

Evidence-Based Design Recommendations for Nursing Stations

Summary

Hospitals today are the centerpiece of healthcare delivery around the world. There are many factors driving the need to increase the quality of hospital spaces and in particular nursing spaces. A key driver is the tremendous and costly turnover in nursing staff. Nursing staff satisfaction is closely linked to quality of patient care and satisfaction. It follows that nurses need to be supported with a workspace that is conducive not only to their functional work requirements, but also their psychological needs and health. However, nursing unit design has had little attention in hospital planning during past decades.

Thus, the purpose of this study was to compare the effects of two common approaches to nursing center design — centralized and decentralized nursing stations — on nurses' psychosocial health and work behaviors and to develop design recommendations to improve those spaces. This project begins to tackle a relatively unexplored area of research and thus we offer these recommendations in the spirit of providing a starting point for thinking about how to improve these extremely important spaces.

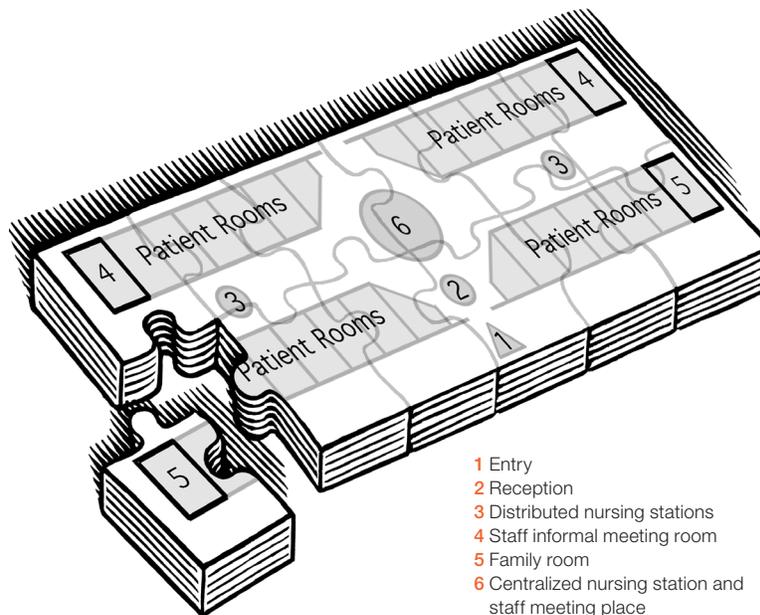
The Study

Six nursing units in three US hospitals participated in this study. We conducted a literature review, collection of hospital operational data, observations of staff, a survey and responses from two focus groups. The results show that neither the centralized nor the decentralized type of nursing station was superior to the other in terms of supporting nurses' psychosocial health and work behavior. Regardless, during the process of conducting this research we learned a great deal about the effects of these spaces on nursing performance. Thus, we created recommendations to improve the design of these spaces based on our previous experience and what we learned from conducting this study.

Key Design Recommendations

These recommendations include:

- ▶ Locate a clearly marked entry that opens directly onto a reception area (see #1 and #2).
- ▶ Position the reception area to provide first contact with family and to assist visitors (this preserves nurses' personal space and minimizes interruptions to their work) (see #2).
- ▶ Use one central nursing station (see # 6) with two to four small decentralized work stations (see # 3).
- ▶ Design the central nursing station in the shape of a diamond, an octagon, a circle or a half circle to provide the best visual access to ongoing activity and situational awareness for nurses (see # 6).
- ▶ Semi-enclose nursing station areas using translucent materials for privacy and confidentiality while allowing nurses to visually monitor patients and stay connected to staff members (see # 3 and # 6).
- ▶ Place the most critical patients closest to a nursing station to maximize view and accessibility (see # 3).
- ▶ Locate linens in patient rooms and store medical and office supplies inside the central nursing station (see # 6).
- ▶ Locate enclosed formal meeting space within the centralized nursing station area (see #6).
- ▶ Place a separate room for family members and a staff room at the end of hallways, away from the central station (see # 4 and # 5).



This project was co-sponsored by Ellerbe Becket.

Knoll research initiatives focus on links between workspace design and human behavior, health and performance, and the quality of the users' experience. We share and apply what we learn to inform product development and help our customers shape their work environments.

To learn more about this topic or other research resources Knoll can provide, go to www.knoll.com/research