

Core Programs & Published Research



DAVID LYNCH
FOUNDATION

DavidLynchFoundation.org
Change Begins Within



About The Foundation

Who We Are

The David Lynch Foundation (DLF) is a 501(c)(3) nonprofit organization, founded in 2005, that addresses the epidemic of trauma and toxic stress among at-risk populations through the implementation of the evidence-based Transcendental Meditation (TM) technique. DLF has served more than 500,000 children and adults worldwide, with a focus on underserved middle school and high school students, veterans suffering from post-traumatic stress and their families, and women and children survivors of domestic violence and sexual assault. DLF also works with those in recovery, the homeless, prison populations, people living with HIV/AIDS, and others.

What is Transcendental Meditation?

Transcendental Meditation is a simple, easily-learned technique, practiced for 20 minutes twice a day, sitting comfortably in a chair with the eyes closed. During TM, the body gains a profound state of rest and relaxation while the mind is deeply settled yet wide awake and the brain functions with increased coherence. More than 350 peer-reviewed studies verify the physiological and psychological benefits of Transcendental Meditation for reducing stress and stress-related disorders, including hypertension, anxiety, depression, and insomnia, while increasing creativity, energy, and focus.

Core Programs

Women's Health Initiative (WHI)

The David Lynch Foundation Women's Health Initiative helps to reduce stress and heal trauma among women survivors of domestic violence and sexual assault. The initiative partners with organizations nationwide, including New York City's Family Justice Centers. WHI empowers survivors by building confidence and self-respect and improving resistance to stress to help victims heal from within.

Key findings include:

- Average **35%** reduction in anger, anxiety, depression, and fatigue.
- Average **51%** improvement in quality of sleep.

Scientific publications available upon request.



Students (Quiet Time)

For millions of at-risk students in under-resourced communities, traumatic stress is a daily reality. This stress impedes learning and undermines physical and mental health.

- **25%** of teenagers suffer from anxiety disorders.
- Suicide is the third leading cause of death among teenagers.

DLF's Quiet Time program serves students in these communities, fostering and sustaining positive learning environments. Built into each school's curriculum and taught to the entire school community – students, teachers, and administrators –



Quiet Time has been shown to increase learning readiness, positively impact grades and graduation rates, and decrease student truancy and teacher burnout. Quiet Time is currently in schools nationwide.

A sample of Quiet Time results include:

- **70%** experienced reduced stress.
- **87%** reduced number of suspensions over first 3 years.
- **63%** felt meditation increased their focus.

Scientific publications available upon request.

“Quiet Time is the most powerful and effective program I've come across in my 40 years as a public school educator for addressing the problem of stress in education, particularly in our inner city schools.”

- JAMES DIERKE, RETIRED EDUCATOR AND SCHOOL ADMINISTRATION UNION LEADER

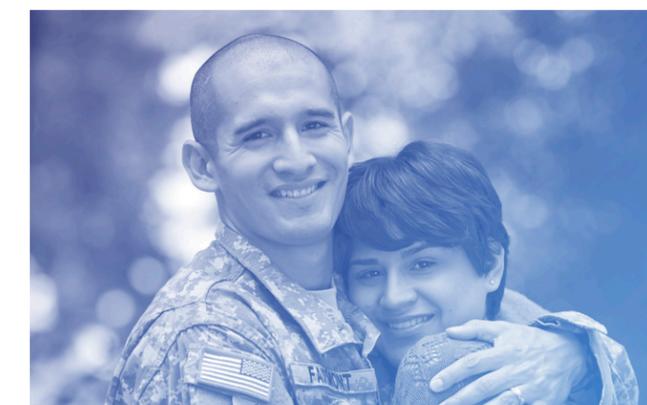
Veterans (Resilient Warrior)

Post-traumatic stress among veterans has reached epidemic proportions, with serious consequences. U.S. veterans take their own lives at the rate of 21 per day. Many returning veterans are unable to hold jobs, support their families, or maintain

positive relationships. TM has proven to be an effective tool for addressing these issues. DLF's partners include Walter Reed National Military Medical Center, Fort Gordon Eisenhower Army Medical Center Traumatic Brain Injury Clinic, Boulder Crest Retreat for Wounded Warriors, Veterans Lifeline, and other Veteran Administration Medical Centers nationwide. In a clinical trial at the Traumatic Brain Injury Clinic, 83.7% of those instructed in Transcendental Meditation stabilized, reduced, or stopped using psychotropic medication within one month of regular TM practice. Other research highlights on meditating veterans include:

- **95%** reported less stress.
- **86%** reported less anger.
- **85%** feel more in control of their lives.
- **89%** reported improved relationships.
- **79%** reported improved sleep.

