Improving Junior Doctor Induction Through the Use of Simple In-House Mobile Application

Authors : Dmitriy Chernov, Maria Karavassilis, Suhyoun Youn, Amna Izhar, Devasenan Devendra

Abstract : Introduction and Background: A well-structured and comprehensive departmental induction improves patient safety and job satisfaction amongst doctors. The aims of our Project were as follows: 1. Assess the perceived preparedness of junior doctors starting their rotation in Acute Medicine at Watford General Hospital. 2. Develop a supplemental Induction Guide and Pocket reference in the form of an iOS mobile application. 3. To collect feedback after implementing the mobile application following a trial period of 8 weeks with a small cohort of junior doctors. Materials and Methods: A questionnaire was distributed to all new junior trainees starting in the department of Acute Medicine to assess their experience of current induction. A mobile Induction application was developed and trialled over a period of 8 weeks, distributed in addition to the existing didactic induction session. After the trial period, the same questionnaire was distributed to assess improvement in induction experience. Analytics data were collected with users' consent to gauge user engagement and identify areas of improvement of the application. A feedback survey about the app was also distributed. Results: A total of 32 doctors used the application during the 8-week trial period. The application was accessed 7259 times in total, with the average user spending a cumulative of 37 minutes 22 seconds on the app. The most used section was Clinical Guidelines, accessed 1490 times. The App Feedback survey revealed positive reviews: 100% of participants (n=15/15) responded that the app improved their overall induction experience compared to other placements; 93% (n=14/15) responded that the app improved overall efficiency in completing daily ward jobs compared to previous rotations; and 93% (n=14/15) responded that the app improved patient safety overall. In the Pre-App and Post-App Induction Surveys, participants reported: a 48% improvement in awareness of practical aspects of the job; a 26% improvement of awareness on locating pathways and clinical guidelines; a 40% reduction of feelings of overwhelmingness. Conclusions and recommendations: This study demonstrates the importance of technology in Medical Education and Clinical Induction. The mobile application average engagement time equates to over 20 cumulative hours of on-the-job training delivered to each user, within an 8-week period. The most used and referred to section was clinical guidelines. This shows that there is high demand for an accessible pocket guide for this type of material. This simple mobile application resulted in a significant improvement in feedback about induction in our Department of Acute Medicine, and will likely impact workplace satisfaction. Limitations of the application include: post-app surveys had a small number of participants; the app is currently only available for iPhone users; some useful sections are nested deep within the app, lacks deep search functionality across all sections; lacks real time user feedback; and requires regular review and updates. Future steps for the app include: developing a web app, with an admin dashboard to simplify uploading and editing content; a comprehensive search functionality; and a user feedback and peer ratings system.

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