## Army Program Fosters Resiliency Among Soldiers

BY DIANA MAHONEY

FROM A CONFERENCE ON POSTTRAUMATIC STRESS
DISORDER AND TRAUMATIC BRAIN INJURY

BOSTON – "Outward Bound on steroids" is how psychiatrist Col. Elspeth Cameron Ritchie, MC, USA, describes one of the U.S. Army's most recent initiatives designed to foster resiliency among soldiers with repeated deployments to Iraq and Afghanistan.

Called Warrior Adventure Quest (WAQ), the program uses high-intensity, extreme sports and a debriefing tool "to provide soldier/leader/unit mitigation and coping skills that can address unresolved transition issues, and build unit cohesion and morale, contributing to combat readiness," Dr. Ritchie said at the conference sponsored by the Massachusetts General Hospital Psychiatry Academy.

Through such activities as kayaking, bungee jumping, rock climbing, white-water rafting, skiing, and snowboarding, the program aims to channel the adrenaline rush that becomes second nature to redeploying soldiers and sometimes leads to reckless, dangerous behaviors, said Dr. Ritchie, director of behavioral health proponency in the Office of the Army Surgeon General.

She stressed that the rate of deaths that occur within the first year of returning from combat – often as a result of accidents involving high speed, alcohol, or both – "is unacceptably high."

In fact, according to the U.S. Army Combat Readiness/Safety Center, between October 2001 and October 2009, 287 soldiers died as a result of motor vehicle and personal injury accidents within 1 year of returning from deployment. About 21% of these deaths occurred within the first 30 days post deployment and about 67% within 180 days post deployment.

For this reason, WAQ targets soldiers during the reset phase of a deployment cycle, typically within the first 120 days of a unit's return home, according to the Army Family, Morale, Welfare and Recreation Command (FMWRC), which created the intervention.

The most important aspect of the WAQ program is what comes after the adrenaline-pumping activities: the Battlemind After Actions Review (AAR). Battlemind, the Army's psychological resiliency-building program, is designed to help soldiers recognize and respond to fear during combat, then mitigate the cumulative effects

of a sustained combat environment and become mentally prepared to reintegrate during the redeployment, postdeployment, and reset periods of the deployment cycle, Dr. Ritchie said.

In the WAQ program, the Battlemind principles are implemented through the AAR debriefing process. For example, soldiers discuss the day's events and the connections between the activities and those they experi-



The Warrior Adventure Quest program uses activities such as bungee jumping to channel adrenaline rushes.

ence in the combat environment. Sharing thoughts on their experiences, as well as their feelings about being home, helps soldiers work through the range of postdeployment emotions, she said.

In addition, the WAQ activities are designed to bring cohesion to a unit through teamwork, and develop individual and unit resiliency through "horizontal and vertical bonding" with respect to rank structure and "esprit de corps," Dr. Ritchie noted.

The intervention also is meant to enhance soldiers'

personal development during "dwell time" – the period between deployments during which their mental health is especially vulnerable, she said. "We have hard data that shows troops need more dwell time – that it takes at least 2 years and optimally 3 years for a soldier to come back to baseline in terms of mental health. Unfortunately, [with the ongoing crises in Iraq and Afghanistan and no withdrawal of troops,] soldiers are being redeployed much sooner, she said. "So until something changes, we have to focus our efforts on developing soldiers' inner strength to help make sure they are emotionally prepared."

Early indicators suggest that the WAQ program has been well received. "Analysis from the program's survey data showed a 19.8% increase in the general perception of unit cohesion, a 12.8% increase in the perception that Army leadership cares for its soldiers, a 22.5% increase in the number of soldiers who viewed outdoor recreation as a means of relieving stress, and a 46.5% increase in the number of soldiers who will use the [WAQ] Outdoor Recreation Centers in future outdoor adventure activities," according to Staff Sgt. Brenton Bulrice, FMWRC WAQ representative.

