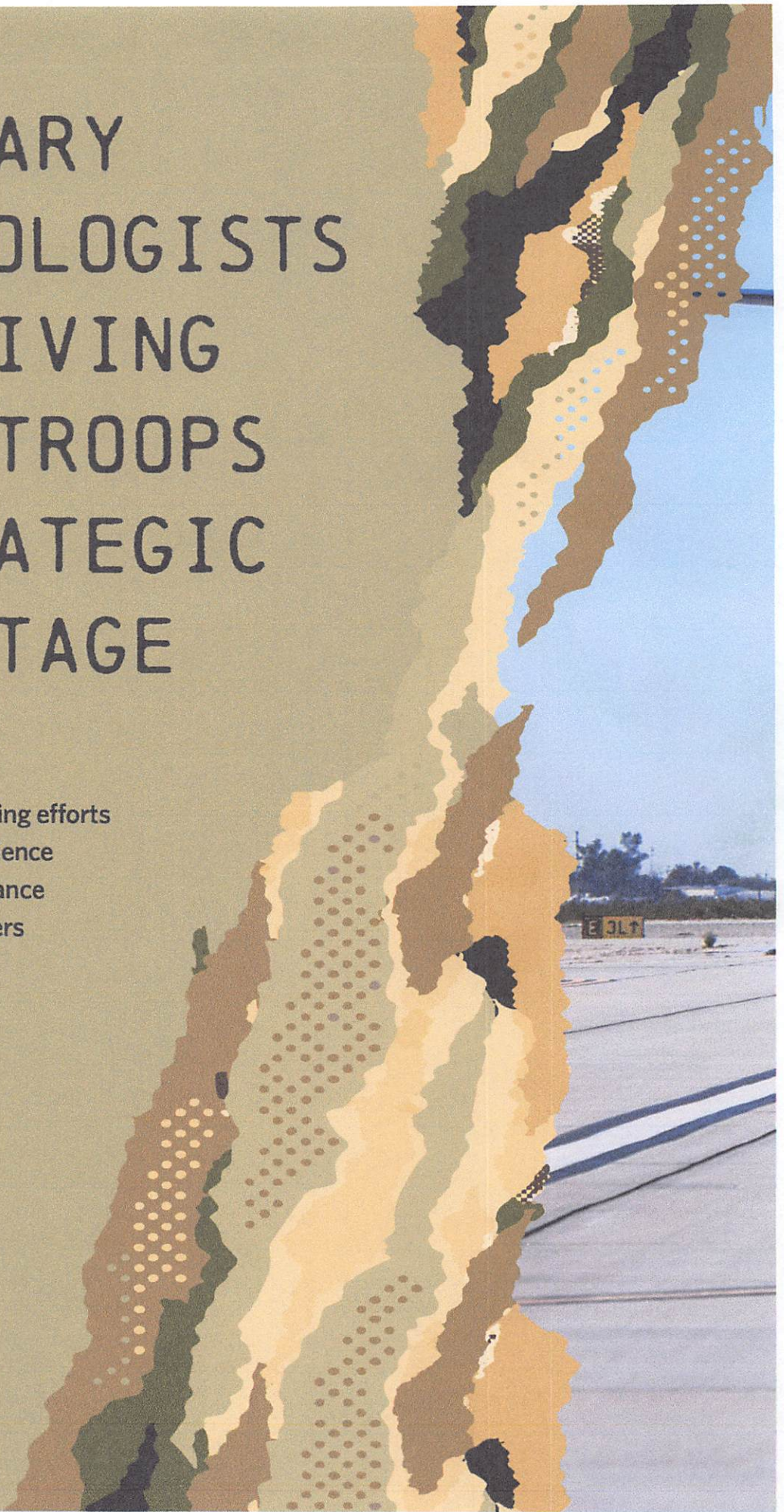


MILITARY PSYCHOLOGISTS ARE GIVING U.S. TROOPS A STRATEGIC ADVANTAGE

Psychologists are leading efforts to build cognitive resilience and optimize performance among service members

BY EFUA ANDOH



Marines of the Silent Drill Platoon, Marine Barracks Washington, perform during a flyover of the U.S. Navy Blue Angels' "Fat Albert" C-130J Super Hercules at Marine Corps Air Station Yuma, Arizona. The Marines of this platoon use military mindfulness techniques to train for the concentration required to execute their precision drills.



