

**Leela Khanna**

Senior Division Behavioral & Social Sciences

*Brainwave Coherence: Developing The Full Potential Of The Brain*

The purpose of this research was to study the effects of Transcendental Meditation on brainwave coherence in adolescents. The hypothesis suggested that subjects would have more brainwave coherence during meditation than during eyes closed and thinking periods. Also, subjects would have more coherence during eyes closed and thinking than during eyes open and counting. An EEG machine was used to record all of the electrical activity of the brain including brainwave coherence. The subjects had scalp, neck, finger, and respiratory electrodes attached to them. The procedure was non-invasive. The final data that was collected did not support the original hypothesis. No major statistical results were found when the coherence values of meditation and eyes closed and thinking were compared. Also, no major differences in eyes closed and thinking and eyes open situations were found. Many of the coherence values were above .5 hertz of coherence. Results show that no significant statistical results were found in this study. A possible reason for this may be because the students that were studied have been long term meditators and therefore already have high brainwave coherence. Studies show that long term meditators tend to have high levels of brainwave coherence throughout their daily activities, implying that these subjects already have high levels of coherence, that are too consistent to have significant differences.