
Decision-Making Processes Used by Florida Hospital Administrators to Reduce 30-Day Readmission

Dr. Steven Darryl Owlett
Westcliff University

Abstract

Hospital administrators face a complex decision-making process in addressing 30-day readmission. This qualitative descriptive study used purposive sampling with criteria to identify and interview 12 study hospital administrators in Florida. Semi-structured interviews and 15 secondary-archival data sources were analyzed to determine themes. Ten themes emerged from the thematic data analysis, revealing that hospital administrator decision-making is multi-faceted and involves knowledge of systems, complexity, past experiences, and available data. Internal and external factors can influence hospital behavior and, if not managed correctly, can lead to chaotic readmission processes with increased operating costs, poorer patient outcomes, and unwanted attention from regulators. This study provides new knowledge to enhance hospital administration decision-making.

Keywords: hospital readmission, hospital administration, decision-making, complex adaptive systems, complexity theory, decision science

Introduction

In response to increasing health care costs in the United States (US), the US Congress passed the Patient Protection and Affordable Care Act (PPACA) in 2010 (111th United States Congress, 2010). Under the PPACA, the Hospital Readmissions and Reduction Program (HRRP) was implemented by the Centers for Medicare and Medicaid Services (CMS). Reducing hospital readmission is essential for acute care hospitals. During Fiscal Year 2017, CMS estimated over 11 million inpatient hospital discharges in the Medicare fee-for-service program, generating \$135 billion in payments (Evans et al., 2021). Out of this total, excessive readmission for patients within 30 days of initial hospital discharge costs Medicare approximately \$23 billion (Evans et al., 2021). This amount is significant given the low operating margins of many hospitals.

Hospital administrator decision-making is crucial for reducing readmission. The role of hospital administrators is to deliver results by implementing policies and decisions set forth by the board of directors, managing operations, and reporting performance (Goldstein & Weinstein, 2020). Hospital administrator decision-making occurs by making choices and reaching agreements within the context of approved policy (Goldstein & Weinstein, 2020). Administrators' non-clinical decisions comprise five categories: budget, resource allocation, technology acquisition, service additions and reductions, and strategic planning (Shahid et al., 2019). How funds flow through a healthcare organization can, directly and indirectly, affect the quality of patient care (Tello et al., 2020). The decision-making process of hospital administrators deserves further research.

Literature Review

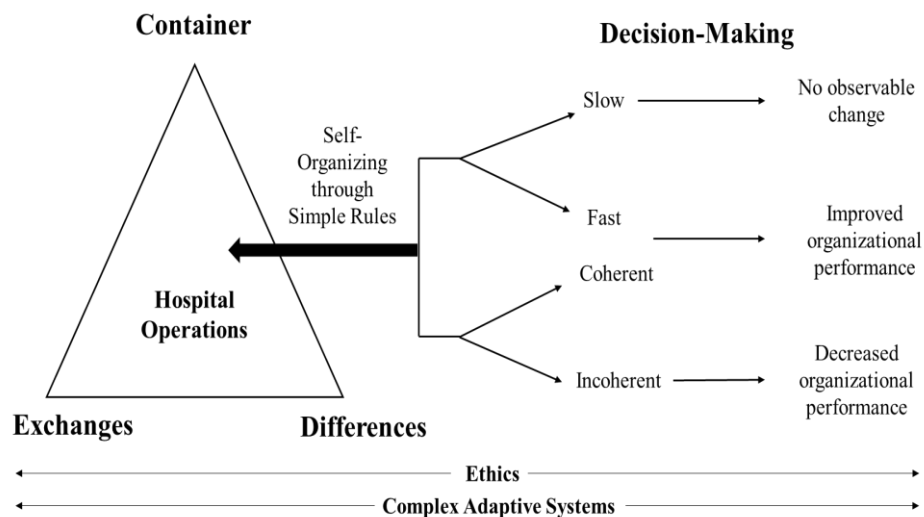
Previous research focused either on the results of the HRRP or the approaches used to reduce readmission. There has been less focus on the decision-making process used by hospital administrators. Research on hospital administrator decision-making stressed the use of case-based (Glette et al., 2018; Gu et al., 2019), multi-attribute (Şahin et al., 2019), or evidence-based management (Innis et al., 2020) approaches. However, these decision-making approaches do not accurately describe hospital administrators' decisions concerning 30-day readmission and healthcare complexity.

Complexity can influence both individual and organizational behaviors. Complexity can cause confusion or procrastination by affecting the decision-making process and the individual's cognitive activity (Julmi, 2019). Increasingly,

complexity theory is used to explain and understand complicated health-system behaviors (Gear et al., 2018). Under complex adaptive systems, all readmissions are not considered equal, and reducing readmission requires hospitals to acknowledge that care transition plans must address socially and medically diverse patients (Connors et al., 2019). Complexity has a profound effect on healthcare decision-making.

The phenomenon of inquiry for this study concerned hospital 30-day readmission for administrators in Florida. The Container – Differences – Exchanges conceptual framework by Mennin and Eoyang (2022) and complexity science are the foundation for hospital administrator decisions and actions for 30-day readmissions (Figure 1).

Figure 1
Self-Organizing and Decision Model



Note. Model adopted from Mennin and Eoyang (2022). CDE Model of organizing in human systems. Figure created by [redacted].

