



MAHARISHI
INVINCIBILITY INSTITUTE

—
WORLD LEADING EDUCATION FOR ALL

THE SCIENCE OF MEDITATION

Scientific Research on the effect of Transcendental Meditation
on Educational Outcomes



WHAT IS MEDITATION?

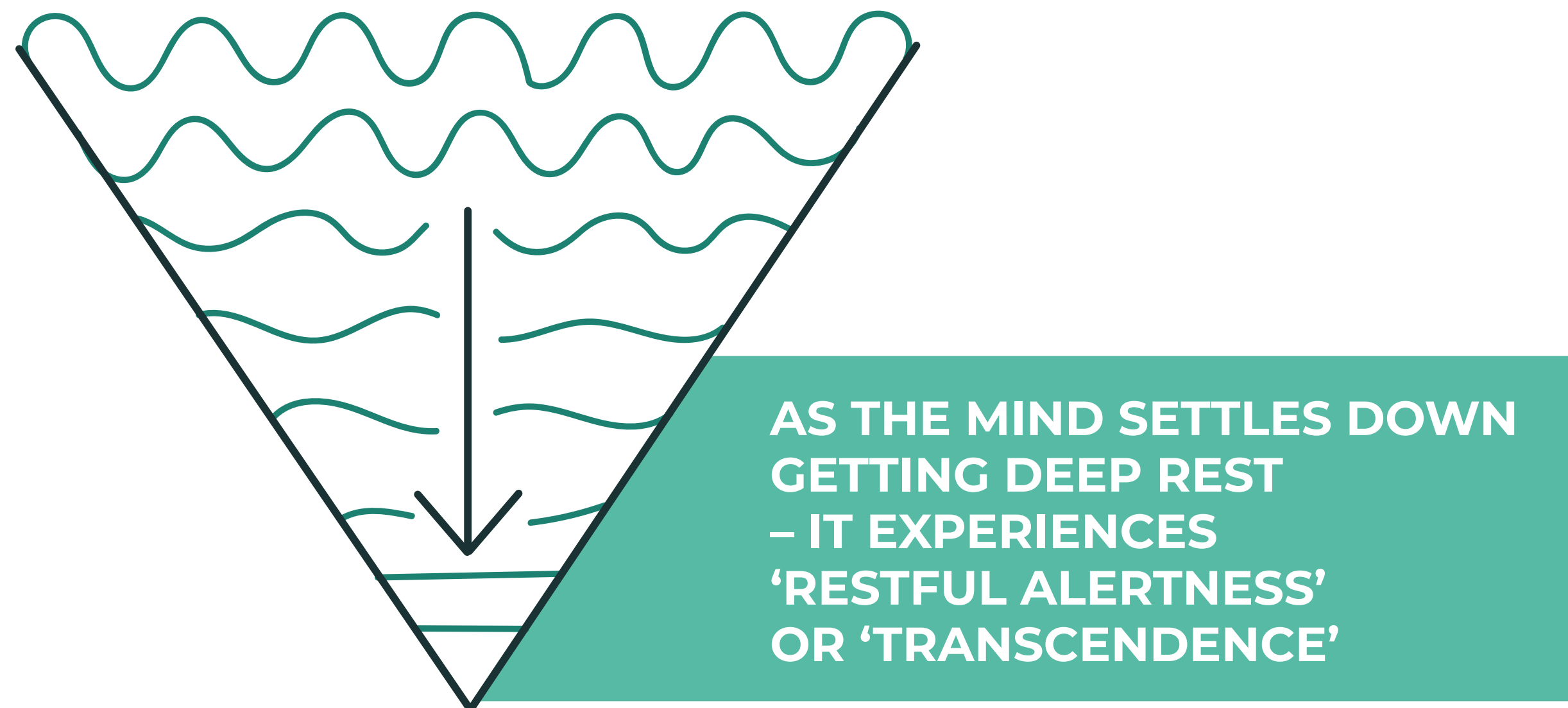
“In the traditional context, meditation refers to a family of mental practices that are designed to improve concentration, increase awareness of the present moment, and familiarize a person with the nature of their own mind.

In a more general and contemporary context, meditation can be categorized as primarily focused attention, mindfulness, loving kindness and compassion, or mantra repetition, although there is usually overlap between the focuses. With focused attention, the practitioner may focus on the breath or on an object, sound, sensation, visualization, thought, or repeated word or phrase (“mantra”). When the mind wanders, the meditator notices the mind wandering and learns to bring the mind back to the present moment or the object of meditation.”

WHAT IS TRANSCENDENTAL MEDITATION? (TM)

Transcendental Meditation is a simple, natural, effortless technique, that allows the active mind to settle down and experience a deep state of rest.

The Progression of the Mind During Transcendental Meditation



**TRANSCENDENTAL
CONSCIOUSNESS**





HOW IS TRANSCENDENTAL MEDITATION PRACTISED

TM IS PRACTISED AS FOLLOWS:

- With the eyes closed
- Sitting comfortably
- Anywhere – at home, in the office, on a bus or train etc.
- For 15-20 minutes in the morning and evening
- TM works for everybody. Anyone who can think, can meditate
- Anyone can learn: its easy to learn, effortless and enjoyable to practise
- TM requires no changes in belief or lifestyle.
- It is not even necessary to believe TM will work while practising the technique

EMPIRICAL EVIDENCE FOR THE EFFICACY OF TM

Over 600 scientific studies have been conducted on the TM technique. TM is the most extensively researched self-development programme in the world.

In over 30 countries

United States

United Kingdom

Germany

Holland

U.S.S.R.

Switzerland

South Africa

Japan

India

Canada

France

Sweden

Denmark

Norway

Australia



RESEARCH CONDUCTED BY OVER 200 LEADING ACADEMIC INSTITUTIONS INCLUDING:

- University of Cape Town (U.C.T.)
- Harvard Medical School, U.S.A.
- Harvard University
- Princeton University, U.S.A.
- Stanford Medical School, U.S.A.
- Yale Medical School, U.S.A.
- University of Chicago, U.S.A.
- University of Michigan Medical School, U.S.A.
- University of Michigan
- University of California (at Berkeley, Irvine, Los Angeles, San Diego and Santa Cruz), U.S.A.
- The University of California at Los Angeles Medical School, U.S.A.
- University of Edinburgh, Scotland
- University of Lund, Sweden
- University of New South Wales, Australia
- The Institute La Rochefoucauld, France
- York University, Canada
- University of Groningen, The Netherlands
- University of Berlin, Germany
- The Swedish National Health Board
- The Japanese Ministry of Labour

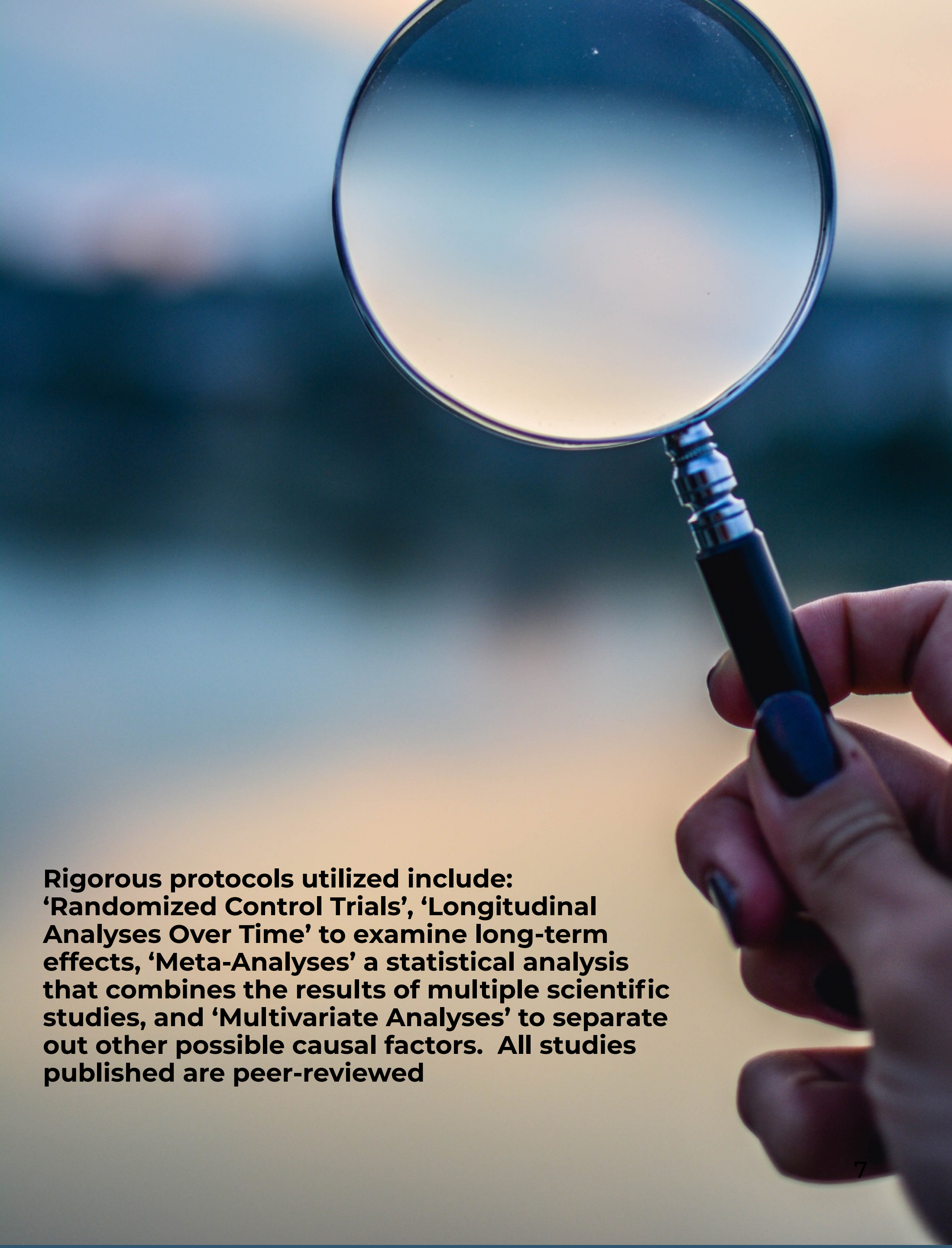
Other Major Universities in The USA Include

- Boston University
- Cornell University
- George Washington University
- Indiana University
- Lawrence Livermore National University
- Maharishi University of Management
- Massachusetts Institute of Technology
- Ohio State University
- Pennsylvania State University
- Perdue University
- State University College of New York (at Brockport, Buffalo and New Paltz)
- University of Arkansas
- University of Colorado Medical Center
- University of Florida
- University of Georgia
- University of Kansas
- University of Maryland
- University of Massachusetts
- University of Minnesota
- University of Oklahoma
- University of Pittsburgh
- University of Southern California
- University of Tennessee
- University of Texas (at Austin and El Paso)
- University of Virginia Medical Center
- University of Washington
- West Virginia University
- Western Kentucky University
- Western Washington State College
- Xavier University

PUBLISHED IN OVER 100 MAJOR JOURNALS

- Academy of Management Journal
- Addictive Behaviors
- AGE
- Alcoholism Treatment Quarterly
- American Journal of Physiology
- American Journal of Psychiatry
- American Psychologist
- British Journal of Educational Psychology
- British Journal of Psychology
- British Medical Journal
- Bulletin of the Society of Psychologists in Addictive Behaviors
- Bulletin on Narcotics
- Business and Health
- Circulation
- Clinical and Experimental Pharmacology and Physiology
- Clinical Research
- College Student Journal
- Criminal Justice and Behavior
- Drug Forum
- Education
- Electro-encephalography and Clinical Neurophysiology
- Experimental Neurology
- Hormones and Behavior
- Hospital and Community Psychiatry
- International Journal of the Addictions
- International Journal of Comparative and Applied Criminal Justice
- International Journal of Neuroscience
- Journal of Applied Physiology: Respiratory, Environmental and Exercise
- Journal of Biomedicine
- Journal of Chronic Disease and Therapeutic Research
- Journal of Clinical Psychiatry
- Journal of Clinical Psychology
- Journal of Conflict Resolution
- Journal of Counseling and Development
- Journal of Counseling Psychology
- Journal of Creative Behavior
- Journal of Crime and Justice
- Journal of Criminal Justice
- Journal of Human Stress
- Journal of Humanistic Psychology
- Journal of Inhalation Technology
- Journal of Mind and Behavior
- Journal of Moral Education
- Journal of Neural Transmission
- Journal of Personality and Individual Differences
- Journal of Personality and Social Psychology
- Journal of Personality Assessment
- Journal of Psychology
- Journal of Psychosomatic Research
- Journal of Social Behavior and Personality
- Journal of the American Association of Nephrology Nurses and Technicians
- Journal of the American Society of Psychosomatic Dentistry and Medicine
- Journal of the Canadian Medical Association
- Journal of the Israel Medical Association (Harefuah)
- L'Encephale
- Lancet
- Medizinische Klinik
- Memory and Cognition
- Motivation
- Motor and Sensory Processes of the Brain
- Neuroendocrinology Letters
- Perceptual and Motor Skills

- Pflugers Archive
- Physiology
- Physiology & Behavior
- Progress in Brain Research
- Psychologia--An International Journal of Psychology in the Orient
- Psychology Abstracts
- Psychological Reports
- Psychopathometrie
- Psychophysiology
- Psychosomatic Medicine
- Psychotherapie-Psychosomatik Medizinische Psychologie Respiration
- Revue d'electroencephalographie et de neurophysiologie clinique
- Science
- Scientific American
- Sleep Research
- Social Indicators Research
- Social Science Perspectives Journal
- Society for Neuroscience Abstracts
- The Journal of Mind and Behaviour
- The Physiologist
- Tijdschrift voor Psychologie (Behavior: Journal of Psychology)
- Transactions of the American Society for Neurochemistry
- Ugeskrift for Læger
- Verhandlungen der Gesellschaft für Ökologie
- Vestes: the Australian Universities' Review Western Psychologist
- Zeitschrift für Allgemeinmedizin
- Zeitschrift für Elektroenzephalographie und Elektromyographie
- Zeitschrift für Klinische Psychologie



Rigorous protocols utilized include: 'Randomized Control Trials', 'Longitudinal Analyses Over Time' to examine long-term effects, 'Meta-Analyses' a statistical analysis that combines the results of multiple scientific studies, and 'Multivariate Analyses' to separate out other possible causal factors. All studies published are peer-reviewed

A young child with curly brown hair, wearing a light blue t-shirt and red pants, is crouching on a wooden surface, painting a large rainbow on a window pane. The child is using a paintbrush to apply red paint to the left side of the rainbow. The rainbow is composed of several distinct bands of color: red, orange, yellow, green, and blue. To the left of the child, there is a large potted plant with green leaves and a few red flowers. In the foreground, on the wooden surface, there are various art supplies including several small jars of paint in different colors (red, yellow, green, blue, white), a larger jar of orange paint, and a red cloth. The scene is brightly lit, suggesting natural light from the window. The text "SCIENTIFIC EVIDENCE OF TRANSCENDENTAL MEDITATION IMPROVING LEARNING OUTCOMES" is overlaid in white, bold, sans-serif font across the center of the image.

SCIENTIFIC EVIDENCE OF TRANSCENDENTAL MEDITATION IMPROVING LEARNING OUTCOMES

If there was a way to switch from:

Underlying Factors Affecting Education Outcomes

COGNITIVE DEVELOPMENT FACTORS
PSYCHOLOGICAL FACTORS
PHYSIOLOGICAL/ HEALTH FACTORS
SOCIAL AND FAMILY FACTORS:
FINANCIAL/ ECONOMIC FACTORS
SOCIETAL FACTORS



A New Way of Functioning for Learners and Teachers

Enhanced Cognitive Functioning and Cognitive Efficiency
Psychological Health & Wellbeing
Physiological Health & Wellbeing, along with Longevity
Social and Family Health and Wellbeing, Improved Relationships, Harmony
Financial/ Economic Health, greater Self Sufficiency, Employment Prospects, Enhanced Entrepreneurship Ability, Job Satisfaction, Increased Prosperity
Societal Health and Wellbeing, Social Cohesion and Peace

Academic outcomes will spontaneously improve

Academic outcomes spontaneously improve as the above ‘binding constraints’ on the individual learners and their teachers, are to some degree relieved.

THE TM EMPIRICAL OUTCOMES MAP

EXPLORING SCIENTIFIC EVIDENCE OF SPECIFIC FACTORS RELATED TO TM

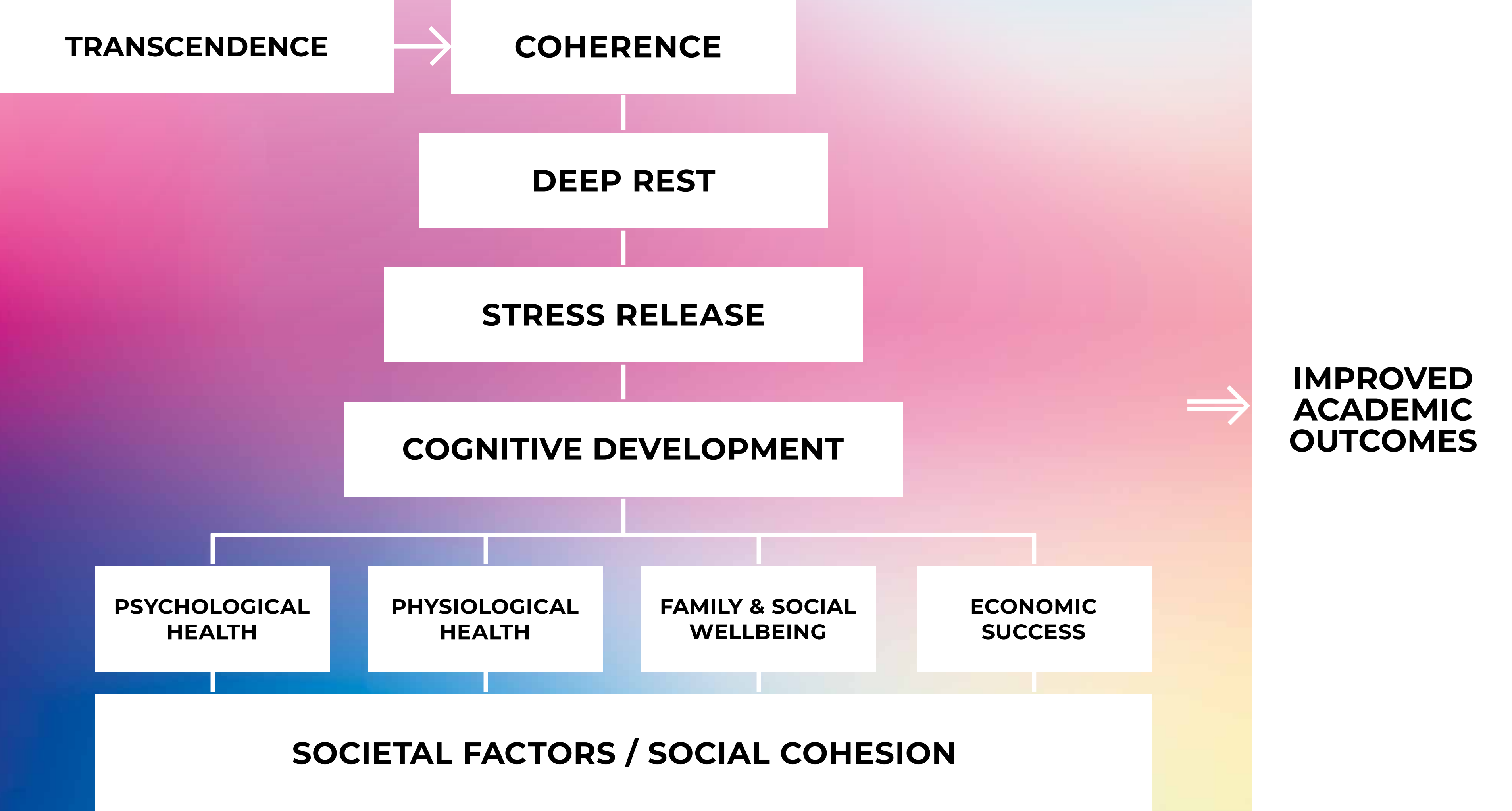


TABLE OF CONTENTS: BENEFITS FOR STUDENTS

Page No.	BENEFIT	EFFECT SIZE / STRENGTH OF CORRELATION
	COHERENCE	
18-30	Increased EEG Coherence	P<0,05 (Correlation with gyrification, increased activity in both hemispheres and meditation)
	DEEP REST	
31-35	Reduced physical and mental tiredness through deep rest; increased vitality	Rest 2 x greater than deepest sleep
	Improved sleep	Rest 2 x greater than deepest sleep
	STRESS RELEASE	
36-41	Relief from stress and stress-related problems	Decreased Cortisol Waking Response (p<0,02)
	COGNITIVE DEVELOPMENT	
42-52	Mobilisation of latent reserves in the brain	Neurological Efficiency r=0,6
	Increased orderliness in thinking and mental clarity	Field Independence -p<0,0001
		Focus of attention p<0,0001
		Decreased wavering of v p<0,001
		Mental Efficiency p<0,001
	Growth of practical intelligence	(p<0,001) less than 1 in 1000 chance it's wrong)
	Increased Mental Efficiency	p<1.0
	Increased intelligence	9-14 IQ point improvement over 5-year period

Page No.	PSYCHOLOGICAL FACTORS	
53-67	Increased self-concept, self confidence	Self Actualisation p=0,002
	Improved memory	P<0001
	Improved Creativity	r=0.71
	Enjoyment of school and desire to learn, happiness and improved mental well-being	Reported feelings of 'happiness' as a result of TM (p<0,0001)
	Increased self-actualisation	Self Actualisation p=0,002
	Improved ability to focus attention and broader comprehension	Field Independence p<0,0001
		Focus of attention p<0,001
		Breadth of Comprehension p<0,001
	FAMILY AND SOCIAL FACTORS	
82-87	Improved behaviour, better self discipline, more orderliness in the class-room	Absenteeism p<0,05
		Rule infraction p<0,03
		Suspension Days p<0,04
	Improved Moral Reasoning , moral development and integrity	r=0.63

