A Review of Health Literacy and Diabetes: Opportunities for Technology

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Abstract

Background:

The objective of this study was to assess the published literature on health literacy and diabetes, as well as identify opportunities for technology to strengthen information skills and modify behavior to improve diabetes health outcomes.

Methods:

Medline (1990–2008), the Cumulative Index to Nursing and Allied Health Literature (1990-2008), and the Education Resources Information Center (1990–2008) were searched, and reference lists from included articles were reviewed to identify additional studies. Articles were included that presented measures of literacy or numeracy specific to diabetes, examined associations between health literacy and diabetes outcomes, or tested a health literacy intervention among persons with diabetes.

Results:

Twenty-four articles were included in this review. Five articles reported on measures of literacy or numeracy specific to diabetes. Thirteen of the fifteen cross-sectional studies (87%) associated limited health literacy with poorer diabetes outcomes. Two of the four (50%) health literacy intervention studies lead to improved health outcomes.

Conclusions:

The cross-sectional studies provide evidence of an association between health literacy and diabetes outcomes; however, there is a need to design and test strategies to improve diabetes health outcomes that consider health literacy. Information and communication technology opportunities could help to mediate the effect that limited health literacy has on diabetes-related health outcomes.

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