Three meta-variables — Containers, Differences, and Exchanges (CDE) influence the speed, path, and direction of self-organizing systems and decision-making (Mennin & Eoyang, 2022). A container bounds the system and is a necessary condition for self-organizing processes and focuses attention; difference correlates with the intensity of the disparity inside the container; and exchanges create the

connections, relationships, and tensions that provide the system with resources like energy, material, or information (Xue et al., 2022). These meta-variables can affect an organization's behavior and response to challenges or opportunities.

A research gap emerged from the literature regarding how healthcare administrators described decision-making regarding reducing

30-day readmission (Ferdinand et al., 2019; Hoffman & Yakusheva, 2020; Pennathur & Ayres, 2018). Two research questions materialized from the literature review. First, how do Florida hospital administrators make decisions to address 30-day readmission? Second, how do Florida hospital administrators describe the complexities of decision-making to address 30-day readmission? Insights into these research questions could help understand hospital administrators' decision-making process regarding 30-day readmission, leading to improved decision-making, and lowering hospital readmission. The purpose of this qualitative descriptive study is to explore the decision-making processes used by Florida hospital administrators to address 30-day readmission.

Methods and Materials

The qualitative methodology is most appropriate for this study. Qualitative researchers desire to shift authority to participants selected as experts on the phenomenon (Babchuk, 2019). The qualitative methodology focuses on making sense of lived experiences and observed phenomena in a specific context with selected individuals (Johnson et al., 2019). Through the lens of hospital administrator decision-making, the qualitative methodology added value to the study by explaining how decisions are made and why and the generation of new knowledge.

The quantitative, and consequently, the mixed-method methodologies were not considered for several reasons. First, the basis for quantitative research is positivism, which maintains only one truth: objective reality exists independent of human perception (Sale et al., 2002). Qualitative research takes on a constructivist perspective and views knowledge as subjective, constructed through interaction, and inseparable from those who study a phenomenon (TalkadSukumar & Metoyer, 2019). Second, quantitative research relies on numeric data and statistical testing of hypotheses to examine influences between variables to answer research questions numerically (Queirós et al., 2017). The quantitative methodology cannot ascertain deeper meanings and explanations of how people interpret events (Rahman, 2020). Numeric data and hypotheses testing were not appropriate for this study because the study aims to explore the decision-making processes used

by Florida hospital administrators to address 30-day readmission.

A qualitative descriptive design (QDD) is used when there is a lack of clarity about a phenomenon. A QDD versus ground theory, case study, narrative, or phenomenology is appropriate for research. There are varying perspectives on 30-day readmission. Hospital administrators in Florida represent the target population for this study. Each administrator must consider factors that can complicate readmission and make decisions that balance healthcare quality and economics. A QDD is designed to understand and describe a phenomenon and is most relevant where information is required directly from those experiencing the phenomenon (Bradshaw et al., 2017). The QDD is useful in producing a summary in everyday, factual language that facilitates understanding the phenomenon (Colorafi & Evans, 2016). Also, like other qualitative designs, there are no clear boundaries with a QDD (Kim, 2016). The lack of limits can enable researchers to obtain rich data and produce a comprehensive data summary through various data collection and analysis approaches to answer the research questions (Kim, 2016). Using a qualitative descriptive design will help develop rich data to gain insights into hospital administrators' decision-making processes and the factors that influence these decisions.

The conceptual framework and research questions guided the sampling approach. Purposive sampling was used to delimit and narrow the study population (Doyle et al., 2019). Purposive sampling provides better matching of the sample to the study's objectives, thus improving the rigor of the research and the trustworthiness of the data and results (Campbell et al., 2020). The purposive sampling method involved identifying and selecting exceptionally knowledgeable individuals about 30-day readmission (Palinkas et al., 2013). Purposive sampling facilitated the generation of rich and thick data concerning hospital administrator decision-making concerning 30-day readmission.

Twelve semi-structured interviews from Florida hospital administrators and 15 documents of archival decision-making training materials from interview participants were used to generate qualitative data regarding 30-day readmission. The generation of data from archival secondary decision-making materials offered insights into

the decision-making process and the associated complexities.

A thematic analysis procedural guide by Terry et al. (2017), co-authored by Braun and Clarke, directed the data analysis. The guide consisted of the following steps: (1) familiarity with the data, (2) generating initial codes, (3) searching for themes, (4) reviewing, defining, and naming themes, and producing findings. Thematic analysis is appropriate for this qualitative descriptive study because the research on hospital administrators' decision-making process is disjointed and fragmented. Few studies on this phenomenon provide a holistic view of hospital administrator decision-making.

Several qualitative content analysis (QCA) approaches were consolidated into one protocol (O'Leary, 2017; Ruggiano & Perry, 2017; Vaismoradi & Snelgrove, 2019) to analyze archival data. The steps in the QCA process included (1) identifying biases and noting overall impressions that could influence the review of the data; (2) including information in the analysis that helps provide answers to the research question; (3) condensing codes and identifying themes; (4) comparing how the themes interact with the ones developed from the review of the literature; (5) constructing the narrative; and (6) making conclusions from the data and link the findings back to the study's research questions. All data were uploaded into MAXQDA for coding and analysis.

