User-Centered Design of MySafeCare Patient Safety Reporting System

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Keywords: Patient Centered Care, Patient Safety, User-centered design

Introduction/Background

A major problem facing patient safety research is our limited understanding of threats to patient safety as patients experience them. Innovative technology may aid in overcoming barriers that prevent identification of safety threats experienced by patients.[1,2] Published recommendations for consumer safety reporting systems provide a critical foundation.[3,4] Yet, we know of no system designed specifically to capture in real time patient perceived threats to safety while in the hospital for use at an organizational level in a learning health system to mitigate risks before safety incidents occur. We are developing MySafeCare (MSC), a web-based/mobile enabled application that provides patients and their families a quick, electronic, real-time way to report and communicate their safety concerns to appropriate clinical staff according to their preferences. MSC includes a clinical dashboard for staff to view and trend safety concerns reported by patients and document/communicate follow-up. This poster will describe our user-centered design requirements analysis for the MSC clinical dashboard version 1.

Methods

The targeted users of the MSC clinical dashboard version 1 are Nurse and Medical Directors at Brigham and Women's Hospital. We conducted 3 Interviews with Nurse Directors and 2 Interviews with Medical Directors of acute and critical care units. Each interview lasted 30-60 minutes and included topics such as dashboard layout, notification frequency/content, and follow up documentation. The research team analyzed notes from interviews to extract design requirements for the dashboard by turning them into user stories that described the functions Directors wished to see. We categorized user stories into minimally releasable features (MRFs) and prioritized them for version 1. Final prioritized requirements were documented in Jira Software (c).

Results

We defined 12 MRFs for Version 1. These are: access per unit, integration with login service, landing page view, status filter, patient narrative security, drill down to case, dashboard notifications, flag patient case, document follow up, close a concern, trending, and data export. Each MRF had 1-5 associated specific requirements. For example, Filter by Status allows the user to filter concerns by time, type, and severity level.

Discussion/Conclusion

The interview process with Nurse and Medical Directors provided much insight into how the expected use of MSC is perceived in the context of daily workflow. Directors commented on the ways they would like to view and be notified of submissions. Through probing questions about features such as frequency and content we determined specific functionality requirements consistently noted across directors. Editing and shuffling occurred between categories to account for priorities of the directors, the development team, and the technical team.

Acknowledgements: This work was funded by AHRQ 1P30HS0235335 Making Acute Care More Patient Centered

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