Multidimensional and Multifaceted Perception of Patient Experience by Different Departments in Healthcare and HealthTech Management Systems

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Abstract:

Patient experience (PX) is a cornerstone of healthcare quality and involves communications and collaborations with various departments within healthcare institutions and health technology (HealthTech) management systems. This article provides a comprehensive exploration of the multidimensional and multifaceted perception of PX from the perspectives of diverse healthcare and HealthTech stakeholders, including clinical departments, administrative units, IT divisions, insurance departments, technology departments, commercial departments, central operations departments, disease categories marketing departments, legal departments, pharmacy departments, patient advocacy departments, quality and patient safety departments, public relations and communications departments, human resources (HR) departments, biomedical engineering departments, nutrition and dietetics departments, mental health and counseling services, emergency and ambulance services, and research and development (R&D) departments. By analyzing the distinct yet interconnected roles these departments play, we underscore the complexity of PX and propose integrated, strategic approaches for optimizing healthcare delivery. This article presents a practical framework for healthcare organizations to align cross-departmental strategies, enhancing PX through integrated, patient-centered care delivery.

Introduction

Patient experience (PX) serves as a fundamental pillar of healthcare quality, encompassing communication and collaboration across diverse departments within healthcare institutions and HealthTech management systems. PX is a multidimensional construct shaped by every interaction—clinical and non-clinical—within a healthcare system. (Oben, 2020) From admission to discharge, departments such as nursing, (Konlan et al., 2021) surgery, (Dixon et al., 2015) pharmacy, (Alghurair et al., 2012) administration, (Bhati et al., 2023) facilities management, (Amankwah et al., 2019) and payments (Abidova et al.,2024) collectively influence patient perceptions through direct care, communication, environmental comfort, and logistical efficiency. While clinical teams (e.g., physicians, nurses) impact PX through empathy and shared decision-making, (Quaschning et al., 2013) non-clinical staff (e.g., front desk personnel, cleaning services) contribute through timely appointments, cleanliness, and billing transparency—factors equally critical to patient satisfaction and trust. (Ai et al., 2022)

The shift toward patient-centered care has further emphasized the importance of PX, yet healthcare organizations often struggle to establish a unified approach due to differing departmental perspectives. (Alshahrani et al., 2022) The integration of HealthTech adds another layer of complexity, necessitating a cross-functional understanding of how various roles and systems shape the patient's journey. Research underscores this interdependence: studies such as Bavin et al.'s analysis of elective surgeries reveal that nursing teams drive positive experiences through individualized care, whereas administrative delays or poor interdepartmental coordination lead to frustration. (Bavin et al., 2023) Benson and Benson's framework further highlights how service integration—such as seamless collaboration between clinical and support staff—is a key predictor of holistic patient satisfaction. (Benson & Benson, 2023) Despite this, disparities persist, with non-clinical touchpoints (e.g., billing clarity, waiting area comfort) often undervalued in traditional PX assessments.

The Agency for Healthcare Research and Quality— a unit of the United States Public Health Service; reinforces these findings, noting that PX metrics influence healthcare decision-making processes. This underscores the need for strategies that bridge clinical quality and operational efficiency while addressing workforce well-being, such as reducing nurse burnout, to sustain high-quality patient interactions. (Agency for Healthcare Research and Quality, 2021) This study examines how clinical and non-clinical departments—from clinical teams and pharmacy to admissions and finance—collectively shape patient experiences. By assessing their roles through the lenses of patient-centered care, workforce well-being, and systemic integration, we propose strategies to foster a cohesive, patient-centric culture. The goal is to ensure that every interaction, whether medical or administrative, reinforces trust, safety, and satisfaction, ultimately optimizing healthcare delivery.

Methodology

This qualitative, exploratory study evaluated the perspectives of various departments within healthcare and HealthTech systems on PX. Data was gathered through a combination of expert interviews, literature review,as well as secondary analysis of published reports, review articles and organizational white papers. A total of 12 departmental categories were analyzed based on their direct and indirect influence on PX. The key themes were identified through thematic analysis and categorized by function—clinical, administrative, operational, technological, insurance, legal and strategic. Data was validated through triangulation to ensure accuracy and consistency of insights drawn from multiple sources.