Results

The data analysis identified five participant themes to support research question one – How do Florida hospital administrators decide to address 30-day readmission? Each finding provided reinforcement and context to research question one by offering insights into the hospital administrator's decision-making process regarding 30-day readmissions. The literature review findings strengthened the participant themes from the interviews and the secondary archival data.

Theme 1. Clinical and Administrator Decision-Making are Complementary

Physicians and administrators use similar decision-making tools, albeit in different formats. Administrators use evidence-based management

as an offshoot of evidence-based medicine (Rynes & Bartunek, 2017). Cased-based reasoning used by physicians supports administrators' case-based decision-making method (Craw, 2017). Administrator and physician decision-making regarding hospital 30-day readmissions use equivalent data for different purposes. Administrators use the data to focus on hospital operations, while physician decision-making is patient focused.

Theme 2. Technology and Data Analytics Support Readmission Decision-Making

Both physicians and administrators use predictive models to determine a patient's risk score and ascertain patient needs. Hospitals have enormous amounts of data in multiple different formats. Predictive accuracy is crucial. However, refinements are still needed in modeling to reach the potential of predictive models. Li et al. (2020) found that building cases and predicting 30-day readmission have delivered poor predictive results. Löw et al. (2019) noted the main issue with case-based reasoning to be the corruption of many healthcare datasets by missing data, making mining data suspect. Also, there are challenges in dealing with many potential predictor variables in an electronic health record (Fejza et al., 2018). Because of issues with predictive modeling, physicians and administrators should still consider their experiences as part of the decision-making process.

Theme 3. Teamwork is Essential to Readmission Decision-Making

Administrators play a critical role in creating a climate encouraging teamwork. Because of their non-linear interdependencies, hospitals have many variables not routinely distributed. According to Pype et al. (2018), characteristics supporting describing hospital units as complex include: (1) team members are interdependent, (2) interactions between team members can produce unpredictable behavior and can generate new behavior, (3) it is impossible to always to predict the action resulting from the exchanges, and (4) minor changes in variables can have significant impacts under other conditions. Each of these factors can produce different outputs and create conditions of nonlinearity that hospital administrators address.

Theme 4. Rules and Policies Provide Guardrails for Readmission Decision-Making

Simple rules bring clarity and focus to decision-making. Hospital administrator decision-making is complicated. Demanding situations characterized by many rules often require substantial knowledge to act (Le Bris, 2019). Meta, or simple, guidelines can give administrators an overall picture of events to make decisions in regulated environments like healthcare. Simple rules are shortcuts that help individuals process information (Mufarrige & Zywicki, 2020). Also, simple rules can help guide employees through uncertainty and help them make sense of situations (Kieran et al., 2021). The use of simple rules is instrumental in streamlining the decision-making process.

Policies and procedures affect hospital readmissions and provide additional structure for decision-making. Policies form the administrative guidelines for hospital decision-making. Hospital administrator decision-making occurs by making choices and reaching agreements within the context of approved policy (Goldstein & Weinstein, 2020). Simple rules, policies, and procedures help establish the boundaries of the hospital readmission container under the CDE framework.

Theme 5. Readmission Strategies Represent Choices

Making the optimal choice between different options is part of the hospital administrator's decision-making process. However, there is more to decision-making for hospital administrators than identifying choices. Administrators manage the trade-offs by controlling costs, improving patient care quality, and cultivating a safe patient environment. For example, patient readmission represents a complex issue that can adversely affect other patient care quality indicators like the length of hospital stay and mortality. These tradeoffs require administrators to balance multiple variables to achieve optimal outcomes for the hospital. Hospitals should review each readmission from multiple perspectives.

Research Question 2 pertains to how Florida hospital administrators described the

complexities of decision-making to address 30-day readmission. Six themes generated from the data analysis pertain to this research question. Understanding the complexities associated with decision-making can help identify novel approaches to address 30-day readmissions or enhance existing ones.

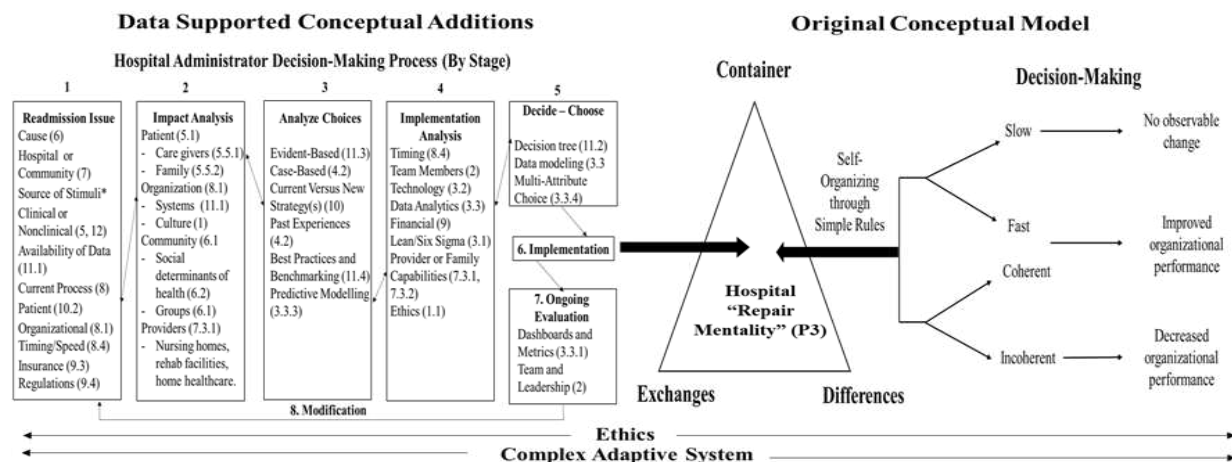
Theme 6. Numerous Factors Converge to Make Readmission Decision-Making Complex

