

Enhancing Patient-Centered Care: Strategies for Optimizing Hospital Management and Operations

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ABSTRACT

Patient-centered care (PCC) has emerged as an important aspect of contemporary health care systems, with a focus on the delivery of health care services that meet the patients' needs, expectations, and preferences. Despite the increasing awareness and recognition of the PCC concept in the health care field, very little research has been conducted to examine the impact of hospital management strategies on the delivery of patient-centered health care services. Therefore, the present study aimed to examine the relationship between hospital operational efficiency, communication quality, digital health integration, and staff engagement and patient-centered care in the hospital setting. The quantitative cross-sectional study design was employed for the study, and the data were collected from 380 patients receiving health care services from selected hospitals using a structured questionnaire. The data were analyzed using Structural Equation Modeling (SEM) through SmartPLS software. The results indicated that the hospital management strategies were positively associated with the delivery of patient-centered health care services. Specifically, the study results indicated that the hospital staff engagement ($\beta = 0.45$, $p < 0.001$) and operational efficiency ($\beta = 0.41$, $p < 0.001$) were the strongest predictors of PCC, followed by communication quality ($\beta = 0.36$, $p < 0.001$) and digital health integration ($\beta = 0.29$, $p < 0.01$). The study contributed to the field of health care management by providing quantitative evidence of the impact of hospital management strategies on the delivery of patient-centered health care services.

Keywords: *Patient-Centered Care, Hospital Management, Operational Efficiency, Healthcare Service Quality, Staff Engagement.*

1. Introduction

In the context of healthcare systems around the world, there is an increased focus on patient-centered care (PCC) as an integral part of high-quality healthcare delivery (Hou et al., 2024). Unlike traditional approaches that focus on the outcome of the treatment, patient-centered care is based on the needs, wants, and experiences of the patient as the central focus in decision-making in the delivery of healthcare services (Omboni, 2021). This is because, in the context of high-quality healthcare delivery, it is recognized that it is not only about the treatment and diagnosis of the patient but also about communication, emotional support, access to services, and patient involvement in the decision-making process in relation to their health. In the context of the modern hospital environment, where there is an increased demand for services and increased complexity in the operation of services, the integration of patient-centered principles into the management of hospitals is important in enhancing the quality of services as well as patient satisfaction (Grover et al., 2022).

In relation to the delivery of patient-centered care, the role of hospital management and operation is important in enhancing or inhibiting the quality of services in relation to patient perceptions (Engle et al., 2021). This is because inefficient operations, poor communication between the patient and the service

providers, and poor coordination in the operations of the hospital are likely to have negative effects on patient perceptions of the quality of services (Bogale, 2021). However, hospitals that have efficient operational strategies, collaborative operations among the service providers, and supportive technology are likely to deliver patient-centered care services (Martyushev-Poklad et al., 2022). As such, the relationship between patient-centered care and hospital management is an important area of focus in relation to healthcare management (Almogry et al., 2024).

The main aim of the current research is to examine the role of the management practices implemented within a hospital environment towards the achievement of patient-centered care. The research focuses specifically on the influence of the following factors: operational efficiency, quality of communication, digital health, and staff engagement, on the achievement of patient-centered care. The research seeks to examine the role of the abovementioned factors towards the achievement of patient-centered care, thus identifying the factors that influence patient-centered care in a hospital environment.

For the purpose of the current research, a quantitative research method was employed, based on the data collected from the patients of the hospital. The data collection was performed by employing a structured questionnaire, aiming to measure the abovementioned factors. The data collected was analyzed based on the Structural Equation Modeling method, with the support of the SmartPLS tool. The abovementioned method allows the simultaneous examination of the relationships between the abovementioned factors and patient-centered care.