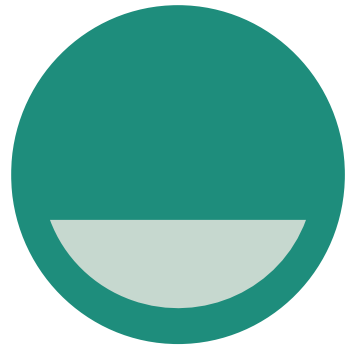
TABLE OF CONTENTS: BENEFITS FOR TEACHERS

Page No.	BENEFIT	EFFECT SIZE / STRENGTH OF CORRELATION
	DEEP REST	
31-35	Deep rest, increased energy and vitality, reduced tiredness	P<0,05 (Correlation with gyrification, increased activity in both hemispheres and meditation)
	STRESS RELEASE	
36-41	Reduced stress and anxiety	Rest 2 x greater than deepest sleep
		Rest 2 x greater than deepest sleep
	COGNITIVE DEVELOPMENT	
42-52	Improved Creativity	p =.001
	Improved Memory	p<0001
	Growth of practical intelligence	p<.0001
	PSYCHOLOGICAL FACTORS	
53-67	Improved mental well-being, improved mental health, reduced mental illness and reduced disease of the nervous system	Increased emotional stability p=0,005
		Improved self awareness p=0,01
	Help in reducing alcohol or drug dependency among teachers	Reduced days of alcohol use p=0,003
		1,5 to 8 times better than other treatments

Page No.	PSYCHOLOGICAL FACTORS	
68-81	Decreased physical illness and incidence of disease	Reduced mortality due to Cardiovascular issues of 48%
		87% reduction in cardiovascular disease prevalence
		55% reduction in cancer
		80% improvement in metabolism
		30% reduction in infectious diseases
	Reversal of the ageing process	S-T practitioners - 5 years younger
		L-T practitioners - 12 years younger
	Reduced Teacher Burnout	p<0,02
	FAMILY AND SOCIAL FACTORS	
82-87	Improved relationship with other teachers, school management. Improved relationships with students	Improved family relationships
		Improved capacity of warm interpersonal relationships
		Improved integration with the social environment
	ECONOMIC / WORKPLACE FACTORS	
87-90	More inner stability and reliability of teachers creating a healthy work environment	Moral Reasoning, IQ Emotional Stability p=0,005
		High self-esteem p=0,001
	Reduced absenteeism	90% reduction 10 months after introduction to the programme to a school in Alex (1997 pilot)

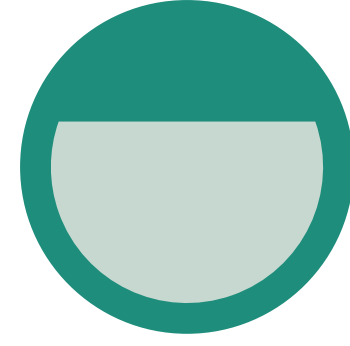
WHAT WE CAN EXPECT TO SEE WITH IMPLEMENTATION OVER TIME:

SUMMARY OF ACADEMIC BENEFITS FOR STUDENTS



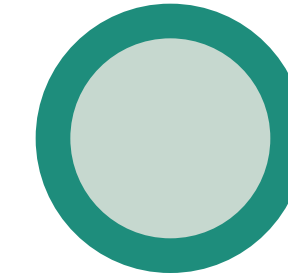
IN JUST A FEW DAYS

- Improved learning ability
- Greater co-operation between students
- Improved behaviour
- Less violence and disorder in classrooms and halls
- More focused classroom environment



WITHIN A FEW MONTHS

- Increased ability to focus and broad comprehension
- Increased intelligence
- Improved memory
- More creativity
- Increased tolerance
- Increased self-confidence
- Decreased anxiety
- Improved Psychosocial Outcomes



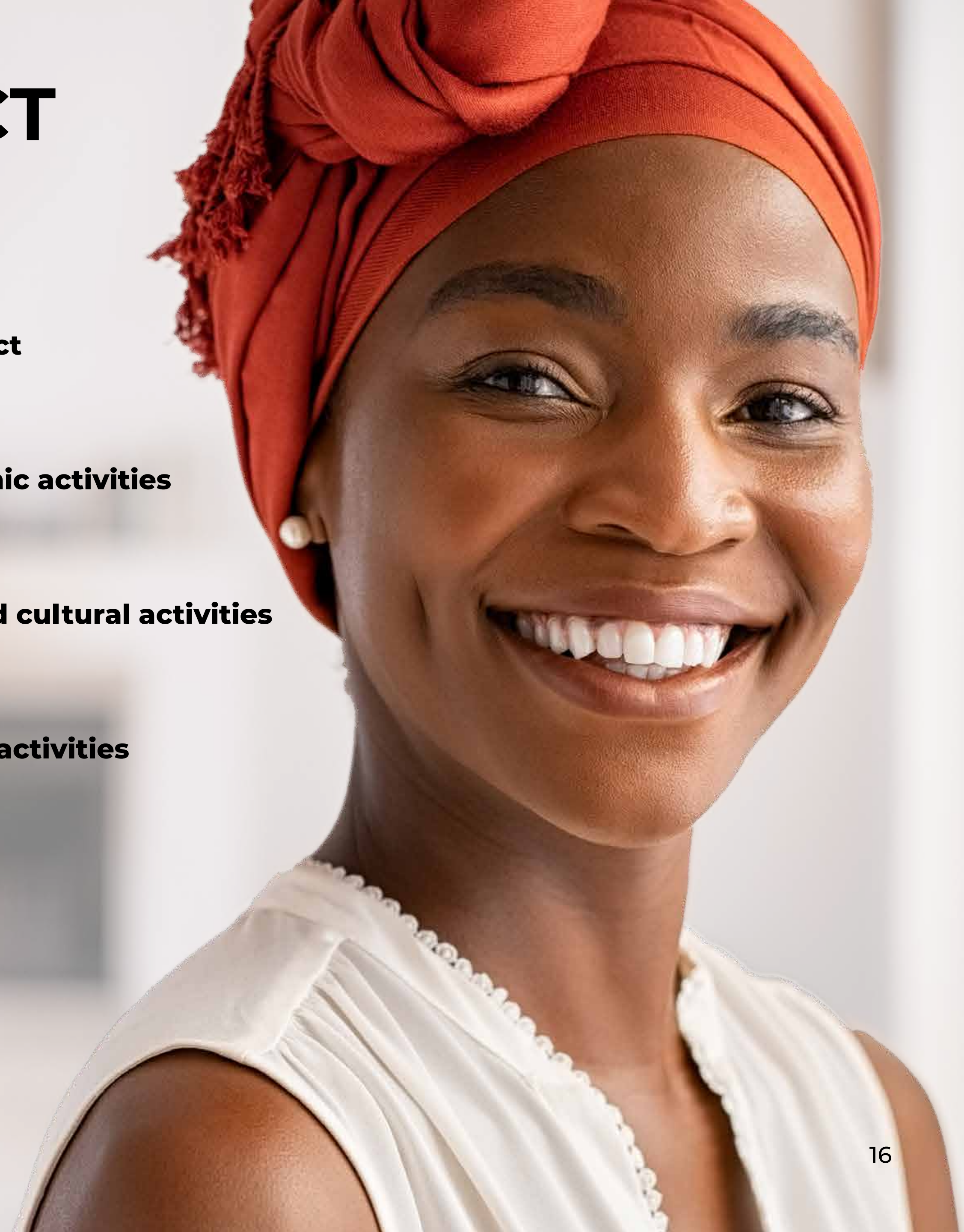
WITHIN A YEAR

- Improved marks (at least 10% improvement in aggregate within one year)
- Improved intellectual performance
- Increased creativity
- Improved moral reasoning
- Improved choice reaction time
- Reduced substance abuse



MEDIUM – LONG TERM IMPACT

- 1 **Improved academic performance - in aggregate and in every subject**
- 2 **All round improvements in performance - improvements in academic activities**
- 3 **All round improvements in performance - improvements in arts and cultural activities**
- 4 **All round improvements in performance - improvements in sports, activities**
- 5 **Reduced absenteeism and dropout**

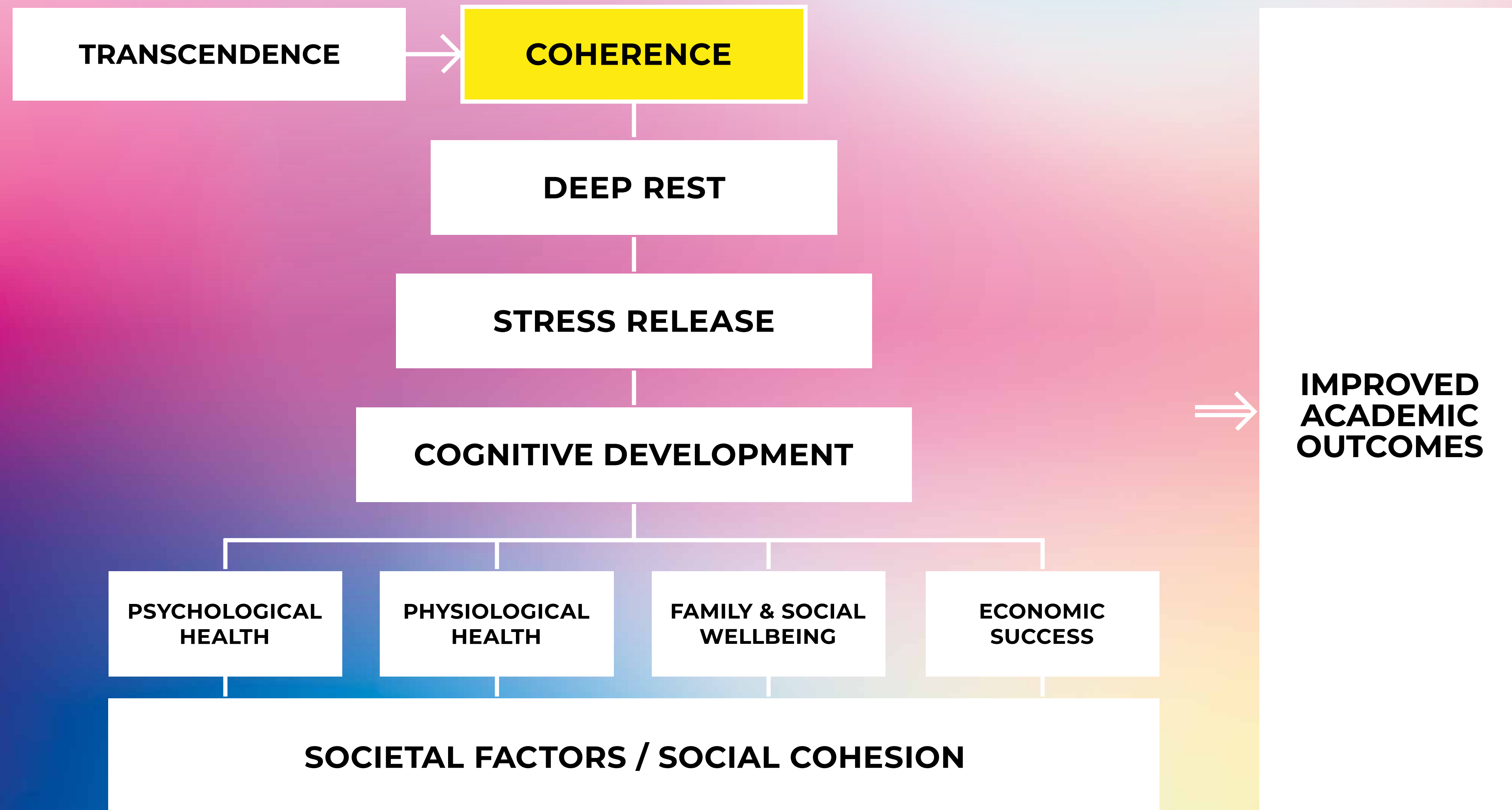


FOUR KEY META-ANALYSES: TRANSCENDENTAL MEDITATION

1. A meta-analysis published in American Psychologist reviewed 31 studies, and found that the Transcendental Meditation technique produces **more than twice the level of physiological rest** than is produced by simply sitting with eyes closed.
2. A meta-analysis published in the Journal of Clinical Psychology reviewed over 100 research findings, and found the Transcendental Meditation technique to **produce more than twice the reduction in trait anxiety** (i.e., chronic stress) than produced by any other meditation or relaxation technique.
3. A meta-analysis published in the Journal of Social Behavior and Personality showed the Transcendental Meditation program to increase self-actualisation **by three times as large an effect** as that of other forms of meditation or relaxation.
4. Another meta-analysis, published in Alcoholism Treatment Quarterly, showed the practice of the Transcendental Meditation programme result in a greater degree of reduction and more lasting reduction in consumption of alcohol, drugs, and cigarettes than other relaxation or preventive education programmes. The results shows that **alcohol consumption was reduced by 1,5 to 8 times more than other programmes.**

COHERENCE

MEDITATION AND INCREASED BRAIN ACTIVITY IN BOTH SIDES OF THE BRAIN



WHAT IS BRAIN COHERENCE?

A mathematical measure of brain connections across different areas of the brain

Measured by EEG (*Electroencephalography*)

“Coherence is a mathematical technique that quantifies the frequency and amplitude of the synchronicity of neuronal patterns of oscillating brain activity”.

Brain connectivity describes the networks of functional and anatomical connections across the brain. The functional network communications across the brain networks dependent on neuronal oscillations. Detection of the synchronous activation of neurons can be used to determine the wellbeing or integrity of the functional connectivity in the human brain networks. Well-connected highly synchronous functional activity can be measured by Electroencephalography (EEG) or Magnetoencephalography (MEG) and then analyzed with several types of mathematical algorithms. Coherence is one mathematical method that can be used to determine if two or more sensors, or brain regions, have similar neuronal oscillatory activity with each other.



WHAT DOES COHERENCE MEAN FOR DAILY BRAIN FUNCTIONING?



An EEG measurement identifies wavelengths—or frequencies—of brainwaves. During ordinary waking consciousness, EEG patterns are generally scattered, disorderly, and rapidly changing.



By contrast, as the mind settles into the practice of the Transcendental Meditation technique, **brainwaves tend to become rhythmic and orderly**—they fall into “phase”—and move synchronously over large areas in the frontal regions of the brain. This is called EEG coherence.



Higher coherence is associated with more integrated and effective thinking and behaviour, including **greater intelligence, creativity, learning ability, emotional stability, ethical and moral reasoning, self-confidence, and reduced anxiety.**

EMPIRICAL STUDIES ON COHERENCE AND RELATED SUBJECTS						
Specific Focus area of Study	EEG Phase Coherence, Pure Consciousness, Creativity, and Tm-Sidhi Experiences	Short-Term Longitudinal Effects of the Transcendental Meditation Technique on EEG Power and Coherence	EEG coherence during the Transcendental Meditation technique	Cross-sectional and longitudinal study of effects of transcendental meditation practice on interhemispheric frontal asymmetry and frontal coherence	Patterns of EEG coherence, power, and contingent negative variation characterize the integration of transcendental and waking states	The Effects of the Transcendental Mediation Technique and Progressive Muscle Relaxation on Eeg Coherence, Stress Reactivity, and Mental Health in Black Adults
Reference	David W. Orme-Johnson & Christopher T. Haynes (1981) EEG Phase Coherence, Pure Consciousness, Creativity, and Tm—Sidhi Experiences, International Journal of Neuroscience, 13:4, 211-217, DOI: 10.3109/00207458108985804	Michael C. Dillbeck & Edward C. Bronson (1981) Short-Term Longitudinal Effects of the Transcendental Meditation Technique on EEG Power and Coherence, International Journal of Neuroscience, 14:3-4, 147-151, DOI: 10.3109/00207458108985827	Levine, P. H.; Hebert, J. R.; Haynes, C. T.; and Strobel, U. EEG coherence during the Transcendental Meditation technique. Psychophysiology Laboratory, Centre for the Study of Higher States of Consciousness, Maharishi European Research University, Switzerland, 1975.	Travis, F., & Arenander, A. (2006). Cross-sectional and longitudinal study of effects of transcendental meditation practice on interhemispheric frontal asymmetry and frontal coherence. The International journal of neuroscience, 116(12), 1519–1538. https://doi.org/10.1080/00207450600575482	Travis, F., Tecce, J., Arenander, A., & Wallace, R. K. (2002). Patterns of EEG coherence, power, and contingent negative variation characterize the integration of transcendental and waking states. Biological psychology, 61(3), 293–319. https://doi.org/10.1016/s0301-0511(02)00048-0	Carolyn Gaylord, David Orme-Johnson & Frederick Travis (1989) The Effects of the Transcendental Mediation Technique and Progressive Muscle Relaxation on Eeg Coherence, Stress Reactivity, and Mental Health in Black Adults, International Journal of Neuroscience, 46:1-2, 77-86, DOI: 10.3109/00207458908991618
URL	https://www.tandfonline.com/doi/abs/10.3109/00207458108985804	https://www.tandfonline.com/doi/abs/10.3109/00207458108985827	http://www.sante-conscience.fr/medias/hayn1976picoll1-21.pdf 3	https://www.tandfonline.com/doi/abs/10.1080/00207450600575482?journalCode=ines20	https://brainresearchinstitute.org/research/PatternsEEGcoherence.pdf https://www.sciencedirect.com/science/article/abs/pii/S0301051102000480?via%3Dihub	https://www.tandfonline.com/doi/abs/10.3109/00207458908991618?src=recsys
Journal	International Journal of Neuroscience	International Journal of Neuroscience	Physiology Laboratory, Centre for Study of Higher State of Consciousness, Maharishi European Research University	International Journal of Neuroscience	Biological Psychology	International Journal of Neuroscience
Effect Size	Higher Alpha coherence p=0,052, creativity (p=0,011)	After the two-week TM technique period, subjects showed a significant increase in frontal alpha coherence above a 0.95 threshold	P<0,05	*not available	Increased coherence (p= 0,001)	Reduced Neuroticism p<0,032 ; increased mental health (p<0,036); decreased anxiety (p<0,0006)
Type of test (statistical)	Torrance test	Longitudinal Study	Torrance Test of Creativity	EEG	EEG	Psychometric measures of mental health (Tennessee Self-Concept Empirical Scales and Spielberger State-Trait Anxiety Inventory) and IQ
Type of Study (RCT, meta study, etc)	Multivariate t-test			*RCT *longitudinal study	RCT	Longitudinal Study

TM INCREASES BRAIN COHERENCE:

THIS LEADS TO A RANGE OF OTHER KEY OUTCOMES AND BENEFITS

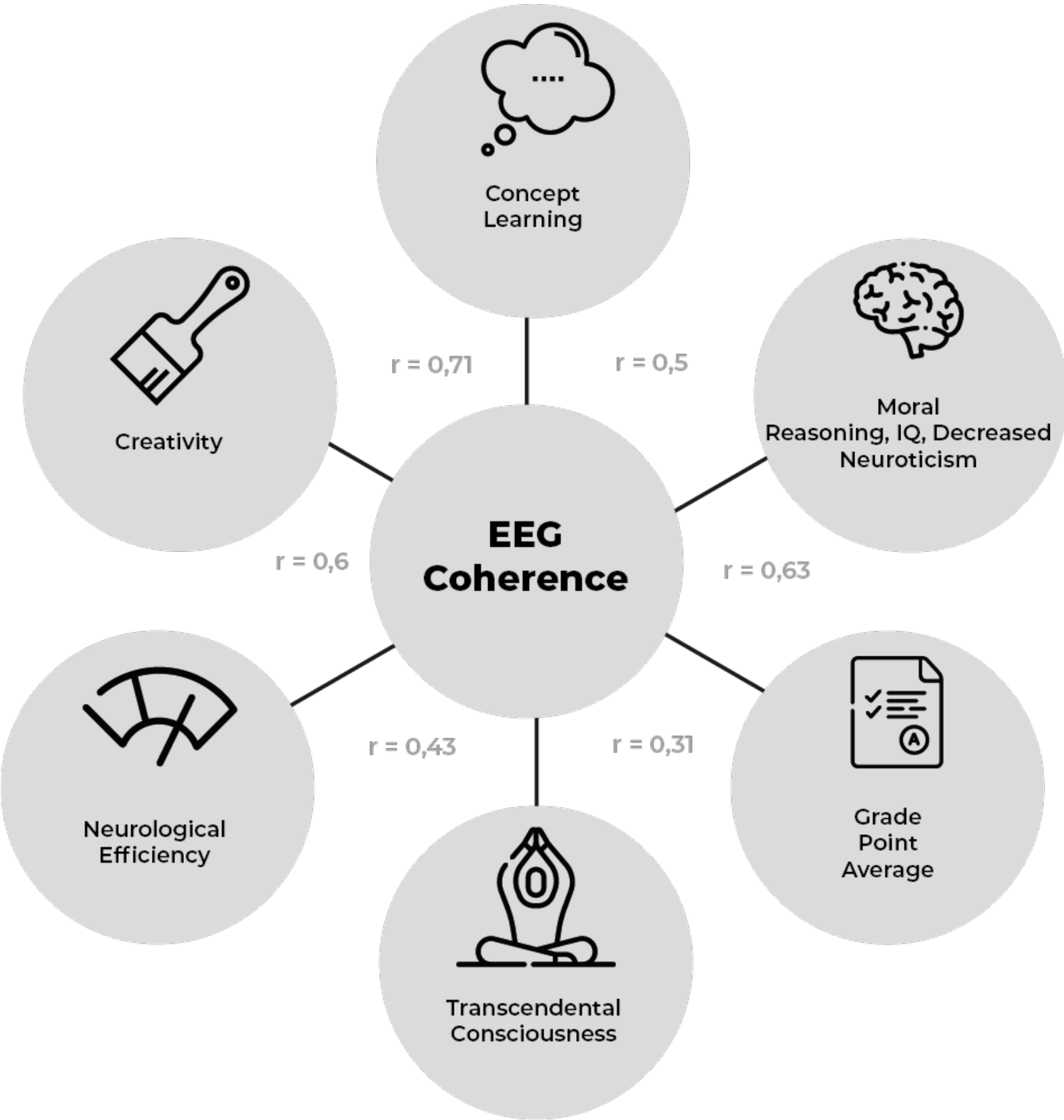
Several studies have shown the effect of TM in increasing EEG coherence which in turn is significantly correlated with the ability to learn new concepts, improved verbal and analytical thinking, increased intelligence and increased neurological efficiency.