Medical complexity, like therapies and treatments, social determinants of health, and chronic health conditions, increase the issues associated with readmissions. Hospital complexity increases because diverse patient populations can access care on their terms. Deciding which readmission strategies to use is complicated, given the influence of social and medical complexities. Changes in medicine, culture, and society have necessitated a hospital's need to change its behavior and adapt (Di Sivo & Balducci, 2019). These complexities affect treatments, decision-making, internal operations, and predictive modeling.

Theme 7. The Readmission Process is Simple on the Surface but Complex in the Details

Decision-making is an inherently complex and vital function of administrators. At the heart of decision-making is choosing between alternatives (Chisengantambu-Winters et al., 2020). Guo (2020) suggested a six-step linear approach to decision-making for hospital administrators: (1) define the problem; (2) establish the criteria; (3) consider all the alternatives; (4) identify the best option; (5) develop and implement a plan of action, and (6) evaluate and monitor the solution and feedback. The steps in Guo's (2020) model align with the steps in a new decision-making model that emerges (Figure 2). However, the critical difference is that the Guo model does not consider the nonlinearity associated with readmission decision-making.

Figure 2
Emerging Readmissions Decision-Making Framework



Note. The model was adopted from Mennin and Eoyang (2022). Figure created by [redacted]. Stage One reflects the code and subcode from the data analysis. *Patient, community, insurance, internal, regulatory.

The model reflects nonlinear flows of information and resources regarding readmissions. Complex adaptive systems demonstrate nonlinearity (Braithwaite et al., 2020). Nonlinearity represents variability in a system. It is impossible to consistently predict the action resulting from the exchanges, especially in the case of readmissions, and minor changes in variables can have significant impacts under other conditions (Pype et al., 2018). Administrators should always think in terms of systems when making decisions.

Theme 8. Readmission Complexity Manifests Itself in the Cost of Poor Quality and Finances

Readmissions can increase hospital operating costs. Administrators consider hospital readmissions a quality measure. Quality is significantly associated with the higher financial viability of hospitals (Onder et al., 2021). For an average hospital, avoiding one readmission could result in reimbursement gains of \$10,000 to \$58,000 for Medicare discharges (Yakusheva & Hoffman, 2018). Because of complicated cost frameworks, including diagnostic coding variations, the HRRP's success is challenging to evaluate (Press et al., 2019). Given the possible financial implications of diagnostic codes,

hospital administrators should consider these codes when considering interventions.

Theme 9. Patients Share Responsibility for Readmission and the Added Complexities

Patient factors like engagement, self-control, management, communication, and culture affect readmissions. Clinicians cannot control patient factors once they leave the hospital. If patients do not follow the discharge instructions and education materials and go back to their everyday lives, not only could the patients' health suffer, but the hospital could also increase its operating costs. An example of this dynamic in action is medication nonadherence. Medication adherence for diabetes, heart failure, hyperlipidemia, and hypertension could save Medicare fee-for-service \$13.7 billion annually and avoid over 100,000 emergency department visits and seven million inpatient hospital days yearly (Lloyd et al., 2019). Patient noncompliance may increase healthcare costs to both society and hospitals.

Patient behaviors can influence readmissions. The viewpoints of administrators in this study and the findings from previous studies revealed three interconnected patient factors that affect readmission — engagement, self-control and management, and communication and

culture. Smeraglio et al. (2019) concluded that the gap between providers' and patients' hospital discharge perspectives is a contributing root cause of preventable readmissions.

