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Returning vets' alcohol abuse addressed in virtual reality study

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The UH Virtual Reality Clinical Research Lab studies the feasibility of using virtual environments to assess and treat addiction, anxieties and phobias. Credit: University of Houston

The spoils of war for returning veterans may include addictions, injury and the constant images of horrific events they witnessed. Now a University of Houston joint study funded by the Veterans Health Administration Rehabilitation Research and Development service looks to address these issues through the use of virtual reality.

The UH Graduate College of Social Work (GCSW) joins Baylor College of Medicine and the Neurorehabilitation: Neurons to Networks Traumatic Brain Injury Center of Excellence at the Michael E. DeBakey

Veterans Affairs Medical Center (VA) for a pilot project to assess the feasibility of using virtual reality environments to treat alcohol abuse issues in veterans.

"Our goal is to help them stop their drinking. The basis is standard relapse prevention therapy sessions, but we augment it using virtual environments," said professor Patrick Bordnick, director of the GCSW's Virtual Reality Lab. "The virtual environments allow a patient to practice coping skills in the environments that trigger the cravings and relapse."

A recent report from the National Institute on Drug Abuse (NIDA) indicated alcohol abuse is dangerously high among returning veterans, increasing their vulnerability to other abuses, such as illicit drugs or behaviors such as drinking and driving. The eight-week project targets 10-20 veterans, who range in age from 19 to 64 and are living with a traumatic brain injury and/or post traumatic stress syndrome. Results from this study will be used to create a larger study.

With their therapist nearby, veterans will wear a virtual reality helmet to place them in the environments. Using a controller, participants will navigate bar settings, parties or convenient stores where avatars will personalize their interaction, addressing the veteran by name and allowing him or her to practice coping skills. There also is an environment where the participant is home alone.

"This will be a full-sensory experience where participants will see items that may trigger their alcohol cravings, such as food or cigarettes. They'll hear sporting events on televisions, glasses clinking or the murmur of bar patrons. They'll also smell the food, smoke or their alcoholic drink of choice," Bordnick said. "This experience is as close to the real thing as possible, but conducted in a safe clinical environment with their therapist."

Bordnick is a pioneer in virtual reality research for use to assess and treat addictions and phobias. Through grants from National Institute on Alcohol Abuse and Alcoholism, National Institute on Drug Abuse, the National Institutes of Health and others, Bordnick has used virtual reality environments to study smoking and alcohol addictions, post traumatic stress in returning veterans.

More information: See More About the Virtual Reality Lab and Patrick Bordnick, www.uh.edu/features/on-campus/ … al-reality/index.php

Provided by University of Houston

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