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RESEARCH ARTICLE

CAN WE MANAGE THE SERVICE IN PATIENT ROOMS?

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ABSTRACT

Complexity of health care requires a more efficient use of resources. Due to the continuous improvements in information technologies, nurse call systems support patient-employee communication. The aim of the study is identify benefits of nurse call system used in Acibadem Healthcare Group (ASG) and ensure the dissemination of usage of this system in Turkish hospitals.

INTRODUCTION

In recent years, the complexity of continuous care has increased due to increases in care unit size, specialized care, and combined care paths. Nurse staffing shortages require a more efficient use of resources. Therefore, use of information technologies in health practices has been increasingly more common (Zuker 2011, Naik 2010, Bottieau 2008). Information and communication technology enables information integration at points of care, and supports communication between employees and between patients and employees. The primary purpose of information technologies is to deliver the right information at the right time, at the right place, for the right person. For the other issue, we can say that nurse call systems is an effective method for the consistency of coordination, communication and care. Nurse-patient interactions are intentional and frame the care that is sought and received by patients (Peplau, 1997; Russell, 1996; Shattell, 2004). The nature of such interactions, initiated by a nurse or a patient, is critical to the development of caring relationships (Peplau 1997, Russell 1996, Shattell 2004, Morse *et al.*, 1997). Also, it is the basis of patient-based care (DeFrino, 2009, Duffy *et al.*, 2012). In a study on determining patient satisfaction (Deitrick *et al.*, 2006), nurse call system is defined as "one of the few ways that patients can exercise control over their care and over their existence on the unit".

Usually, call system is perceived by patients as an instrument to establish communication for their needs. Interest in nurse call light management has emerged as it relates to patient satisfaction with hospital care (Deitrick *et al.*, 2006, Meade *et al.*, 2006, Stokowski, 2008). Researchers have focused on common reasons that for what reasons patients use their call lights (Meade *et al.*, 2006; Murray *et al.*, 2010), response time (Roszell *et al.*, 2008), and with whom the responsibility lies to answer the call (Deitrick *et al.*, 2006). Meade *et al.* (2006), stated that call systems are defined as a tool, by which patients can keep control in their hands. Studies have also shown that regularly visiting of patients (Meade *et al.* 2006) and answering calls in short time (Tzeng 2011) are among the basic activities that would increase patient safety.

Nurses and other staff in a hospital ward work under varying conditions which include high pressure, stress and long hours and must be alert to answer emergency/non-emergency needs of patients while providing care. Due to economic practicalities and the ever-increasing costs of medical care, it is necessary to make the most efficient use of nurses and staff on call in a hospital ward, particularly at night when nurse and staff levels are maintained at a minimum. Almost every ward of international hospitals has a nurse call system that includes a sound network, enabling patients to communicate with the employees at the nurse station. Usually, patient activates a "call" signal by pressing a button mounted on the head side of the bed, connected by a cable to a speaker.

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A similar system is also placed at the nurses' station for nurses to intervene easily. Emergency call buttons, blue code buttons and bathroom call buttons are the other input mechanisms. Additionally, the audio network of these call systems may be used for audio monitoring of a hospital room from the nurse station during an extreme emergency, such as a code "blue" status. If these systems cannot be operated in a simple, user-friendly manner, they can add to the stress level of nurses and staff. As a result, their jobs are made more difficult, rather than easier.

In Turkey, nurse call systems are not used actively. The greatest reason for this is that the people do not know how to use this system. Acibadem Health Group (ASG) hospitals utilize a nurse call system, which they can use for calling nurses whenever they need them. This system is designed not only for meeting patients' requirements from nurses but also for including many parameters such as recording nurses' time for staying at patients' room during their service, or visiting patients without receiving calls. Although the managers do not remotely see the nursing services provided at each patient room, we have been keeping call data to monitor service quality, and monitor care as a whole by associating them with our quality indicators such as patient satisfaction regarding nurses and nursing care, and relation with pressure wounds and thrombophlebitis for approximately 10 years. Also, this study has allowed to perform calculations automatically, which had been done manually for the last two years. Active use of this system by ASG nurses and the share of outputs with nurses have positively affected care quality. Managers' spending 8 hours (1 working day) for a monthly manual calculation which has been eliminated as a result of the automation of the system, and managers have been using this time to observe more nurses.

Table 1. Nurse Call System results from 10 hospitals of Acibadem Health Group (ASG) for year 2014

Examined Topics	ASG Targets	ASG Averages
Bedside Call Answering Time	40 seconds	34.5 seconds
Emergency Call Answering Time	20 seconds	26.6 seconds
Call Answering Time During Working Hours	40 seconds	37.0 seconds
Call Answering Time Outside Working Hours	40 seconds	40.0 seconds
Nurses Staying Time at Rooms for Every Call	10 min.	11.2 min.
Total Daily Time Spent per Patients	4-10 h.	4.4 h.