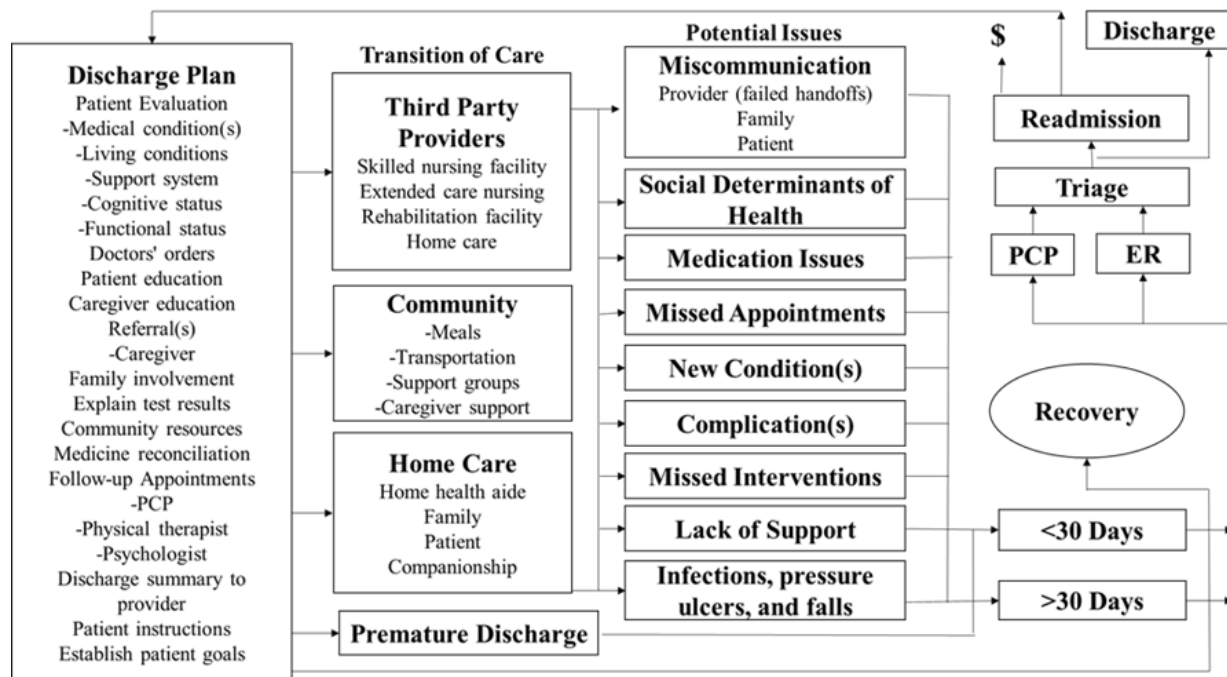
Theme 10. The Stresses and Strains of Readmission Complexity

A chronic stressor is a term that describes hospital readmissions. Chronic stressors are repetitive disruptors of everyday operations (Kagwanja et al., 2020). A complex adaptive system, like a hospital, responds differently, and sometimes in unexpected ways, to a chronic stressor. Complexity generates unpredictability. Figure 3 demonstrates the complexities associated with readmissions. Readmission is a

chronic stressor that requires a team approach to management.

Patients can choose when they want to access a hospital's services. As a result, complex systems, like hospitals, are open systems that can self-organize their structural configuration by exchanging information and resources to transform and support action (Glover et al., 2020). In a complex adaptive system like a hospital, changes in one part of a system can influence other parts of the organization (Mihm et al., 2003). These stressors can cause hospitals to change structures (Di Sivo & Balducci, 2019). Failure to adapt could cause downstream harm to patients and the hospital.

Figure 3
Readmissions Process Complexity



Note. Figure created by [redacted], based on the findings and codes used in the data analysis from the research study.

Implications

Hospital administrators can use the findings from this qualitative descriptive study to make

better decisions and reduce 30-day hospital readmissions. The practical implications of this study are outlined in Table 1.

Table 1
Practical Implications for Theme Findings

Theme	Practical Implication(s)
1: Clinical and administrator decision-making are complementary.	Understanding the similarities and differences in administrative decision-making processes can enhance decision-making and help bridge potential communication barriers. This dynamic can boost teamwork.
2: Technology and data analytics support readmission decision-making.	Predictive modes are not perfect. Incorporating past experiences as part of the decision-making process can enhance decision-making.
3: Teamwork is essential to readmission decision-making.	Making decisions entails assembling individuals in teams to discuss ideas. Multiple individuals within a hospital can look at the same data and form different conclusions.
4: Rules, policies, and ethics provide the guardrails for readmission decision-making.	Hospitals are highly regulated. Understanding the decision-making guardrails can help administrators minimize practices that could harm patients or the hospital.
5: Readmission strategies represent choices.	Administrators should remain aware that choosing a discharge strategy can either amplify or dampen the downstream effect of readmission in a hospital (e.g., the emergency room).
6: Hospital readmissions are a byproduct of complexity.	Hospital administrators should keep system interactions in mind when making decisions.
7: The readmission process is simple on the surface but complex in the details.	Understanding the details and dynamics in the emergent decision-making model can support hospital administrators' decision-making.
8: Readmission complexity manifests itself in hospital finances.	Earnings lost because of readmission complexity limits a hospital's ability to operate. Focusing on administrative expenditures can help hospital administrators stabilize or reduce operating costs.
9: Patients share responsibility for readmission and the added complexities.	Administrators must help their hospitals move beyond the repair dynamic and strive to get to the root causes of patient readmission. Doing so requires active involvement in their community. Community health needs assessments can help uncover opportunities.
10: The stresses and strains of readmission complexity.	Chronic stressors like readmission could adversely affect their hospital from a practice perspective (e.g., nurse and physician burnout).

There are several opportunities for future research. Future researchers could consider how

executives in other regions/areas of the US describe their decision-making process and the

associated complexities with 30-day readmissions. Expanding this research to other areas within the US may lead to different insights and add to the findings. Second, although purposive sampling was used, the study participants were mostly senior-level administrators. Expanding the descriptive research to mid-level administrators in Florida could lead to insights into decision-making and the associated complexities. Participants identified the impact of COVID-19 on readmissions. A third research opportunity emerged concerning how COVID-19 added complexity to hospital and readmission decision-making.

