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Poster presentations

194 USER PREFERENCES FOR THE DESIGN OF WEARABLE TECHNOLOGY SYSTEMS - A SCOPING REVIEW

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Background: Wearable technology is a fast developing area. Often, the focus of research is on accuracy, while the practicalities of using the device may be overlooked, despite the fact that this greatly influences utility. This scoping review therefore explored the design and usability preferences of people for wearable technology for health monitoring.
Methods: A scoping review was conducted of literature evaluating user preferences for the design of wearable technology systems, for people aged >50 years, with good health, or chronic diseases.
Results: A search of relevant databases yielded 628 potential studies (after duplicates removed). Following title/abstract and then full text screening, 17 papers were included. The most commonly reported theme related to design and user interface (13 studies). Users wanted a small, unobtrusive and light device which doesn't snag on clothing or affect activities of daily living, but yet has a readable and easy-to-use interface, which may prove challenging for designers! Users were most happy to wear a device on the wrist and/or hip region, being considered the least obtrusive / most discrete. Users were open to the technology aspects of the device, but wanted specific training, or clear and readable instructions. Less commonly reported parameters included issues with privacy and ownership of data (two studies); cost (two studies); reliability and accuracy (three studies), including being accurate overnight and in the shower, etc.; and clinical usefulness, i.e. the data being effectively linked with other healthcare data. Where considered, participants didn't want to wear a device by night (two studies). Safety of wearable devices was not a theme in any study.
Conclusion: Overall, user needs seem to be rarely considered in the design of wearable technology for health monitoring. However, the limited studies do highlight important user concerns, which should be considered by the technology designers and prescribers.

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