THE U.S. MILITARY, WHICH COMPRISES MORE THAN 2.8 MILLION ACTIVE-DUTY AND RESERVE PERSONNEL, ENDURES SOME OF THE HIGHEST LEVELS OF STRESS OF ANY OCCUPATION.

ACCORDING TO THE 2024 Navy's Health of the Force survey, for example, nearly 2 in 5 enlisted sailors reported feeling severely or extremely stressed. Service members often face high-stakes and unpredictable situations and perform duties that require them to make quick decisions and think clearly while carrying out complex tasks. Military careers also come with unique stressors, from deployment and combat exposure to family separation and difficulties transitioning back to civilian life.

To help with the challenges specific to life in the military, training and leadership development programs now routinely include mental conditioning. Metaphors like "brain exercise," "push-ups for the mind," and "bicep curls for the brain" describe this vital cognitive fitness training. Research shows it boosts performance, reduces emotional reactivity, and supports physical health. Psychologists are at the forefront of this crucial shift, spearheading programs to develop mission-critical mental strength and an optimal warrior mindset. Service members report boosts in their decision-making abilities as well as positive impacts in their relationships and overall mental and physical fitness.

The Department of Defense has embraced a comprehensive approach to weaving mindfulness-based programs into overall military training.

"We've been able to incorporate it into everything, ranging from when they come into the military during their basic training to field training exercises, garrison or routine operations, all the way to pre-deployment, during deployment, and after deployment operation," said Timothy Hoyt, PhD, a clinical psychologist and deputy director for force resiliency in the Office of the Under Secretary of Defense for Personnel and Readiness.

The neuroscience of mindfulness

Mindfulness encompasses various practices that involve sustaining attention to the present moment with a nonjudgmental attitude. One meta-analysis of its impact on 13 performance-related outcomes for the military found mindfulness can improve attention, emotional regulation, impulsivity, morale, and social support (Hepner, K. A., et al., *Rand Health Quarterly*, Vol. 10, No. 1, 2022).

Mindfulness-based training in the general sense has long been championed by Amishi Jha, PhD, a neuroscientist and professor of psychology at the University of Miami. Jha has spent nearly 2 decades studying how stress, threat, and negative mood undermine attention. "Attention is the brain's boss. Wherever and however we pay attention, it impacts information processing throughout the brain," she said.

Shortly after 9/11, Jha expanded her research to examine whether mindfulness training could strengthen attention in high-demand professionals such as service members. She recognized that heightened demands on the military could harm their ability to focus when it matters most, for example, making decisions under fire, using their weapons with precision, or remaining situationally aware in hostile territory.

To address this issue, Jha and her colleague Scott Rogers codeveloped the Mindfulness-Based Attention Training (MBAT) program for service members (*Progress in Brain Research*, Vol. 244, 2019). After multiple refinements, it became an 8-hour course delivered over 4 weeks, requiring a "minimum effective dose" of 12 to 15 minutes of mindfulness practice 3 to 4 days per week. Her research has shown that MBAT protects and strengthens attention, working

AT A GLANCE

- Military mindfulness practices for peak performance boost focus, resilience, and sustained performance under pressure.
- Military psychologists are leading training at all levels of active-duty and reserve military personnel, military academy students, and family members.
- Programs like Mindfulness-Based Attention Training (MBAT) and Peak Mind are transforming training for all levels—from new recruits to senior leaders.

memory, and mood among military personnel.

How mindfulness training is implemented also matters. Jha's research shows the benefits of using a train-the-trainer model to deliver MBAT to soldiers. Her team examined whether trainers' familiarity with military contexts shaped the extent of benefits experienced by the soldiers. They found that soldiers who received MBAT from military-savvy instructors performed better than those who received training from mindfulness experts unfamiliar with the military (*Mindfulness*, Vol. 11, 2020).

MBAT-trained soldiers also performed better in shooting tasks under stress than those who did not practice mindfulness. They also had fewer attention lapses, fewer difficulties managing emotions, greater mental toughness, and higher self-reported mindfulness (*Military Medicine*, Vol. 188, No. 3-4, 2023). Jha's MBAT program has been offered in basic combat training for soldiers (*Frontiers in Psychology*, Vol. 14, 2023) and delivered to one-star generals in the U.S. Army. MBAT has also drawn international interest from militaries in Australia, New Zealand, Ukraine, and Singapore.

Jha also developed an app called Pushups for the Mind.mil in partnership with the Department of Defense. The app provides 12-minute lesson modules, guided meditation programs, and tools to build a consistent mindfulness practice. The app is available at no cost to active-duty personnel, reservists, National Guard members, and students at military educational institutions.