Scientific publications available upon request.



“After starting TM, my mind and emotions were calmed. I had my first full night of sleep in 21 years. I have new goals in my life, and I haven't stopped smiling ever since my first meditation.”

-CARLOS, VETERAN OF OPERATION DESERT STORM AND LIBERATION OF KUWAIT

“I am a better person to myself. I love TM and this will be a lifelong practice. I feel calm and at peace. I no longer need antidepressants and feel so happy and I quit taking sleeping pills.”

- DOMESTIC VIOLENCE SURVIVOR, AGE 45



National Institutes of Health-Funded Research on Transcendental Meditation

The National Institutes of Health (NIH) has granted more than \$26 million over the past 20 years to study the effects of the Transcendental Meditation program on cardiovascular disease and its risk factors. The following is a summary of findings from published research.

Cardiovascular Disease and Risk Factors

Decreased Risk of Heart Attack, Stroke and Death

Circulation: Cardiovascular Quality and Outcomes, 2012; 5, 750-758 (American Heart Association journal)

Two hundred and one African American men and women with coronary heart disease were randomly assigned to Transcendental Meditation (TM) or health education (HE) and followed up over an average of 5.4 years. Results indicated that the TM group showed a 48% decrease in heart attack, stroke, or all-cause mortality (primary endpoint) compared to HE. A 24% decrease in the secondary composite endpoint of cardiovascular mortality, revascularizations, and cardiovascular hospitalizations was also found in TM participants compared to HE controls. The degree of regularity of practice of the TM program was positively associated with survival. Other findings indicated a reduction of 4.9 mm Hg in systolic blood pressure and a significant decrease in anger expression in the TM group compared to HE.

Research Field Site: Medical College of Wisconsin, National Institutes of Health - National Heart, Lung and Blood Institute Grant R01HL48107

Reduced Carotid Atherosclerosis in Hypertensive Patients

Stroke, 2000, 31, 568-573 (American Heart Association journal)

Sixty hypertensive subjects were randomly assigned to Transcendental Meditation or health education (HE) control groups and completed post-testing after 6 to 9 months. The TM group showed a significant decrease of 0.098 mm in intima-media-thickness (IMT), as measured by B-mode ultrasound, compared with an increase of 0.054 mm in the control group. This reduction was similar to that achieved by lipid-lowering drugs and extensive lifestyle changes.

Research Field Site: Charles R. Drew University of Medicine and Science, CA, National Heart, Lung, and Blood Institute Grants HL-51519, HL-51519-S2

Reduced Carotid Atherosclerosis in Older Adults

American Journal of Cardiology, 2002, 89, 952-958

Fifty-seven older adults (mean age of 74 years) were randomly assigned to either a traditional medicine multi-modality program that included Transcendental Meditation, a standard health education program, or usual care, with a twelve-month intervention period. The primary outcome was intima-media-thickness (IMT), measured by B-mode ultrasound. Results showed significantly decreased IMT in the traditional medicine group compared to the other combined groups. Reductions were most pronounced in the subgroup of participants with multiple coronary heart disease risk factors.

Research Field Site: Saint Joseph Hospital, Chicago, IL, National Institutes of Health - National Center for Complementary and Alternative Medicine Specialized Center of Research Grant P50-AT00082-01 and National Institute of Aging AG05735-3



Improved Functional Capacity in Heart Failure Patients

Ethnicity & Disease, 2007, 17, 72-77

Twenty-three African American patients hospitalized with congestive heart failure were randomly assigned to Transcendental Meditation (TM) or health education (HE) control groups. For the primary outcome of functional capacity, the TM group significantly improved on the six-minute walk test from baseline to six months compared to the HE group. The TM group also showed improvements in mental health, depression, and disease-specific quality of life. The TM group had fewer re-hospitalizations during the six months of follow-up.

Research Field Site: Department of Medicine University of Pennsylvania, National Center for Complementary and Alternative Medicine Grant P50-AT00082-05

Reduced Metabolic Syndrome

Archives of Internal Medicine, 2006, 166, 1218-1224 (American Medical Association journal)

One hundred and three coronary heart disease patients were randomly assigned to Transcendental Meditation (TM) or a health education (HE) control group. Over a four-month intervention period, the TM group showed a significant improvement in blood pressure and insulin resistance components of the metabolic syndrome as well as cardiac autonomic nervous system tone compared to HE. These results suggest that TM may modulate the physiological response to stress and improve coronary heart disease risk factors.

