Mobile Support Intervention for Throat Cancer Patients Receiving Radiation Therapy
Stephanie R. Tucker, MS\(^1\), Eileen Shinn, PhD\(^2\), Sriram Iyengar, PhD\(^1\)
\(^1\)University of Texas Health Science Center, Houston, TX, \(^2\)University of Texas MD Anderson Cancer Center

Abstract
Mobile technology has immense potential to improve health care content delivery over paper-based methods. This poster describes the application of tablet-based content delivery to throat cancer patients receiving radiation treatment. Mobile technology provides multimedia education, improved access, increased convenience, and improved usability and engagement for this population. This project contributes evidence of the ways in which mobile treatment support may increase the use of HIT, improve usability and access to healthcare.

Introduction
Mobile technology has many advantages over paper-based health education content delivery. Use of mobile media-rich Interactive guideline apps (MMRIGs) has been shown to have high acceptability, and usability\(^1,2\). Such apps can offer greater portability than is available with large books or manuals, enable anywhere/anytime use, provide a greater degree of privacy\(^3\) and convenience, offer media rich features such as graphics, videos, text (and associated formatting), and audio, and deliver a high level of interactivity. Depending on the technology used to develop them, some MMRIG apps can be used in offline mode, even when there is no connectivity.

Methods
Using GuideVue® technology we developed an iPad version of the PREPARE Week 3 paper-based newsletter and piloted this with 9 patients, all of which were either currently undergoing radiation treatment, or had completed treatment, as well as the paper-based PREPARE intervention. The participants were asked to respond to a set of questions asking them what they liked about the Guidevue app, why they liked it, what improvements they would suggest, and other questions.

Results
Eight out of nine participants responded “strongly agree” when asked if they would use the app frequently. Nine respondents said there was nothing that made them not want to use the app. The remaining respondent said they would use it more if they could access specific content quicker. Eight out of nine participants rated the guideVue app at an 8 or higher on a 1-10 scale for usefulness in completing swallowing exercises daily. All but one respondent rated their satisfaction with the guideVue app at an 8 or above (5 gave it a 10) on a 1-10 scale.

Patient suggestions for improvement included providing a mechanism to measure throat exercise progress and receive feedback and positive reinforcement. Emerging response themes included guideVue’s strong visual appeal, convenience of carrying a mobile device instead of large binders, instant access to information, and usefulness of the exercise videos for correct execution.

Conclusion
Telehealth services can be useful in offering supportive services to patients suffering from serious health conditions and ongoing medical treatments, and can improve upon paper-based health education delivery in terms of engagement, usability, convenience, and satisfaction, and interactivity. This study provides growing evidence of the ways in which mobile education may increase the use of HIT and access to healthcare for patients with serious medical issues.

References

Note: guideVue technology is owned by UTHealth and licensed to a company of which one of the authors (S.I.) is part owner.