

Extending the Reach of Health Care for Obesity and Diabetes Using Virtual Worlds

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Abstract

Today's epidemic of obesity and diabetes poses challenges to health care similar to those facing soldiers who return with postdeployment mental health issues. These include geographic barriers, social stigma, and the need for behavioral change. Researchers at University of Southern California's Institute for Creative Technologies are adapting their extensive experience in technological solutions for training to techniques that can aid veterans in need. These techniques show promise for concerns in the growing crisis of "diabetes." Virtual reality (VR) has already demonstrated itself as an impactful treatment method for several behavioral and mental health domains. Virtual worlds, the successor technology of original VR, inherited many of its predecessor's strengths but also presents the new affordances of accessibility, social connectivity, and avatar usage, which pave the way toward future treatment options on a broader scale.

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Abbreviations: (3D) three-dimensional, (MBSR) mindfulness-based stress reduction, (SL) *Second Life*, (TORC) Texas Obesity Research Center, (VHIL) Virtual Human Interaction Laboratory, (VR) virtual reality, (VRET) virtual environment exposure therapy, (VW) virtual worlds

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