Research Field Site: Cedars-Sinai Medical Center, National Center for Complementary and Alternative Medicine and other National Institutes of Health Grants R01 AT00226, 1-P50-AA0082-02, 1-R15-HL660242-01, R01-HL51519-08

Decreased Blood Pressure in Hypertensive Patients

Hypertension, 1995, 26(5), 820-827 (American Heart Association journal)

One hundred and twenty-seven hypertensive African Americans were randomly assigned to either Transcendental Medi-

tation (TM), Progressive Muscle Relaxation (PMR), or education control (EC) groups and completed three-month post-testing. Results showed reductions of 10.7 mm Hg in systolic blood pressure (SBP) and 6.4 mm Hg in diastolic blood pressure (DBP) in the TM group; these reductions in BP were significantly different from changes found in the other treatment groups. The BP reductions in the TM group compare favorably to the effects found with antihypertensive medication.

Research Field Site: West Oakland Health Center, CA, Supported in part by National Institutes of Health Research Grant 5R01HL-48107



Reductions in Blood Pressure and Use of Hypertensive Medication

American Journal of Hypertension, 2005, 18, 88-98

One hundred and fifty hypertensive African Americans were randomly assigned to either Transcendental Meditation (TM), Progressive Muscle Relaxation (PMR) or health education (HE) groups and completed twelve-month post-testing. Results indicated a decrease of 5.7 mm Hg in diastolic blood pressure (DBP) in the TM group, which was significantly different from changes found in the other treatment groups. A non-significant decrease of 3.1 mm Hg in systolic blood pressure (SBP) was observed. Women TM participants exhibited a significant decrease in both DBP and SBP compared

to the other treatment groups. Use of hypertensive medication was also found to significantly decrease in the TM group in comparison to the other groups.

Research Field Site: West Oakland Health Center, CA, National Heart Lung and Blood Institute Grant 1R01HL48107 and National Center for Complementary and Alternative Medicine Grant 1P50AT00082

Lower Mortality in Hypertensive Older Adults

American Journal of Cardiology, 2005, 95, 1060-1064

Patient data were pooled from two published randomized controlled trials on high blood pressure that compared TM to other behavioral interventions (mindfulness, progressive muscle relaxation, mental relaxation procedures, health education) and usual care. A total of 202 older adults with pre-hypertension or hypertension were followed-up for vital status and cause of death over an average of 7.6 years. Compared with combined controls, the TM group showed a 23% decrease in all-cause mortality, the study's primary outcome. Secondary analyses showed a 30% decrease in the rate of cardiovascular mortality and a 51% decrease in the rate of mortality due to cancer in the TM group compared with combined controls.

Research Field Sites: The two published studies were originally conducted at the West Oakland Health Center, CA and Harvard University, MA, Supported in part by National Center for Complementary and Alternative Medicine Grant 1P50AT00082



Reactivity to Pain

Lower Brain Reactivity to Pain

Neuroreport. 2006 August 21; 17(12): 1359-1363

Long-term practitioners of the Transcendental Meditation technique showed lower reactivity to thermally induced pain, as measured by functional magnetic resonance imaging (fMRI), compared to healthy matched controls. After the controls learned the technique and practiced it for 5 months, their response decreased by 40-50% in the total brain, thalamus, and prefrontal cortex, and to a lesser extent in the anterior cingulate cortex. The results suggest that the Transcendental Meditation technique reduces the affective/motivational dimension of the brain's response to pain.

Research Field Site: University of California at Irvine, National Center for Complementary and Alternative Medicine Grant P50-AT00082-05

Breast Cancer

Improved Quality of Life in Breast Cancer Patients

Integrative Cancer Therapies, 2009, 8(3) 228-234

One hundred and thirty women were randomly assigned to either the Transcendental Meditation (TM) or education control (EC) group. Measures were administered every six months over an average 18-month intervention period. Significant improvements were found in the Transcendental Meditation group compared with controls in overall quality of life, especially emotional wellbeing, social wellbeing, and mental health.