Departmental Contributions to PX

Figure 1: Departmental Contributions to Patient Experience (PX)

Each department plays a vital role in shaping PX. Below is an in-depth exploration of their contributions:

- **Clinical Departments**: Affect medical outcomes, patient safety, and bedside interactions. Physicians, nurses, and allied health professionals determine treatment efficacy and

continuity of care, which are essential for positive PX. Effective communication, shared decision-making, encouraging a patient to ask questions and answering the questions in a language that the patient understands further influences patient perceptions and treatment adherence. (Sharkiya, 2023)

- **Administrative Departments**: Influence service accessibility, financial transparency, and patient communication. These departments manage hospital operations, billing, and appointment scheduling, all of which contribute to a seamless patient journey. Poor administrative processes can lead to frustration, delays, and lower PX scores, necessitating streamlined workflows and patient-friendly policies. (Bhati et al., 2023)

- **HealthTech and IT Divisions**: Optimize electronic health record (EHR) usability, cybersecurity, and telehealth implementation. By integrating digital health tools, these divisions enhance patient engagement and improve healthcare accessibility. They also address concerns related to interoperability, ensuring seamless information flow across multiple healthcare providers. (Kruse et al., 2015)

- **Insurance Departments**: Manage claims, reimbursement processes, and policy transparency, significantly impacting PX. Their efficiency in handling coverage disputes and claims approval directly affects patient stress levels and financial planning. Lack of clarity in insurance policies can lead to dissatisfaction, making it essential to provide clear guidance and patient education. (Russell, 2020)

- **Technology Departments**: Implement AI, machine learning, and IoT-based healthcare innovations. These advancements personalize healthcare and reduce administrative burdens, ultimately enhancing PX. Real-time monitoring, predictive analytics, and automation improve efficiency while maintaining high-quality patient interactions. (Topol, 2019)

- **Central Operations Departments**: Regulate patient flow, optimize scheduling, and ensure resource availability. Efficient operations reduce waiting times and improve healthcare delivery speed, contributing to a more satisfactory PX. Implementing data-driven resource allocation ensures equitable and efficient patient service distribution. (Resar et al., 2011)

- **Disease Categories Marketing Departments**: Perform a thorough exploration of patients' needs, uncovering hidden or unspoken demands and introducing innovative health strategies that go beyond what patients have directly expressed. These strategies enhance patient awareness, treatment adherence, and trust in specialized care services. Targeted marketing campaigns help bridge communication gaps between healthcare providers and patients. (Purcarea, 2019)

- **Legal Departments**: Ensure compliance with healthcare regulations and safeguard patient rights. They mitigate risks related to medical malpractice and patient confidentiality, fostering trust in healthcare institutions. Addressing legal grievances promptly improves institutional transparency and PX. (Gostin et al., 2019)

- **Pharmacy Departments**: Provide medication education, accessibility, and safety. By ensuring proper drug dispensing and adherence, they contribute to patient health outcomes and satisfaction. Pharmacists also play a role in managing drug interactions, reducing adverse events that could negatively impact PX. (Jaam et al., 2021)

- **Patient Advocacy Departments**: Address patient concerns and promote patient-centered policies. They mediate conflicts, ensure grievances are resolved effectively, and advocate for policy improvements that benefit patients. Active engagement with patient feedback strengthens trust and enhances healthcare responsiveness. (Shaller, 2007)

- **Quality and Patient Safety Departments**: Mitigate medical errors, prevent infections, and enforce care quality standards. Their efforts ensure compliance with accreditation standards, which is crucial for PX. Continuous monitoring of clinical outcomes and patient safety measures directly impacts satisfaction levels. (Vincent et al., 2001)

- **Public Relations and Communications Departments**: Manage hospital reputation, public outreach, and patient education initiatives. Transparent and consistent communication reduces misinformation and strengthens patient-provider relationships. Effective branding and crisis communication strategies enhance institutional credibility. (Elrod & Fortenberry, 2020)