The novelty of the current research lies in the integrated method for examining the influence of the abovementioned factors on patient-centered care in a hospital environment. The current research examines the role of the abovementioned factors towards the achievement of patient-centered care, thus expanding the scope of the research from the isolated factors examined in previous research. The current research provides a scientific contribution towards the development of the relevant scientific discipline, as the abovementioned factors are examined simultaneously towards the achievement of patient-centered care. The current research provides a contribution towards the development of the scientific discipline of healthcare management, as the role of the abovementioned factors towards the achievement of patient-centered care is examined.

2. Literature Review

2.1 Concept and Evolution of Patient-Centered Care

Patient-centered care has over the years gradually become a guiding philosophy of contemporary healthcare systems. The concept of patient-centered care focuses on the provision of medical services to patients while considering their preferences, values, and individual needs (Yu et al., 2023). The concept of patient-centered care received international recognition through the work of the Institute of Medicine, which recognized patient-centered care as an essential feature of the quality of healthcare services.

Initially, the literature on patient-centered care focused on the quality of the provider-patient interaction. The literature revealed the importance of communication, empathy, and listening skills in the provision of healthcare services. Currently, however, researchers have realized the importance of the broader organizational aspects of care services. Hospitals have thus started to integrate the principles of patient-centered care into their organizational and managerial processes (Cui et al., 2025).

2.2 Hospital Management and Operational Efficiency

The delivery of patient-centered care is also related to the efficiency of the management systems in hospitals. Indeed, hospitals are complex service organizations in which clinical, administrative, and logistical processes must be coordinated. Inefficiencies in these processes are associated with increased waiting times, fragmented care, and decreased patient satisfaction (Sagen et al., 2023).

In order to overcome these problems, many hospitals have implemented operational improvement strategies. These strategies are focused on optimizing patient flow and improving coordination between services. Process redesign techniques, including lean management methods, have been extensively implemented in hospitals. Moreover, performance monitoring systems based on quality indicators, such as treatment success rates, patient safety, and service responsiveness, enable administrators in hospitals to assess their performance and detect the need for improvement (Wasim et al., 2023). These operational strategies are also important in building patient perceptions of quality.

2.3 Communication and Staff Engagement

Communication between healthcare professionals and patients continues to be a vital component of patient-centered care services (Brands et al., 2022). Lack of effective communication often leads to patient miscommunication, non-adherence to treatment, and increased risk of clinical errors. On the contrary, improved patient communication increases trust and enhances the patient healthcare experience.

Staff engagement also plays a role in the quality of care provided in a given hospital. Teamwork is a vital component of information sharing among healthcare professionals. Training and development of the healthcare staff also contribute to a work environment that enables the healthcare staff to respond to the needs of the patients. Such a work environment often leads to more responsive and caring healthcare services (Kanat et al., 2021).

2.4 Digital Health Technologies and Patient Experience

Digital technology has emerged as a significant facilitator for the better delivery of health care and patient engagement. Such systems include electronic health records and telemedicine, which help health care providers access patient data and respond to their health care needs (Shapiro et al., 2026).

Telemedicine has helped increase access to health care services, especially for patients in remote locations. Digital technology has allowed patients to stay connected with health care providers through remote consultations and monitoring, reducing the need for hospital visits (Wolf et al., 2021). The success of digital health care delivery systems depends on the infrastructure, training, and data security measures implemented by health care organizations.

2.5 Quality Improvement and Patient Safety

Quality improvement is at the core of patient safety and health outcomes. Hospitals have structured programs to minimize medical errors, improve treatment modalities, and closely monitor important clinical performance indicators (Alabdaly et al., 2021). When the protocol is standardized and the approach is supported by scientific evidence, the quality of care improves, and the chances of unwanted variations in treatment are minimized.

An important aspect of the quality improvement and patient safety agenda is the need to create a robust patient safety culture (Zehra et al., 2025). Organizations that encourage open communication and collaborative approaches to problem-solving are better at identifying risks and developing appropriate mitigating strategies. Continuous monitoring and evaluation enable hospitals to fine-tune their approaches to patient care and improve the patient-centric nature of the services provided.