"Although WAQ might not be the answer to all post-combat issues such as [posttraumatic stress disorder] and [traumatic brain injury], its holistic approach should serve as a model as the Army continues to identify and create programs to honor and empower soldiers who are reluctant to reach out for professional help," Staff Sgt. Bulrice wrote in an article for the U.S. Army MWR Web site.

Importantly, the program provides an informal screening tool by enabling leaders to identify soldiers who might need additional help, Staff Sgt. Bulrice wrote. "WAQ has formed close bonds and working relationships with many Army organizations," he said. Through these collaborations, WAQ is able to track statistical data about participants and how WAQ has initiated positive changes in their behavior, he stated.

The WAQ program is one of many recent military initiatives aimed at supporting the mental health needs of servicemen and women, including periodic health assessments, postdeployment health assessments within 30 days of returning from deployment, and reassessments in 3-6 months for every soldier to screen for mental health problems, Dr. Ritchie said.

She reported no financial conflicts of interest.

## Ketamine Cuts Pain, Not Depression, 6 Weeks Post C-Section

BY MIRIAM E. TUCKER

FROM THE ANNUAL MEETING OF THE SOCIETY FOR OBSTETRIC ANESTHESIA AND PERINATOLOGY

SAN ANTONIO – A single postpartum low dose of ketamine significantly and persistently reduced pain for up to 6

weeks after cesarean delivery compared with placebo, but there were no significant differences in chronic pain or depression between the two groups at 1 year, in a randomized, double-blind study of 82 women.

Low doses of the *N*-methyl-D-aspartate (NMDA) antagonist ketamine have been shown to decrease postoperative opioid requirements, and the drug

has also been shown to have an antidepressive effect (Arch. Gen. Psychiatry 2006;63:856-64). Those data led to the hy-

pothesis that women who receive a single intravenous dose of ketamine might be less likely to develop postpartum depression or chronic pelvic pain, said Dr. Laurie Chalifoux of Northwestern University, Chicago.

A total of 188 women were randomized to receive either 10 mg IV ketamine

Major Finding: Patients in the ketamine group reported significantly less pain at 6 weeks post partum, with scores of 1.3 vs. 2.3, but there were no significant differences at 6 weeks in depression or at 1 year in pain or depression.

**Data Source:** One-year follow-up of 82 parturients from an initial randomized, controlled trial of 188.

Disclosures: None was reported.

or saline by a blinded anesthesiologist 5 minutes after cesarean delivery. All received scheduled IV ketorolac 30 mg

every 6 hours for 24 hours, along with 1 or 2 tablets of acetaminophen 325 mg/hydrocodone 10 mg every 4 hours as needed for breakthrough pain.

Among those 188 women, the group who received ketamine reported significantly lower numeric pain rating scores (on a scale of 1-10) than did those receiving saline. However, there were no differences at any other time point, Dr. Chalifoux reported at the meeting.

The 82 patients who were available for an interview 1 year later were asked to report pain scores (1-10) and whether they had a self-diagnosis of depression at both 6 weeks and 1 year post partum. Patients in the ketamine group reported significantly less pain at 6 weeks post partum, with scores of 1.3 vs. 2.3. Depression did not differ at 6 weeks, with just one woman (2%) from each group reporting that she was depressed at that point.

At 1 year, pain scores were nearly 0 in both groups and did not differ signifi-

cantly (0.1 with ketamine vs. 0.0 with saline). Depression also did not differ significantly, although there were two women (5%) who reported being depressed at 1 year in the saline group compared with none in the ketamine group.

It's possible that a higher dose than 10 mg might have had a greater impact, given that the previous studies showing analgesic and antidepressive effects used doses ranging from 0.15 to 1.0 mg/kg. However, the potential side effects of ketamine – including dysphoria, memory loss, hallucinations, seizures, nystagmus, hypertension, tachycardia, and nausea/vomiting – suggest that dosages should be kept in the lower ranges, Dr. Chalifoux noted.

Also, it's possible that ketamine might not have a large impact among healthy parturients, but it might among those who are at increased risk for depression or chronic pain, she said.