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Abstracts will be considered for both poster and platform presentations

Other

Meditation has been practiced for many centuries for a variety of cultural and religious reasons. Many claims have been made about the health benefits resulting from meditation, however, research supporting most of these claims is limited (but increasing). Previous studies from our research group have shown that reaction time improved following periods of meditation in novice meditators. Both 40 minute and 20 minute bouts of meditation have been successful in improving reaction time, and it is possible that even shorter durations could produce benefits. In this study, a short meditation exercise was performed with the University of Kentucky's STEM Cats in a classroom setting. Novice student meditators underwent 5 minutes of focused breathing meditation to investigate its effect on reaction time. To measure reaction time, students were given an online psychomotor vigilance task (PVT) before and after the bout of meditation. Significant improvements in reaction time were consistently observed following 5 minutes of meditation. PVT performance is also sensitive to sleep debt/sleepiness/fatigue, so self-reported data on sleep time for the previous night for each student was collected. Due perhaps to high variability in performance across our subjects and the relatively modest differences in sleep time, no significant correlations were observed between sleep time and performance or between sleep time and the amount of improvement in PVT performance. Despite this, the significant improvement in reaction time further supports the previous findings that meditation improves reaction time, and that at least some improvement is possible with only 5 minutes of meditation. In addition to the basic science contribution of this study, this simple five-minute exercise may provide a practical short term boost for improved performance on a variety of tasks, and may also provide a useful classroom exercise to teach students about the brain, meditation, sleep and performance.