Conclusion

This qualitative descriptive study explored the decision-making processes used by Florida hospital administrators to address 30-day readmission. The research problem involved identifying the factors that add to the complexities of patient care and the complications associated with hospital administrators' 30-day readmission decision-making. Complexity in health care is a multi-faceted construct. Thirty-day hospital patient readmission is associated with various patient-related factors, including medical complexity in chronic disease, patient age, and socio-demographic characteristics. Changes in medicine, culture, patient needs, and society have necessitated a hospital to change its behavior and adapt rapidly.

By reducing readmissions, administrators can reduce hospital expenditures. This outcome can make more resources available for other areas. Reducing 30-day readmission benefits hospitals, patients, and society. Patients do not want to come back to a hospital for more treatment. Providing patients with the tools and resources can help reduce readmissions and bolster patient satisfaction. Overall, hospital administrators can use the findings from this qualitative descriptive study to make better decisions and reduce 30-day hospital readmissions.

References

Babchuk, W. A. (2019). Fundamentals of qualitative analysis in family medicine. *Family Medicine and Community Health*, 7(2),

e000040. <https://doi.org/10.1136/fmch-2018-000040>

- Begun, J. W., & Jiang, H. J. (2020). Health care management during Covid-19: Insights from complexity science. *NEJM Catalyst Innovations in Care Delivery*, 1(5). <https://doi.org/10.1056/CAT.20.0541>
- Braithwaite, J., Glasziou, P., & Westbrook, J. (2020). The three numbers you need to know about healthcare: The 60-30-10 challenge. *BMC Medicine*, 18(1). <https://doi.org/10.1186/s12916-020-01563-4>
- Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: Complex or simple? Research case examples. *Journal of Research in Nursing*, 25(8), 652-661. <https://doi.org/10.1177/1744987120927206>
- Chisengantambu-Winters, C., Robinson, G. M., & Evans, N. (2020). Developing a decision-making dependency (DMD) model for nurse managers. *Heliyon*, 6(1), e03128. <https://doi.org/10.1016/j.heliyon.2019.e03128>
- Connors, J. D. N., Binkley, B. L., Graff, J. C., Surbhi, S., & Bailey, J. E. (2019). How patient experience informed the SafeMed Program: Lessons learned during a Health Care Innovation Award to improve care for super-utilizers. *Healthcare*, 7(1), 13-21. <https://doi.org/10.1016/j.hjdsi.2018.02.002>
- Craw, S. (2017). Case-based reasoning. In C. Sammut & Webb, G.I. (Eds.), *Encyclopedia of Machine Learning and Data Mining* (pp. 180-188). Springer. https://doi.org/10.1007/978-1-4899-7687-1_34
- Di Sivo, M., & Balducci, C. (2019). Patient-centered care approach: Strategies for healing gardens. *Journal of Civil Engineering and Architecture*, 13(12), 740-751. <https://doi.org/10.17265/1934-7359/2019.12.002>
- Doyle, L., McCabe, C., Keogh, B., Brady, A., & McCann, M. (2019). An overview of the qualitative descriptive design within nursing research. *Journal of Research in Nursing*, 25(5), 443-455. <https://doi.org/10.1177/1744987119880234>
- Escobar, G. J., Plimier, C., Greene, J. D., Liu, V., & Kipnis, P. (2019). Multiyear rehospitalization rates and hospital outcomes in an integrated health care system. *JAMA*