Using military-specific terminology

At the U.S. Army War College, psychologists Maurice Sipos, PhD, and Kelly



U.S. Air Force Col. Seth Spanier, 7th Bomb Wing commander, experiences a MindGym sensory deprivation and bio-responsive mindfulness session.

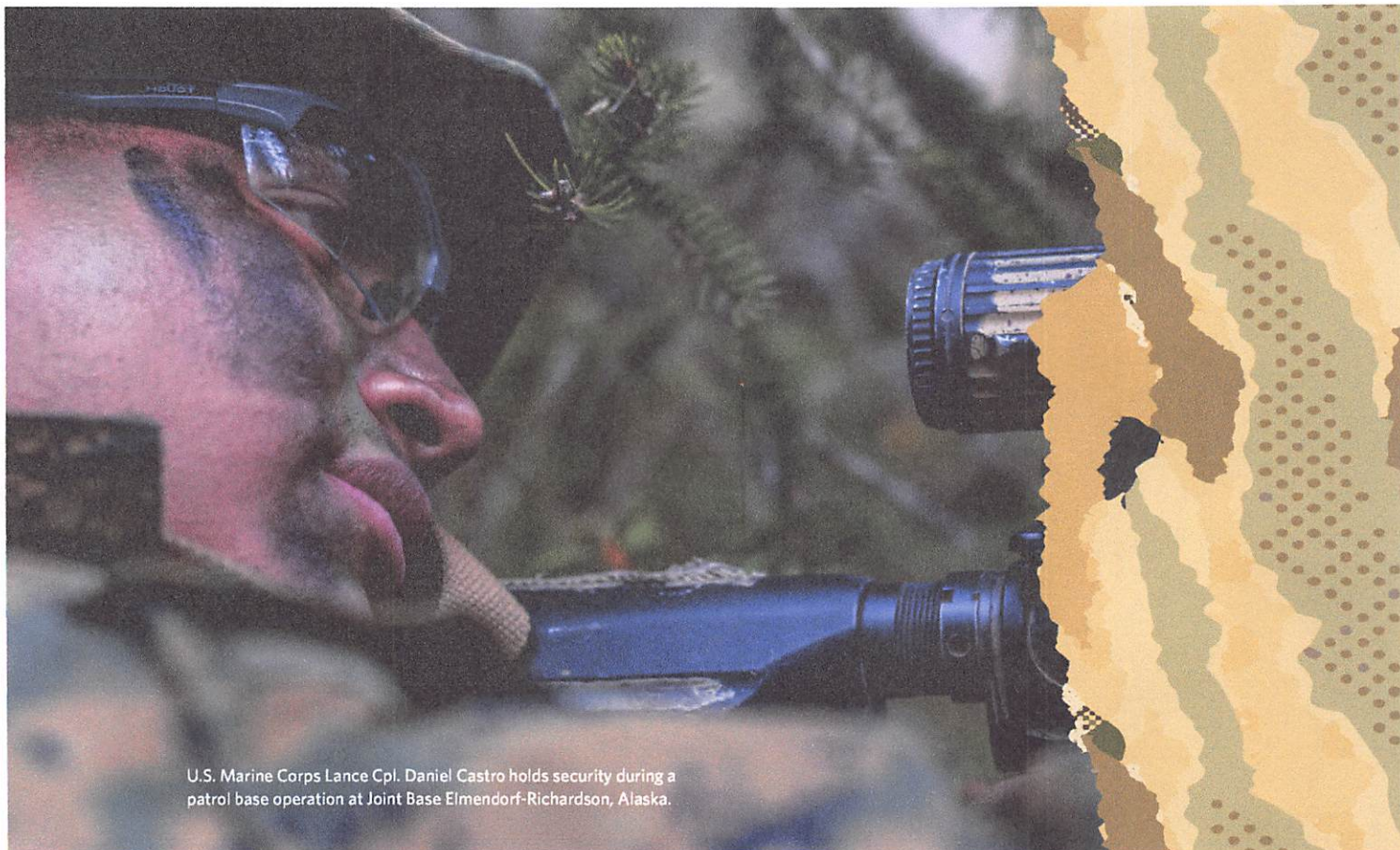
Ihme, PhD, used Jha's book, *Peak Mind: Find Your Focus, Own Your Attention, Invest 12 Minutes a Day* (Harper One, 2021) and research to develop mindfulness training for senior-level leaders. They recognized that many military personnel may have dubious reactions to the traditional terminology of mindfulness, seeing it as quasi-religious or unscientific.