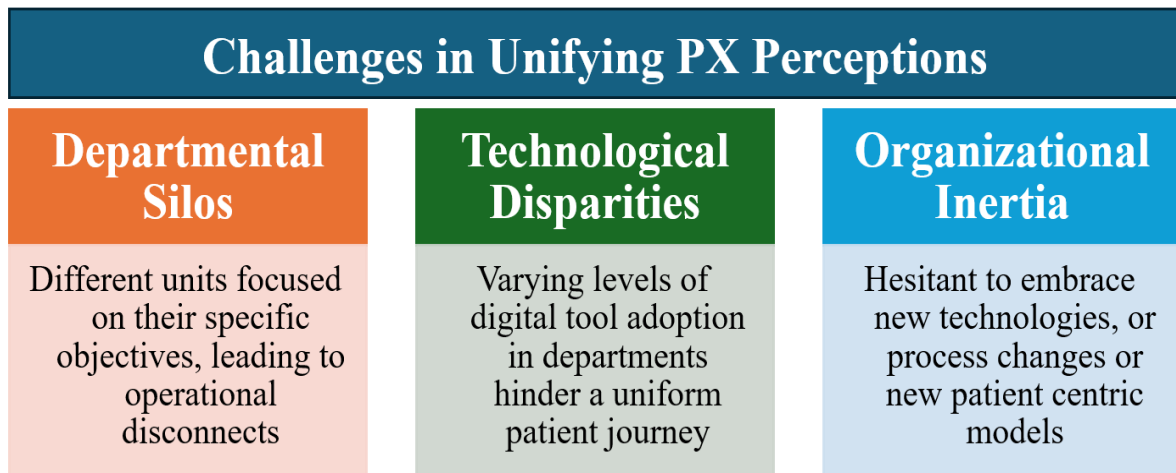## Challenges in Unifying PX Perceptions

Figure 2: Challenges in Unifying Patient Experience (PX) Perceptions across different healthcare departments

Unifying PX perceptions across different healthcare departments presents a significant challenge due to multiple interrelated factors. The diverse priorities of clinical, administrative, and technological teams often create silos, making it difficult to maintain a seamless, patient-centered approach.

- **Departmental Silos**: One of the primary challenges is departmental silos, where different units focus on their specific objectives, leading to operational disconnects. (Lau et al., 2024) Clinical teams prioritize patient care and treatment outcomes, while administrative teams emphasize financial and operational efficiency. HealthTech and IT divisions, on the other hand, concentrate on system functionality and data security. These divergent focuses contribute to fragmented patient interactions and inconsistencies in service delivery, ultimately impacting PX.

- **Technological disparities**: Technological disparities further complicate PX integration, as varying levels of digital tool adoption across departments hinder a uniform patient journey. (Borges do Nascimento et al., 2023) While some departments leverage advanced EHR systems, telehealth platforms, and AI-driven analytics, others may rely on outdated systems, leading to data fragmentation. The lack of interoperability between different technologies reduces care continuity and increases the likelihood of medical errors, miscommunication, and inefficiencies in patient data management.

- **Organizational Inertia**: Resistance to change poses a significant barrier to PX enhancement. Many healthcare institutions experience organizational inertia, where reluctance to adopt new patient-centric models slows progress. (Mareš, 2018) Healthcare

professionals may be hesitant to embrace new technologies, or process changes due to concerns over increased workloads, training requirements, or disruptions to established workflows. Furthermore, inadequate training and lack of buy-in from staff can obstruct the successful implementation of holistic PX strategies. Without a well-structured change management approach, efforts to improve PX may face persistent challenges in adoption and sustainability.

To address these issues, healthcare organizations must foster interdisciplinary collaboration, invest in unified digital platforms, and implement targeted training programs that encourage staff engagement. Overcoming these barriers will be essential in creating a cohesive and enhanced PX framework that aligns the goals of all healthcare departments.
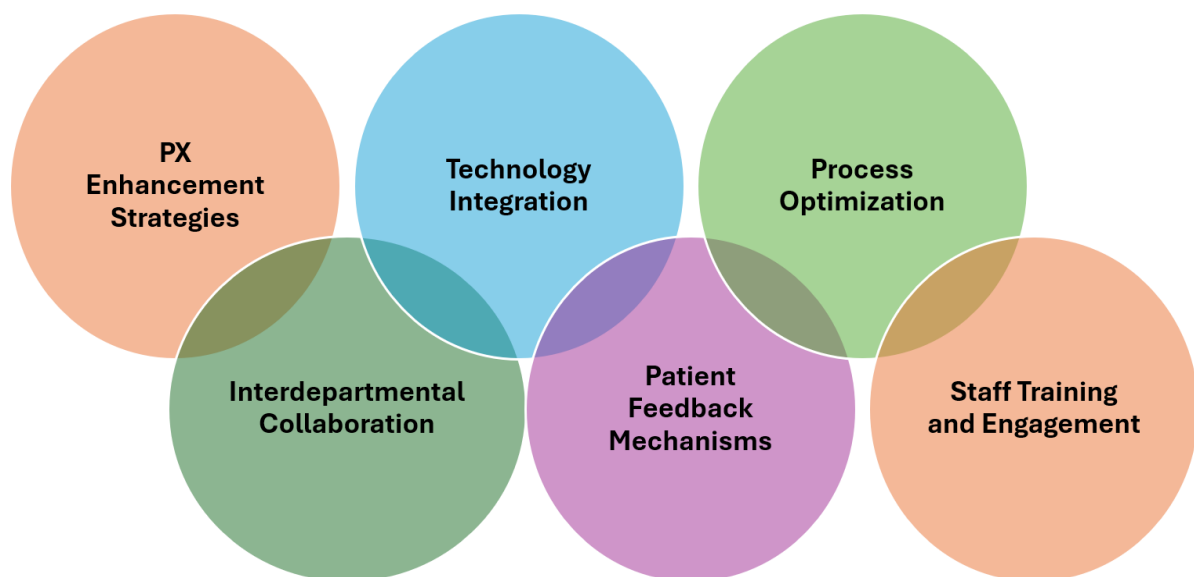
Strategies for PX Enhancement

