



## Air Force study uses virtual reality for PTSD

by Linda Frost  
59th Medical Wing Public Affairs

9/18/2009 - **LACKLAND AIR FORCE BASE, Texas (AFNS)** -- A new virtual reality program to treat combat veterans returning from Iraq and Afghanistan experiencing post traumatic stress disorder is being used at Wilford Hall Medical Center here.

Virtual reality exposure therapy is a computer-simulated virtual Iraq and virtual Afghanistan that allows Airmen to interact and recreate a traumatic scene and recalls sights, sounds, smells, thoughts and feelings.

The virtual reality exposure is part of the new PTSD Clinic here that opened in August. The technology will compliment the clinic's evidence-based treatment programs to provide the maximum quality of care for returning servicemembers. Wilford Hall is one of eight Air Force-wide sites selected for the program.

"I believe this is a unique opportunity to utilize technology to help our warriors," said Maj. Monty Baker, the warrior resiliency program director of research. "Use of the VR and development of the PTSD clinic are just two examples of what is being done in San Antonio to provide the best PTSD treatment possible for military members."

The software program is similar to a video game. It is three dimensional and activates a process in the brain, giving the patient a sense of presence. The servicemember uses a mock M-16 and stands on a vibrating platform wearing headphones and a virtual reality visor similar to goggles. The devices are connected to a computer allowing the patient to engage in a realistic traumatic scene, like the one they experienced.

Individuals are monitored closely in a safe environment by mental health professionals, who guide and coach them along the way.

"The exposure to the event is a slow, gradual process and eventually increased," said Dr. Alan Maiers, a psychologist and assistant chief of the warrior resiliency program. "The more one engages in the experience, the more one is able to release emotions and subsequently get better."

"We want to help them deal with avoidance. They are repeatedly exposed to a traumatic event at a level they find tolerable, but sufficient to reduce anxiety," Doctor Maiers said.

However, virtual reality is not an independent therapy for PTSD. Doctor Maiers emphasized that the technology complements the prolonged exposure therapy, evidence-based treatment and other research-proven approaches to help servicemembers process traumatic events and increase their ability to cope with things that can trigger fear and panic.

"We are excited about being able to give people who are serving our country their lives back by removing these symptoms," he said.

Before patients are introduced to the virtual system, there are several visits with a therapist to talk about their wartime experiences in detail. This allows the experts to manipulate the software application and add sensory variables similar to the traumatic experience.

Over the next year, the Air Force will conduct a study to determine how effective the program is in conjunction with prolonged exposure therapy. Information and data will be gathered from patients and therapists to determine whether the Air Force will continue with the treatment plan.

"The opportunity to help Airmen by incorporating innovative ideas, such as the PTSD Clinic, virtual technology and working jointly with the Army, will lead to better evidence-based care in the future," said Maj. Baker, a Wilford Hall Medical Center staff psychologist.

In the meantime, experts are seeking volunteers for a local study to determine whether the software is suitable for an Airmen's experience in Iraq or Afghanistan. To be eligible, individuals should have no symptoms of PTSD or any other major psychiatric disorder and must have deployed within the last year to Afghanistan or Iraq. If interested, contact Doctor Maiers at 210-478-8854.