2.6 Patient Engagement and Shared Decision-Making

Patient engagement has come to be recognized as a quality issue in the delivery of health care services. Modern health care delivery systems encourage patients to play an active role in the decision-making process for their health care (Tay et al., 2022). Shared decision-making brings together the health care

provider and the patient to discuss the options for treatment, comparing the evidence with the patient's values, preferences, and circumstances. Hospitals encourage patient engagement through education programs, patient portals, and feedback mechanisms. These tools help the provider to better understand the expectations and respond appropriately.

2.7 Research Gap

Many studies have been conducted on patient-centered care, but they have focused on one or two issues at a time. Some have concentrated on communication, while others have focused on the role of technology or quality improvement programs (Zeh et al., 2021). However, there is still a gap in understanding how all these pieces fit into the broader context of the hospital's management systems and how that affects patient-centered care. As such, there is still a need for more integrated studies that examine how hospital management systems, efficiency, and technology adoption work in concert with patient-centered care in hospitals and healthcare facilities.

3. Methods

3.1 Study Design and Participants

This study employed a quantitative cross-sectional study design. It focused on exploring the relationship between hospital management systems and patient-centered care. A survey method was used to collect data on the experiences and opinions of the patients on the extent to which the services provided by the hospitals meet their needs.

The participants were selected from a number of hospitals that provide both outpatient and inpatient services. Participants were selected at random after they had finished their consultation or treatment in the hospitals. Since the aim of the study was to have a wide range of experiences regarding the services provided by the hospitals, participants were selected from various departments in the hospitals. Only adult patients were selected for the study. A structured questionnaire was used in the course of the study. Approximately 350-400 questionnaires were administered.

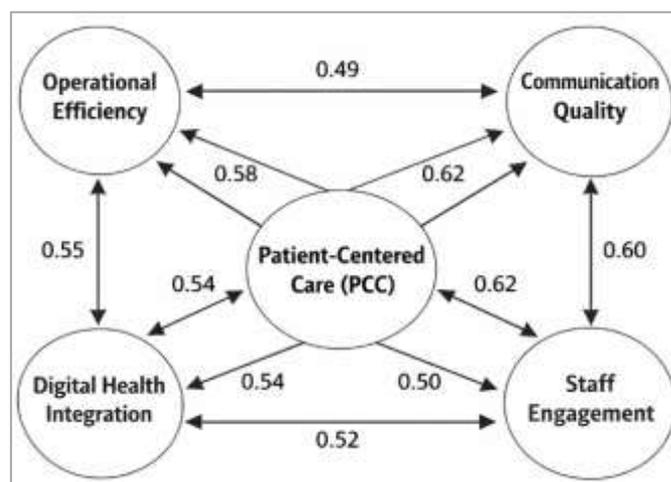


Figure 1. Correlation Among Hospital Management Factors and Patient-Centered Care (PCC) Constructs

This figure 1 illustrates the relationship between important management issues in hospitals, such as operational efficiency, quality of communication, integration of digital health technologies, and staff engagement, and patient-centered care. The direction of the arrows illustrates the strength of each of these constructs' relationships. It essentially shows that better management practices and better staff coordination are closely linked with better patient-centered care.

3.2 Description of Variables

The study framework follows a model of the effect of hospital management practices on patient-centered care results. The model has four independent variables and one dependent variable.

Operational Efficiency measures the effectiveness of hospital processes such as the management of patient flow, reduction of waiting times, and the integration of different hospital departments.

Communication Quality measures the quality of communication between patients and healthcare providers, which includes the explanation of diagnoses, treatment, and medical procedures.

Digital Health Integration measures the level of integration of digital health technologies such as electronic health records, digital appointment scheduling, and telemedicine services.

Staff Engagement measures the level of collaboration, teamwork, and engagement of the healthcare staff in the provision of patient-centered care services.

The dependent variable, Patient-Centered Care, measures the level of integration of healthcare services to meet the needs, preferences, and expectations of patients.

All the variables have been measured using five-point Likert scale items ranging from 1 (strongly disagree) to 5 (strongly agree), adapted from various studies on healthcare management.