- Network Open*, 2(12), e1916769. <https://doi.org/10.1001/jamanetworkopen.2019.16769>
- Evans, W. N., Kroeger, S., Munich, E. L., Ortuzar, G., & Wagner, K. L. (2021). Reducing readmissions by addressing the social determinants of health. *American Journal of Health Economics*, 7(1), 1-40. <https://doi.org/10.1086/711725>
- Fejza, A., Geneves, P., Layaida, N., & Bosson, J. (2018, October 01-03). Scalable and interpretable predictive models for electronic health records. *2018 IEEE 5th International Conference on Data Science and Advanced Analytics (DSAA)*. Turin, Italy. <https://doi.org/10.1109/dsaa.2018.00045>
- Ferdinand, A. O., Cheon, O., Bako, A. T., & Kash, B. A. (2019). Interventions aimed at addressing unplanned hospital readmission in the US: A systematic review. *Journal of Hospital Administration*, 8(1), 16-26. <https://doi.org/10.5430/jha.v8n1p16>
- Florida Hospital Association. (2022). *FHA'S 2022 Annual Report*. <https://www.fha.org/FHA/FHA/Data-and-Research/Data-Research.aspx>
- Gear, C., Eppel, E., & Koziol-McLain, J. (2018). Advancing complexity theory as a qualitative research methodology. *International Journal of Qualitative Methods*, 17(1), 160940691878255. <https://doi.org/10.1177/1609406918782557>
- Glette, M. K., Kringeland, T., Røise, O., & Wiig, S. (2018). Exploring physicians' decision-making in hospital readmission processes - a comparative case study. *BMC Health Services Research*, 18(1). <https://doi.org/10.1186/s12913-018-3538-3>
- Glover, W. J., Nissinboim, N., & Naveh, E. (2020). Examining innovation in hospital units: A complex adaptive systems approach. *BMC Health Services Research*, 20(1), 1-12. <https://doi.org/10.1186/s12913-020-05403-2>
- Goldstein, S., Weinstein, J. (2020). The role of the hospital board of trustees in ensuring quality care. In D. Salem (Ed.) *Quality measures* (pp. 181-199). Springer. https://doi.org/10.1007/978-3-030-37145-6_12
- Gu, D., Deng, S., Zheng, Q., Liang, C., & Wu, J. (2019). Impacts of case-based health knowledge system in hospital management: The mediating role of group effectiveness. *Information & Management*, 56(8), 103162. <https://doi.org/10.1016/j.im.2019.04.005>
- Guo, K. L. (2020). DECIDE: A decision-making model for more effective decision making by health care managers. *The Health Care Manager*, 39(3), 133-141. <https://doi.org/10.1097/hcm.0000000000000299>
- Hoffman, G. J., & Yakusheva, O. (2020). Association between financial incentives in Medicare's Hospital Readmissions Reduction Program and hospital readmission performance. *JAMA Network Open*, 3(4), e202044. <https://doi.org/10.1001/jamanetworkopen.2020.2044>
- Hsuan, C., Carr, B. G., Hsia, R. Y., & Hoffman, G. J. (2020). Assessment of hospital readmissions from the emergency department after implementation of Medicare's Hospital Readmissions Reduction Program. *JAMA Network Open*, 3(5), e203857. <https://doi.org/10.1001/jamanetworkopen.2020.3857>
- Innis, J., Barnsley, J., Berta, W., & Daniel, I. (2020). Do hospital size, location, and teaching status matter? Role of context in the use of evidence-based discharge practices. *International Journal of Healthcare Management*, 14(4), 1011-1017. <https://doi.org/10.1080/20479700.2020.1725716>
- Johnson, J. L., Adkins, D., & Chauvin, S. (2019). A review of the quality indicators of rigor in qualitative research. *American Journal of Pharmaceutical Education*, 84(1), 7120. <https://doi.org/10.5688/ajpe7120>
- Julmi, C. (2019). When rational decision-making becomes irrational: A critical assessment and re-conceptualization of intuition effectiveness. *Business Research*, 12(1), 291-314. <https://doi.org/10.1007/s40685-019-0096-4>
- Kagwanja, N., Waithaka, D., Nzinga, J., Tsofa, B., Boga, M., Leli, H., Mataza, C., Gilson, L., Molyneux, S., & Barasa, E. (2020). Shocks, stress, and everyday health system resilience: Experiences from the Kenyan coast. *Health Policy and Planning*, 35(5), 522-535. <https://doi.org/10.1093/heapol/czaa002>
- Kaplan, C. M., Thompson, M. P., & Waters, T. M. (2019). How have 30-day readmission penalties affected racial disparities in readmission: An analysis from 2007 to 2014 in five US States. *Journal of General Internal Medicine*

- Medicine*, 34(1), 878–883. <https://doi.org/10.1007/s11606-019-04841-x>
- Kash, B. A., Baek, J., Cheon, O., Coleman, N. E., & Jones, S. L. (2018). Successful hospital readmission reduction initiatives: Top five strategies to consider implementing today. *Journal of Hospital Administration*, 7(6), 16-23. <https://doi.org/10.5430/jha.v7n6p16>
- Kieran, S., MacMahon, J., & MacCurtain, S. (2021). Simple rules for sensemaking praxis: How HR can contribute to strategic change by developing sensemaking capability in organisations. *Human Resource Management Journal*, 32, 299–320. <https://doi.org/10.1111/1748-8583.12404>
- Kim, J. (2016). Locating narrative inquiry in the interdisciplinary context. In *Understanding Narrative Inquiry: The Crafting and Analysis of Stories as Research* (pp. 1-25). SAGE. <https://doi.org/10.4135/9781071802861>
- Le Bris, S. (2019). Decision-making in complex environments under time pressure and risk of critical irreversibility: The role of meta rules. *M@n@gement*, 22(1), 1. <https://doi.org/10.3917/mana.221.0001>
- Lee, J. Y., Gowen, C. R., & McFadden, K. L. (2018). An empirical study of U.S. hospital quality: Readmission rates, organizational culture, patient satisfaction, and Facebook ratings. *Quality Management Journal*, 25(4), 158-170. <https://doi.org/10.1080/10686967.2018.1515523>
- Lloyd, J. T., Maresh, S., Powers, C. A., Shrank, W. H., & Alley, D. E. (2019). How much does medication nonadherence cost the Medicare fee-for-Service program? *Medical Care*, 57(3), 218-224. <https://doi.org/10.1097/mlr.0000000000001067>
- Löw, N., Hesser, J., & Blessing, M. (2019). Multiple retrieval case-based reasoning for incomplete datasets. *Journal of Biomedical Informatics*, 92, 103127. <https://doi.org/10.1016/j.jbi.2019.103127>
- Mennin, S., & Eoyang, G. H. (2022). Question storming: The power of Questions—A method to increase options for action in uncertainty. *Journal of Evaluation in Clinical Practice*, 24(4), 650-656. <https://doi.org/10.1111/jep.13704>
- Mihm, J., Loch, C., & Huchzermeier, A. (2003). Problem-solving oscillations in complex engineering projects. *Management Science*, 49(6), 733-750. <https://doi.org/10.1287/mnsc.49.6.733.16021>
- Mufarrige, C., & Zywicki, T. J. (2020). Simple rules for a complex regulatory world: The case of financial regulation. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3576976>
- O'Leary, Z., & Hunt, J. (2017). *Secondary data: Existing data, online generated data and previous studies*. In *The essential guide to doing your research project* (pp. 264-294). SAGE Publications.
- Onder, O., Cook, W., & Kristal, M. (2021). Does quality help the financial viability of hospitals? A data envelopment analysis approach. *Socio-Economic Planning Sciences*, 79, 101-105. <https://doi.org/10.1016/j.seps.2021.101105>
- 111th United States Congress. (2010). *Patient Protection Affordable Care Act. Public Law 111-148*. Washington, DC: United States Government Printing Office. <http://www.gpo.gov/fdsys/pkg/PLAW-111publ148/pdf/PLAW-111publ148.pdf>
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2013). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), 533-544. <https://doi.org/10.1007/s10488-013-0528-y>
- Pennathur, P. R., & Ayres, B. S. (2018). A qualitative investigation of healthcare workers' strategies in response to readmission. *BMC Health Services Research*, 18(1), 138. <https://doi.org/10.1186/s12913-018-2945-9>
- Podulka, J., & Blum, J. (2020). Regulatory Changes to Medicare in Response to COVID-19. *Health Management Associates*, 1-9. [https://www.healthmanagement.com/wp-content/uploads/Podulka Blum Medicare-COVID ib.pdf](https://www.healthmanagement.com/wp-content/uploads/Podulka%20Blum%20Medicare-COVID%20ib.pdf)
- Press, V. G., Au, D. H., Bourbeau, J., Dransfield, M. T., Gershon, A. S., Krishnan, J. A., Mularski, R. A., Sciarba, F. C., Sullivan, J., & Feemster, L. C. (2019). Reducing chronic obstructive pulmonary disease hospital readmissions. An official American Thoracic Society workshop report. *Annals of the American Thoracic Society*, 16(2), 161-170.

