Paper - International

Paper Session: General Interest

Implementation of a Mobile App for Trauma Education: Results From a Multicenter Study

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Purpose: Patient education fosters engagement and adherence to treatment recommendations, all of which contribute to patient and provider satisfaction. The purpose of this study was to demonstrate the adoption of a patient education application at multiple trauma centers with disparate geographic locations and varied patient populations.

Methods: A trauma patient education application was developed at 1 trauma center in the United States and was subsequently released at 3 additional trauma centers in the US and the UK. The app contains information regarding treatment and recovery after trauma and was customized with provider information for each institution. Each center was supplied promotional posters and handouts, and each had various strategies to inform providers and patients about the app. In addition, another center was targeted by a Google advertising campaign with no medical personnel involved there. App downloads, download location (region), frequently used features, overall usage volume per day, and time spent with the app were collected. Patients were surveyed after being introduced to the app regarding usage, satisfaction, and recommendations.

Results: Over the 15-month study period the app was downloaded 759 times from Google Play and the App Store. Of these 759 downloads, 578 (76%) were in the metropolitan regions of the Level-I trauma centers where this study was conducted. The original center had 92 downloads, while the 3 other centers had 383, 72, and 31 downloads over the same period. Within 18 miles of the center targeted by Google ads, 2447 people who searched for phrases such as “brain injury recovery” were shown this ad. Of those 2447 people, 21 people visited the app site, and zero downloaded the app. Similar usage characteristics were observed before and after the addition of the 3 new centers, including the proportion of app sessions greater than 2 minutes (35% vs 36%) and the proportion of sessions less than a few seconds (42% vs 41%). A total of 64 patients completed surveys, and 60% rated their satisfaction as high or extremely high.

Conclusion: The adoption of a trauma patient education app was more successful at 2 out of 3 new centers. At the site with the most downloads, the increase coincided with orthopaedic and general surgery trauma nurse practitioners adopting the app into their patient education routine. At other sites levels of downloads over time coincided with trained provider “champions” introducing the app to patients. Our study demonstrates that a patient education app with simple language can be successfully implemented at different trauma centers. Integration of the app into patient education practices led to substantially more downloads.