To counter this problem, their course, "Peak Mind: Brain Health and the Power of Paying Attention," uses terms like "attentional fitness" rather than "mental health" or "resilience." By using military-specific wording, they were able to overcome initial skepticism from students.

"Mindfulness is the tool that we are using, and what we are getting after is attentional fitness. It's your attention system and the brain itself that we're targeting. Just like you would do push-ups for your pecs and chest, push-ups aren't the goal. It's the musculature," said Ihme.

"Peak Mind"—which included daily mindfulness practices, yoga sessions, practical exercises like mindful eating, and group and pair leadership exercises—was the most popular elective in the first semester it was introduced and the second most popular in spring 2025.

Graduates of the course reported key improvements in attention and focus, along with improved self-awareness and



U.S. Marine Corps Lance Cpl. Daniel Castro holds security during a patrol base operation at Joint Base Elmendorf-Richardson, Alaska.

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THEY ARE PRACTICING MINDFULNESS AND SELF-REGULATION TECHNIQUES. SERVICE MEMBERS JUST DO NOT CALL IT THAT.”

Cdr. Adeline Ong, PsyD

Navy clinical psychologist and chief at the Naval Center for Combat and Operational Stress Control at the Bureau of Medicine and Surgery

metacognition. Another positive outcome was reduced bias in decision-making. “When students had a clearer mind, when they weren’t influenced by emotional reactivity, they were less likely to default to habitual behavioral and thinking patterns, leading to more effective and better decisions,” Ihme said.

Walt Piatt, a former Army general who is CEO of Wounded Warrior Project, can attest to the benefits of mindfulness training in his troops. Piatt was one of the first high-ranking officers to collaborate with Jha and her team of researchers, giving them access to his brigade and laying the foundation for one of the first large-scale mindfulness studies in the Army—the Schofield Barracks Training and Research on Neurobehavioral Growth (STRONG) project.

Some of his troops were skeptical at the outset, but Piatt reframed the program for them in military-relevant language. “I use the term ‘zero the mind’ like ‘zero your weapon,’” Piatt explained, drawing a parallel between aligning a rifle’s sights for accuracy and sharpening one’s mental focus for better performance. “You zero your weapon so you can hit your target. That makes sense for a warrior.” Piatt further explained that mindfulness training provided the mental clarity for his troops to perform typically high-stress training engagements in a lower stress way.

In a similar manner, mindfulness practices are often naturally embedded in military training, just under a

CPL EARIK BARTON, IDENTIFIED BY DVIDS

different name. Commander Adeline Ong, PsyD, a Navy clinical psychologist and chief at the Naval Center for Combat and Operational Stress Control at the Bureau of Medicine and Surgery, noted that they are often part of the attentional and focus skills that strengthen performance: “When service members train to shoot their weapon, they are taught to focus, take a breath and pause, shoot, then breathe again. They are practicing mindfulness and self-regulation techniques. Service members just do not call it that. If we can bridge the language between operational and clinical resources and emphasize cognitive fitness training that strengthens performance, our operational forces would embrace these concepts and techniques more easily.”

Educating strong minds

Ryan Erbe, PhD, an assistant professor in the behavioral sciences and leadership department at the U.S. Military Academy at West Point, teaches mindfulness training to those at the start of their military careers. He sees it as a powerful tool to enhance cadets’ physical endurance, mental resilience, academic rigor, and character, giving them a long-term advantage over those without this training.

“Mindfulness helps people to emotionally regulate and increase their ability to be self-controlled,” he said. “When you think about character formation and ethical decision-making in intense environments, that becomes really important,” Erbe explained.

He and his team noticed that cadets’ willingness to engage in mindfulness practices seemed to be influenced by authority figures’ attitudes. To understand how that phenomenon might be leveraged for more effective training, Erbe and colleagues used a behavior

framework called the Reasoned Action Approach to examine cadets’ intentions to engage in meditation (*Military Psychology*, Vol. 36, No. 4, 2024). They discovered that cadets were more likely to meditate if they believed their chain of command thought they should, known as an *injunctive norm*, or the perception of what important others think one should do. “It’s pretty important for cadets to see that officers, leadership, but also their chain of command, have a positive perspective on [mindfulness] behavior,” Erbe said.

Psychologists in other military training environments are also observing the practical impact of mindfulness training for young service members.