Applied to SA Education System:

- Improved Teacher Confidence
- Decreased anxiety/neuroticism
- Increased Learner Outcomes
- Greater Acquisition of C21 skills (creativity, ingenuity)

Effect	EEG Phase Coherence, Pure Consciousness, Creativity, and Tm—Sidhi Experiences
Reference	David W. Orme-Johnson & Christopher T. Haynes (1981) EEG Phase Coherence, Pure Consciousness, Creativity, and Tm—Sidhi Experiences, International Journal of Neuroscience, 13:4, 211-217, DOI: 10.3109/00207458108985804
URL	https://www.tandfonline.com/doi/abs/10.3109/00207458108985804
Journal	International Journal of Neuroscience
Effect Size	Higher Alpha coherence p=0,052, creativity (p=0,011)
Type of Test	Torrance test

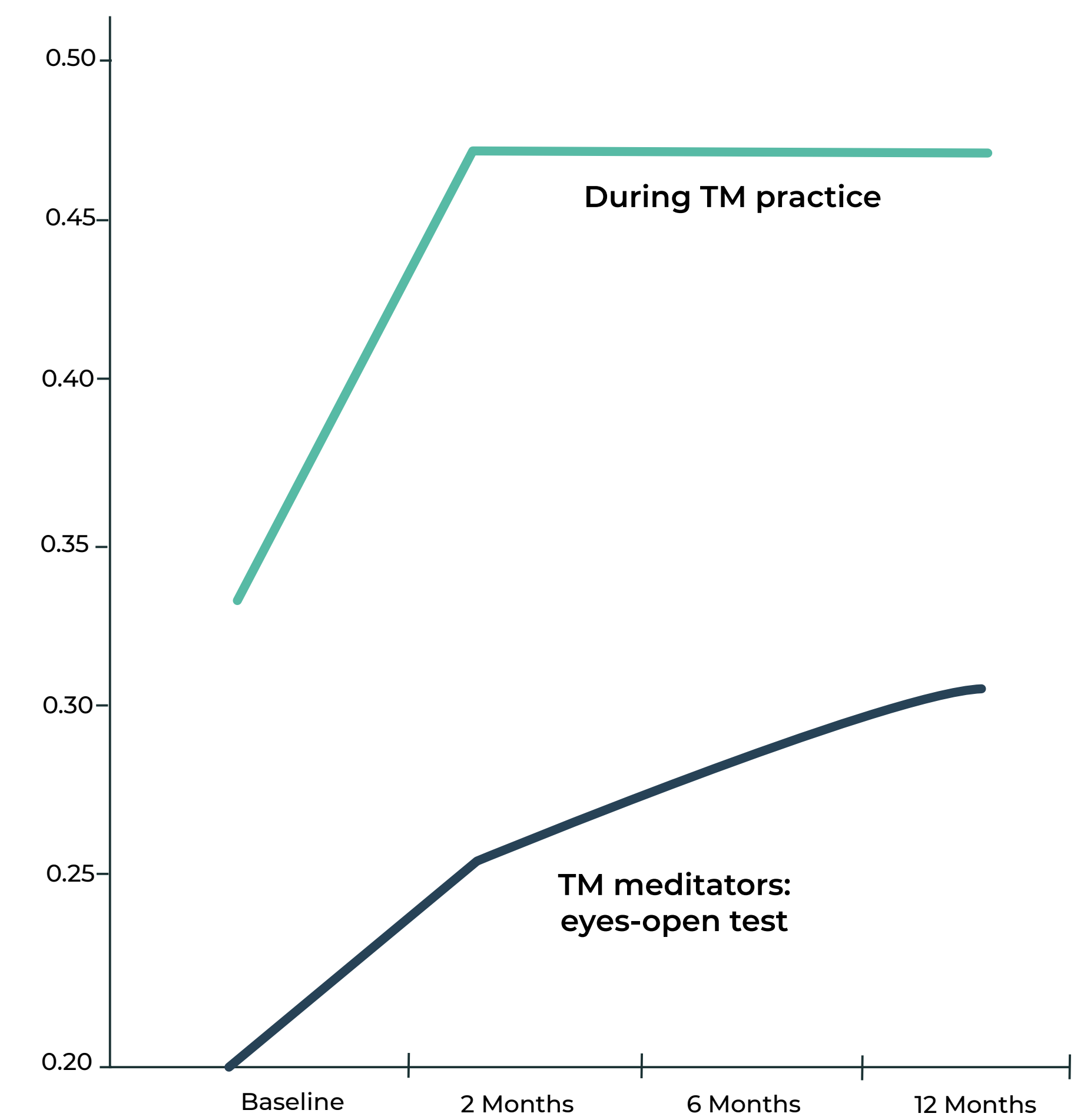
Type of Study Multivariate t-test



An r-value shows the strength and direction of the statistical correlation (where $r=1$ is a perfect linear positive correlation, and $r=-1$ is a perfect linear negative correlation)

FRONTAL BRAIN COHERENCE

THROUGH THE TRANSCENDENTAL MEDITATION PROGRAM

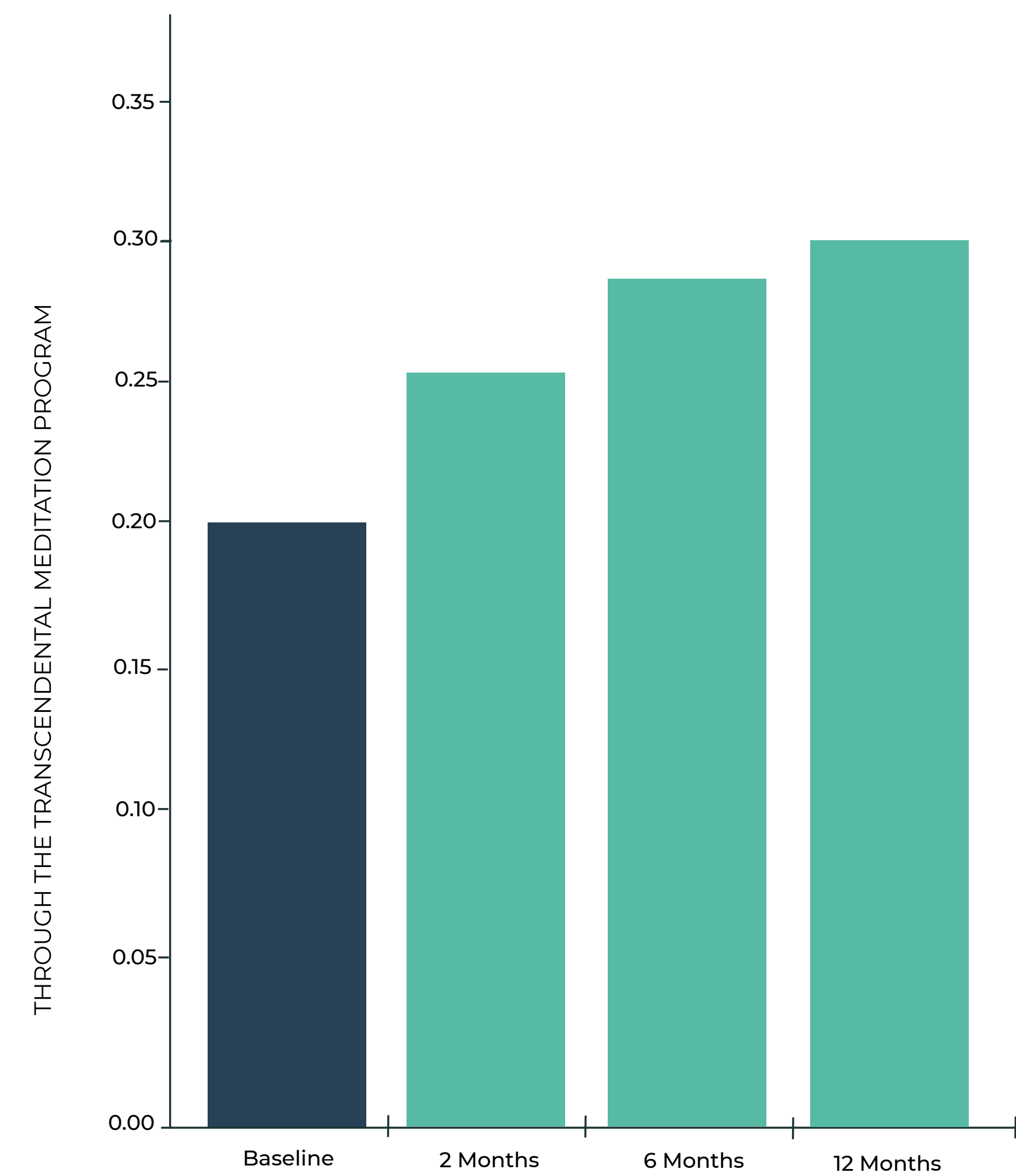


Effect	Short-Term Longitudinal Effects of the Transcendental Meditation Technique on EEG Power and Coherence
Reference	Michael C. Dillbeck & Edward C. Bronson (1981) Short-Term Longitudinal Effects of the Transcendental Meditation Technique on EEG Power and Coherence, International Journal of Neuroscience, 14:3-4, 147-151, DOI: 10.3109/00207458108985827
URL	https://www.tandfonline.com/doi/abs/10.3109/00207458108985827
Journal	International Journal of Neuroscience
Effect Size	After the two-week TM technique period, subjects showed a significant increase in frontal alpha coherence above a 0.95 threshold
Type of Test	EEG

Type of Study Longitudinal Study

CORRELATES OF INCREASED EEG COHERENCE

THROUGH THE TRANSCENDENTAL MEDITATION PROGRAM



Higher levels of EEG coherence measured during the practice of the Transcendental Meditation technique are significantly correlated with:

- increased fluency of verbal creativity,
- increased efficiency in learning new concepts,
- more principled moral reasoning,
- higher verbal IQ,
- decreased neuroticism,
- higher academic achievement,
- clearer experiences of Transcendental Consciousness, and increased neurological efficiency, as measured by faster recovery of the H-reflex.

Effect	Frontal EEG Coherence, H-Reflex Recovery, Concept Learning, and the TM-Sidhi Program
Reference	Michael C. Dillbeck, David W. Orme-johnson & R. Keith Wallace (1981) Frontal EEG Coherence, H-Reflex Recovery, Concept Learning, and the TM-Sidhi Program, International Journal of Neuroscience, 15:3, 151-157, DOI: 10.3109/00207458108985908
URL	https://www.tandfonline.com/doi/abs/10.3109/00207458108985908
Journal	International Journal of Neuroscience
Effect Size	Concept Learning (R=0,5)
Type of Test	Assessment of concept learning, EEG, H-reflex recovery
Type of Study	Longitudinal Study

KEY FINDING:

TM HAS BEEN SHOWN TO INCREASE THE ORDERLINESS IN THE BRAIN SIGNIFICANTLY OVER TIME. THIS IS CORRELATED WITH INCREASED INTELLIGENCE.

These charts show how EEG Coherence increases between and within the cerebral hemispheres during the Transcendental Meditation technique.

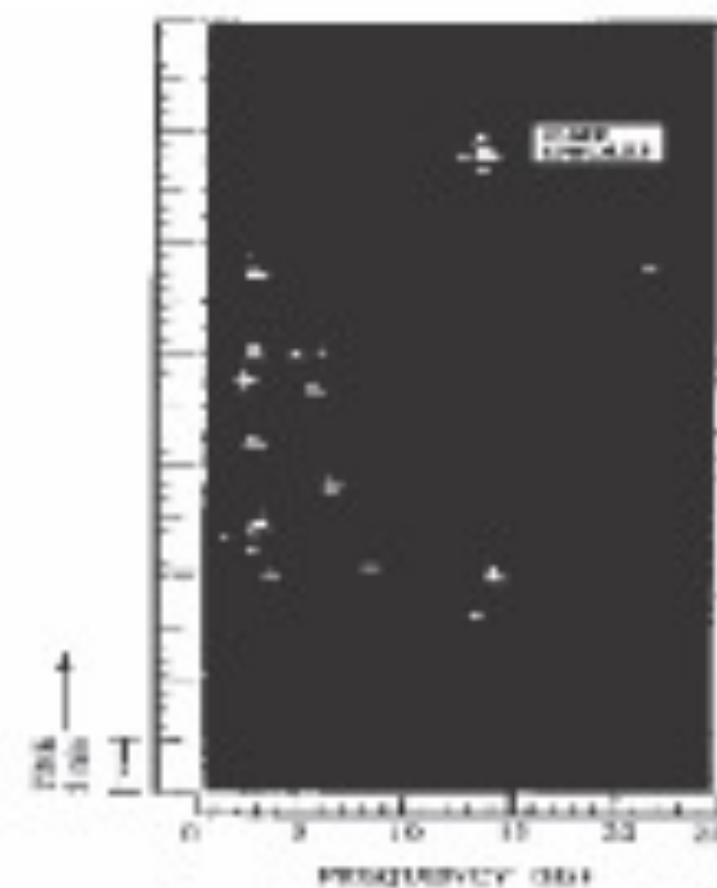
EEG Coherence increases in all areas of the brain when transcendental consciousness is being subjectively experienced and the breath rate slows.

In addition, EEG coherence increases even more during the advanced TM-Sidhi programme (chart not shown) and it increases longitudinally over time as a result of the practice of Transcendental Meditation.”

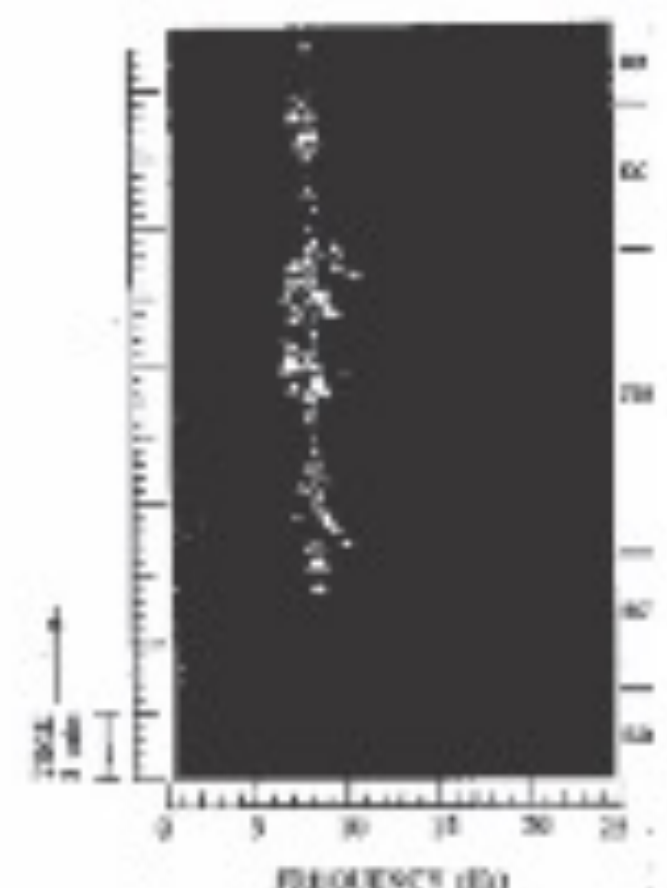
INCREASING COHERENCE THE DEVELOPMENT OF THE BRAIN OVER TIME

An increase in brain coherence in the individual over time. EEG. Alpha, Beta, Theta, Delta

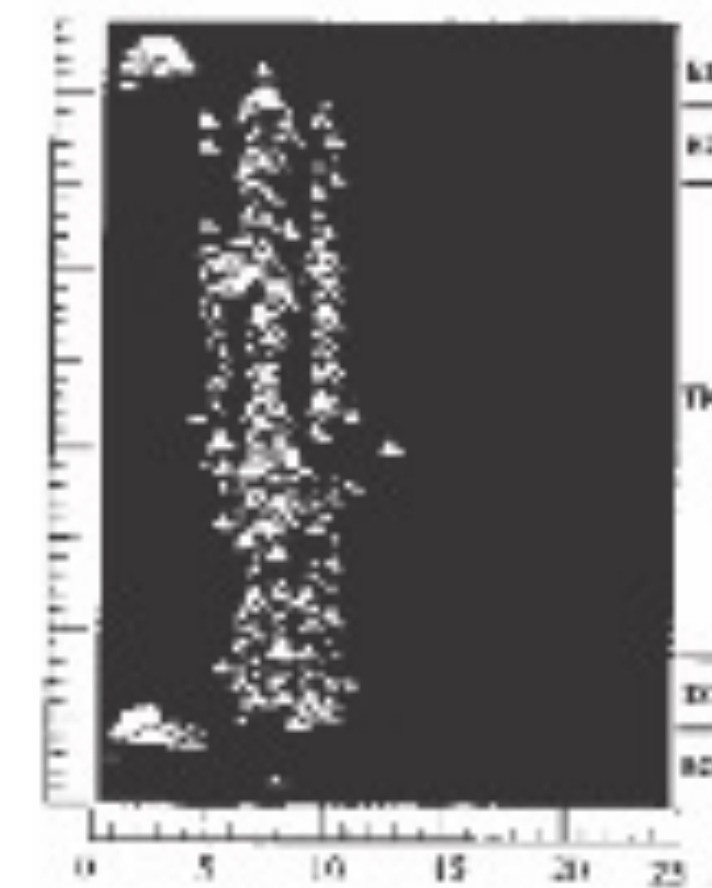
Non-Meditator



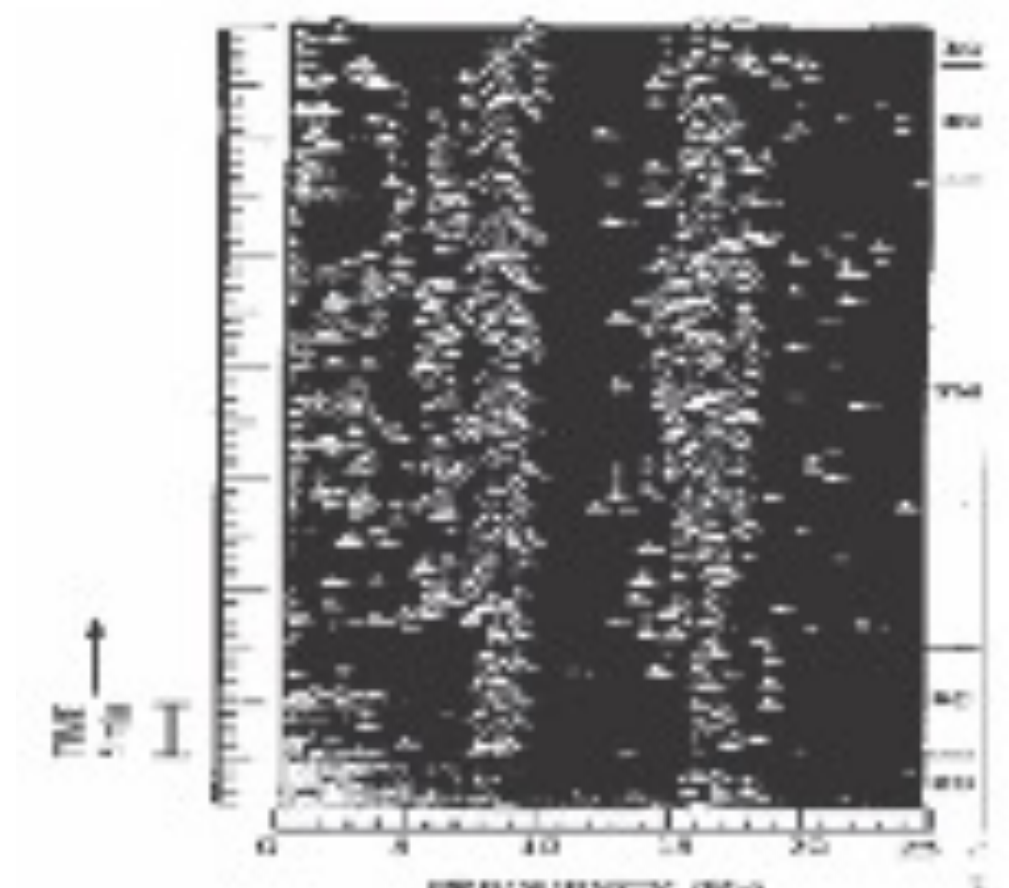
4 Month Meditation



2 Month Meditation



15 Month Meditation



“Meditation more than anything in my life was the biggest ingredient of whatever success I’ve had” – Ray Dalio