3.3 Analytical Scheme

Data analysis followed a three-step approach. The initial step involved the analysis of the data using descriptive statistics to summarize the characteristics of the respondents. It also involved data screening to identify any missing values or outliers. The second step involved the analysis of the reliability and validity of the study constructs using Cronbach's alpha, composite reliability, and average variance extracted. The third step involved the analysis of the study model using the SmartPLS tool to analyze the relationships between hospital management practices and patient-centered care. The analysis of the study model included the measurement model analysis and the structural model analysis. Bootstrapping was used to evaluate the statistical significance of the proposed relationships.

Table 1. Descriptive Statistics (N = 380)

Variable	Mean	Standard Deviation	Minimum	Maximum
Operational Efficiency	3.84	0.71	2.10	5.00
Communication Quality	3.96	0.68	2.25	5.00
Digital Health Integration	3.72	0.75	2.00	5.00
Staff Engagement	3.89	0.70	2.15	5.00
Patient-Centered Care (PCC)	4.02	0.66	2.40	5.00

Table 1 below illustrates the descriptive statistics for the major constructs in this study. Evidently, patient-centered care emerges as the most dominant construct in this study, given its high mean. This indicates that patients have a positive perception of hospital services. The standard deviations are moderately large, implying a general trend in the responses.

4. Results

4.1 Descriptive Statistics

In this study, we used descriptive statistics to establish the general trend in the distribution of the study variables. Evidently, respondents have a positive perception of hospital services. Patient-centered care emerges as the dominant construct in this study, given its high mean. This suggests that patients have a

positive perception of healthcare services, as the mean is the highest in this study. Quality of communication and staff engagement also have high means. The standard deviations are moderately large, implying a general trend in the responses.

Table 2. The Association Between Patient-Centered Care (PCC) and Hospital Operational Efficiency

Variable	β (Standardized Coefficient)	Standard Error	t-value	p-value
Hospital Operational Efficiency \rightarrow PCC	0.41	0.06	6.83	<0.001
Communication Quality \rightarrow PCC	0.36	0.05	6.12	<0.001
Digital Health Integration \rightarrow PCC	0.29	0.07	4.15	<0.01
Staff Engagement \rightarrow PCC	0.45	0.05	7.21	<0.001

This table 2 illustrates the relationship between the operation of the hospital and patient-centered care. The results have revealed that the efficiency of the operation of the hospital, the quality of the communication, the integration of digital technologies in the healthcare services, and the staff's level of engagement are all positively correlated with patient-centered care. Among these factors, the staff's engagement was found to have the highest correlation.

4.2 The Link Between Patient-Centered Care and Hospital Operational Efficiency

As revealed from the results of the analysis, there is a positive correlation between patient-centered care and the efficiency of the operation of the hospital. The smoother the processes of the services provided in the hospital, the more the patients are likely to feel that the care received is patient-centered. For instance, if the waiting time for the services is shorter, the patients are more likely to feel that the care received is patient-centered.

4.3 The Link Between Patient-Centered Care and Healthcare Staff Engagement

As revealed from the results of the analysis, there is a high correlation between patient-centered care and the staff's level of engagement. The staff's level of engagement was revealed to have the highest correlation with patient-centered care. The more the staff are engaged in the services provided in the hospital, the more the patient-centered care is likely to be.