Kimberly Dickman, EdD, an assistant professor at the U.S. Air Force Academy’s Center for Character and Leadership Development, embedded a mindfulness intervention into her applied positive psychology class. Over a period of several weeks, she invited cadets to explore mindfulness through meditation, mindful daily activities, or guided breathing exercises.

Cadets documented their experiences including how much they engaged in meditation, how easy it was, how much they enjoyed it, and their perceived outcomes. While mindfulness was not hugely popular among cadets—many struggled to slow down and integrate it into their demanding

TEACHING CONNECTIONS

MENTAL FITNESS ON THE FRONT LINES

The following prompts (organized by topic) can support high school and undergraduate educators in exploring military psychology, mindfulness, and cognitive resilience in psychology and behavioral science courses.

- 1. Motivation and Emotion** Military mindfulness programs help service members regulate emotions and reduce stress under pressure. How do mindfulness practices influence emotional reactivity and resilience in high-stakes environments?
Reinforces: *Emotion regulation, stress response, and performance psychology*
- 2. Learning and Conditioning** Programs like MBAT use repeated practice and reinforcement to build attentional control. How do these methods reflect principles of operant conditioning and habit formation?
Reinforces: *Behaviorism, reinforcement schedules, and cognitive training*
- 3. Neuroscience and Cognition** Mindfulness strengthens attention and working memory. What neural mechanisms underlie these improvements, and how do they relate to cognitive load and executive function?
Reinforces: *Cognitive neuroscience, attention systems, and brain-behavior relationships*
- 4. Social Psychology** Cadets were more likely to engage in mindfulness when they believed their leaders supported it. How does this reflect injunctive norms and the influence of authority figures?
Reinforces: *Normative influence, leadership psychology, and social cognition*
- 5. Research Methods** Evaluate one study from the article (e.g., MBAT shooting performance or Warrior Toughness outcomes). What were the variables, controls, and measures of success?
Reinforces: *Experimental design, operational definitions, and applied research*

schedules—some reported notable benefits, such as higher scores in flight simulator training and physical performance at the gym.

Mindfulness for military families

Military psychologists are also discovering notable benefits of mindfulness for service members' spouses and children. Leigh Ann Perry, PhD, an associate professor of psychology and behavioral science at the U.S. Naval War College, has designed a mindfulness program to enhance cognitive fitness and readiness for military personnel at multiple levels—including military family members. With individual members, she provided guided techniques to improve attention, emotion regulation, and mental performance. For students, she offered a psychology elective with a block of instruction on mindfulness, as well as twice-weekly sessions featuring techniques like mindful breathing, body scans, and lectures. For flag officers, she provided presentations on how mindfulness enhances complex decision-making in high-stress environments, optimizes performance, and enhances military lethality.

Perry also offered team-level interventions to help leaders implement mindfulness strategies that improve collective performance, resilience, and team communication. Notably, Perry also extended her mindfulness training to military families, recognizing that supporting spouses, children, parents, and siblings contributes directly to service members' ability to focus and perform while deployed. "[Engaging with families] has also been a wonderful part of what I get to do," said Perry. "Whether it is with spouses, parents, or kids individually, we talk about mindfulness practices you can do together as a family."

"Our adversaries are doing that mental training. You better believe they're preparing cognitively and emotionally," Perry said. "We need to be able to maximize how we prepare our warfighters. And by extension, how we are taking care of their families also helps them prepare and be ready."

One mindfulness practice that helps military families manage the emotional challenges of deployment includes focusing on the present moment to maximize time spent together. "Mindfulness can bring them back to the moment with the person who supports them the very most," said Hoyt. It can also "turn down the temperature" during potential disagreements.

Strengthening service members' relationships with their families and social networks alleviates stress that could harm their focus while deployed, added Ong. "If we're doing well in our relationships, then we're going to do better in our



A Fort Drum family takes a closer look at the reflection pond located near LeRay Mansion during a mindfulness walk on the Commando Trail. The weekly group walk is organized by the Military and Family Life Counselor program and the Fort Drum Army Volunteer Corps program.

military assignments. And when we have to leave our families and friends to go on deployment, and we know they're doing well and are safe, then we will be better able to maintain and sustain our focus and performance."

Building mental toughness in new recruits

One of the Navy's most successful mindfulness training efforts, the Warrior Toughness initiative, introduces recruits to breathing techniques, visualization, and grounding exercises to optimize performance.