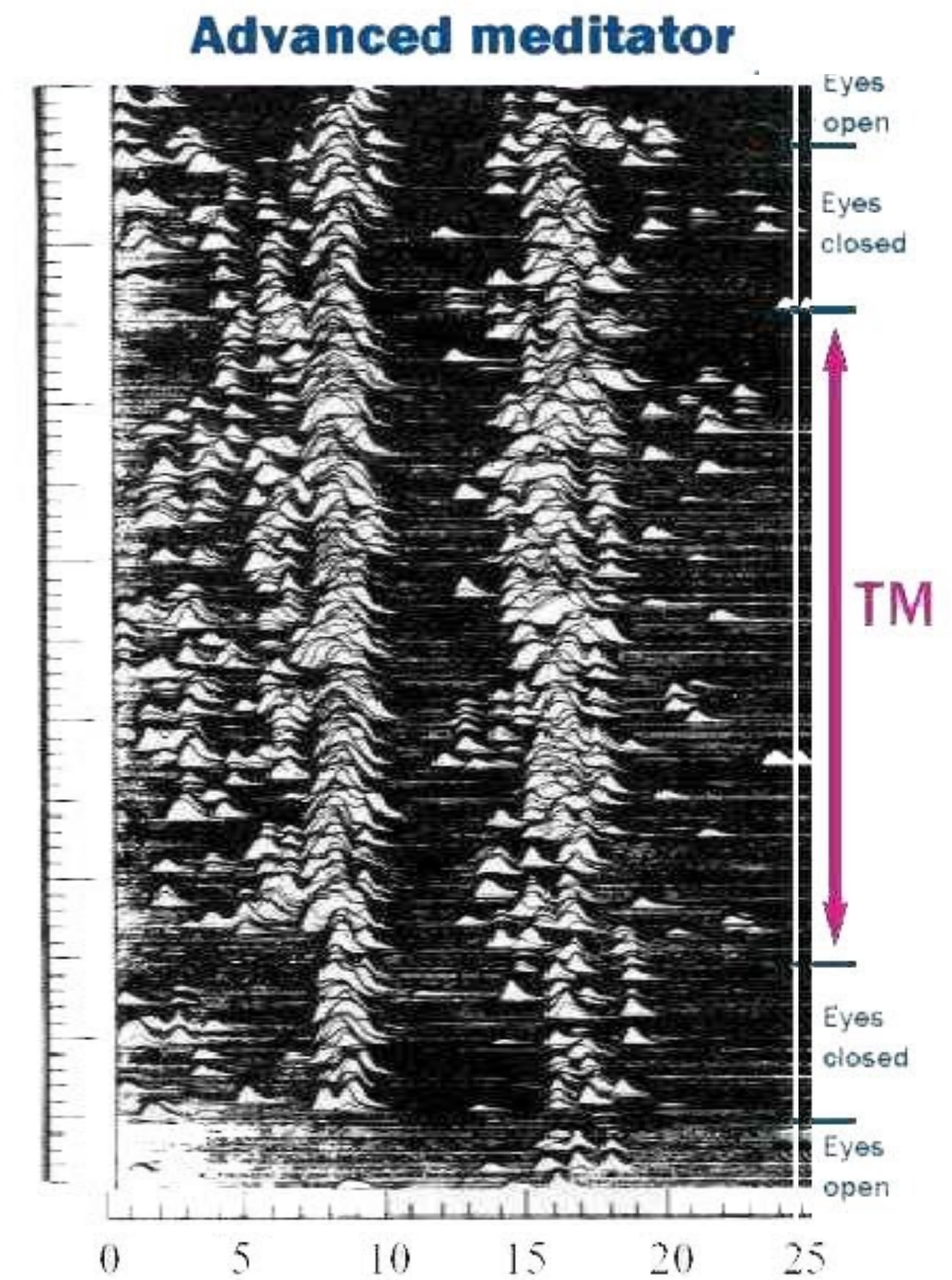
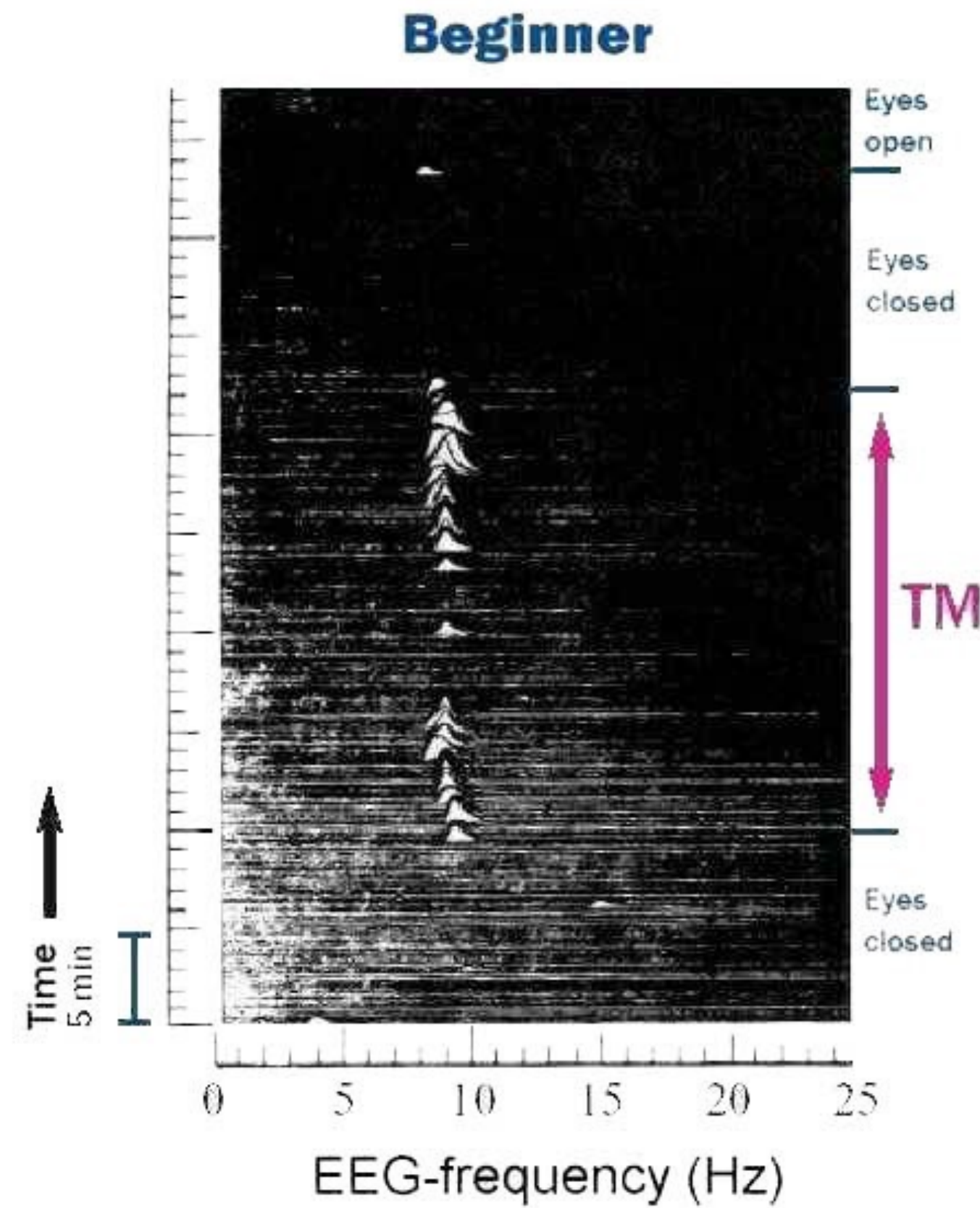
Notice how both the Left and Right Hemispheres of the Brain light up in advanced meditators.

TM develops parts of the brain that are not normally used and develops the connections in the brain so that the student uses far more of his or her latent potential.

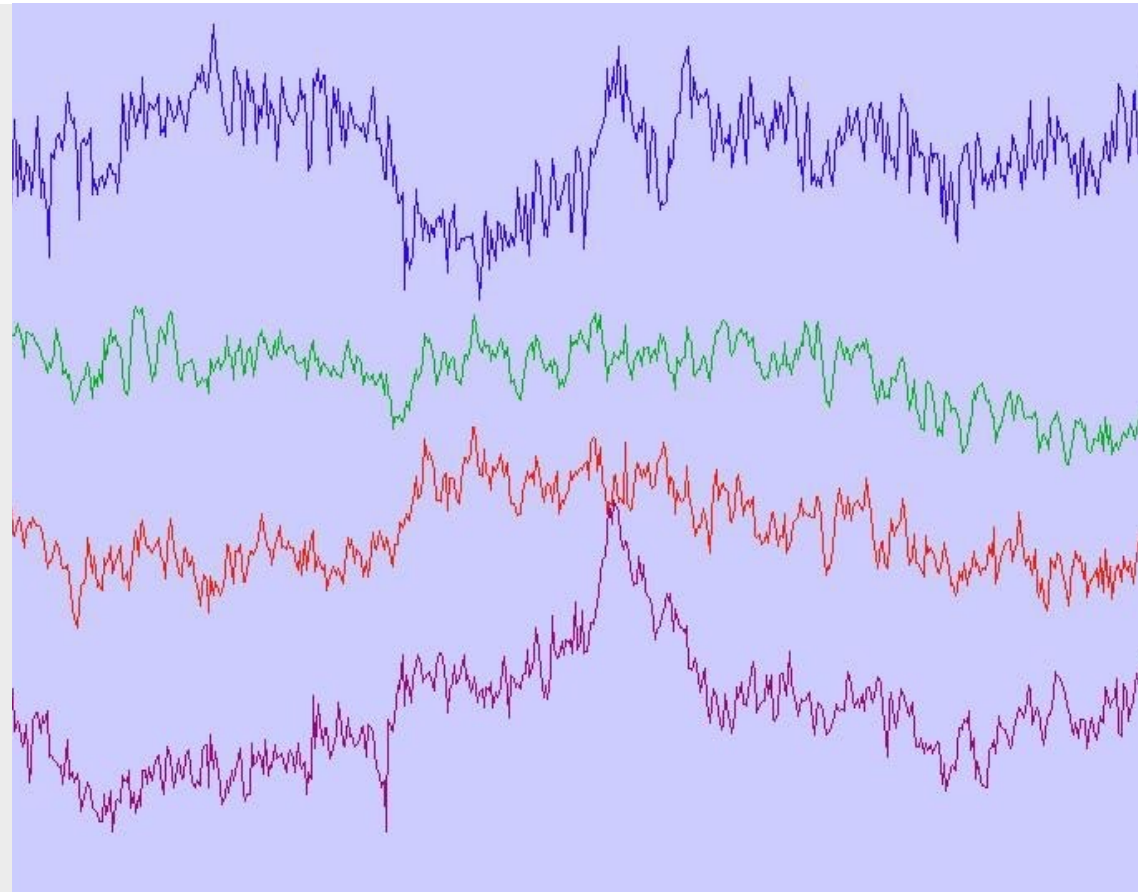
Mobilization of Latent Reserves in The Brain - Perhaps the most exciting finding!

This is also linked to:

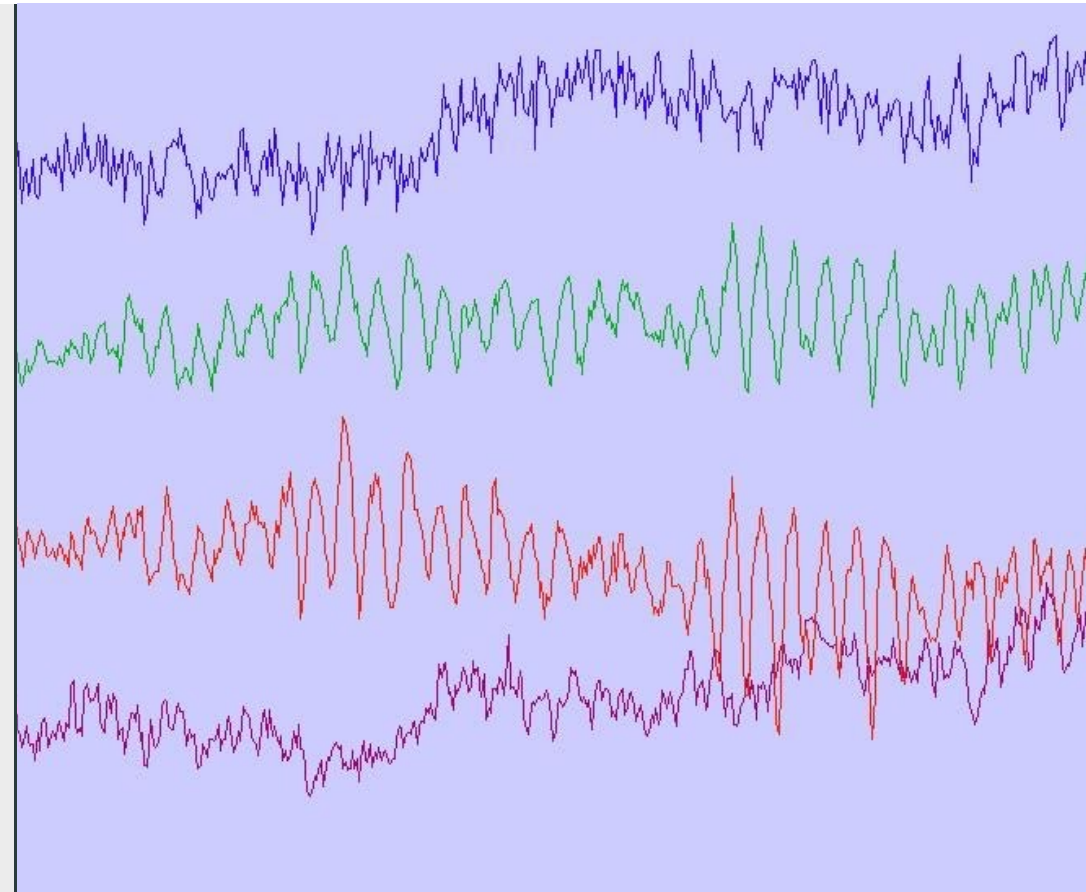
- Increased brain functioning
- Increased creativity



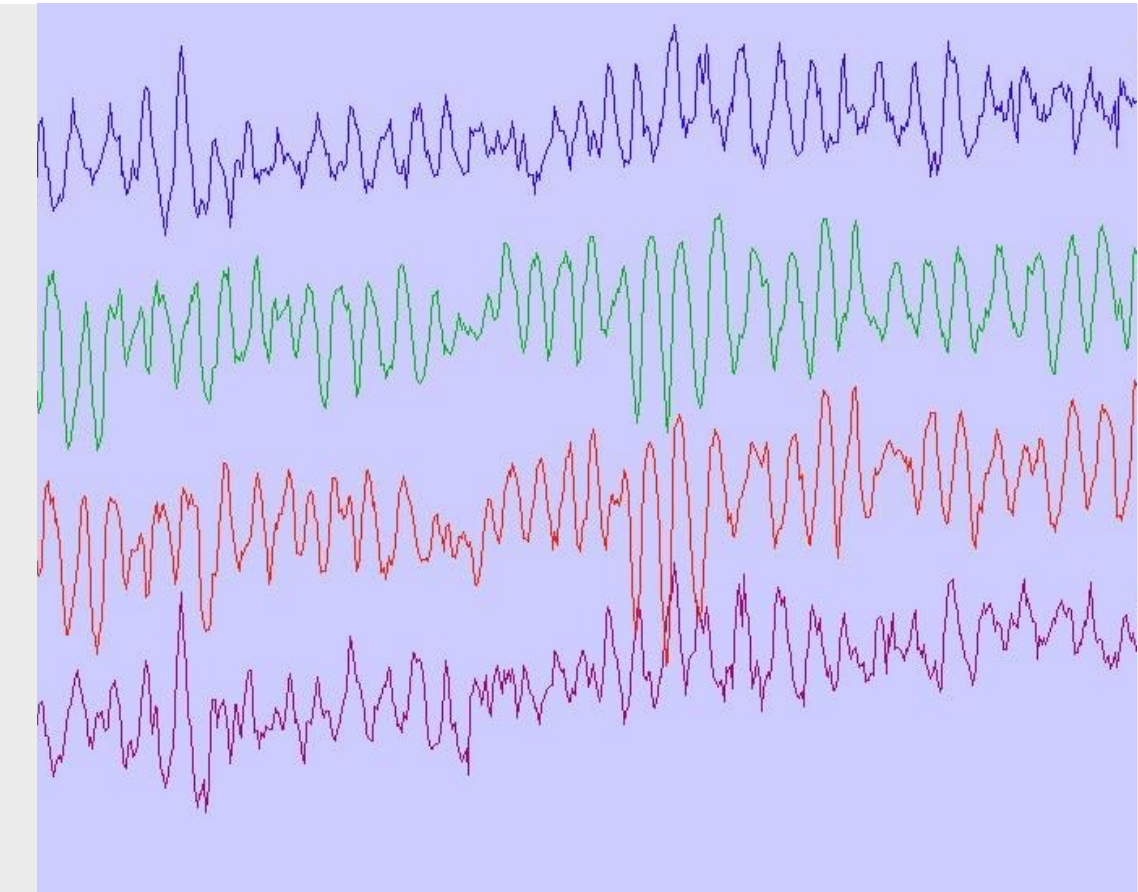
BRAIN ACTIVITY IN DIFFERENT PARTS OF THE BRAIN RECORDED DURING DIFFERENT STATES.



EYES OPEN



EYES CLOSED

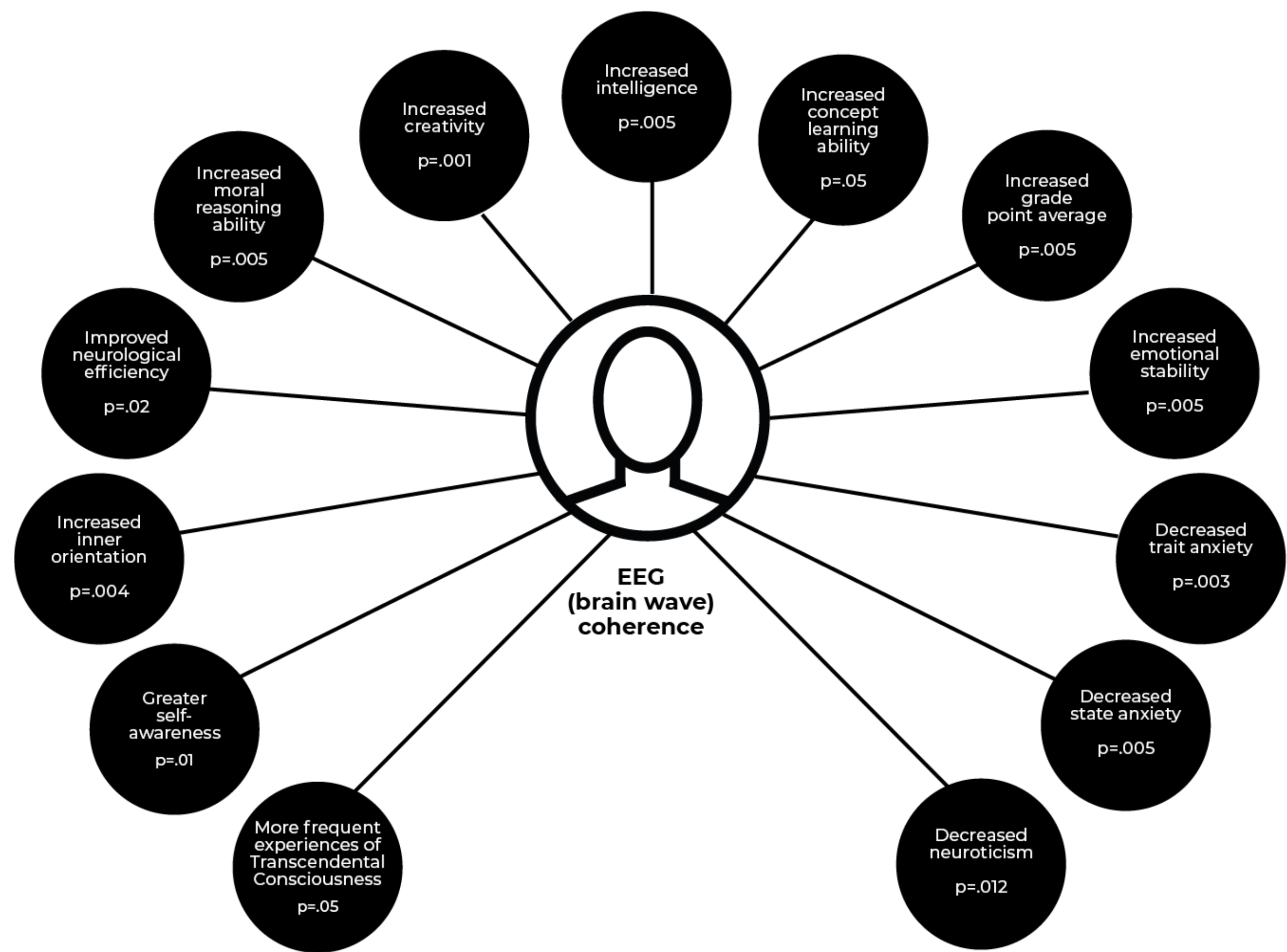


TRANSCENDENTAL
MEDITATION

Key

- – prefrontal cortex
- – occipital lobe

BENEFITS OF COHERENT BRAIN FUNCTIONING



A p-value is the probability of the result being chance or coincidence $P < 0,001$ means that there is less than 1 in a 1000 chance that the result showing the correlation is false.

Coherent brain functioning has been empirically shown to have an effect in a multitude of areas relating to the more effective functioning of the Human brain.

D. W. Orme-Johnson, Haynes C. T. "EEG phase coherence, pure consciousness, creativity and TM-Sidhi experiences." International Journal of Neuroscience 13 (1981): 211-217.
F. T. Travis, Arenander A. "Cross-sectional and longitudinal study of effects of Transcendental Meditation practice on interhemispheric frontal asymmetry and frontal coherence." International Journal of Neuroscience 116, no. 12 (2006): 1519-1538.
Nidich, S. I., Ryncarz, R. A., Abrams, A. I., Orme-Johnson, D. W., & Wallace, R. K. (1983). Kohlbergian moral perspective responses, EEG coherence, and the Transcendental Meditation and TM-Sidhi program Journal of Moral Education, 12(3), 166-173.

COHERENCE IMPROVES ACADEMIC OUTCOMES

- Greater brain-wave coherence, along with the many other physiological changes produced by the TM technique, suggests a unique style of neurophysiological functioning during the practice – a state of restful alertness.
- EEG coherence has been found to be correlated with higher levels of creativity, intelligence, moral reasoning, and neuromuscular efficiency, and with experiences of higher states of consciousness.
- These findings support the interpretation that the increased EEG coherence produced by the TM technique and TM- Sidhi programme indicates optimisation of brain functioning.
- This interpretation is also consistent with research demonstrating that TM improves cognitive functioning over a wide range of measures of mental ability.

