

Isidora Vukosav, Anupam Gupta, John Abercrombie

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CSE 440 AC

Changes Made in Proposal

1. The previously submitted proposal was edited to include more statistics based on research studies and news articles.
2. In addition to the statistics and the added research, the proposal now also briefly addresses the tie between high patient to nurse ratios and neglect/abuse problems, but clarifies that it is not a main goal of this project, but rather a potential indirect issue that may be somewhat alleviated with this project.
3. The content has also been modified so that the problem more clearly addresses the benefits of patient/nurse communication and the social impact of better patient organization for individual nurses.
4. The organization is clearer and the pictures have been moved to the reference portions to avoid formatting errors in the future.

Problem and Motivation

In today's times, understaffing in many modern nursing or elderly homes is a big problem, resulting in many caretakers who have to take care of multiple patients (3). Although there aren't set ratios of nurses to patients (as this varies state by state), it's been found that "many nursing homes are so understaffed they may be endangering the welfare of their patients" (1). Each patient has his or her own needs and schedule that can include medications, appointments, nutrition, likes and dislikes, etc. Remembering all of these facts for several patients and keeping track of each patient's specific needs can prove challenging and overwhelming for staff to remember, as there are many minute details for each patient. In order to avoid causing harm, it is important to accurately remember a patient's specific medical conditions, especially medications, at all times which can be tough with patients being swapped or shuffled around between nurses. Oftentimes abuse or neglect can result from understaffing, and although solving this issue is not the main focus of this project, it may be an indirect benefit through our goal of clearer patient information organization. In addition, with each nurse tending to multiple people, forming a personal relationship with each patient can be challenging since the amount of time a nurse has per patient may not be enough. According to a study done by the CDC, licensed nurses only spend an average of 0.86 hours a day per patient in nursing homes, and patients spend an average of just over 4 hours interacting with staff (2). With such little time spent with patients, personal interaction becomes a challenge. Trying to remember personal information like birthdays, anniversaries, likes, dislikes, etc. in addition to medical information can make nurses' jobs even more strenuous. A study in *The Open Nursing Journal* found that "the relationship...was essential and a prerequisite for providing good nursing care," highlighting why maintaining a good relationship with patients is important for nurses to do (4).

Problem Analysis

Recently, the Centers for Medicare and Medicaid Services updated regulations in nursing homes, but this did not include "minimum staffing standards" (1). As understaffing continues to be a problem, it's important to look at ways to help the staff do their jobs and provide quality care to patients. Although there are certainly apps, such as Cozi (figure 1), that focus on keeping track of multiple schedules, these tend to be oriented towards families. Similarly, there are some apps designed specifically for nurses, like NurseGrid (figure 2), but these tend to focus on the scheduling and interaction between nurses. Although apps like these are a great way for nurses to keep track of staffing schedules and even some patients' schedules, there is room for improvement. Apps could be designed more specifically to take into account the various aspects that a nurse or caregiver would keep track of for patients, such as medications and nutrition, that don't necessarily fall in the sphere of scheduling. Although this wouldn't solve the problem of understaffing or patient neglect that current nursing homes face, it would make employees' jobs slightly easier and organized.

Images Referenced

Works Cited

1. "Report: Understaffed Nursing Homes Endanger Patients." *ABC News*. ABC News, 23 July 2017. Web. 7 Apr. 2017.
2. Harris-Kojetin L, Sengupta M, Park-Lee E, et al. Long-term care providers and services users in the United States: Data from the National Study of Long-Term Care Providers, 2013–2014. National Center for Health Statistics. *Vital Health Stat* 3(38). 2016.
3. Span, Paula. "Nursing Home Residents Gain New Protections." *The New York Times*. The New York Times, 27 Jan. 2017. Web. 5 Apr. 2017.
4. Wälivaara, Britt-Marie, Stefan Sävenstedt, and Karin Axelsson. "Caring Relationships in Home-Based Nursing Care - Registered Nurses' Experiences." *The Open Nursing Journal* 7 (2013): 89–95. *PMC*. Web. 8 Apr. 2017.