Research Field Site: St Joseph's Hospital, Chicago, Supported in part by National Center for Complementary and Alternative Medicine Grant 1K01AT004415-01

Gene Expression

Increased Telomerase Gene Expression

PLOS/ONE 10(11): e0142689. doi:10.1371

Forty-eight African American men and women with stage I hypertension, who participated in a larger patient randomized controlled trial, volunteered for this sub-study. These subjects participated in Transcendental Meditation plus a basic health education or an extensive health education program. Both groups exhibited significant improvement in telomerase gene expression (hTERT and hTR) over a 16-week period. Reductions in blood pressure were also observed. These findings have implications for improving longevity and may provide a mechanism by which stress reduction and lifestyle modification reduce BP.

Research Field Site: Howard University Medical Center, Washington, DC National Heart Lung and Blood Institute Grant HL083944

College Students

Decreased Blood Pressure and Mood Disturbance and Improved Coping Ability

American Journal of Hypertension, 2009, 22 (12): 1326-1331

Two hundred and ninety-eight college students were randomly assigned to either the Transcendental Meditation (TM) program or wait-list control, with a three-month intervention period. Results showed significant improvements in total mood disturbance, positive coping, anxiety, depression, and anger/hostility. Significant reductions in both resting systolic and diastolic blood pressure were also observed in the high-risk hypertension subgroup.

Research Field Site: American University, Supported in part by National Center for Complementary and Alternative Medicine Grant 1P50AT00082

Reduced Ambulatory Blood Pressure

International Journal of Neuroscience, 1997, 89, 15-28

Twenty-six mostly normotensive subjects randomly assigned to either Transcendental Meditation (TM) or health education (HE) groups, who completed baseline and post-testing on ambulatory blood pressure (ABP), were included in final analyses. Results indicated significant reductions in diastolic blood pressure in the high compliance TM group compared to controls over a four-month intervention period. No significant change was observed in cardiovascular reactivity assessment.

Research Field Site: University of Iowa Hospitals and Clinics, Supported in part by National Institutes of Health Grants 1R15HL40495 01A1, RR59

School Students

Reduced Negative School Behaviors

Health and Quality of Life Outcomes, 2003, 1:10

Forty-five African American adolescents were randomly assigned to either Transcendental Meditation (TM) or health education (HE) control groups, with a four-month intervention period. Results showed significant reductions in absenteeism, rule infractions, and suspensions in the TM group compared to controls.

Research Field Site: Medical College of Georgia, Supported in part by National Institutes of Health Grant HL62976

Improved Cardiovascular Functioning at Rest and in Reaction to Stressors in Adolescents At-Risk for Hypertension

Journal of Psychosomatic Research, 2001, 51, 597-605

Thirty-five adolescents with resting blood pressure between the 85th and 95th percentile for their age and gender were randomly assigned to either Transcendental Meditation (TM) or health education (HE) control groups, with a two-month intervention period. The TM group exhibited a significant decrease in resting systolic blood pressure (SBP) compared to controls. Greater decreases in blood pressure, heart rate, and cardiac output reactivity to stressors were further observed.

Research Field Site: Georgia Health Sciences University Supported in part by National Institutes of Grant HL62976

Reduced Left-Ventricular Mass Index and Maintained Body-Mass Index

Evidence-Based Complementary and Alternative Medicine, 2012, doi:10.1155/2012/923153

Sixty-two African American adolescents with high normal systolic blood pressure were randomly assigned to either Transcendental Meditation (TM) or health education (HE) groups. The study included a 4-month intervention period plus 4-month follow-up. Results showed a significant decrease in left-ventricular mass index (LVMI) after four months, which was maintained at 4-month follow-up. TM adolescents also exhibited less of an increase in body mass index (BMI) compared to controls at 4-month follow-up.

Research Field Site: Georgia Health Sciences University, Supported in part by National Heart Lung and Blood Institute Grant HL62976, HL05662



Appendix

American Heart Association Scientific Statement on Blood Pressure Reduction

Based on the above NIH-funded research on Transcendental Meditation and blood reduction as well as other published studies, the American Heart Association, in its systematic review entitled "Beyond medications and diet: Alternative approaches to lower blood pressure: A scientific statement from the American Heart Association" conferred a "Class IIB Level of Evidence B recommendation in regard to BP-lowering efficacy. TM may be considered in clinical practice to lower BP. Because of many negative studies or mixed results and a paucity of available trials, all other meditation techniques (including MBSR) received a Class III, nobenefit, Level of Evidence C recommendation." (*Hypertension*, 2013, 61, 1- 24, doi 10.1161/HYP.0b013e318293645f)

