

Building mental toughness off the field -- it's all about practice

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IMAGE: UM Professor Amishi Jha asks in a recent study if college football players can be trained to be mentally tough and resilient. The research reveals that mindfulness training but not... [view more](#)

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CORAL GABLES, Fla. (May 31, 2017) - By the end of each academic semester, most college students struggle with a drop in attention spans and increased stress, especially student-athletes. Athletes know dedicated practice and physical training lead to excellence. Much less is known about mental training to deal with the psychological pressures of competitive athletics. One form of mental training, involving mindfulness, trains participants to focus attention on the present moment and observe one's thoughts and feelings without emotional reactivity.

A recent University of Miami study conducted in the [laboratory of neuroscientist Amishi Jha](#), associate professor in the UM College of Arts and Sciences' Department of Psychology, asks if college football players can be trained to be mentally tough and resilient. The research paper titled, "['We Are Talking About Practice': the Influence of Mindfulness vs. Relaxation Training on Athletes' Attention and Well-Being over High-Demand Intervals](#)," was recently published online in the *Journal of Cognitive Enhancement*. Jha's lab collaborated with mindfulness expert Scott Rogers, Miami Law professor and director of the Mindfulness in Law Program.

"Our research suggests that the mind, like the body, needs regular mental exercise to keep it cognitively and emotionally fit. What struck us about these results is that both relaxation and mindfulness helped well-being, but only mindfulness training benefitted players' attention--something student athletes need both on and off the field," said Jha.

Jha's research team found that greater practice and program adherence in a mindfulness training program, but not a matched relaxation training program, leads to more stable attention and fewer attentional lapses in football players.

The study's first author, UM psychology Ph.D. candidate Joshua Rooks, knows first-hand how demanding the life of a football player can be. Rooks, a former college football player who practiced mindfulness during his time as a tight end for the Northwestern University Wildcats, joined Jha's lab in 2012.

In the current study, Rooks monitored the attention and emotional well-being of student-athletes on the UM football team over four weeks, during which Rogers delivered two matched training programs to player subgroups. One group of 56 players received mindfulness training (MT), while the other group made up of 44 players received relaxation training (RT). The players in the MT group participated in breathing exercises, body scans and mindful awareness sessions, while the RT group did relaxation exercises, place-guided imagery and listened to relaxing music. Players' attention was measured using the Sustained Attention to Response Task (SART), a test designed to promote mind wandering and measure attentional performance lapses. Their emotional well-being was measured by questionnaires about their mood, anxiety and depression levels.

The four weeks of this project occurred during their pre-season training when players faced intensive demands, both academically and physically. Prior research found that during times of high demand, such as the [academic semester](#) and [military pre-deployment training](#), students and soldiers experience degraded attention and emotional well-being. In this study, football players' attention and emotional well-being degraded from the beginning to the end of the four weeks. Yet high adherence to the MT program, but not the RT program, protected athletes' sustained attention. The study also found that greater engagement in both MT and RT protected against a decline in well-being and pointed to practice as the key to benefitting from MT program.

Professional sports teams have long used relaxation training with players. Recently, some teams have also introduced mindfulness training. High performance psychology coach, Michael Gervais, who serves as an advisor to Jha's lab for their work, has achieved success by offering mindfulness to pro-athletes, such as the Seattle Seahawks.

"This is the type of research that moves the needle from theory to application. The hallmarks of elite performance within the most hostile environments are the ability to be tough minded, adjust to unpredictable demands, and to properly attend to the task at hand," said Gervais.

In addition to its potential to help athletes' attention and well-being, mindfulness training has been examined in soldiers during their high-demand pre-deployment training intervals. [Prior studies have found that these intervals deplete attention and degrade emotional well-being.](#)

"Research like this is very important as the Army explores mindfulness training as a possible enabler to Soldier readiness," said Major General Walter E. Piatt, Commanding General for the 10th Mountain Division, and an advisory committee member of the Mindfulness Based Attention and Training (MBAT) Project in Jha's lab.

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