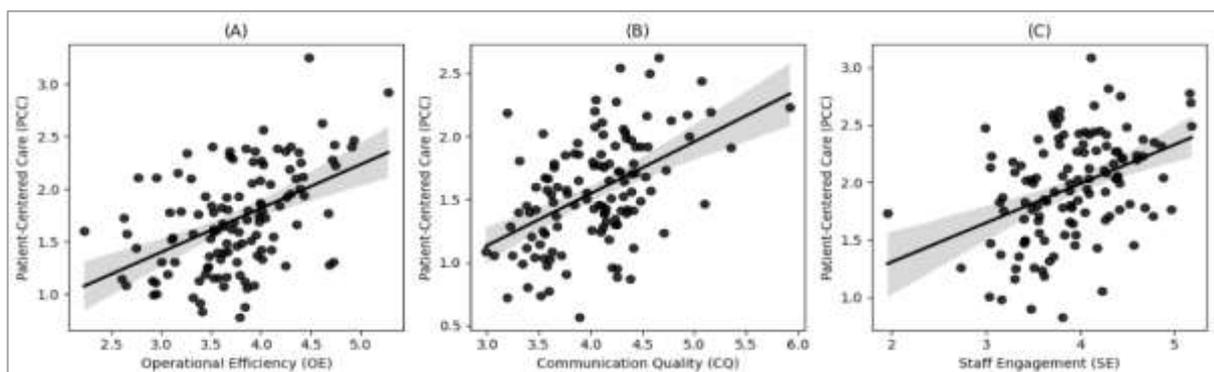


Figure 2. The Interaction Relationship Between Patient-Centered Care (PCC) and Operational Efficiency (A), Communication Quality (B), and Staff Engagement (C).

Figure 2 illustrates the link between patient-centered care and the core hospital management factors. The graphs indicate an increase in the level of patient-centered care when there is an improvement in the level of operational efficiency, communication quality, and engagement levels. The increasing patterns in the three graphs indicate the importance of effective hospital management in the delivery of patient-centered care.

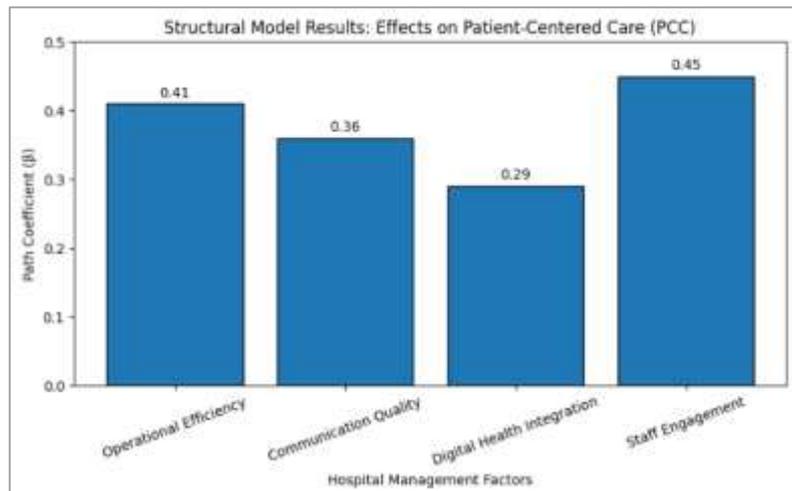


Figure 3. Importance–Performance Analysis of Hospital Management Factors Influencing Patient-Centered Care (PCC)

This figure 3 shows the structural relationships between hospital management factors and patient-centered care. The path coefficients are a measure of the strength of influence of each predictor variable. It can be seen that staff engagement and operational efficiency are the strongest predictors of patient-centered care outcomes. This figure shows the structural relationships between hospital management factors and patient-centered care. The path coefficients are a measure of the strength of influence of each predictor variable. It can be seen that staff engagement and operational efficiency are the strongest predictors of patient-centered care outcomes.

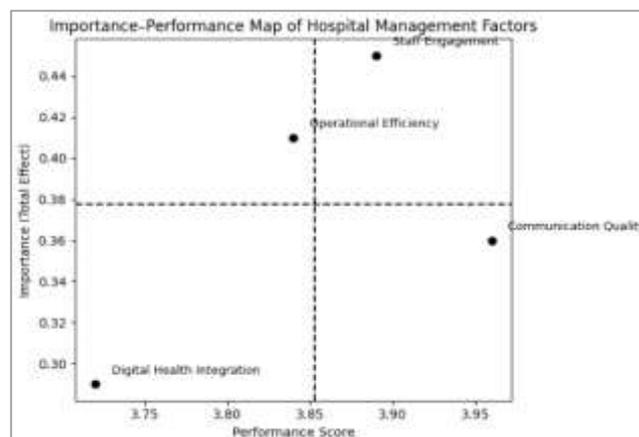


Figure 4. Importance–Performance Analysis of Hospital Management Factors Influencing Patient-Centered Care