References:

- International Journal of Neuroscience 13 (1981):211-217
- International Journal of Neuroscience 15 (1981):151-157
- International Journal of Neuroscience 116 (2006):1519-38
- Journal of Moral Education 12, no. 3 (1983): 166-73
- P.Levine, ""The Coherence Spectral Array (COSPAR) and its application to the study of Spatial Ordering in the EEG," "Proceedings of the San Diego Biochemical Symposium 15 (1976)

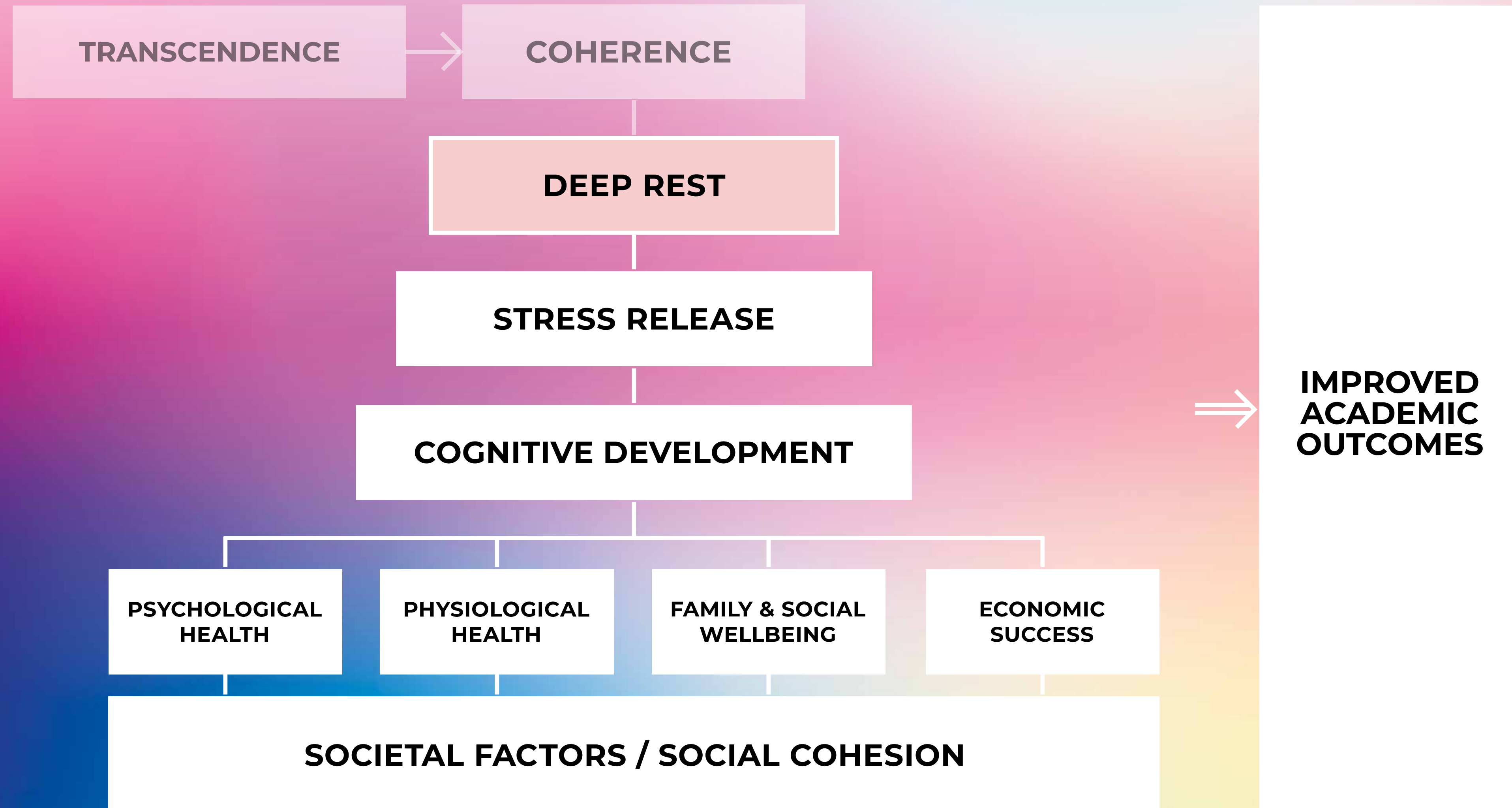


A p-value is the probability of the result being chance or coincidence. P=0,002 means that there is a 1 in 2 000 chance that the result is coincidence. The probability that the results are random is between 0,1% and 5%.



DEEP REST

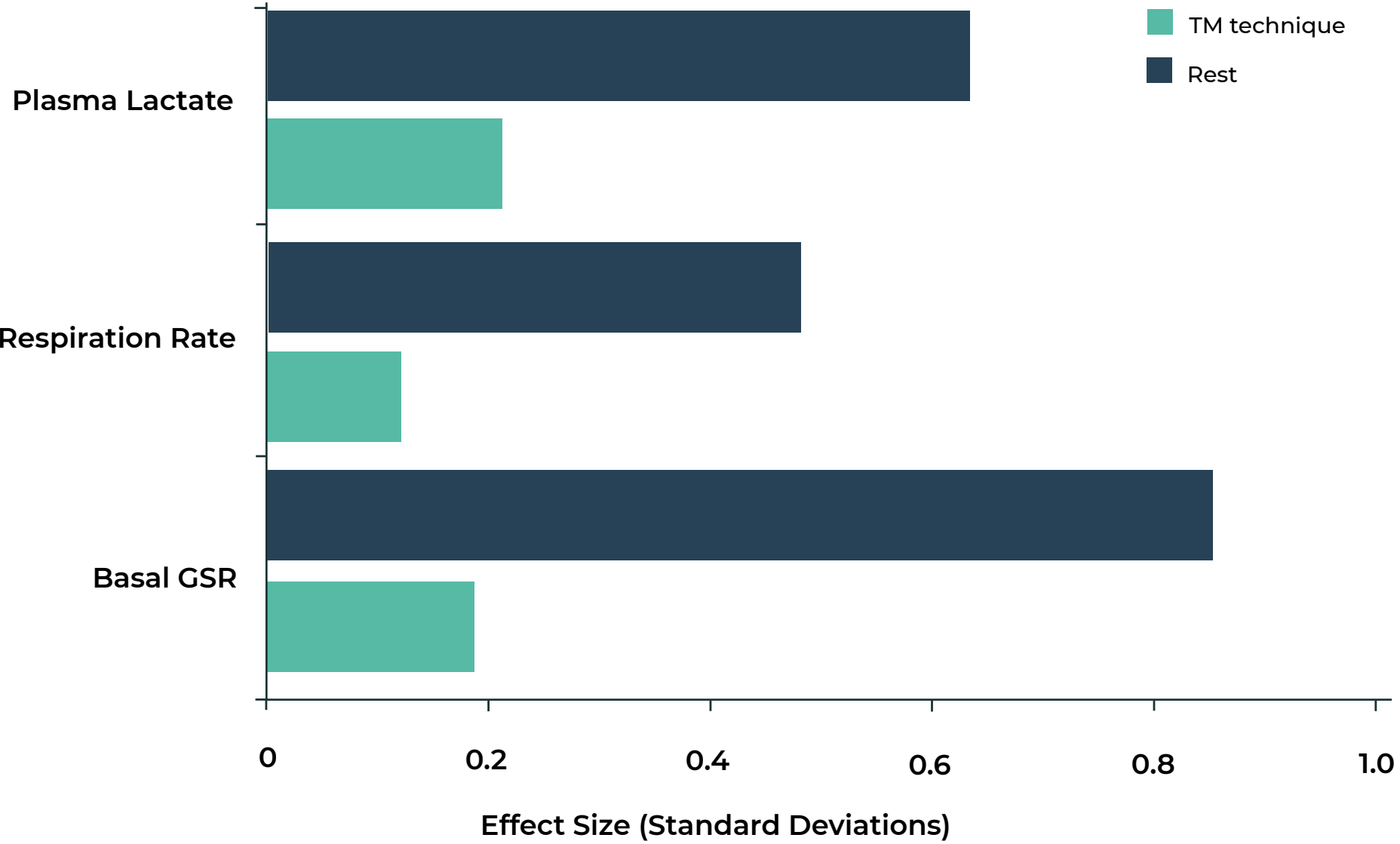
REST 2 x GREATER THAN DEEPEST SLEEP



REST 2 x GREATER THAN THE DEEPEST SLEEP STATE

COHERENCE IS LINKED TO A STATE OF DEEP REST AND RELAXATION WHICH HAS THERAPEUTIC BENEFITS (MENTAL AND PHYSICAL)

INCREASED PHYSIOLOGICAL RELAXATION
Meta-analysis of 32 studies



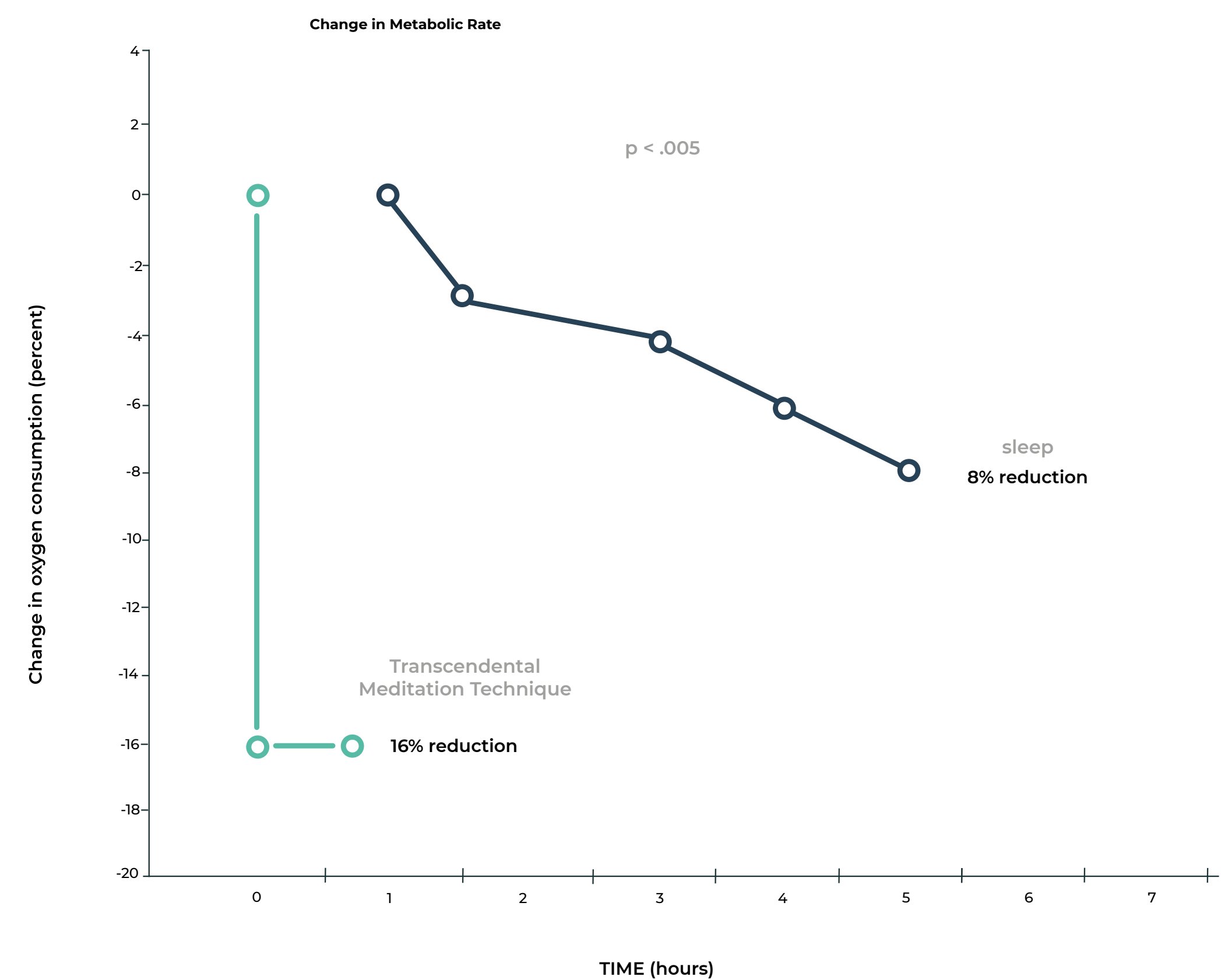
Reference: Dilbeck, M., and Orme-Johnson, D. (1987). American Psychologist, 42, 879-881.

DEEP REST	
Effect	Reduced physical and mental tiredness through deep rest; increased vitality A unique state of deep rest during
Reference	Dillbeck, M. C., & Orme-Johnson, D. W. (1987). Physiological differences between transcendental meditation and rest. American Psychologist, 42(9), 879–881. https://doi.org/10.1037/0003-066X.42.9.879
URL	https://psycnet.apa.org/doiLanding?doi=10.1037%2F0003-066X.42.9.879
Journal	American Psychologist
p-value	p<0.05
Type of test	Cochran-Mantel-Haenszel method Meta-Analysis

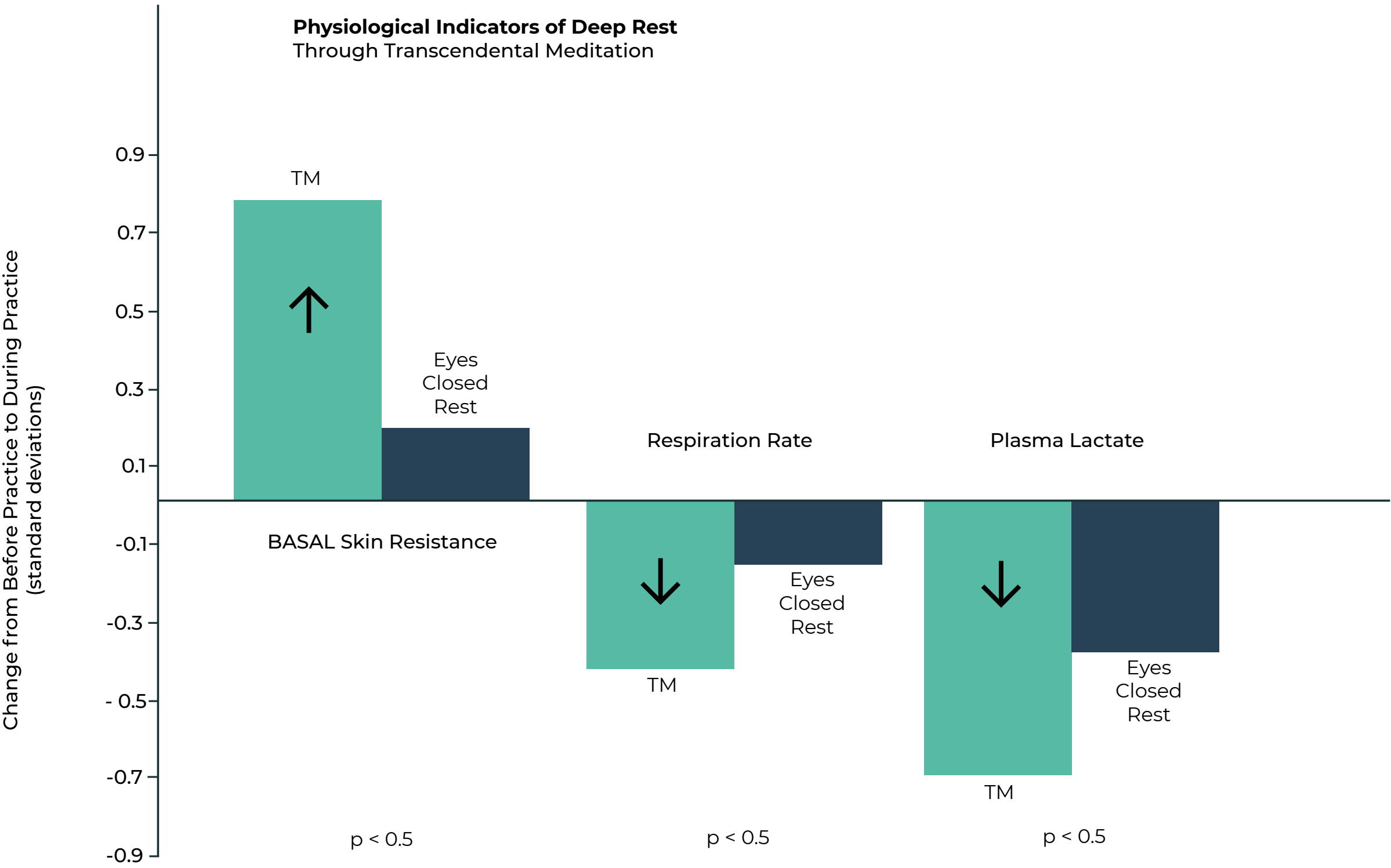
A STATE OF DEEP REST

REST 2 x GREATER THAN THE DEEPEST SLEEP STATE

During the practice of TM the student obtains a level of rest almost twice as deep as that of sleep. The decrease in total oxygen consumption during the Transcendental Meditation technique indicates a unique state of deep rest



Effect	Reduced physical and mental tiredness through deep rest; increased vitality
Reference	Robert Keith Wallace and Herbert Benson, "The Physiology of Meditation", Scientific American 226, No. 2 (U.S.A.: 1972): 84-90
URL	https://www.scientificamerican.com/article/the-physiology-of-meditation/
Journal	Scientific American
Effect Size	Reduction in oxygen consumption double that of sleep - rest deeper than sleep
Type of Test	*various
Type of Study	RCT



Effect	Rest
Reference	Wallace R. K. (1970). Physiological effects of transcendental meditation. Science (New York, N.Y.), 167(3926), 1751–1754. https://doi.org/10.1126/science.167.3926.1751
URL	https://pubmed.ncbi.nlm.nih.gov/5416544/
Journal	Science
Effect Size	X2 deeper than sleep; Reduced Basal Skin Resistance p<0,05; Respiration rate p<0,05; Plasma lactate p<0,05
Type of Test	Measuring heart rate, skin resistance and electroencephalograph measurements
Type of Study	RCT

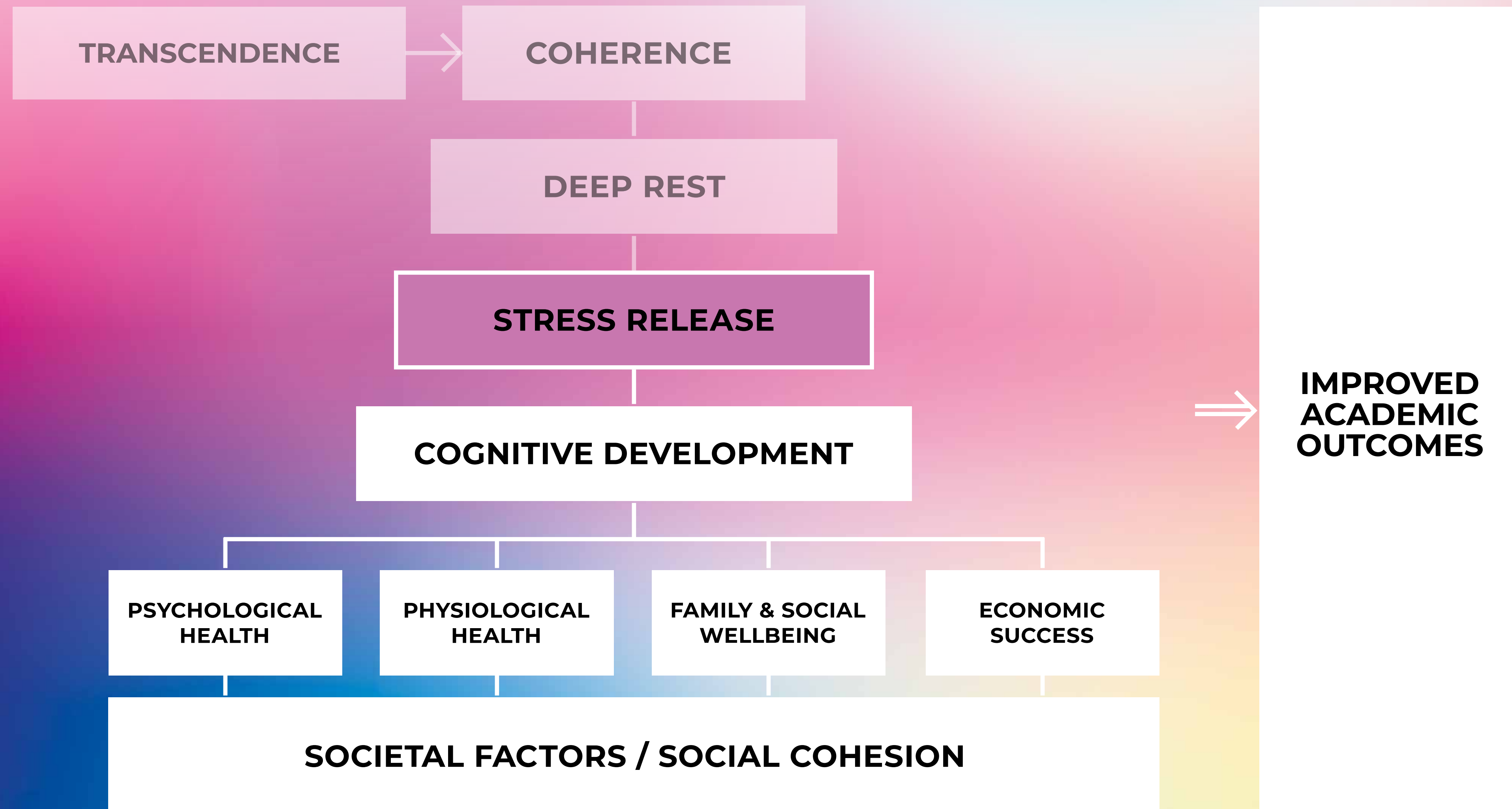
A meta-analysis (used for drawing objective conclusions from large bodies of research) of published research on physiological changes during the Transcendental Meditation technique - 31 studies in all – found that the Transcendental Meditation technique produced a significant decrease in basal skin conductance compared to eyes-closed rest, indicating profound relaxation.

