

Emergency Department Operational Strategies

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Background

Operational Strategies

- Developing effective operational strategies in the emergency departments (ED) is one of the biggest challenges for hospital leaders
- Hospital EDs receive patients for treatment 24 hours per day, 7 days per week, and 365 days per year
- Implementing operational strategies in the ED can increase efficiency and availability of critical medical services to residents of local communities

Problem Statement

Hook: Some emergency departments (EDs) have severe overcrowding problems that cause people to remain untreated or receive low quality treatments due to the lack of time for individual patients (Bal, Ceylan, & Taçoğlu, 2017).

Anchor: Every additional minute of wait time in the ED costs an organization an estimated \$1.27 and reducing excess time can save money (Kelley & Gravina, 2018).

General Business Problem: The general business problem is hospitals lose revenue, and clinical care suffers when delays occur in the ED.

Specific Business Problem: The specific problem was that some hospital leaders lack effective ED operational strategies.

Purpose Statement

- The purpose of this multiple case study was to identify and explore strategies hospital leaders use to increase patient flow in the EDs.
- The population for this proposed study included 13 administrative and clinical leaders from four urban hospitals in North Carolina who have developed successful programs to increase patient flow in the ED.
- Individuals could use this study's results to affect social change by improving patient flow in the ED to increase the efficiency and availability of critical medical services to residents of local communities.

Research Question

- What operational strategies do hospital leaders use in the EDs?



Conceptual framework

- The complex adaptive system (CAS) model provides a framework for researchers and practitioners to locate problems and find solutions (Hodiamont et al., 2019; Weick, 1985).
- A CAS is a collection of diverse interconnecting parts to enable an organization to grow without solid centralization of control and facilitate its components' adaptive interactions (Kitson et al., 2018).
- A complex system exhibits interacting and exchanging information with the changing environment, where key inputs lead to significant changes (Sweetman & Conboy, 2018).

Methodology

- The research method and the research design justified the methodology of a multiple case study.
- No one can be the master of all research methods; thus, researchers tend to practice a small subset of available research methods, although all could add value (Nunamaker et al., 2017).



Participants and sample size

- The study's criteria included 13 senior leaders in a hospital setting that directly respond to the ED and have experience with patient flow.
- Gatekeepers play a fundamental role in contexts characterized by a specific and localized knowledge base because of their ability to access, convey, trans-code external knowledge and to make it accessible and meaningful to local actors (Breschi & Lenzi, 2015).



Data Collection Techniques

- Data collection technique consisted of collecting data by interviewing through zoom due to the coronavirus pandemic.
- Face-to-face interviews, direct observation, and document review are qualitative data collection techniques (Marshall & Rossman, 2016).
- The interviewer used a hand-held recorder and zoom recording to record all participants' responses.
- We followed an interview protocol for interviews and completed each interview with member checking.
- Member checking allowed us to have a participant review data interpretation of transcript accuracy and to make changes. Data collection methods for qualitative research vary depending on the research requirements (Mignone et al., 2019).

Data Analysis

- Methodological triangulation was used to develop a comprehensive understanding of phenomena.
- We allowed each participant to verify information through member checking before concluding the emergent themes.
- We followed Yin's (2018) data analysis to identify emergent themes

Presentation of Findings

- Theme 1: Triage Operational Strategies
- Theme 2: Wait Time Protocol
- Theme 3: Using Technology
- Theme 4: Communication Among Physicians, Staff, and Patients

Presentation of Findings

Theme 1: Triage Operational Strategies

- The primary triage functions to screen out critical ill patients to the critical and semicritical zone, thus improving the physician encounter time (Peng et al., 2021).
- Every nurse in the emergency department must be trained for triage, emergency severity index (ESI) which evaluates the acuity level of each patient by identifying the level of illness.
- Each patient that enters triage receives a triage education, assessment of acuity level, and what to encounter.
- Re-triaging is frequent, a constant review of the track board, and reviewing test results enables to detect any change in patients as well as conveying the update to the patient face-to-face.

Presentation of Findings

Theme 2: Wait Time Protocol

- Wait time for patients is a key indicator of in-patient satisfaction.
- The main causes of wait-time issues are the stochastic and time-varying demands of patient arrivals at an ED and the temporary overloading of EDs (Liu & Xie, 2021).
- One of the best features is that Epic (the leading electronic medical record system provider that provides healthcare with industry solutions for ambulatory, inpatient clinical, departmental, revenue cycle, access, and practice management functions) tracks wait time step-by-step from the beginning to the end.
- Dimensions cannot be manipulated because once the patient checks in, the clock starts running and the numbers are followed.

Presentation of Findings

Theme 3: Using Technology

- Technology is the most desirable and efficient way in triaging patients, wait times, and communication.
- Over the last decade, the health care sector has accelerated its digitization and use of electronic health records; the notion of intelligent health has also increased in popularity (Vyas et al., 2022).
- The new process in our technology identifies patients in the field that may not need come into the ED.
- Using the technology function of dimensions is a huge tool because Epic can be a chat function to start a large group for communication.

Presentation of Findings

Theme 4: Communication Among Physicians, Staff, and Patients.

- Daily huddles are held and consist of a charge nurse leadership team and providers to produce a plan of the day.
- Facilities views communication strategies face-to-face as an opportunity to clarify what is heard and spoke, hence eliminating miscommunication.
- Communication skills, which include empathy, integrative thinking, optimism, experimentalism, and collaboration, are all possessed by many in the health care field, making this a natural tool to be employed by hospitals and health care (Aaronson et al, 2020).
- Communication with team members, physicians, and mid-levels is imperative in making sure that the information about our processes is disseminated appropriately and are being observed.

How do Findings relate to the literature?

- A literature review is an analysis that encompasses several dimensions of research, including (a) general data analysis, (b) research perspectives, and (c) detailed content analysis (Mikelsone & Liela, 2015). Content analysis is a research method.
- The factors that affect the overall improvement of ED performance include the permanent presence of emergencies, the management method in the department, patient triage and counseling methods, the provision of necessary facilities and physical spaces, training classes for staff members, the availability of diagnostic facilities, and the motivation of personnel (Jafari et al., 2020).

How do Findings relate to conceptual/theoretical framework?

- Burrows (2020) determined that CAS allows researchers to understand an awareness of emerging patterns.
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Implications to professional practice

- Facing challenges in quality, patient safety, and cost, the health care industry is striving to transform and embrace the leadership practices of successful business organizations (Satiani et al., 2022). Patients must feel comfortable with the physicians who are providing services to them.
- Achieving this transformation requires physician leaders (Satiani et al., 2022). However, equipping emerging leaders with the necessary skills to drive change and develop transformative policies calls for systemic, cohesive, sustained, and data-driven educational efforts (Satiani et al., 2022).
- Health care professionals should center their work on health care consumers and view their role as improving these individuals' health (Fifer, 2022). However, factoring health equity into everything that health care professions do when is daunting after 2 years of pandemic life (Fifer, 2022).

Recommendations for action

- There are continued opportunities for operational strategies to improve in the ED. With the number of patient cases stemming from COVID-19 and other viruses on the rise, the research will be an ongoing battle. To address systemic problems amplified by COVID-19, health care leaders need to restructure U.S. long-term services and supports as they relate to both the health care systems and public health systems (Dawson et al., 2021).
- Researching the length of time, it takes for an individual to consult after symptom onset is not a simple task (Dobson et al., 2022).
- We recommend that health care organizations continue to hire experienced qualified medical staff.
- For the new medical graduates, we recommend that training is extensive and acclimate hands on training versus shadowing.

Closing

Thank you.

