

Determinants of Inpatient Satisfaction in a Post-Acute Care Rehabilitation Hospital in the US

Jasper Xu, PhD, Sinyoung Park, PhD, Mindi Manes, PhD, Raine Osborne, EdD, Allison Carrier, MHA

Background

Significance: Patient satisfaction is a crucial metric in assessing hospital quality and driving improvements in patient-centered care. It informs both consumers and providers about the quality of services.

Literature Gaps: Limited data on determinants of overall patient satisfaction specifically in **U.S. freestanding rehabilitation hospitals**.

Objective

To analyze how **specific hospital service domains**, such as satisfaction with doctors, nurses, physical therapists (PT), occupational therapists (OT), personal issues, food services, and discharge processes, influence **overall patient satisfaction** scores and their **willingness to recommend** the hospital.

Methods

Data Sources:

- EMR Data: Includes patient demographics, hospital stay details, clinical/functional data, and quality measures (e.g., falls, readmissions).
- Press Ganey (PG) Surveys: Covers satisfaction ratings across several domains including doctors, nurses, PT, OT, discharge, personal issues, and overall experience.

Study Sample: All discharges from the hospital from January 2010 to December 2019.

Dependent Variables: Final patient satisfaction score, overall rating of care, and likelihood to recommend the hospital. Dichotomized to 100% (Very Good) vs. less than 100%.

Independent Variables: Satisfaction scores for doctors, nurses, PT, OT, discharge, and personal issues. Adjusted for demographics, diagnosis, and other clinical factors.

Analysis: Multivariate logistic regression models to predict 100% satisfaction ratings.

Key Results

Personal Issues Domain: The strongest predictor of overall satisfaction and recommendation likelihood, with significant contributions from staff respect, safety, and privacy concerns.

Physical and Occupational Therapy: High courtesy and involvement in goal-setting were major factors driving satisfaction.

Nursing Care: Evening and night shifts had lower satisfaction scores compared to day shifts. Information provided and availability were key areas for improvement.

Doctor Interaction: Courtesy and the quality of information shared about treatment and discharge plans were important but had less impact compared to PT/OT and personal issues.

Statistical Inferences

Personal Issues: A 5-point increase in satisfaction led to an 87% increase in overall patient satisfaction scores, 83% in overall rating, and 54% in recommendation likelihood.

PT: A 5-point increase resulted in a 43% improvement in overall satisfaction, 35% in overall rating, and 32% in recommendation likelihood.

Nursing Care: A 5-point increase led to a 26% increase in overall satisfaction, 25% in overall rating, and 13% in recommendation likelihood.

Discussion

Areas for Improvement:

- Communication:** Emphasize clear, compassionate communication from staff, particularly during admission and discharge.
- Pain Management:** Ensure consistent and effective pain management strategies are in place.
- Discharge Education:** Enhance the quality and clarity of discharge instructions, particularly regarding post-discharge care.

Limitations:

- Single Hospital Data:** The study is limited to one hospital, potentially affecting the generalizability of results.
- Voluntary Participation:** The reliance on voluntary survey responses may introduce bias.
- Omitted Variable Bias:** Potential biases from unmeasured hospital organizational factors or timing of survey responses.

Future Directions:

- Survey Improvement:** Increase the response rate for surveys to gain more representative as well as longitudinal data.
- Mixed-Methods Approach:** Combine quantitative and qualitative research to gain deeper insights into patient expectations and experiences.

Reference:

- Elliott MN, Lehrman WG, Goldstein E, Hambarsoomian K, Beckett MK, Giordano LA. Do hospitals rank differently on HCAHPS for different patient subgroups? *Med Care Res Rev.* 2010;67(1):56-73.
- Deutsch A, Heinemann AW, Cook KF, et al. Inpatient Rehabilitation Quality of Care From the Patient’s Perspective: Effect of Data Collection Timing and Patient Characteristics. *Archives of Physical Medicine and Rehabilitation.* 2019;100(6):1032-1041.
- Tsai TC, Orav EJ, Jha AK. Patient satisfaction and quality of surgical care in US hospitals. *Ann Surg.* 2015;261(1):2-8.
- Tajeu GS, Kazley AS, Menachemi N. Do hospitals that do the right thing have more satisfied patients? *Health Care Manage Rev.* 2015;40(4):348-355.
- Jha AK, Orav EJ, Zheng J, Epstein AM. Patients' perception of hospital care in the United States. *N Engl J Med.* 2008;359(18):1921-1931.
- Hush JM, Cameron K, Mackey M. Patient satisfaction with musculoskeletal physical therapy care: a systematic review. *Phys Ther.* 2011;91(1):25-36.
- O’Keeffe M, Cullinane P, Hurley J, et al. What Influences Patient-Therapist Interactions in Musculoskeletal Physical Therapy? Qualitative Systematic Review and Meta-Synthesis. *Phys Ther.* 2016;96(5):609-622.
- Cooper K, Smith BH, Hancock E. Patient-centredness in physiotherapy from the perspective of the chronic low back pain patient. *Physiotherapy.* 2008;94(3):244-252.