Deep rest and relaxation were also indicated by greater decreases in respiration rates and plasma lactate levels compared to ordinary rest. These physiological changes occur spontaneously as the mind effortlessly settles to the state of restful alertness, Transcendental Consciousness. Meta-analysis is the preferred scientific procedure for drawing definitive conclusions from large bodies of research.

Physiological Relaxation and Deep Rest	
Reference	Jevning R, Wallace RK, Beidebach M. The physiology of meditation: A review. A wakeful hypometabolic integrated response. Neurosci Biohav Rev. 1992;16:415-24
URL	https://www.sciencedirect.com/science/article/abs/pii/S05802106?via%3Dihub
Journal	Neuroscience and Biobehavioral Reviews
Effect Size	Consistent with the subjective description of meditation as a very relaxed but, at the same time, a very alert state, it is likely that such findings during meditation as increased cardiac output, probable increased cerebral blood flow, and findings reminiscent of the “extraordinary” character of classica reports: apparent cessation of CO2 generation by muscle, fivefold plasma AVP elevation, and EEG synchrony play critical roles in this putative response
Type of Test	EEG
Type of Study	Meta-Analysis

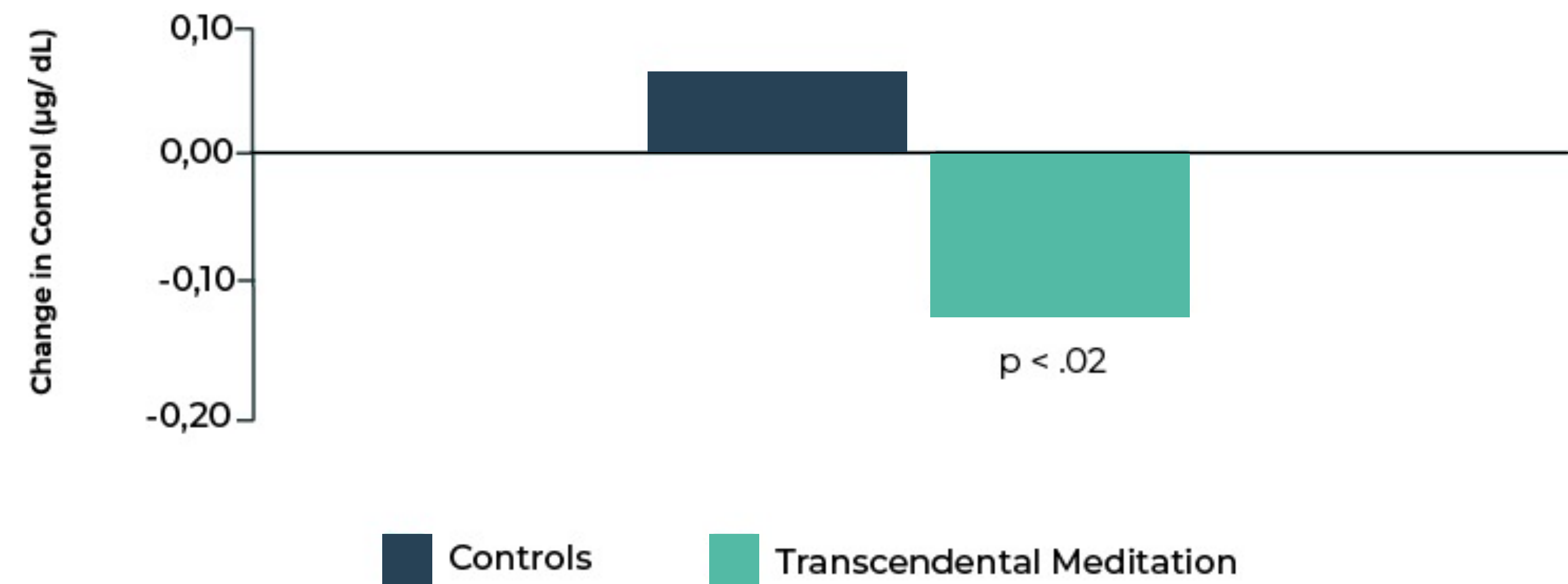


STRESS RELEASE



DECREASED STRESS: REDUCED CORTISOL WAKING RESPONSE (CAR)

THROUGH THE TRANSCENDENTAL MEDITATION TECHNIQUE



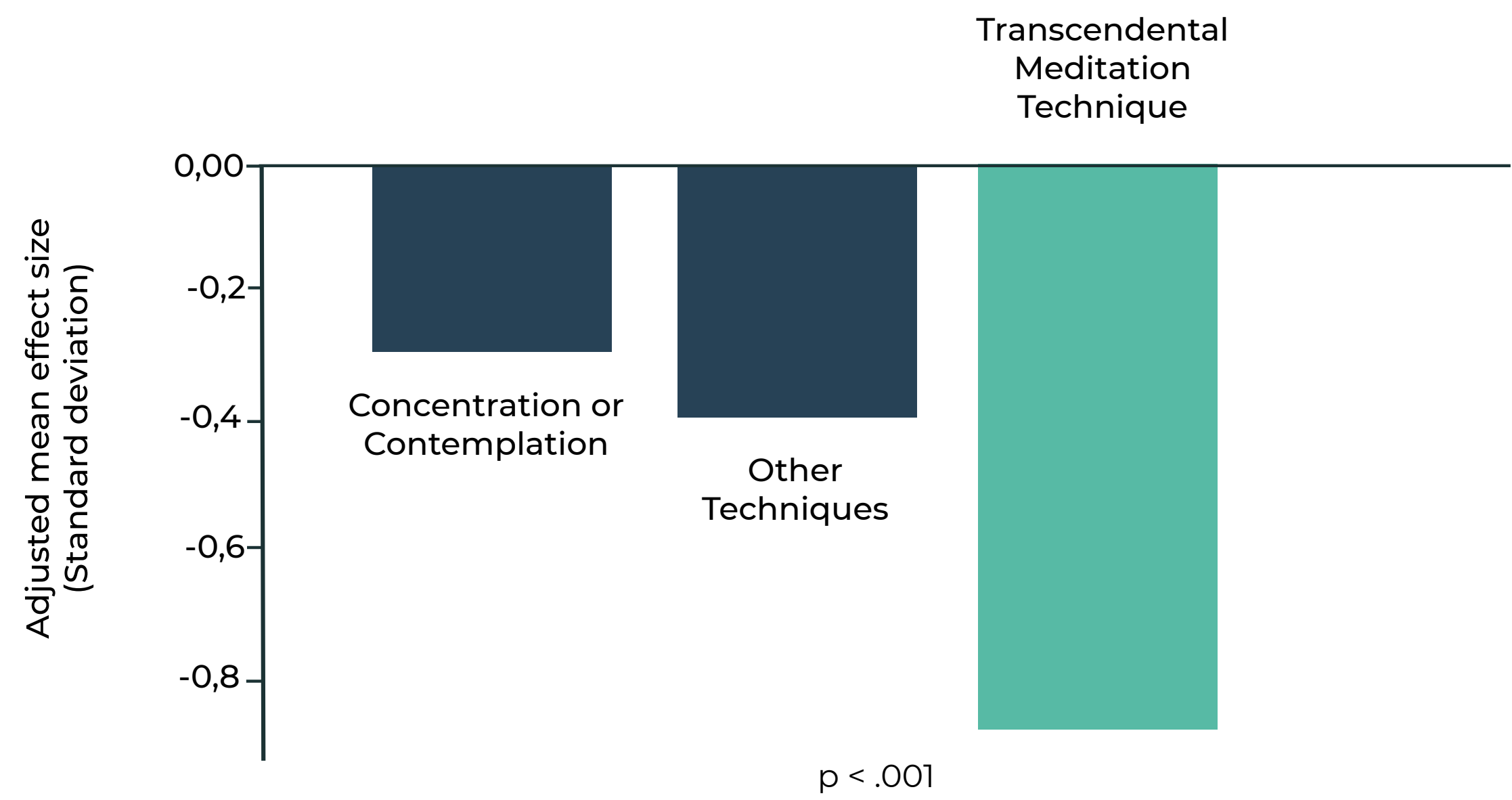
The probability of the result being random is around 2%.

A randomized controlled study of 27 college students found that four weeks of TM practice significantly reduced the level of the major stress hormone cortisol when waking up from a night’s sleep compared to controls, indicating reduced stress.

Effect	Reduced Cortial Waking Response (CAR)	Reduced Cortial Waking Response (CAR)
Reference	Klimes-Dougan, B., Chong, L. S., Samikoglu, A., Thai, M., Amatya, P., Cullen, K. R., & Lim, K. O. (2020). Transcendental meditation and hypothalamic-pituitary-adrenal axis functioning: a pilot, randomized controlled trial with young adults. Stress (Amsterdam, Netherlands), 23(1), 105–115. https://doi.org/10.1080/10253890.2019.1656714	Walton, Kenneth & K.L., Cavanaugh & N.D, Pugh. (2005). Effect of group practice of the Transcendental Meditation program on biochemical indicators of stress in non-meditators: A prospective time series study. Journal of social behavior and personality. 17. 339-373.
URL	https://pubmed.ncbi.nlm.nih.gov/31418329/	http://www.ecolessansstress.org/en/node/2672
Journal	Stress (Amsterdam, Netherlands)	Journal of Social Behavior and Personality
Effect Size	*not available	p = .004
Type of Test	Trier Social Stress Test (TSST)	Quasi experimental - testing cortisol excretion
Type of Study	RCT	Randomised longitudinal experiments

STANFORD UNIVERSITY RESEARCH STUDY

REDUCED PSYCHOLOGICAL STRESS



Stanford University: A meta-analysis of 146 independent studies found that the Transcendental Meditation technique is twice as effective at reducing trait anxiety when compared with concentration, contemplation or other techniques.

Reference: Journal of Clinical Psychology, 45 (1989): 957-974.

A p-value is the probability of the result being chance or coincidence.
P<0,001 means that there is less than a 0,1% chance that the result is random.

Effect	Reduced Psychological Stress	Reduced Psychological Stress	Decreased Trait Anxiety
Reference	Nidich, S. I., Rainforth, M. V., Haaga, D. A., Hagelin, J., Salerno, J. W., Travis, F., Tanner, M., Gaylord-King, C., Grosswald, S., & Schneider, R. H. (2009). A randomized controlled trial on effects of the Transcendental Meditation program on blood pressure, psychological distress, and coping in young adults. American journal of hypertension, 22(12), 1326–1331. https://doi.org/10.1038/ajh.2009.184	Walton, K. G., Schneider, R. H., & Nidich, S. (2004). Review of controlled research on the transcendental meditation program and cardiovascular disease. Risk factors, morbidity, and mortality. Cardiology in review, 12(5), 262–266. https://doi.org/10.1097/01.crd.0000113021.96119.78	Eppley, K. R., Abrams, A. I., & Shear, J. (1989). Differential effects of relaxation techniques on trait anxiety: a meta-analysis. Journal of clinical psychology, 45(6), 957–974. https://doi.org/10.1002/1097-4679(198911)45:6<957::aid-jcl
URL	https://academic.oup.com/ajh/article/22/12/1326/182024	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2211376/	https://pubmed.ncbi.nlm.nih.gov/2693491/
Journal	American Journal of Hypertension	Cardiology Review	Journal of Clinical Psychology
Effect Size	P= 0.05	Reduction in psychosocial stress, obesity, alcohol use, physical inactivity, dietary sodium–potassium ratio, and a composite measure of all these.	p<.005
Type of Test	Profile of Mood States *total mood disturbance main scale and tension/anxiety, depression/dejection, and anger/hostility subscales.		Cochran-Mantel-Haenszel method
Type of Study	RCT	Meta-Analysis	Comprehensive Meta-Analysis (CMA)

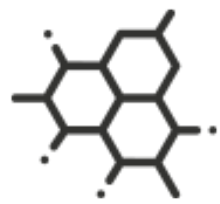
MEDITATION INCREASES SEROTONIN



Of our approximately 86 billion brain cells, most all are influenced by serotonin. Known by many scientists as the “happy” neurotransmitter, serotonin is key to helping relay signals from one part of the brain to another. This crucial chemical has a profound impact on our mood, contributing greatly to our overall state of well-being.



According to Princeton brain researcher Barry Jacobs, PhD, depression sets in when fewer and fewer new brain cells are created, with stress and age being the leading trigger.



University of Montreal scientists (Perreau-Linck et al) have shown that activities like mindfulness have a direct impact on the brain’s production of serotonin levels. It is thought that meditation “bathes” neurons with an array of feel-good chemicals, effectively melting away the stress that leads to low serotonin levels and depression.



In the end, meditation’s serotonin replenishing effect works to create a utopian chemical environment for the production of new brain cells, making you a happier and healthier person.

MEDITATION INCREASES SEROTONIN

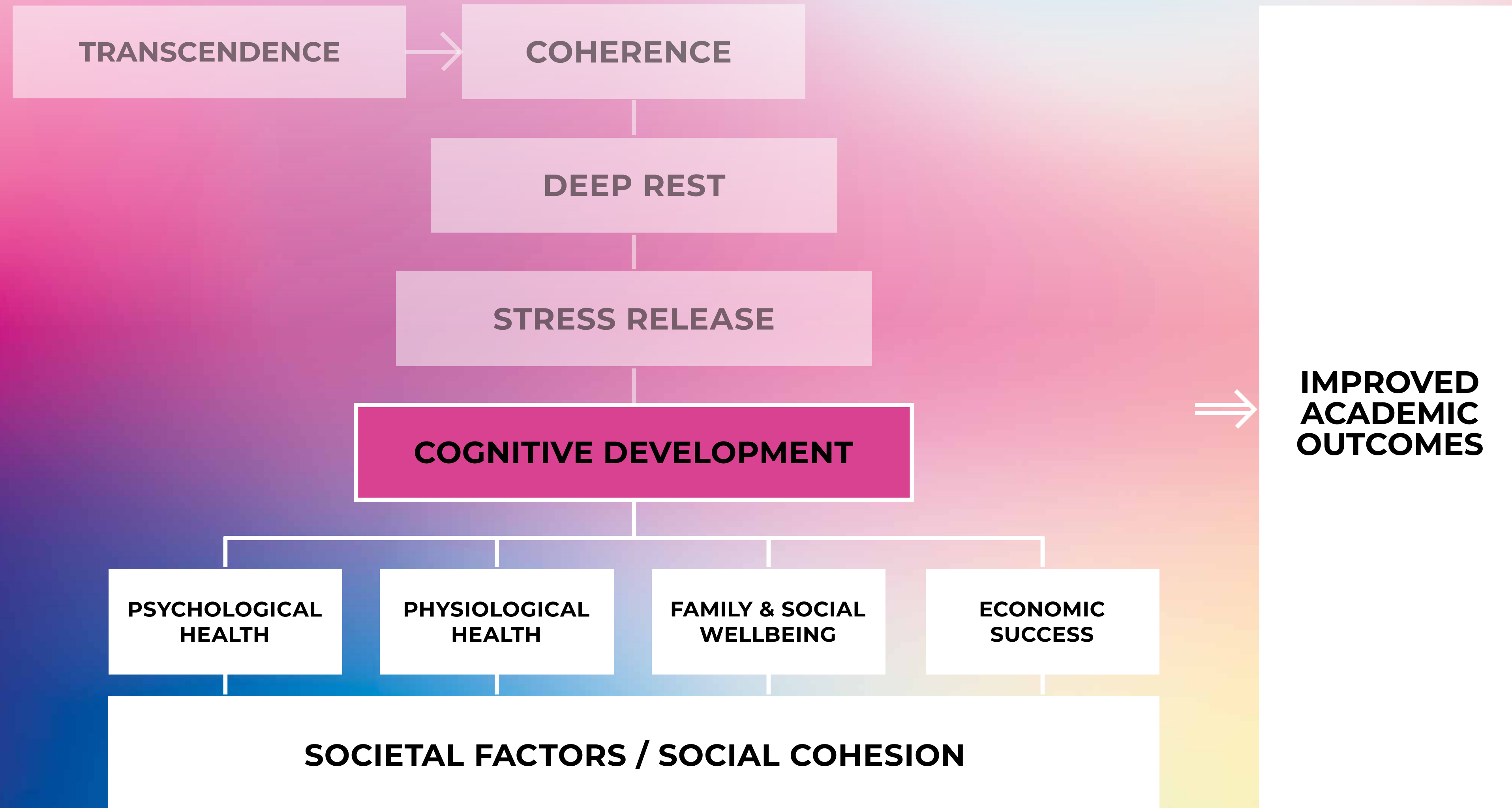
Effect		Increase in Serotonin
Reference	Walton, Kenneth & K.L., Cavanaugh & N.D, Pugh. (2005). Effect of group practice of the Transcendental Meditation program on biochemical indicators of stress in non-meditators: A prospective time series study. Journal of social behavior and personality. 17. 339-373.	Bujatti, M., & Riederer, P. (1976). Serotonin, noradrenaline, dopamine metabolites in transcendental meditation-technique. Journal of neural transmission, 39(3), 257–267. https://doi.org/10.1007/BF01256514
URL	http://www.ecolessansstress.org/en/node/2672	https://pubmed.ncbi.nlm.nih.gov/789821/
Journal	Journal of Social Behavior and Personality	Journal of Neural Transmission
Effect Size	p = .03	*not available
Type of Test	*not available	*not available
Type of Study	RCT	RCT

The probability of the results being random is 3%





COGNITIVE DEVELOPMENT



TM AND BRAIN DEVELOPMENT

Psychologists have said that individuals only use only a small percentage of their full potential.

TM helps the individual realise his/her potential.

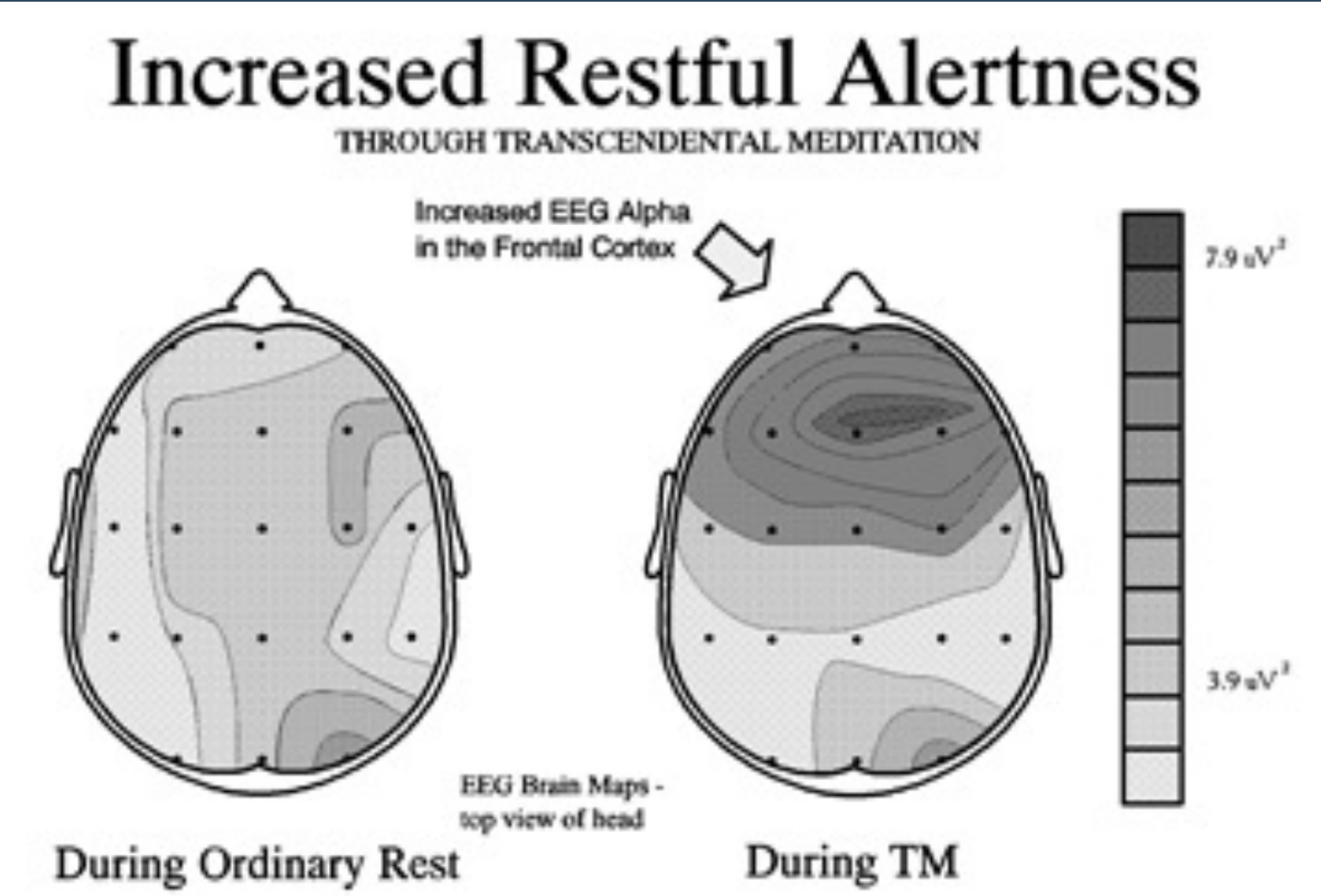
TM stimulates, develops and integrates the whole brain. Results normally considered impossible, are repeatedly found in TM experiments such as increased IQ.