Applied Methods and Standards

Nurse call system reports are prepared monthly and recorded as nursing indicators. Monthly reports are created for 15 topics. These topics include; bed-head call answering time (seconds), emergency call answering time (seconds), number of emergency calls, number of entrances to patient room without call, number of total calls from rooms, nurse staying time at room (minutes) and average of nurse total stay time at room in 24 hours (hours). Deviations from daily targets are monitored by the section manager (charge nurse), and it is determined whether the deviations are caused by the system or

practice. Calls can be communicated from bedside call button and bathroom emergency call button to nurse call station. Every incoming call displays the bed number and the priority level indicator. When a patient presses nurse call button, the call is reflected on the call station at nurse desk. Also, a yellow lamp is lit over the door of the patient room where the call is made. When a nurses need support in a patient room, they press the "Emergency" button at the bedside unit. This way, the light at the corridor flashes in red and one of the various types of warning sounds are played. When a second nurse intervenes, green light will be lit at the corridor again. When the call buttons in patient bathrooms are activated, corridor lamps flashes in red and the alarm is heard. After entering the patient room and answering the call, a green light will be lit on the door. Green light means that there is a healthcare employee in the room.

Conclusion

Nursing care services are managed one-on-one, next to patients, and thus, it becomes important that the awareness of mid-level managers are raised. With this system, the effect of the contributions of nurses on patient satisfaction can be monitored. Number of calls by patients, nurse's visits without being called by patients, blue code intervention time and time of spent in patient rooms are among factors that directly affect patient satisfaction. The system also protects nurses from misunderstandings such as "nurse did not visit patient despite the call". With this awareness, nurses have embraced the nurse call system. At the same time, at the end of the project, a nurse call guide was prepared for correct applications. As seen in Table 1, the targeted times are achieved in most call topics; only, emergency call answering time was exceeded the target by 6.6 seconds. With this system, a fast contribution was made to nurse awareness. Extending of nurses' time of staying in patient rooms has not only positively affected patient satisfaction but has been an early alerter for patient complications. Also, minimum time for nurses to stay in patient rooms are determined every year, thus, units under the average are focused on.

Designed as a win-win system for both patients and managers, this system has become a tool that helps us take early precautions as a result of problem-based remote signals. Because senior managers cannot see everything all the time, nurse call is a good example of application for monitoring systems.

REFERENCES

- Bottieau, E., Moreira, J., Clerinx, J., Colebunders, R., Van Gompel, A. and Van den Ende, J. 2008. Evaluation of the GIDEON expert computer program for the diagnosis of imported febrile illnesses. *Med Decis Making*, 28(3): 435–42.
- DeFrino, D. T. 2009. A theory of the relational work of nurses. *Research and Theory for Nursing Practice: An International Journal*, 23, 294-311.
- Deitrick, L. D., Bokovoy, H., Stern, G. and Panik, A. 2006. Dance of the call bells: Using ethnography to evaluate patient satisfaction with quality of care. *Journal of Nursing Care Quality*, 21, 316-324.

- Duffy, J., Kookan, W., Wolverton, S. L. and Weaver, M. T. 2012. Evaluating patientcentered care: A pilot study testing feasibility of electronic data collection in hospitalized older adults. *Journal of Nursing Care Quality*, 27, 307-315.
- Meade, C. M., Bursell, A. L. and Ketelsen, L. 2006. Effects of nursing rounds on patient's call light use, satisfaction, and safety. *American Journal of Nursing*, 106(9), 58-70.
- Morse, J., DeLuca-Havens, G. and Wilson, S. 1997. The comforting interaction: Developing a model of nurse-patient relationship. *Scholarly Inquiry for Nursing Practice: An International Journal*, 11, 321-343.
- Murray, T., Spence, J., Bena, J., Morrison, S. and Albert, N. 2010. Perceptions of reasons call lights are activated pre and post intervention to decrease call light use. *Journal of Nursing Care Quality*, 25, 366-372.
- Naik, A.D. and Singh, H. 2010. Electronic health records to coordinate decision making for complex patients: what can we learn from Wiki? *Med Decis Making*, 30(6):722-31.
- Peplau, H. E. 1997. Peplau's theory of interpersonal relations. *Nursing Science Quarterly*, 10, 162-167.
- Roszell, S., Jones, C. and Lynn, M. 2008. Call bell requests, call bell response time, and patient, satisfaction. *Journal of Nursing Care Quality*, 24(1), 69-75.
- Russell, S. 1999. Exploratory study of patients' perceptions, memories, and experiences of an ICU. *Journal of Advanced Nursing*, 29, 783-791.
- Shattell, M. 2004. Nurse-patient interaction: A review of the literature. *Journal of Clinical Nursing*, 13, 714-722.
- Stokowski, L. A. 2008. Ring for the nurse! Improving call light management. Medscape website. Retrieved from <http://www.medscape.org/viewarticle/570242>
- Tzeng, H. 2011. Perspectives of patients and families about the nature of and reasons for call light use and staff call light response time. *Medsurg Nursing*, 20, 225-234.
- Zuker, A., Heart, T., Parmet, Y., Pliskin, N. and Pliskin, J.S. 2011. Electronic notifications about drug substitutes can change physician prescription habits: a cross-sectional observational study. *Med Decis Making*, 31(3):395-404.