The figure 4 illustrates an importance-performance map for factors of hospital management that influence patient-centered care. It demonstrates the factors that have the greatest influence on patient-centered care and the performance of each factor. This visual tool enables hospital administrators to locate the priority factors that need improvement in patient-centered healthcare services.

5. Discussion

5.1 Patient Focused Care: Enhancing the Patient’s Experience of Care

The results indicate that patient-centered care influences patients' perceptions of healthcare. When hospitals promote effective communication, patient engagement, and individualized care, patients feel that healthcare services are responsive and supportive. These interactions foster trust between patients and healthcare staff, and patient-centered care enhances patient satisfaction with their care journey.

5.2 Patient Centered Care: Enhancing Efficiencies in Hospital Service Delivery

The results also indicate that patient-centered care enhances efficiency in hospital service delivery. When communication, workflow, and staff interaction are efficient, waiting times are minimized. Therefore, patient-centered care enhances access to healthcare services and streamlines administrative processes for patients. In essence, incorporating patient-centered care into hospital management enhances efficiency and patient experience.

6. Limitations

Several limitations need to be taken into consideration while understanding the results of the study. Firstly, the study adopted a cross-sectional approach to collect data, which does not allow for the exploration of the relationships between the variables. Secondly, the study collected data through survey methods, which could have been subject to respondent bias and individual perceptions of the healthcare services. Thirdly, the study only collected data from patients visiting a few hospitals, which could limit the generalizability of the study to other settings.

7. Conclusion

The study aimed to find the impact of hospital management practices on strengthening patient-centered care (PCC) in the hospital setting. The study results suggest that operational efficiency, communication, digital health, and employee engagement are some of the important aspects of hospital management that have a significant impact on the delivery of patient-centered healthcare services. Hospitals with better organized and efficient service delivery and positive interactions between employees are likely to offer patients a better healthcare experience.

The study results suggest that patient-centered care is significantly associated with hospital management and the delivery of efficient services. Strengthening hospital management and the delivery of efficient services could have a positive impact on the delivery of patient-centered care. The study results could help healthcare administrators and policymakers to come up with strategies to improve the delivery of efficient services and patient-centered care.

References

1. Alabdaly, A., Debono, D., Hinchcliff, R., & Hor, S. (2021). Relationship between patient safety culture and patient experience in hospital settings: A scoping review protocol. *BMJ Open*, *11*(5), e049873.
2. Almogry, A. S. S., Al-Rashidi, G. M. M., Alzahrani, S. S. A., Alzahrani, A. S. A., Alghamdi, A. S. S., Alzahrani, M. A. A., Fatimah, M. Y., Amirah, M. Y., Mousa, I. F., & Alotaibi, F. N. O. (2024). Healthcare management: Strategies for optimizing efficiency and patient outcomes. *Journal of International Crisis and Risk Communication Research*, *7*(S12), 187.
3. Bogale, T. (2021). Facilitators and barriers of patient centered care practice in public hospitals of Benishangul Gumuze regional State, South West Ethiopia. *Rehabilitation*, *6*(1), 10–19.
4. Brands, M. R., Gouw, S. C., Beestrum, M., Cronin, R. M., Fijnvandraat, K., & Badawy, S. M. (2022). Patient-centered digital health records and their effects on health outcomes: Systematic review. *Journal of Medical Internet Research*, *24*(12), e43086.
5. Cui, J., Du, J., Zhang, N., & Liang, Z. (2025). National Patient Satisfaction Survey as a Predictor for Quality of Care and Quality Improvement – Experience and Practice. *Patient Preference and Adherence*, *Volume 19*, 193–206. <https://doi.org/10.2147/PPA.S496684>