Empirical Evidence shows:

- Increased intelligence and cognitive ability
- Decreases in negative behaviours and
- Increases in positive behaviours leading to
- Increases in positive life outcomes

References:

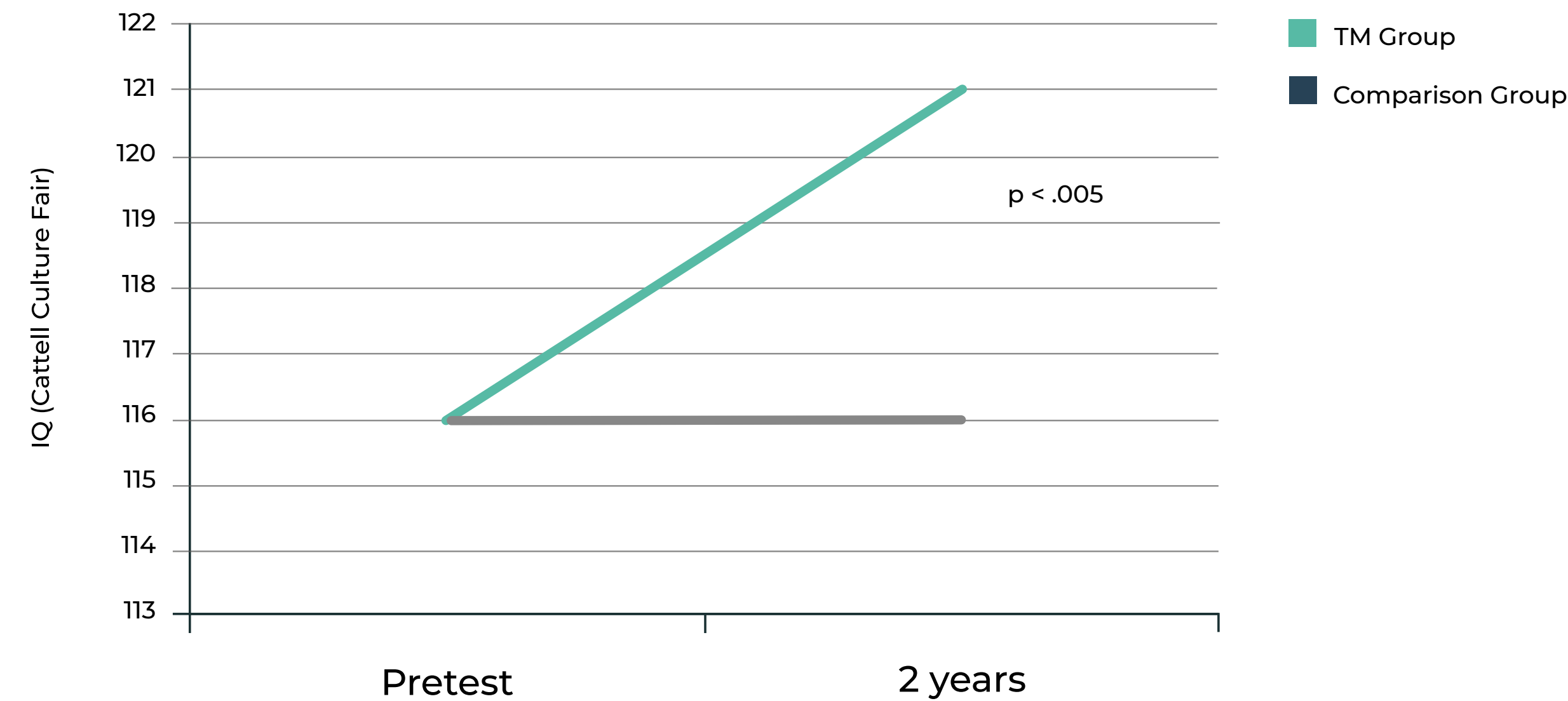
- Proceedings of the International Symposium Physiological and Biochemical Basis of Brain Activity, St Petersburg, Russia, (June 22-24, 1994)
- 2nd Russian-Swedish Symposium New Research in Neurobiology, Moscow, Russia (May 19-21, 1992)



Mobilisation of latent resources in the brain	
Effect	Lyubimov, Nicolai N. Changes in electroencephalogram and evoked potentials during application of the specific form of physiological training (meditation). Human Physiology 25: 171-180, 1999. Translated from Fiziologiya Cheloveka 25: 56-66, 1999.
Reference	http://www.sante-conscience.fr/medias/Lyubimov-article.pdf
URL	Institute of the Brain, Russia Academy of Medical Sciences
Journal	r-0.6
Effect Size	Cochran-Mantel-Haenszel method
Type of Test	Cross-sectional

INCREASED COGNITIVE FUNCTIONING

TM INCREASED FLUID INTELLIGENCE IN STUDENTS BY 9-14 IQ POINTS



Fluid intelligence is the ability to come up with solutions in novel situations for which there is no prior learning or manual on what to do.

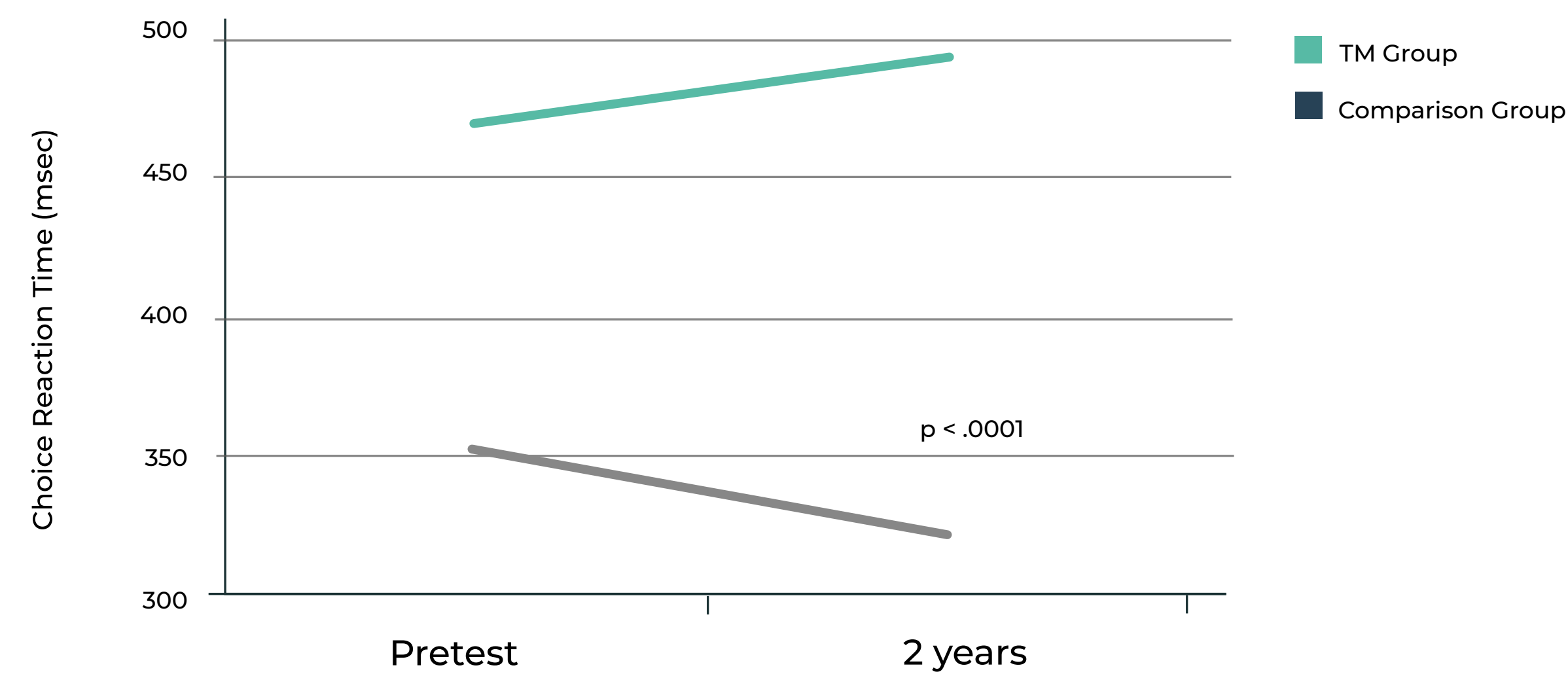
The probability of the results being random is 0,05%

Effect	Mobilisation of latent resources in the brain
Reference	Robert W. Cranson, David W. Orme-Johnson, Jayne Gackenbach, Michael C. Dillbeck, Christopher H. Jones, Charles N. Alexander, Transcendental meditation and improved performance on intelligence-related measures: A longitudinal study, Personality and Individual Differences, Volume 12, Issue 10, 1991, Pages 1105-1116, ISSN 0191-8869, https://doi.org/10.1016/0191-8869(91)90040-I
URL	https://www.sciencedirect.com/science/article/abs/pii/019188699190040I?via%3Di-hub
Journal	Personality and Individual Differences
Effect Size	CFT improvements (p<0,005); Choice Reaction Time (p<0,0001); simple reaction time P<0,025)
Type of Test	Cattell's Culture Fair Intelligence Test (CFIT) and Hick's reaction time
Type of Study	RCT

A controlled study of college students in the US found that two years of practice of the Transcendental Meditation technique increased fluid intelligence by 9-14 IQ points. Control subjects who received only the usual college curriculum and not TM training did not change, as expected.

DECREASED CHOICE REACTION TIME

THROUGH THE TRANSCENDENTAL MEDITATION TECHNIQUE



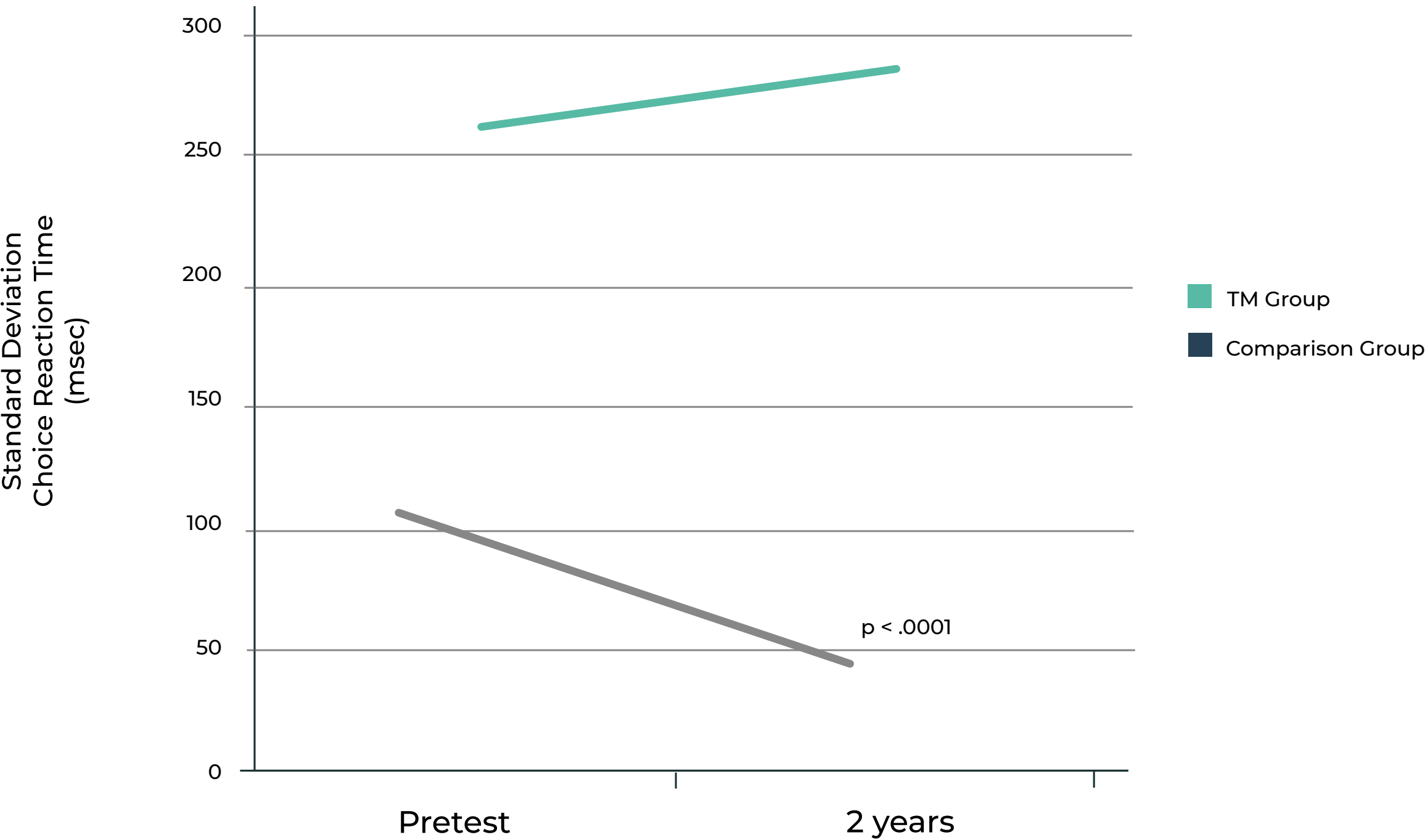
The TM group started at a much faster level of choice reaction time and improved further after two years of TM practice, whereas the comparison group tended to get slower after two years.

The probability of the results being random is 0,01%.

Reference: Personality and Individual Differences 12 (1991): 1105-16.

REDUCED WAVERING OF ATTENTION:

REDUCED NOISE IN THE NERVOUS SYSTEM



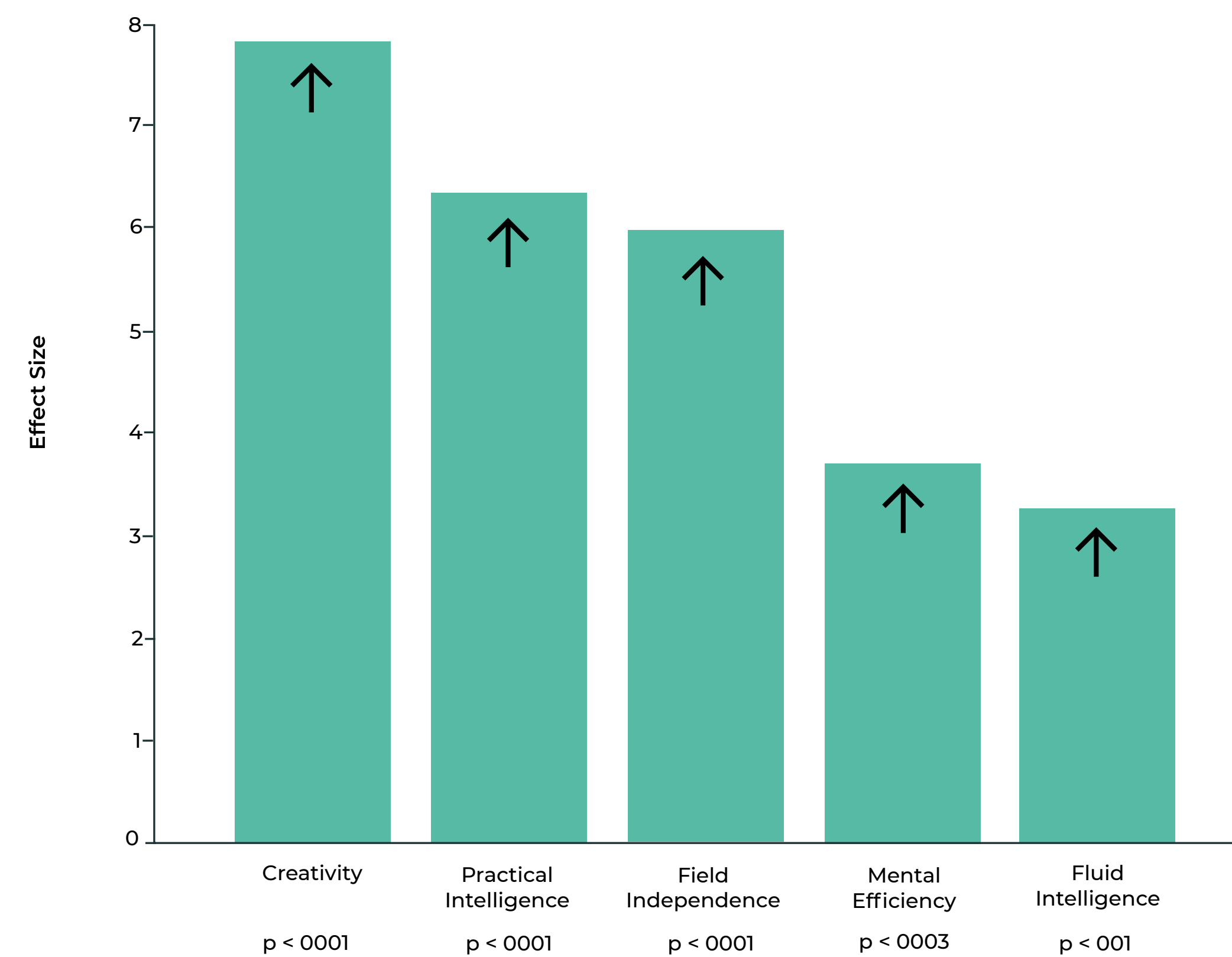
Wavering of attention, measured by variability in choice reaction time, was less in the TM group and improved even further after two more years of TM practice. The comparison group tended to get worse.

The probability of the results being random is 0,01%.

Reference: Personality and Individual Differences 12 (1991): 1105-16.

INCREASED GENERAL COGNITIVE ABILITY

THROUGH THE TRANSCENDENTAL MEDITATION TECHNIQUE

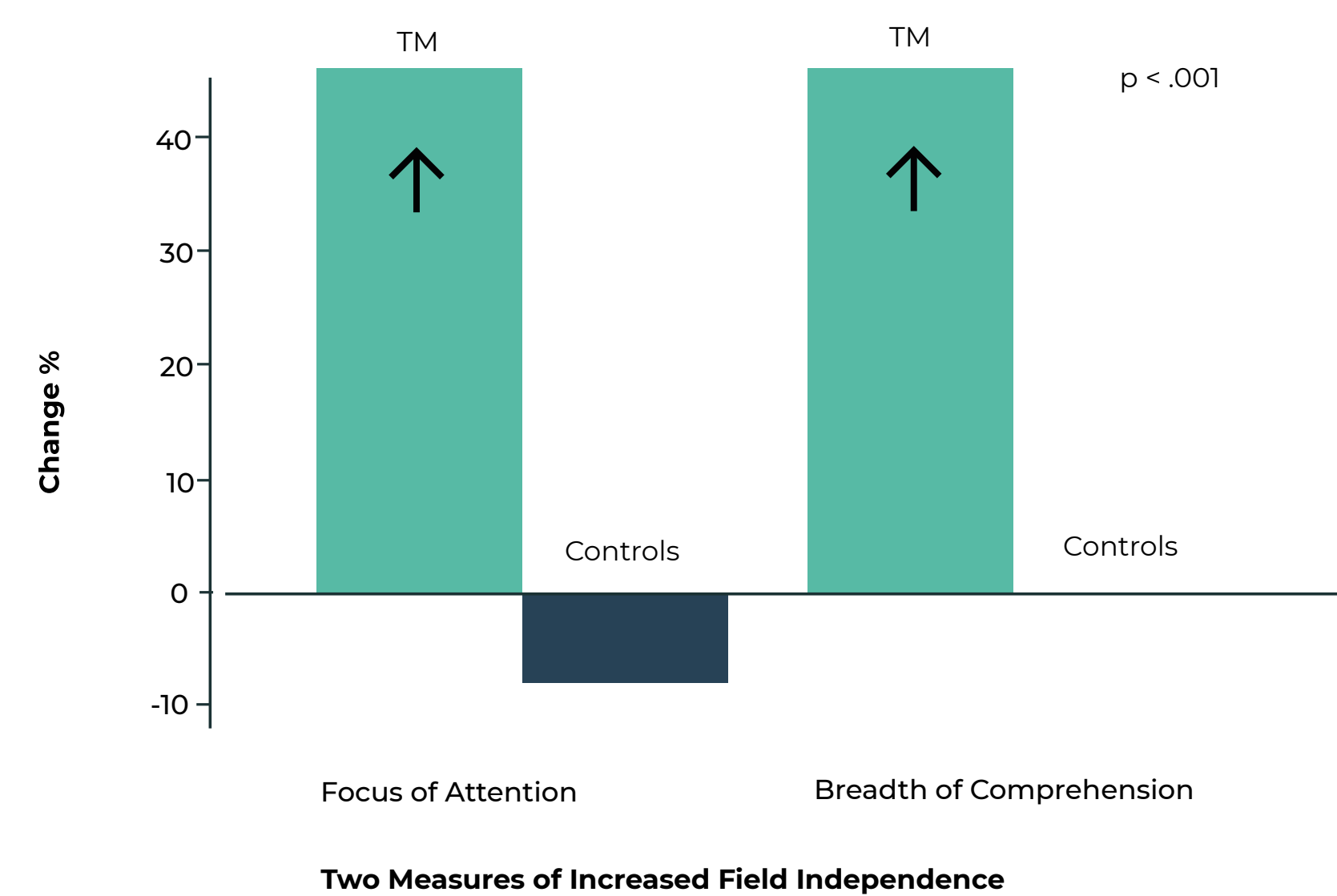


The probability of the results being random is 0,1% and 1%.

Effect	Improved ability to focus attention and broader comprehension
Reference	Kam-Tim So, David W Orme-Johnson, Three randomized experiments on the long itudinal effects of the Transcendental Meditation technique on cognition, Intelli- gence, Volume 29, Issue 5, 2001, Pages 419-440
URL	https://www.sciencedirect.com/science/aritcle/abs/pii/S01602890100070
Journal	Intelligence
Effect Size	Improved Cognition ($p<0,001$)
Type of Test	Test for Creative Thinking-Drawing Prodcution (TCT-DP); Constructive Thinking Inventory (CTI); Group Embedded Figures Test (GEFT); State and Trait Anxiety (STAI); Inspection Time (IT); and Culture Fair Intelligence Test (CFIT)
Type of Study	Univariate Regression, RCT

IMPROVED ABILITY TO FOCUS ATTENTION AND BROADER COMPREHENSION

THROUGH THE TRANSCENDENTAL MEDITATION TECHNIQUE



Key Finding – Students practising TM are significantly more able to focus on the work at hand and on details within each section of work, while at the same time understanding the work in a holistic way.

