Effort aims to measure resiliency in injured soldiers

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Physical therapists use questionnaires to identify patients at risk for slow recovery, but those tools aren’t tailored to assess the resiliency of injured U.S. military personnel.

Vanderbilt’s Kristin Archer, Ph.D., DPT, associate professor of Orthopaedic Surgery and Rehabilitation and Physical Medicine and Rehabilitation, and colleagues are developing one. Over the next three years, they will work with the Brooke Army Military Medical Center in San Antonio, Texas, the U.S. Department of Defense’s only Level 1 trauma center, on the initiative. They will focus on service members with lower extremity injuries.

“There are some validated instruments to measure resiliency but they have never been validated in a military population,” Archer said. “The idea is that the civilian population and the military population are very different. There are different issues, different outcomes.”

The three-year process involves several steps, including interviewing injured service members to choose the most applicable questions, running those questions past focus groups of injured service members and then testing the selected questions as predictors of outcomes.

The Brooke Army Military Medical Center maintains a patient registry that will enable the investigators to track relevant clinical outcomes.

The registry allows the study to be done with a $500,000 grant from the Department of Defense, a project that would otherwise cost much more, Archer said.
“The infrastructure is really hard and expensive to establish,” she said. “Basically, all I am doing is taking our instrument and embedding it within all their time points. They will be giving out all questionnaires while they are also collecting physical performance measures.”

If the study proves the questionnaire is accurate at measuring resiliency, it can be used to identify injured military personnel requiring additional support to achieve better clinical outcomes.

Extremity trauma is the largest burden of injury from current military conflicts, Archer said, representing 64 percent of a projected $1.9 billion in disability benefit costs. These injuries also account for the largest percentage of days on limited duty.

“If we can validate a tool that could predict those who do poorly, we could basically steer them in a direction where they get strategies that can boost resiliency and increase their confidence level early on,” Archer said.

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