It combines mindfulness practices with four mental skills drawn from sports and performance psychology: goal setting, arousal control, visualization, and self-talk. Researchers evaluated three pilot studies of the initiative, comparing recruits who practiced daily 10-minute mindfulness and mental skills training with control groups who engaged in silent reflection. Recruits in the mental toughness group showed improved physical performance, better results in final training exercises, and reduced stress, and they graduated on time more often, with 63.5 on-time graduates per division compared with 55.75 in the control groups (Saul, K. M., et al., *Military Psychology*, Vol. 36, No. 2, 2024).

Ong also noted the parallels between the pressures on Navy personnel and elite athletes, but with one key distinction.

“Elite athletes get to go home and rest after a game or race. Our sailors and Marines are expected to sustain that level of performance for weeks or months during deployment.”

Given the demonstrated results, the Department of Defense plans to continue using mindfulness as a strategic advantage for service members, helping them to focus and excel under pressure. “We are going with the science and where mindfulness has been shown to be effective, integrating that into training, treatment, rehabilitation, and leadership programs,” said Hoyt. “Those are all areas where we’ve seen good success, and I anticipate that that success will continue.” ■

FURTHER READING

Peak mind: Find your focus, own your attention, invest 12 minutes a day
Jha, A. P.
Harper One, 2021

High-level military and sport leaders’ everyday challenges and psychological skills: A cross-contextual repeated measures study
Bencker, A., et al.
Military Psychology, 2025

WRAIR-West collaborates with the Brazilian Army to optimize warfighter readiness
Gonzalez, Z.
DVIDS, March 7, 2025

Mindfulness training in military settings: Emerging evidence and best-practice guidance
Jha, A. P., et al.
Current Psychiatry Reports, 2025

Impact of an interoception intervention on posttraumatic stress disorder in military service members: The role of acceptance of internal sensations
Kearns, N. T., et al.
Journal of Traumatic Stress, 2025

Extending the transformative potential of mindfulness through team mindfulness training, integrating individual with collective mindfulness, in a high-stress military setting
Tobias Mortlock, J., et al.
Frontiers in Psychology, 2022

BODILY AWARENESS

THE POWER OF INTEROCEPTION

Military training often conditions service members to ignore discomfort and push through pain to complete missions. However, April Smith, PhD, director of Auburn University’s Research on Eating Disorders and Suicidality Lab, highlights an important potential role of teaching military personnel about *interoception*—the ability to sense and interpret internal bodily states such as breathing, heartbeat, and hunger—which is crucial to recognizing emotional distress. To this end, Smith and her team developed the Reconnecting to Internal Sensations and Experiences (RISE) intervention, which improved six of eight aspects of interoceptive awareness in a randomized controlled trial with service members and veterans (*Suicide and Life-Threatening Behavior*, Vol. 53, No. 6, 2023).

In collaboration with Nathan Kearns, PhD, of the Walter Reed Army Institute of Research, Smith adapted RISE into a program called RISE for Uniformed Personnel (RISE UP), aimed at enhancing bodily awareness and emotional regulation while reducing emotional numbing and suicide risk and improving resilience and performance.

RISE UP includes four 30-minute online modules that address body functionality, emotional regulation, communication, self-care, and, last, intuitive eating. Intuitive eating is essential to service members fulfilling their bodies’ basic nutritional needs before they can even begin to apply the other skills. The self-guided format combines reading, psychoeducation, audio clips, and writing prompts and can be accessed confidentially, without having to go through a behavioral health provider.

“The inability to appropriately regulate emotions could be the difference between whether you live or die or whether the mission is successful or not,” Kearns said. “In many cases, especially when it comes to intuitive eating, it can be the difference between whether or not you maintain your job. If you don’t meet very strict physical training requirements, you could lose your job or not be picked up for a promotion.”

For Smith, getting military input was crucial. “We were really fortunate to have a community advisory board [of military leaders] review all the materials and help us think through specific military adaptations,” Smith said. The Army is currently offering RISE UP as part of the onboarding process for their substance abuse program at Joint Base Lewis-McChord. The Air Force and Space Force have also expressed interest in incorporating RISE UP into future trainings.

Kearns emphasized that RISE UP is framed as equipping service members with practical tools that will help them excel at their jobs rather than as a mental health intervention. “We’re not trying to fix you,” Kearns said. “At the very end of this, you’re going to have developed [skills] X, Y, and Z, and that’s going to help you become a better service member. If that happens to also improve anxiety and depression, sometimes the best offense is a good defense.”