

# Research validates the defining hallmark of Transcendental Meditation—effortlessness

November 4 2016

---



Students at Maharishi University of Management practice the effortless technique of Transcendental Meditation twice a day on campus. This study involved 87 students who had been practicing TM from one month to five years. Credit: Maharishi University of Management

As the value of meditation becomes widely recognized, researchers are increasingly trying to understand the differences among approaches. A study published today in *Brain and Cognition* reports subjective experiences and cortical activation patterns that distinguish the Transcendental Meditation technique from other meditation practices.

"Transcendental Meditation uses a mantra, and for this reason some researchers maintain that it involves focused attention and controlling the mind," said lead author Fred Travis. "Those who practice TM know this is not the case. This study supports their experience that Transcendental Meditation is easy to learn and effortless to practice."

## **Self-reports and brain patterns support unique nature of Transcendental Meditation practice**

This study involved 87 students at [Maharishi University of Management](#) in Fairfield, Iowa who had been practicing the Transcendental Meditation technique from one month to five years. Researchers investigated experiences and brain patterns of students as they rested with eyes closed, during Transcendental Meditation practice, and while engaging in a challenging computer task.

"There are two key findings from this study," said lead author Dr. Travis. "First, individuals practicing Transcendental Meditation for just

one month reported the same frequency of Transcendental Consciousness experiences during their practice as individuals meditating for five years. This supports the understanding that Transcendental Meditation uses the natural tendency of the mind to transcend—to move from active thinking to deep, inner silence. Extensive practice doesn't make a natural process go any better."

The second finding deals with activity in the "[default mode network](#)," which is a large-scale brain network involving areas in the front and back of the brain that are active during internal thinking and self-referential activity, such as creating an autobiographical story. Default mode network activity is high when a person just sits with his or her eyes closed, and low when one opens one's eyes and begins to interact with the world.

The study reports that activity in the default mode network remained high during Transcendental Meditation practice. Activity in the default mode network is reported to go down in all other types of meditation—since they involve focus and control of the mind.

"Deactivation of the default mode network indicates how much effort we are using," Dr. Travis says. "While people may not have had the experience of effortless transcending and so do not know what it feels like to transcend, they can now see the objective high activation in the default mode network—and see that something different is happening during Transcendental Meditation practice."

## **Transcendental Meditation different from resting with one's eyes closed**

The study found that the default mode network was as high during Transcendental Meditation practice as during eyes-closed rest.

"This is an important finding, since eyes-closed rest is usually used as the benchmark for default mode network activity," Dr. Travis said.

However, Dr. Travis found two important differences when comparing the brain states during Transcendental Meditation and eyes-closed rest. Eyes-closed rest had more beta brain waves in areas of the brain associated with memory and motor aspects of speech production.

"This could reflect the mental chatter that goes on when one's eyes are closed," Dr. Travis said.

Transcendental Meditation had more theta brain waves in orbitofrontal areas associated with reward anticipation. This could indicate the movement of the mind to more charming levels of thought during transcending.

The meditators' attention was absorbed in the inner march of the mind, attracted by the increasing charm of finer levels of mental functioning. This process did not involve effort or control of the mind since default mode network activity was high.

## **The importance of characterizing meditation methods accurately**

These differences—the activity in the default mode network, as well as the fact that the frequency of transcending is the same regardless of how long one has been practicing—contrast Transcendental Meditation with other meditation practices.

"It's a critical point," Dr. Travis said. "Researchers, commentators, and popular media often lump meditation practices together. This distorts understanding the benefits of different meditations and confounds

applying these approaches to different subject populations."

**More information:** Frederick Travis et al, Default mode network activation and Transcendental Meditation practice: Focused Attention or Automatic Self-transcending?, *Brain and Cognition* (2017). [DOI: 10.1016/j.bandc.2016.08.009](https://doi.org/10.1016/j.bandc.2016.08.009)

Provided by Maharishi University of Management

Citation: Research validates the defining hallmark of Transcendental Meditation—effortlessness (2016, November 4) retrieved 3 May 2024 from <https://medicalxpress.com/news/2016-11-validates-hallmark-transcendental-meditationeffortlessness.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.