

Studies Reveal Rx for Doctors: A Daily Dose of Meditation

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INTRODUCTION

One personal quality that many patients seek in their physicians is compassion. In addition, medical schools are beginning to search for premedical students that possess compassionate qualities. Premedical students and physicians alike might wonder how they can increase their compassion. It seems that the answer may arise from an age-old tradition—meditation.

Meditation has been around for thousands of years, and has been shown to lead to several benefits including increased well-being, reduced stress, and positive emotions. In addition, recent studies have found that mediation can benefit others through the promotion of altruistic behavior. Researchers in Boston have found that both mindfulness meditation and compassion meditation, over the course of eight weeks, can increase the likelihood that a person will give up his or her seat to relieve the suffering of another.

ANALYSIS

In the New York Times article “Morality of Meditation,” David DeSteno, a psychology professor at Northeastern University, explains the study’s findings. DeSteno and colleagues recruited 39 participants from the Boston area to participate in an eight-week meditation course. Among the 39 recruits, 20 participants (the meditators) were assigned to weekly meditation classes. Nineteen participants (the nonmeditators) were informed that they were placed on a waiting list for the meditation study.

After eight weeks, both the meditators and the nonmeditators (the waiting list controls) were brought to the lab to participate in an experiment, which they believed was about memory, attention, and cognitive functioning. The actual experiment occurred in the waiting room. When the participant entered the waiting room, only one chair was available out of three. Members of the research team occupied the remaining two chairs, pretending to be participants. A third researcher on crutches then enters the room, also pretending to

be a participant. The experiment examined whether the true participant would altruistically offer his or her seat to the “hurt participant” on crutches.

The researchers found that only 16 percent of the nonmeditators offered their seats, but 50 percent of the meditators behaved altruistically. This three-fold increase in altruistic behavior in the meditation group was additionally impressive since the seated research team was instructed to ignore the “hurt participant” on crutches. This created a situation where the true participant would be less likely to act compassionately, a phenomenon known as the bystander effect.

In another study, Helen Weng and colleagues were interested in examining the neural relationship between mental training and altruism. The researchers recruited participants to a two-week mental training functional magnetic resonance imaging (fMRI) study at Wisconsin-Madison University. In this study, participants listened to 30-minute audio recordings that taught them skills in either compassion meditation or reappraisal training.

Compassion meditation involves envisioning the suffering of others and repeating phrases such as, “May you be free from this suffering. May you have joy and happiness.” Reappraisal training is used in cognitive behavioral therapy, and it is a technique that involves the reassessment of troubling past events, which continue to cause a person to feel distress and negative emotions.

In this study, participants’ neural responses to images of suffering were recorded in an fMRI scanner at both the beginning and end of the experiment (after two weeks). The fMRI scanner measures the oxygenated blood flow in participants’ brains over time. After the final scan, participants completed another study, which they believed was unrelated to the meditation study. This study utilized an online economic redistribution game.

In this online game, participants interacted with what they believed were live users, but were actually computer-generated interactions. The participants had the opportunity to redistribute wealth between a dictator with \$10 and a recipient with \$0. The participant had \$5 and could choose to redistribute wealth in the game at a small personal cost. Researchers found that the participants who were trained in compassion meditation were significantly more likely to redistribute wealth. In addition, the researchers examined the fMRI images to see if altruistic behavior correlated with activation of emotional and regulatory regions in the brain.

Weng found that increased altruistic behavior in the compassion meditation group correlated with increased activation of: the inferior parietal cortex (IPC); the dorsolateral prefrontal cortex (DLPFC); and the DLPFC and Nucleus Accumbens (NAcc) connectivity. The IPC is believed to contain mirror neurons, which allow us to simulate the behaviors and emotional states of others. It is suggested that the increased activation in the DLPFC modulates the distress that results from perceiving suffering; this occurs by up-regulating positive emotions through the DLPFC’s connection with the NAcc. The NAcc has been linked to charity and positive assessments of negative stimuli.

CONCLUSION

If you are interested in boosting your compassionate side, there are many options. You can download free meditation apps, or even listen to the audio recordings that were used in Weng’s research at <http://www.investigatinghealthyminds.org/compassion.html>. One free guided meditation app for the iPhone, which I would recommend, is called Headspace. Happy meditating!

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