SYNOPSIS

KEY POINT SUMMARY

OBJECTIVES

The purpose of this article is to describe the process used to develop and test an electronic bedside communication center (eBCC) for patients undergoing hospitalization in the acute care setting. Research questions were as follows: 1) What are the user interface requirements for the eBCC? 2) Can hospitalized patients use the eBCC? 3) Can older patients use the eBCC? 4) What recommendations do patients and family

Building and Testing a Patient-centric Electronic Bedside Communication Center

Dykes, P. C., Carroll, D. L., Hurley, A. C., Benoit, A., Chang, F., Pozzar, R., and Caligtan. C. A. 2013 | *Journal of Gerontological Nursing Volume 39, Issue 1, Pages 15-19*

Key Concepts/Context

This study builds upon previous research that demonstrated improved outcomes when patients had access to tailored information related to falls.

Methods

A multiphase qualitative approach was used to gather information from patients, caregivers, and former patients. Stratified purposive sampling was used to ensure at least half of patients selected were older than 64. Other inclusion criteria required participants to be awake and alert, cognitively intact, able to understand and speak English, able to articulate observations regarding communication needs, and able to provide feedback on the eBCC prototype. Storyboard mock-ups were refined into a web-based user interface and eventually to a secure mobile tablet device that could be tested at the bedside with hospitalized patients. Participants were provided a demonstration on how to access their personal information including medication schedules and test results. Facilitators then asked the participants a set of questions to assess their ability to use the eBCC prototype to locate information. Suggestions for improvement were documented throughout the process.

Findings

Patients and caregivers liked the access to information and liked the ability to access their menu. Most patients over 64 had difficulty with the touchscreen hardware that was used during the testing sessions, but family caregivers appreciated access to the information on the patient's behalf. Some older patients and family caregivers requested voice recognition. While some patients may choose to avoid technology while hospitalized, others or family caregivers may appreciate

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the opportunity to use tools such as the eBCC to become a full partner on their healthcare team.

Design Implications

This study has the potential to inform healthcare design platforms with the technology required to support eBCC. Additionally, adding spaces for orientation to such technology and associated hardware will be important. Findings may also be considered in other healthcare settings.

Limitations

The sample size was small and used only eight hospitalized patients and three family members. Also, the sample only included English speakers.