Addressing the Need for Remote Patient Monitoring Applications

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According to the National Cancer Institute, distress is an emotional, social, spiritual, or physical pain or suffering that may cause a person to feel sad, afraid, depressed, anxious, or lonely. In the case of cancer patients, untreated distress has been shown to lead to greater pain, reduced physical function, increased medical costs, and longer hospital stays. Furthermore, studies have shown that routine distress screening is able to improve health outcomes as measured by decreased morbidity and mortality. A greater issue emerges when considering rural communities in the United States that are often medically underserved and medically disadvantaged, such as Appalachian Kentucky. Rural communities commonly have higher rates of chronic disease, reduced access to providers, and continue to experience a decline in rural hospitals. This project created a HIPAA compliant mobile iOS application named Assuage that serves to better connect cancer patients to caregivers. Specifically, Assuage presents users with the “NCCN Distress Thermometer and Problems List”, a survey created by the National Comprehensive Cancer Network that has been shown to accurately indicate distress. By reducing the time between screenings, providers and researchers can better understand a patient’s overall distress, causes of distress, and track symptoms between visits. Assuage was designed with three user interfaces that differ in the way surveys are displayed and navigated. Collectively, by focusing on user experience and connectivity, Assuage provides an innovative digital solution to better streamline healthcare communications in rural communities.

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