

A Review of User-Centered Design for Diabetes-Related Consumer Health Informatics Technologies

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Abstract

User-centered design (UCD) is well recognized as an effective human factor engineering strategy for designing ease of use in the total customer experience with products and information technology that has been applied specifically to health care information technology systems. We conducted a literature review to analyze the current research regarding the use of UCD methods and principles to support the development or evaluation of diabetes-related consumer health informatics technology (CHIT) initiatives. Findings indicate that (1) UCD activities have been applied across the technology development life cycle stages, (2) there are benefits to incorporating UCD to better inform CHIT development in this area, and (3) the degree of adoption of the UCD process is quite uneven across diabetes CHIT studies. In addition, few to no studies report on methods used across all phases of the life cycle with process detail. To address that void, the Appendix provides an illustrative case study example of UCD techniques across development stages.

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Abbreviations: (CADA) Chinese Aged Diabetic Assistant, (CHI) consumer health informatics, (CHIT) consumer health informatics technology, (HCI) human-computer interaction, (UCD) user-centered design

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