Naval Health Research Center

NHRC's mission is to optimize the operational health and readiness of our armed forces by conducting research and development to inform DOD policy and practice.

MEDIA ADVISORY

1962

NHRC studied the psychological effects of isolation in the Antarctic.

1971

The Center for Prisoner of War studies was established.

1984

Body fat equations were published leading to the Physical Readiness Program.

1994

NHRC presented the Navy Unit Commendation for rapid diagnosis and treatment for rare diseases during Desert Shield and Desert Storm.

1994

Provided health care policy for the first women assigned to combat logistics force ships.

2000

Developed the medical planning tools used in theater for medical modeling and simulation.

2001

NHRC launched DOD's largest health studies in military history — Millennium Cohort Study and the Recruit Assessment Program.

2009

Awarded CDC Excellence in Public Health Response for first identifying H1N1 Influenza virus.

2011

R&D efforts continued with warfighter performance and enhancement.

Navy Study Finds Possible to Modify Brain Behavior in Marines

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Contact Anna Hancock, Public Affairs Officer, Naval Health Research Center
(619) 553-0548, anna.hancock@med.navy.mil

SAN DIEGO — A recent study led by Naval Health Research Center shows that brain behavior, or mechanisms related to stress, can be modified in Marines prior to deployment.

According to an article released in the American Journal of Psychiatry May 16, of the two groups of Marines studied, the group who underwent mindfulness-based techniques before exposure to stress had changes in their physiological responses to stress and their molecular brain activity. The results were further supported by neuroimagery, which showed a decrease of activity in the relevant areas of the brain.

"We looked at young, healthy Marines prior to deployment. We wanted to see if we can modify some of their response functions while they were going through stressful training prior to deployment," explained Dr. Chris Johnson, clinical neuropsychologist, and principal investigator of the study. "The answer was 'yes'."

Eight infantry Marine platoons participated. All eight platoons underwent typical pre-deployment training; however, only four platoons received mindfulness training. The group receiving mindfulness training went through a 20-hour course over an eight week period. The program, according to the article, emphasized interoceptive awareness, and focused on enhancing stress resilience.

"This was a behavioral intervention and it changed the brain function. It's a skill, not just knowledge, but actual behaviors and thoughts that can be modified and enhance resiliency," Johnson explained.

NHRC notes the complexity of the study. Currently, a more rigorous and controlled replication study is underway, and is including measures on operational military tasks.

"This is one of the many studies NHRC has done to support the well-being of our military forces," noted NHRC's Commanding Officer Capt. Jacqueline Rychnovsky. "Resiliency is crucial before deployments, during deployments, and when our troops come home and get back into routine with their families or friends. I'm proud of the team's ingenuity and our ability to be forward-thinking."

As the DoD's premier deployment health research center, NHRC's cutting-edge research and development is used to optimize the operational health and readiness of the nations armed forces. Within close proximity to more than 95,000 uniformed service members, world-class universities, and industry partners, NHRC's expert team sets the standards in joint ventures, innovation, and practical application.