Using Avatars to Model Weight Loss Behaviors: Participant Attitudes and Technology Development

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Abstract

Background:

Virtual reality and other avatar-based technologies are potential methods for demonstrating and modeling weight loss behaviors. This study examined avatar-based technology as a tool for modeling weight loss behaviors.

Methods:

This study consisted of two phases: (1) an online survey to obtain feedback about using avatars for modeling weight loss behaviors and (2) technology development and usability testing to create an avatar-based technology program for modeling weight loss behaviors.

Results:

Results of phase 1 ($n = 128$) revealed that interest was high, with 88.3% stating that they would participate in a program that used an avatar to help practice weight loss skills in a virtual environment. In phase 2, avatars and modules to model weight loss skills were developed. Eight women were recruited to participate in a 4-week usability test, with 100% reporting they would recommend the program and that it influenced their diet/exercise behavior. Most women (87.5%) indicated that the virtual models were helpful. After 4 weeks, average weight loss was 1.6 kg (standard deviation = 1.7).

Conclusions:

This investigation revealed a high level of interest in an avatar-based program, with formative work indicating promise. Given the high costs associated with *in vivo* exposure and practice, this study demonstrates the potential use of avatar-based technology as a tool for modeling weight loss behaviors.

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