

New mHIC Partnership with Army Flagship Hospital Announced



Landstuhl Regional Medical Center, a military hospital operated by the Army and the Defense Department

TATRC's Mobile Health Innovation Center (mHIC) received funding for an exciting Traumatic Brain Injury (TBI) project supporting the Army's premiere OCONUS Flagship, Landstuhl Regional Medical Center (LRMC). This month, mHIC received word that the U.S. Army Office of the Surgeon General (OTSG) had approved the request to fund a joint partnership research study between TATRC and LRMC. The goal of the research will be to determine if traumatic brain injuries can be identified and treated through a Service Members' own smartphone.

According to the Defense and Veterans Brain Injury Center (DVBIC), over 375,230 of TBI have been recorded in Service Members since statistics for TBI first began being recorded in 2000. DVBIC goes on to say that "the high rate of TBI and blast-related concussion events resulting from current combat operations directly impacts the health and safety of individual service members and subsequently the level of unit readiness and troop retention. The impacts of TBI are felt within each branch of the service and throughout both the Department of Defense and the Department of Veterans Affairs health care systems."

According to the National Rehabilitation Information Center, "a home care program can support the rehabilitation program established by the doctor to help the body and the brain heal, and to (re)learn critical activities. One very important element will be educating the individual as well as the family on the home-based rehabilitation process." The goal of the TATRC-LRMC study is to do just this.

Through a series of neurocognitive tests, an existing commercial off the shelf (COTS) mobile app has shown capacity to detect and categorize levels of concussion symptoms. The purpose of this study is to integrate the use of the technology with the ability to push TBI treatment plans to end users' own

smartphone devices using mHIC's own mCare mobile app, and determine if positive clinical improvement can be seen in their symptoms.

mCare is an Military Health System approved mobile research program allowing direct connection between a Service Member's own smartphone and the Army's medical networks. First established in 2009, mCare and its supporting Mobile Health Care Environment have served as the foundation for over two dozen ground breaking mobile health studies. It became an official MEDCOM Program of Record in 2012, and began its first clinical trial in 2016.

LRMC DVBIC Senior Clinical Research Director, Kendra Jorgensen-Wagers Ph.D. felt the TATRC-LRMC partnership was the perfect combination. "We are thrilled to begin this exciting research project with TATRC. With their cutting-edge mobile research framework approved and already in place, they were the obvious choice to partner with on this important study."

The COTS tool selected, HitCheck, has quickly gained national recognition with interest from everyone from the aforementioned DVBIC, to the NFL, an organization also not unfamiliar with the issue of concussions and traumatic brain injury. Through a series of neurocognitive tests, HitCheck's mobile assessment helps users detect and monitor the signs of concussion in 7-10 minutes from any smartphone. HitCheck's personalized assessment will allow U.S. Military health care professionals to closely monitor patients' individual brain functions over time, helping them to track recovery and, ultimately, make more comprehensive care recommendations and return-to-activity decisions.

Work is expected to begin this Summer. ■■■