Department of Defense-Funded Comparative Effectiveness Trial Comparing Transcendental Meditation to Prolonged Exposure and Health Education (in progress)

This is a randomized controlled trial with 203 veterans with documented post-traumatic stress disorder (PTSD) randomly assigned to Transcendental Meditation (TM), Cognitive Behavior Therapy-Prolonged Exposure (PE) or health education (HE) control groups, with a three-month intervention period. Outcomes include trauma severity as measured by Clinician Administered PTSD Scale (CAPS), PTSD Checklist—Military Version (PCL-M), and Patient Health Questionnaire (PHQ)-9 depression scale. Study hypotheses include: 1) non-inferiority: relative to PE the effects of TM will be comparable to PE on the primary CAPS outcome and secondary psychological outcomes; and 2) standard comparison: TM and PE both show significant improvement on the primary and secondary psychological outcomes of the study compared to HE. The project is currently in its final phase of data analysis and write-up. (Study protocol is published in *Contemporary Clinical Trials*, 2014, 1-7, doi.org/10/1016/j.cct2014.07.00)

Research Field Site: San Diego VA, Department of Defense Grants W81X-WH-12-1-0576, W81XWH-12-1-0577



Research and Evaluation on the Effects of Transcendental Meditation on Trauma and Post-Traumatic Stress

Impact of Transcendental Meditation on Psychotropic Medication Use Among Active Duty Military Service Members With Anxiety and PTSD¹

This study included 74 active-duty service members with PTSD or anxiety disorder. Half the service members voluntarily practiced Transcendental Meditation regularly in addition to other therapies; half did not. In just one month after learning the TM technique, there was a significant reduction in psychotropic medication usage among the TM group:

- TM meditators: 83.7% stabilized, reduced or stopped using medication. 10.9% increased.
- Non-meditators: 59.4% stabilized, reduced or stopped using medication. 40.5% increased.

Transcendental Meditation and Reduced Trauma Symptoms in Female Inmates: A Randomized Controlled Study²

This randomized controlled trial of 22 female prison inmates in Oregon found a significant effect of TM on total trauma symptoms with significant effects on intrusions and hyperarousal subscales. The TM group had a 45% reduction in PTSD assessment scores compared to a 22% reduction for the control group.



Meditation Programs for Veterans With Post-Traumatic Stress Disorder: Aggregate Findings From a Multi-Site Evaluation³

This meta-analysis looked at several sites, one of which, the Michigan VA Hospital, implemented a randomized controlled trial of TM. All participants in the study were receiving mental health services. A total of 19 veterans learned TM with 24 treatment-as-usual controls. Trauma symptom severity significantly decreased in the TM group compared to controls. The TM group had a 36% reduction in PTSD assessment scores compared to an 18% reduction for the control group who received the standard VA therapy.



Reduced Trauma Symptoms and Perceived Stress in Male Prison Inmates through the Transcendental Meditation Program: A Randomized Controlled Trial⁴

This randomized controlled trial of 181 male prison inmates in Oregon found significant reductions in total trauma symptoms, anxiety, depression, dissociation, sleep disturbance subscales, and perceived stress in the TM group compared with controls. The TM group had a 47% reduction in PTSD assessment scores compared to a 12% reduction for the control group.

David Lynch Foundation Internal Evaluation of Veteran Outcomes⁵

In 2016, the David Lynch Foundation received pre-surveys from 233 veterans or active duty military personnel instructed in TM. Of those individuals, 77% completed at least one post-instruction survey (at 1, 3, or 6 months). Individuals experienced a 51% reduction in trauma symptoms, a 42% reduction in depression, and 25% improvement in sleep quality.

- Trauma: Before learning TM, 65% of individuals had PCL scores consistent with a provisional PTSD diagnosis. Of those who completed the 1-month post-test, approximately 70% were no longer in that range.
- Depression: Before learning TM, 88% of individuals had CES-D scores that put them at risk of clinical depression. Of those who completed the 1-month post-test, approximately 40% no longer scored at risk.

Department of Defense \$2.4 million PTSD Study at the San Diego VA

In this randomized controlled trial of 203 veterans with documented PTSD, participants were randomly assigned to one of three treatment groups:

1. Transcendental Meditation
2. Prolonged Exposure (PE) (the gold standard treatment for PTSD)
3. Health education control group

The treatment phase of this study has been completed. One of the researchers is planning to present the results at a scientific conference soon. We are optimistic about the results.