Figure 3: Integrative and Multifaceted Strategies to Enhance Patient Experience Across Different Healthcare Departments

PX enhancement strategies require an integrative and multifaceted approach that aligns with technological innovations, staff training, and patient-centered policies**.**

- **Interdepartmental Collaboration**: A unified PX approach requires seamless coordination between clinical, administrative, and technological teams. Cross-functional meetings, shared goals, and interdepartmental training programs can facilitate better alignment and communication. (Lau et al., 2024)

- **Technology Integration**: Leveraging AI-driven chatbots, EHR interoperability, and telehealth platforms can improve service delivery and reduce administrative bottlenecks. A robust HealthTech infrastructure enhances real-time data sharing, personalized care, and remote healthcare accessibility. (Topol, 2019)

- **Patient Feedback Mechanisms**: Regular collection and analysis of patient feedback using surveys, focus groups, and digital reporting tools can identify areas for improvement. Implementing real-time feedback systems allows for immediate corrective actions, ensuring sustained improvements in PX. (Benson & Benson, 2023)

- **Process Optimization**: Implementing lean management principles, streamlining workflows, and reducing bureaucracy in administrative processes can improve service efficiency and reduce patient frustration. Effective scheduling, resource allocation, and automation contribute to a smoother patient journey. (Resar et al., 2011)

- **Staff Training and Engagement**: Continuous training in patient-centered care, empathy-building exercises, and communication workshops can enhance the overall healthcare experience. Engaged staff with high job satisfaction levels contribute positively to PX by fostering a culture of compassion and efficiency. (Sharkiya, 2023)

By incorporating these strategies, healthcare institutions can create a holistic and sustainable PX framework that ensures seamless, effective, and patient-friendly healthcare delivery.

Discussion

PX is a multidimensional concept requiring contributions from clinical care, administration, HealthTech, and other support services. (Oben, 2020) Aligning departmental objectives toward a unified patient-centered strategy is key to enhancing PX. The integration of HealthTech has provided new opportunities for personalization, real-time feedback, and improved healthcare delivery. However, challenges remain in coordinating different departments, ensuring cost-effectiveness, and maintaining regulatory compliance.

Interdepartmental silos often hinder collaboration, and differing KPIs across departments can lead to fragmented PX strategies. (Lau et al., 2024) For instance, while clinical departments prioritize outcomes, administrative and commercial departments may focus on efficiency or revenue generation. Such disparities can create conflicting priorities unless harmonized through patient-centered governance frameworks.

Furthermore, the rapid evolution of digital health tools, while promising, introduces concerns about digital literacy, access disparities, and data privacy, which must be carefully addressed to avoid inequities in

PX. (Borges do Nascimento et al., 2023) Simultaneously, legal and insurance departments must align their operations with transparent and empathetic communication to build trust.

A proactive approach involving continuous feedback loops, department-specific training on PX principles, and shared accountability metrics can foster a culture of empathy and responsiveness. Ultimately, a systemic reorientation towards integrated care delivery—supported by leadership commitment and technological adaptability—is necessary to elevate the overall patient experience.

Conclusion

PX is a comprehensive measure of healthcare quality, integrating medical effectiveness, administrative efficiency, digital engagement, and psychological support. A holistic approach that aligns clinical excellence with operational efficiency and technological innovation is necessary for sustained improvement. Future efforts should focus on fostering an interdisciplinary culture, integrating patient feedback into continuous quality enhancement, and leveraging HealthTech solutions to create personalized and accessible healthcare experiences. By prioritizing these elements, healthcare institutions can significantly elevate PX and drive long-term patient satisfaction and outcomes.

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