- <https://doi.org/10.1513/annalsats.201811-755ws>
- Pyper, P., Mertens, F., Helewaut, F., & Krystallidou, D. (2018). Healthcare teams as complex adaptive systems: Understanding team behaviour through team members' perception of interpersonal interaction. *BMC Health Services Research*, 18(1). <https://doi.org/10.1186/s12913-018-3392-3>
- QualityNet Home. (2020). *Hospital Readmissions Reduction Program, Frequently Asked Questions - Fiscal Year 2021*. https://qualitynet.cms.gov/files/5f294d57f75e42002168c687?filename=FY2021_HRRP_FAQs.pdf
- Ruggiano, N., & Perry, T. E. (2017). Conducting secondary analysis of qualitative data: Should we, can we, and how? *Qualitative Social Work*, 18(1), 81-97. <https://doi.org/10.1177/1473325017700701>
- Rynes, S. L., & Bartunek, J. M. (2017). Evidence-based management: Foundations, development, controversies, and future. *Annual Review of Organizational Psychology and Organizational Behavior*, 4(1), 235-261. <https://doi.org/10.1146/annurev-orgpsych-032516-113306>
- Sahin, T., Ocak, S., & Top, M. (2019). Analytic hierarchy process for hospital site selection. *Health Policy and Technology*, 8(1), 42-50. <https://doi.org/10.1016/j.hlpt.2019.02.005>
- Shahid, N., Rappon, T., & Berta, W. (2019). Applications of artificial neural networks in health care organizational decision-making: A scoping review. *PLOS One*, 14(2), e0212356. <https://doi.org/10.1371/journal.pone.0212356>
- Smeraglio, A., Heidenreich, P. A., Krishnan, G., Hopkins, J., Chen, J., & Shieh, L. (2019). Patient vs. provider perspectives of 30-day hospital readmission. *BMJ Open Quality*, 8(1), e000264. <https://doi.org/10.1136/bmjopen-2017-000264>
- TalkadSukumar, P., & Metoyer, R. (2019, February 2). *Replication and transparency of qualitative research from a constructivist perspective*. OSF Preprints. <https://doi.org/10.31219/osf.io/6efvp>
- Terry, G., Hayfield, N., Clarke, V., & Braun, V. (2017). Thematic analysis. In *The SAGE Handbook of Qualitative Research in Psychology* (pp. 17-36). SAGE Publications Ltd. <https://doi.org/10.4135/9781526405555>
- Vaishnavi, V., Suresh, M., & Dutta, P. (2019). A study on the influence of factors associated with organizational readiness for change in healthcare organizations using TISM. *Benchmarking: An International Journal*, 26(4), 1290-1313. <https://doi.org/10.1108/bj-06-2018-0161>
- Vaismoradi, M., & Snelgrove, S. (2019). Theme in qualitative content analysis and thematic analysis. *Qualitative Social Research*, 20(3), <http://dx.doi.org/10.17169/fqs-20.3.3376>
- Yakusheva, O., & Hoffman, G. J. (2018). Does a reduction in readmissions result in net savings for most hospitals? An examination of Medicare's Hospital Readmissions Reduction Program. *Medical Care Research and Review*, 77(4), 334-344. <https://doi.org/10.1177/1077558718795745>