1. Mil Med. 2016 Jan;181(1):56-63. doi: 10.7205 MILMED-D-14-00333.
2. Perm J. 2017;21. doi: 10.7812/TPP/16-008. Epub 2017 Jan 17. This was measured by the civilian version of the PCL, an assessment used by the VA to screen for PTSD. PCL-C scores range from 17-85. The TM group averaged a score of 53 before instruction (margin of error 17.35.) The control group averaged 52.4 (margin of error 13.05.)
3. Psychol Trauma. 2016 May;8(3):365-74. doi: 10.1037/tra0000106. Epub 2016 Jan 11. This was measured by the Clinically Administered PTSD Scale, the gold standard for PTSD diagnosis. The scale ranges from 0-80. The TM group averaged a score of 73.5 before instruction (margin of error = 6.22.) The control group averaged 74.1 (margin of error = 4.92)
4. Perm J. 2016 Fall;20(4):43-47. doi: 10.7812/TPP/16-007. Epub 2016 Oct 7. This was measured by the Trauma Symptoms Checklist, which evaluates symptomatology in adults associated with childhood or adult traumatic experiences. In the prison studies, we used a modified version for the prison population which ranges from 0 to 90 in total score. The TM group averaged a score of 23.68 before instruction (margin of error = 13.11.) The control group averaged 30.12 (margin of error = 16.1.)
5. 5 Trauma was measured using the PCL-5, which has a score that can range from 0-80 with a cut-point of 33. The group averaged a score of 39.3 before instruction. Depression was measured using the CES-D, which has a score that can range from 0-60 with a cut-point of 16. The group averaged a score of 26.8 before instruction. Sleep quality was measured using MOS Sleep Scale, which has a score that can range from 10-60. The group averaged a score of 34.2 before instruction.



Peer-Reviewed Published Research on Transcendental Meditation and Education/Youth

Impact of Transcendental Meditation on left ventricular mass in African American adolescents

In this Randomized Controlled Trial of 15-17 year old prehypertensive African American adolescents (n=62), 4 months of TM compared to health education resulted in a significant decrease in left ventricular mass index. These changes were maintained at 4-month follow-up.

Barnes VA, Kapuku GK, Treiber FA. Evid Based Complement Alternat Med. 2012;2012:923153. doi: 10.1155/2012/923153. Epub 2012 May 22.



Impact of stress reduction on negative school behavior in adolescents

In this Randomized Controlled Trial of 15-18 year old African American adolescents (n=45), the meditation group exhibited a mean decrease of 6.4 absentee periods compared to an increase of 4.8 in the control group (p < .05). The meditation group exhibited a mean decrease of 0.1 infractions over four months compared to an increase of 0.3 in the control group (p < .03). There was a mean reduction of 0.3 suspension days due to behavior-related problems in the meditation group compared to an increase of 1.2 in the control group (p < .04)

Barnes VA, Bauza LB, Treiber FA. Health Qual Life Outcomes. 2003 Apr 23;1:10.



Impact of Transcendental Meditation on ambulatory blood pressure in African American adolescents

In this Randomized Controlled Trial of 15-17 year old adolescents (n=100) the TM group had greater decreases in daytime systolic BP (P < .04) and diastolic BP (P < .06) compared to controls.

Barnes VA, Treiber FA, Johnson MH. Am J Hypertens. 2004 Apr;17(4):366-9.



Practicing TM in High Schools: Relationship to Well-Being and Academic Achievement Among Students

This study examined the impact of participating in Quiet Time on ninth-grade students (n=141) by comparing their outcomes to those of a group of ninth-grade students (n=53) attending a school that did not participate in Quiet Time. The Quiet Time students demonstrated lower anxiety and higher resilience compared to controls.

Wendt, S., Higgs, J., Abrams, A. et al. Contemp School Psychol (2015) 19: 312. doi:10.1007/s40688-015-0066-6

Effect of Transcendental Meditation on Employee Stress, Depression, and Burnout: A Randomized Controlled Study

In this Randomized Controlled Trial of 40 high school teachers at a residential therapeutic school for students with severe behavioral problems, teachers in the TM group showed reduction in stress, depression and burnout compared to controls.

Elder, Charles; Nidich, Sanford; Moriarty, Francis; Nidich, Randi. Perm J. 2014 Winter; 18(1):19-23. doi: 10.7812/TPP/13-102.



