Development of a Tool to Measure User Experience Following Electronic Health Record Implementation


Key Concepts/Context

This article outlines the development and validation of a tool to capture and prioritize improvement efforts related to electronic health record (EHR) implementation.

Methods

A literature review was conducted to identify concept domains for assessing the EHR user experience. Survey items were developed and selected based on their relevance for guiding improvement decisions by healthcare organizations. Questions were assigned in the five concept domains of training and competency, usability, infrastructure, usefulness, and end-user support. Initial versions of the survey were pilot tested to gather input by nurses who are experts in EHR. The resulting survey was assessed for internal consistency prior to implementation to a random sampling of nurses across 11 hospitals. Open-ended fields within the survey instrument provided a large number of open comments that were thematically analyzed by informatics nurses and human factors specialists prior to being jointly analyzed to reach consensus.

Findings

The tool described in this article provides a mechanism for healthcare organizations to go beyond user satisfaction after implementation of an EHR system. This tool would provide hospital leaders the opportunity to assess and improve the end-user experience and allocate resources for education, user support, infrastructure improvement, customization of EHR functionality, technology integration, and organizational policy or procedure changes to enhance the use of the EHR.
LIMITATIONS
The authors describe their intention to administer the survey tool periodically, but further research should be done to indicate appropriate/meaningful intervals for survey deployment.

DESIGN IMPLICATIONS
The tool outlined in this article provides decision-makers with a measure to assess the end-user experience of what is typically a substantial investment of hospital resources.

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