Decentralized Nursing Stations’ Impact on Healthcare Environmental Design

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ABSTRACT

Changes in an environmental design have a significant impact on staff and patient perceptions of the environment and the efficiency of quality care. Nurses for example are frequently moving among spaces, and busy doing related tasks that cause them to have less time at patients’ bedside to provide care. Therefore, the new design infrastructure should create an environment that provides nurses with more patient interaction and better collaborations with their fellow healthcare providers.

Quality of patient care can be influenced by two interrelated factors, physical environment and nurse work processes, both also are among the factors that contribute to patient satisfaction. Additionally, the nursing station's design and its location have an impact on nurses' walkability, collaboration, and visibility. Physical environment development is a resource that is rarely tapped by many organizations, and more recent research presents no evidence to contradict this argument. The design of buildings in which people provide services is also considered less important than other considerations, such as salary and support from supervisors. Other research by Berry & Parish (2008) indicates that the efficiency of the facility in which hospital nurses operate makes a difference in the nature of their work. The purpose of this study is to investigate the impacts of the decentralized nursing stations on healthcare environmental design.

INTRODUCTION

Nurses’ stations are workspaces for nurses, doctors, and other healthcare team members when they are not working directly with patients. The nursing station has been identified as the heart of the nursing unit and the primary workplace for the unit containing the clerk of the unit, paper, patient records, and medications and supplies. By definition, the centralized nursing station acts as the unit’s information center, with all patient information disseminated from a central location. Nurses, doctors, and other healthcare team members view and process patient-related information at this central station. Centralized stations provide rooms for nurses and members of the multidisciplinary team to meet, collaborate, and co-operate.

METHODS

The purpose of this study is to investigate the impacts of decentralized nursing stations on healthcare environmental design. The searched keywords for this study included centralized nursing station, decentralized nursing stations, healthcare design, hybrid nurse station, nurse station typology, teamworks, nurse communication, patient outcomes, patient care unit design, healthcare workflow, registered nurse work activities, nursing technology, work environment, distributed nursing stations, nursing station design, nursing unit design, work environment, and distributed nursing stations. Database searches for studies published in English from 2010 to 2020 were conducted in EBSCO and CINAHL.

FINDINGS

Environmental Design Interventions

- Staff safety
- Lighting
- Noise
- Walking Distance
- Air Quality
- Staffs satisfaction

Stark's concept of a current plan is used to improve nurse station locations and their design. A central concept for patients is to have a maximum visibility from the circulating corridor and ensure patient privacy, all rooms have a sliding door.

Patient room design, configurations, clearances, and personal access to equipment are critical for high-quality treatment. Patient rooms are functionally organized to support clinical goals. Handwashing is close to the door, natural light is present to the patient's room, and a family zone on the patient’s opposite side from the clinician work area. All patients' bedrooms are located on a floor’s perimeter and have access to natural light. Nurses must be able to maintain their lives and have maximum visibility from the circulating corridor and ensure patient privacy, all rooms have a sliding door.

SOLUTION

- HMW reduce unnecessary walking distances in decentralized nursing stations?
- HMW increase nurses communication and collaboration with other RN and healthcare providers?

An intensive care unit (ICU) is a structured system for providing care to critically ill patients that includes intensive and comprehensive medical and nursing care, increased monitoring capabilities, and various modalities of physiologic support to help maintain patients' care during a time of acute organ system insufficiency. The focus of this research was on two main areas:

- Patient Area
- Staff Support Area

HMW reduce unnecessary walking distances in decentralized nursing stations?

- Reduced unnecessary distances for patient care
- Increased efficiency of staff and patients

HMW increase nurses communication and collaboration with other RN and healthcare providers?

- Improved communication and collaboration among nurses
- Enhanced teamwork and patient care

CONCLUSIONS

Nurse stations that support efficient patient care delivery, stress mitigation, and job satisfaction also support decentralized characteristics such as effective communication, social support, direct patient care, and increased demands of technology. This study tried to discover the advantages and disadvantages of the decentralized nursing station and its impact on nurses' behavioral communications and satisfaction. Nurses’ walking distance through a physical environment and lack of communication and teamwork are three main challenges identified through this study. In decentralized nurses can spend more time in patients’ rooms instead of walking to supply rooms to get the medication. Decentralized nursing stations paciente rooms more often, creating opportunities for additional monitoring of patients’ condition and safety. From a patient care perspective, decentralized units’ advantages outweigh the disadvantages.

REFERENCES


