AMCIS 2018 New Orleans: User Experience Design of a Patient Reported Outcome System for Musculoskeletal Care

TREO Talk Paper

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Abstract

Musculoskeletal (MSK) conditions are the 3rd largest healthcare burden, affecting 54% of the U.S. population, accounting for nearly 1 in 5 healthcare visits, and exceeding $870 billion in direct and indirect healthcare costs per year. MSK treatment costs increased more than 120% from 1996 to 2011. Yet, there is little evidence that these higher costs improved outcomes for MSK patients and hence the value of care. Measures of patient-reported outcomes (PROs), considered the ultimate validator of value in healthcare, are needed to create this evidence. Existing electronic medical record (EMR) systems are not equipped to incorporate PROs in MSK care making it impossible to assess value. New or re-designed methods, tools, and instruments are needed to consistently collect, analyze, and report on PROs across all patients with MSK conditions to measure value, enhance decision-making, and improve population health. The aims of this research are to 1) assess the opportunities and barriers for collecting PROs for all patients with MSK conditions, and 2) build a prototype agnostic PRO application for collecting and integrating PROs with EMR treatment data for MSK patients. We employ a design science research approach for the systematic analysis, design and development of a prototype integration platform and application for MSK PROs based on extensive prior work with a major health system in the Southeast. The broader impacts include enabling patient-centered decision making, value measurement for MSK populations, and an innovative technology powered environment that enables decision-making capabilities for providers, software vendors, and patients.

References


