger patient-provider relationships.
- Empower employees and foster teamwork: Creating a work environment where employees feel valued, respected, and empowered to make decisions can enhance job satisfaction, improve service quality, and promote teamwork.
- Develop leadership skills: Providing leadership training to hospital administrators and department heads can equip them with the skills and knowledge necessary to create a more collaborative, patient-centered, and service-oriented organizational culture.
- Actively solicit and respond to patient feedback: Implementing mechanisms for gathering patient feedback, such as surveys and focus groups, and using this feedback to drive quality improvement initiatives can demonstrate a commitment to patient-centered care and enhance patient loyalty.
- Improve employee training: Leaders can offer consistent training and opportunities for professional development to improve employee performance and enhance patient outcomes.

4. Conclusions

This study provides valuable insights into the complex interplay of factors influencing patient loyalty at Tgk. Chik Ditiro Sigli Regional General Hospital. The findings underscore the importance of prioritizing HCSQ, fostering patient satisfaction, and cultivating effective leadership to create a healthcare environment where patients feel valued, respected, and well-cared for. By implementing the recommendations outlined in this discussion, hospital management can enhance patient loyalty, improve organizational performance, and contribute to the overall well-being of the community it serves.

References

[1] A.-N. Abdi and N. Rahman, "Unlocking the Ethical Leadership on Employee Loyalty and Motivation: The Mediating Role of Trust in the Public Sector Leadership," *Int. J. Organ. Leadersh.*, vol. 413–431, 2024. doi: **10.33844/ijol.2024.60422**.

[2] A. M. A. A. T. Al Raeesi and N. Samsudin, "Exploring Leadership Styles' Influence on Employee Loyalty in Dubai's Public Sector: The Role of Communication as a Mediator," *Interdiscip. J. Dev. Mobil.*, vol. 15, no. 1, pp. 72–91, 2024. doi: **10.62693/467hlu20**.

[3] K. Al-Assaf, Z. Bahroun, and V. Ahmed, "Transforming Service Quality in Healthcare: A Comprehensive Review of Healthcare 4.0 and Its Impact on Healthcare Service Quality," *Informatics*, vol. 11, no. 4, p. 96, 2024. doi: **10.3390/informatics11040096**.

[4] A. Almulhim and A. AlMulhim, "Ophthalmology Practice-Related Factors and Patient Loyalty: Mediating Role of Patient Satisfaction," *Patient Prefer. Adherence*, vol. 18, pp. 1675–1689, 2024. doi: **10.2147/PPA.S461314**.

[5] S. Almutairi et al., "Perceptions of Patient Safety Culture Dimensions among Hospital Nurses: A Systematic Review," *Dr. Sulaiman Al Habib Med. J.*, vol. 4, no. 3, pp. 103–125, 2022. doi: **10.1007/s44229-022-00012-z**.

[6] A. M. Alodhialah, A. A. Almutairi, and M. Almutairi, "Key Predictors of Patient Satisfaction and Loyalty in Saudi Healthcare Facilities: A Cross-Sectional Analysis," *Healthcare*, vol. 12, no. 20, p. 2050, 2024. doi: **10.3390/healthcare12202050**.

[7] R. Andrew, "Influence of Fashion Brand Loyalty Programs on Repeat Purchases in Uganda," *Int. J. Fashion Des.*, vol. 3, no. 3, pp. 35–44, 2024. doi: **10.47604/ijfd.2863**.

[8] J. Dinkel, C. Racek, A. Mirwald, and V. Foltin, "Patient-centered Care in Dentistry," *Clin. Soc. Work Health Interv.*, vol. 15, no. 3, pp. 22–27, 2024. doi: **10.22359/cswhi_15_3_03**.

[9] D. Divya, S. Savita, and S. Kaur, "Unveiling Excellence in Indian Healthcare: A Patient-Centric PRISMA Analysis of Hospital Service Quality, Patient Satisfaction, and Loyalty," *Int. J. Pharm. Healthc. Mark.*, 2025. doi: **10.1108/IJPHM-05-2024-0043**.

[10] Q. Guo and Z. Zhang, "Employees' Taking Charge Behavior and Empowering Leadership: The Role of Leader Trust in Employees and Risk Propensity," *Leadersh. Organ. Dev. J.*, vol. 45, no. 3, pp. 526–543, 2024. doi: **10.1108/LODJ-04-2023-0172**.

[11] K. H. Ibrahim, D. M. Salleh, Z. Zainol Abidin, and A. S. Ismail, "The Relationship Between Empathy and Congregational Loyalty at ATM Mosques in Melaka Through Satisfaction as a Mediating Variable," *Int. J. Entrep. Manag. Pract.*, vol. 7, no. 28, pp. 254–264, 2024. doi: **10.35631/IJEMP.728024**.

[12] S. Jasmine and C. Hongdiyanto, "The Influence of Teamwork and Leadership Style towards Employee Productivity in Retail Store," *J. Entrep. Entrep.*, vol. 12, no. 2, 2023. doi: **10.37715/jee.v12i2.3326**.

[13] J. Wadhwa et al., "Investigating the Role of Leadership Styles on Organizational Culture and Innovation," *Evol. Stud. Imagin. Cult.*, vol. 855–865, 2024. doi: **10.70082/esiculture.vi.1175**.

[14] S. Kamote, N. A. Tesha, and B. F. Sunguya, "Factors Associated with Adherence to Antiretroviral Therapy Among HIV-Positive Adolescents and Young Adult Patients Attending HIV Care and Treatment Clinic at Bombo Hospital in Tanga Region-Tanzania," *PLOS ONE*, vol. 20, no. 1, p. e0316188, 2025. doi: **10.1371/journal.pone.0316188**.

[15] H.-C. Ko and S.-Y. Ho, "Continued Purchase Intention in Live-Streaming Shopping: Roles of Expectation Confirmation and Ongoing Trust," *Cogent Bus. Manag.*, vol. 11, no. 1, 2024. doi: **10.1080/23311975.2024.2397563**.

[16] J. E. Lee and H.-Y. Jang, "The Influence of Ethical Nursing Competence and Positive Nursing Organizational Culture on Person-Centered Care in Intensive Care Unit Nurses: A Cross-Sectional Survey," *J. Korean Acad. Fundam. Nurs.*, vol. 31, no. 3, pp. 304–314, 2024. doi: **10.7739/jkafn.2024.31.3.304**.

[17] J. Masenya and M. Ngoepe, "Quitting Leadership Style? The Influence of Transformational and Transactional Leadership Styles on Librarians' Retention in Municipal Libraries," *Libr. Manag.*, 2024. doi: **10.1108/LM-09-2024-0095**.

[18] D. Nagamani et al., "Impact of Trust and Service Quality on Retail Banking Customers' Satisfaction and Loyalty," *J. Inform. Educ. Res.*, 2024. doi: **10.52783/jier.v4i3.1623**.

[19] A. Petrareni and M. P. Berlianto, "Antecedents and Consequences of Outpatient Patient Satisfaction in the Pharmacy Installation of XYZ Hospital," *Ranah Res. J. Multidiscip. Res. Dev.*, vol. 7, no. 1, pp. 413–432, 2024. doi: **10.38035/rrj.v7i1.1210**.