6. Engle, R. L., Mohr, D. C., Holmes, S. K., Seibert, M. N., Afable, M., Leyson, J., & Meterko, M. (2021). Evidence-based practice and patient-centered care: Doing both well. *Health Care Management Review, 46*(3), 174–184.
7. Grover, S., Fitzpatrick, A., Azim, F. T., Ariza-Vega, P., Bellwood, P., Burns, J., Burton, E., Fleig, L., Clemson, L., & Hoppmann, C. A. (2022). Defining and implementing patient-centered care: An umbrella review. *Patient Education and Counseling, 105*(7), 1679–1688.
8. Hou, S., Wang, X., Zhao, Z., Ma, Y., Liu, J., Zhang, Z., & Ma, J. (2024). A Scale for Measuring Electronic Patient Engagement Behaviors: Development and Validation. *Patient Preference and Adherence, Volume 18*, 917–929. <https://doi.org/10.2147/PPA.S444633>
9. Kanat, M., Schaefer, J., Kivelitz, L., Dirmaier, J., Voigt-Radloff, S., Heimbach, B., & Glattacker, M. (2021). Patient-centeredness in the multimorbid elderly: A focus group study. *BMC Geriatrics, 21*(1), 567. <https://doi.org/10.1186/s12877-021-02448-8>
10. Martyushev-Poklad, A., Yankevich, D., & Petrova, M. (2022). Improving the effectiveness of healthcare: Diagnosis-centered care Vs. Person-centered health promotion, a long forgotten new model. *Frontiers in Public Health, 10*, 819096.
11. Omboni, S. (2021). Connected health: In the right place at the right time. In *Connected Health And Telemedicine* (Vol. 1, Issue 1, pp. 1–6). OAE Publishing Inc. <https://www.oaepublish.com/articles/ch.2021.01>
12. Sagen, J. S., Smedslund, G., Simonsen, A. E., Habberstad, A., Kjekken, I., Dagfinrud, H., & Moe, R. H. (2023). Patient engagement in the development and delivery of healthcare services: A systematic scoping review. *BMJ Open Quality, 12*(2). <https://bmjopenquality.bmj.com/content/12/2/e002309>
13. Shapiro, S. D., Logvinov, I., & Thomas, R. M. (2026). Redefining Evidence-Based Practice Through Patient Values: A Theoretical Innovation for Person-Centered, Value-Based Care. *Journal of Evaluation in Clinical Practice, 32*(1), e70344. <https://doi.org/10.1111/jep.70344>
14. Tay, E., Vlaev, I., & Massaro, S. (2022). The behavioral factors that influence person-centered social care: A literature review and conceptual framework. *International Journal of Environmental Research and Public Health, 19*(7), 4334.
15. Wasim, A., Sajan, M., & Majid, U. (2023). Patient-centered care frameworks, models and approaches: An environmental scan. *Patient Experience Journal, 10*(2), 14–22.
16. Wolf, J. A., Niederhauser, V., Marshburn, D., & LaVela, S. L. (2021). Reexamining “Defining Patient Experience”: The human experience in healthcare. *Patient Experience Journal, 8*(1), 16–29.
17. Yu, C., Xian, Y., Jing, T., Bai, M., Li, X., Li, J., Liang, H., Yu, G., & Zhang, Z. (2023). More patient-centered care, better healthcare: The association between patient-centered care and healthcare outcomes in inpatients. *Frontiers in Public Health, 11*, 1148277.
18. Zeh, S., Christalle, E., Zill, J. M., Härter, M., Block, A., & Scholl, I. (2021). What do patients expect? Assessing patient-centredness from the patients’ perspective: an interview study. *BMJ Open, 11*(7), e047810.
19. Zehra, S., Ranjan, J., & Shukla, M. (2025). Service quality in healthcare: Understanding the relationship between patient experience and healthcare outcomes. *International Journal of Health Care Quality Assurance, 38*(4), 233–250.