Students’ ability to concentrate despite outside noises or other distractions is significantly increased.

Effect	Improved ability to focus attention and broader comprehension
Reference	Deepeshwar, S., Vinchurkar, S. A., Visweswaraiah, N. K., & Nagendra, H. R. (2015). Hemo-dynamic responses on prefrontal cortex related to meditation and attentional task. Frontiers in systems neuroscience, 8, 252. https://doi.org/10.3389/fnsys.2014.00252
URL	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4330717/
Journal	Frontiers in systems neuroscience
Effect Size	The mean RTs were significantly shorter in the neutral (p = 0.002), congruent (p < 0.001) and incongruent (p < 0.003)
Type of Test	color-word stroop task
Type of Study	RCT

The probability of the results being random is 0.1%.

Benefit for SA Education System:

- Learners have improved focus
- Learners have improved comprehension
- Improved learning outcomes
- Empowers teachers working with children more able to learn

INCREASED FIELD INDEPENDENCE

Field independence is the ability to focus attention on specific objects without being distracted by the environment of the objects.

University undergraduate students taught the TM technique (and practising regularly for three months) show significantly increased field independence from their first to fourth years shown by both broader comprehension and improved ability to focus attention. Their performance on field independence tests indicates growth in abilities that are basic to success in school, in a job, and in other areas of life.

Persons with greater field independence have the following characteristics: a greater ability to assimilate and structure information and knowledge, improved memory, greater creativity and creative expression, more stable attitudes, judgements and sentiments.

Effect	Increased orderliness in thinking and mental clarity
Reference	Orme-Johnson, D. W.; and Granieri, B. The effects of the Age of Enlightenment Governor Training Courses on field independence, creativity, intelligence, and behavioral flexibility. Centre for the Study of Higher States of Consciousness, Maharishi European Research University, Switzerland, 1977.
URL	https://www.miu.edu/assets/collected_papers/orme1977e1coll1-103.pdf
Journal	Centre for the Study of Higher States of Consciousness, Maharishi European Research University
Effect Size	Field Independence – $p < 0,0001$ Focus of attention $p < 0,001$ Decreased wavering of attention $p < 0,001$ Mental Efficiency $p < 0,001$
Type of Test	*various
Type of Study	Controlled, longitudinal study

GROWTH IN FIELD INDEPENDENCE

IN UNIVERSITY STUDENTS IS REMARKABLE BECAUSE IT WAS PREVIOUSLY THOUGHT THAT THESE BASIC PERCEPTUAL ABILITIES DID NOT IMPROVE BEYOND EARLY ADULthood.

Associated Findings

Improved Memory

References:

Memory and Cognition 10 (1982):207-215

Scientific Research on the Transcendental Meditation Programme:
Collected Papers, Volume 1(1977):385-392

Higher Levels of Moral Maturity

References:1. Dissertation Abstracts International 36 (1975): 4361A – 4362A

Increased Field Independence – Increased Resistance to Distraction and Social Pressure

References:

Perceptual and Motor Skills 39(1974): 1031-1034

Perceptual and Motor Skills 65(1987): 613-614

Greater Intellectual and Scientific Orientation

References:

Western Psychologist 4(1974): 104-111

Dissertation Abstracts International 38(1976): 649A-650A

Increased Self-Development

References:

1. Dissertation Abstracts International 51(1991):5048B

Increased Self-Confidence and Self-Actualisation

References:

Journal of Social Behaviour and Personality 6(1991): 189-247

College Student Journal 15(1981): 140-146

Zeitschrift für Klinische Psychologie (Journal for Clinical Psychology) 17(1978):235-255

Increased Academic Achievement

Reference:

1. Education 107(1986): 49-54

Decreased Dropout Rate and Increased Self-Actualisation

Among Economically Deprived Adolescents.

Reference: 1. Dissertation Abstracts International 38(1977): 3351A

Conclusion: By providing the experience of Transcendental Consciousness, the TM programme unfolds the latent genius of every student. As one's mind becomes alert and comprehensive, increasingly thought and action are nourishing and progressive for oneself and others, and one makes fewer and fewer mistakes in life – spontaneously one lives more in harmony with natural law.

IMPROVED MEMORY

Squire et al published a paper with the American Psychological Association illustrating just how critical the “hippocampus” is to learning and memory.

Meditation is proven to prevent the shrinking hippocampus, leading to improved memory

Greenberg et al at Harvard with Lazar, S (2020) conducted brain imaging research on a group of 16 before and after learning and practicing medication for 8 weeks. “We found that the hippocampus is sensitive to cortisol, is negatively impacted by stress hormones, and gets smaller”.

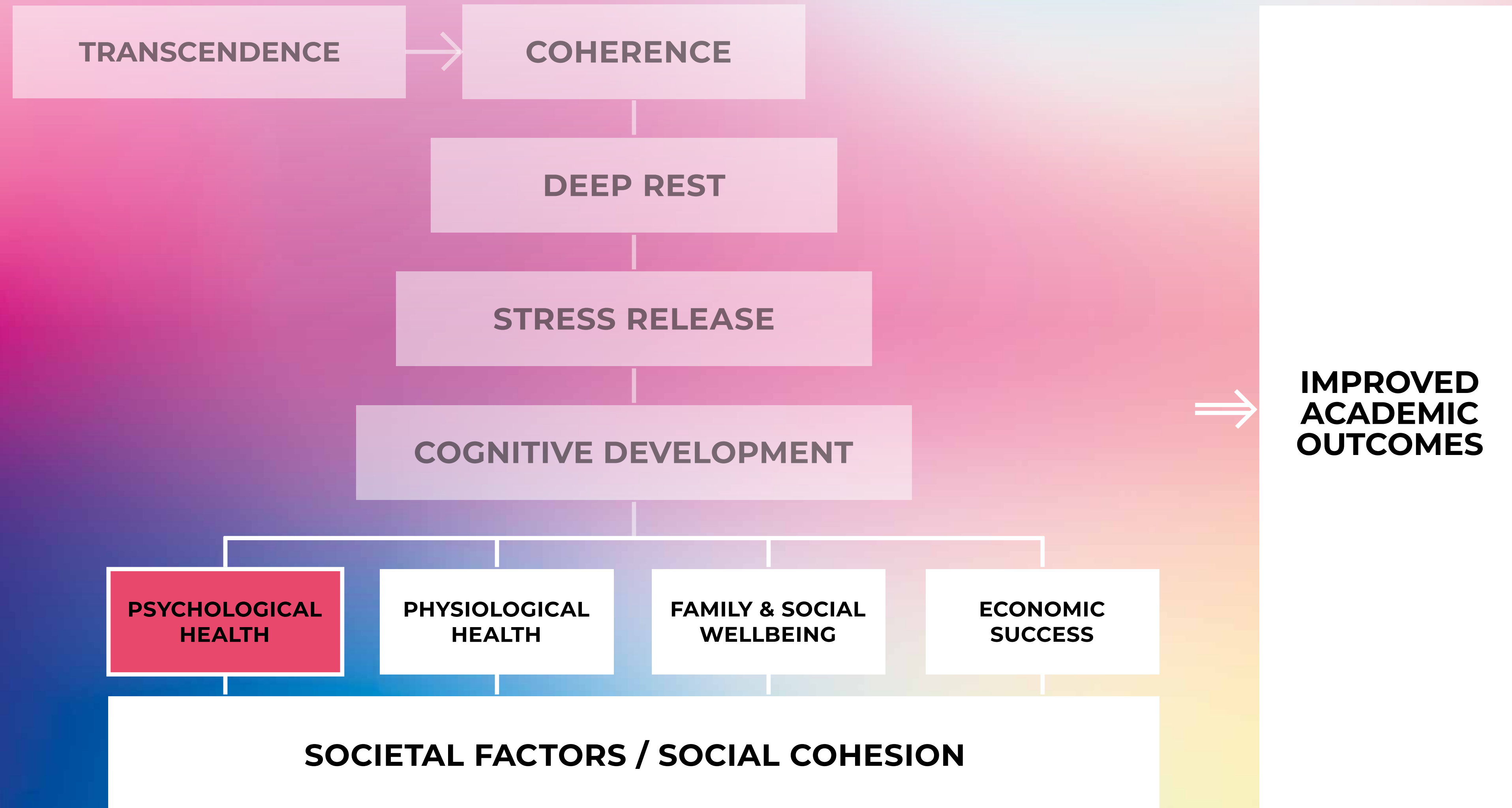
Reducing stress prevents this and guard against depression “Among a long list of awe-inspiring healthy brain discoveries, her research shows that meditation dramatically increases “hippocampal cortical thickness,” with magnitude determined by experience.” (Eco institute)

Improved Memory		
Reference	Allan, Abrams, & Graduate, B. (2006). PAIRED-ASSOCIATE LEARNING AND RECALL : A PILOT STUDY OF THE TRANSCENDENTAL MEDITATION PROGRAM.	Travis, Frederick & Haaga, Dave & Hagelin, John & Tanner, Melissa & Nid-ich, Sanford & Gaylord-King, Carolyn & Grosswald, Sarina & Rainforth, Maxwell & Schneider, Robert. (2008). Effects of Transcendental Meditation practice on brain functioning and stress reactivity in college students. International journal of psychophysiology : official journal of the International Organization of Psychophysiology. 71. 170-6. 10.1016/j.ijpsycho.2008.09.007.
URL	https://www.miu.edu/assets/collected_papers/orme1977e1coll1-103.pdf	https://www.researchgate.net/publication/23318708_Effects_of_Transcendental_Meditation_practice_on_brain_functioning_and_stress_reactivity_in_college_students
Journal	Centre for the Study of Higher States of Consciousness,Maharishi European Research University	International journal of psychophysiology
Effect Size	Field Independence – p<0,0001Focus of attention p<0,001Decreased wavering of attention p<0,001Mental Efficiency p<0,001	p<0001
Type of Test	*various	ANOVAs
Type of Study	Controlled, longitudinal study	RCT

The probability of the results being random is 0,1%.



PSYCHOLOGICAL HEALTH



STUDY ON GAMMA BRAINWAVES

Empirical Evidence of reduced stress, and increased feelings of happiness and love – Effects greater for TM practitioners (p<0.02)
An example of Brain Plasticity

Neurofeedback-Enhanced Gamma Brainwaves from the Prefrontal Cortical Region of Meditators

DESIGN: This was a controlled pilot study; it involved a single session per subject.

SETTING: The research was conducted in a nonprofit laboratory in the United States.

SUBJECTS: There were 12 adults in 2 groups (N =12): 6 practitioners of Transcendental Meditation and six controls.

MEASURES: The measures were self-assessed inner experiences and measurements of clarified gamma output at the prefrontal cortical region.

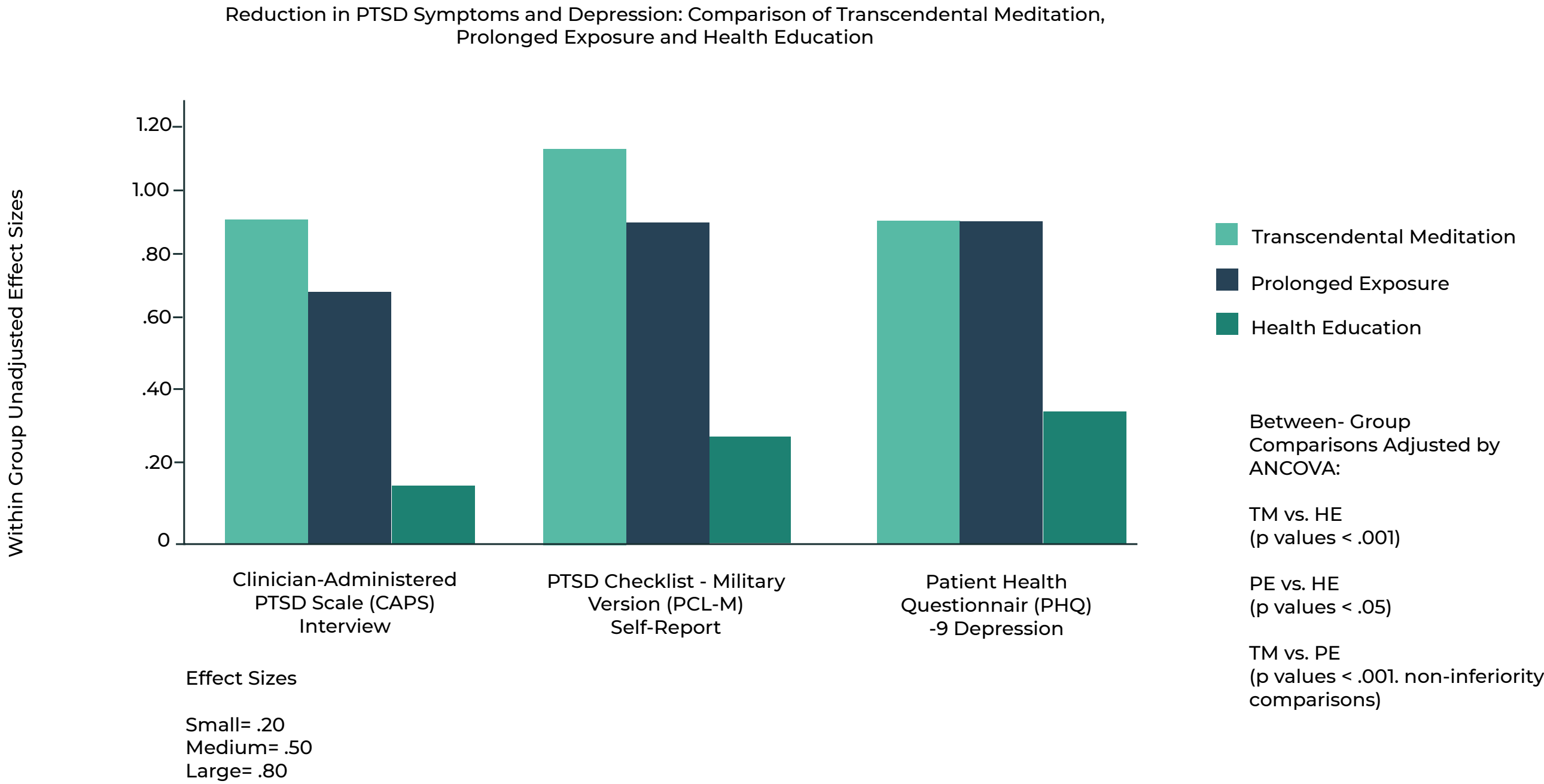
Results: (1) Self-assessed descriptions were comparable for both groups; (2) the associations of 16 supplied descriptors with the initial neurofeedback experience were comparable for both groups and showed highest scores for “happy” (p < 0.0001) and “loving” (p < 0.0001), and lowest scores for “stressed” (p < 0.0001) and “disappointed” (p < 0.0001); (3) baseline measures were comparable for both groups; (4) both groups were able to increase gamma brainwaves using neurofeedback (p < 0.01); and (5) meditators produced greater increases over controls (p < 0.02).

CONCLUSIONS: The inner experience associated with increased clarified gamma amplitude from the prefrontal cortex apparently involves positive emotions of happiness and love, along with reduced stress. Transcendental Meditation practitioners achieved greater increases in the gamma band from the prefrontal cortical region over controls during an initial neurofeedback session.

PUBLISHED: Journal of Alternative & Complementary Medicine. 2011 Feb;17(2):109-15. Epub 2011 Feb 8

Increased Gamma Brain Waves		
Reference	The Journal of Alternative and Complementary Medicine.Feb 2011.109115.http://doi.org/10.1089/acm.2009.0191	Travis, F., Haaga, D.A.F., Hagelin, J. et al. A self-referential default brain state: patterns of coherence, power, and eLORETA sources during eyes-closed rest and Transcendental Meditation practice. Cogn Process 11, 21–30 (2010).
URL	https://www.liebertpub.com/doi/abs/10.1089/acm.2009.0191	https://link.springer.com/article/10.1007%2Fs10339-009-0343-2
Journal	The Journal of Alternative and Complementary Medicine	Cognitive Processing
Effect Size	p =0.02. Increased Happiness (p<0,0001), love (p<0,0001), reduced stress (p<0,0001)	*not available
Type of Test	*not available	*not available
Type of Study	RCT	*not available

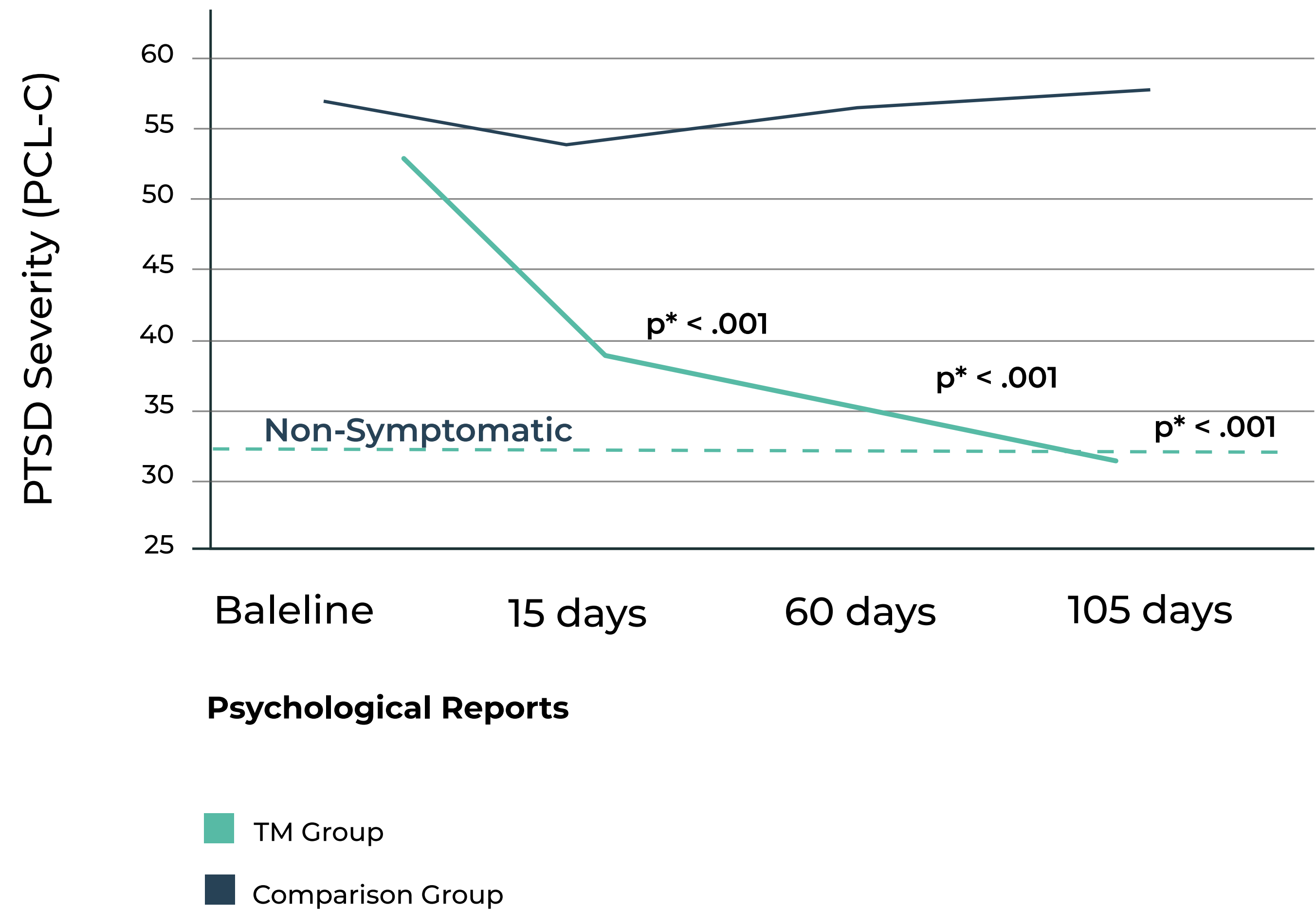
DECREASED PTSD IN VETERANS PUBLISHED IN THE LANCET PSYCHIATRY



Reference: Nidich S., Mills., P., Rainforth, M., Hepper, P., Schneider, R., Salerno, J., Gaylord-KIng, C., Ruthledge, T. Non-trauma-focused meditation compared to exposure therapy in veterans with post-tramatic stress disorder: a randomized controlled trial. The Lancet Psychiatry, online version, Nov. 15 2018. Funded by the Department of Defense, US Army Medical Research.

Increased Gramma Brain Waves			
Reference	Robert E Herron, Ph.D., MBA, Brian Rees, M.D., MPH, MC, USAR (Ret.), The Transcendental Meditation Program's Impact on the Symptoms of Post-traumatic Stress Disorder of Veterans: An Uncontrolled Pilot Study, Military Medicine, Volume 183, Issue 1-2, January-February 2018, Pages e144–e150, https://doi.org/10.1093/milmed/usx059		
URL	https://academic.oup.com/milmed/article/183/1-2/e144/4781643	https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.21883	https://pubmed.ncbi.nlm.nih.gov/30449712
Journal	Military Medicine	Journal of Traumatic Stress	Lancet Psychiatry
Effect Size	p < 0.0001 reduced stress (p<0,0001)	d = 4.05	p=0,0002
Type of Test	PTSD Checklist-Civilian (PCL-5) questionnaires	The Posttraumatic Stress Disorder Checklist–Civilian (PCL-C)	CAPS, CAPS Interview PTSD PCL-M Self-Report PTSD PHQ-9 Depressio
Type of Study		RCT	RCT

DECREASED PTSD SYMPTOMS IN SOUTH-AFRICAN COLLEGE STUDENTS

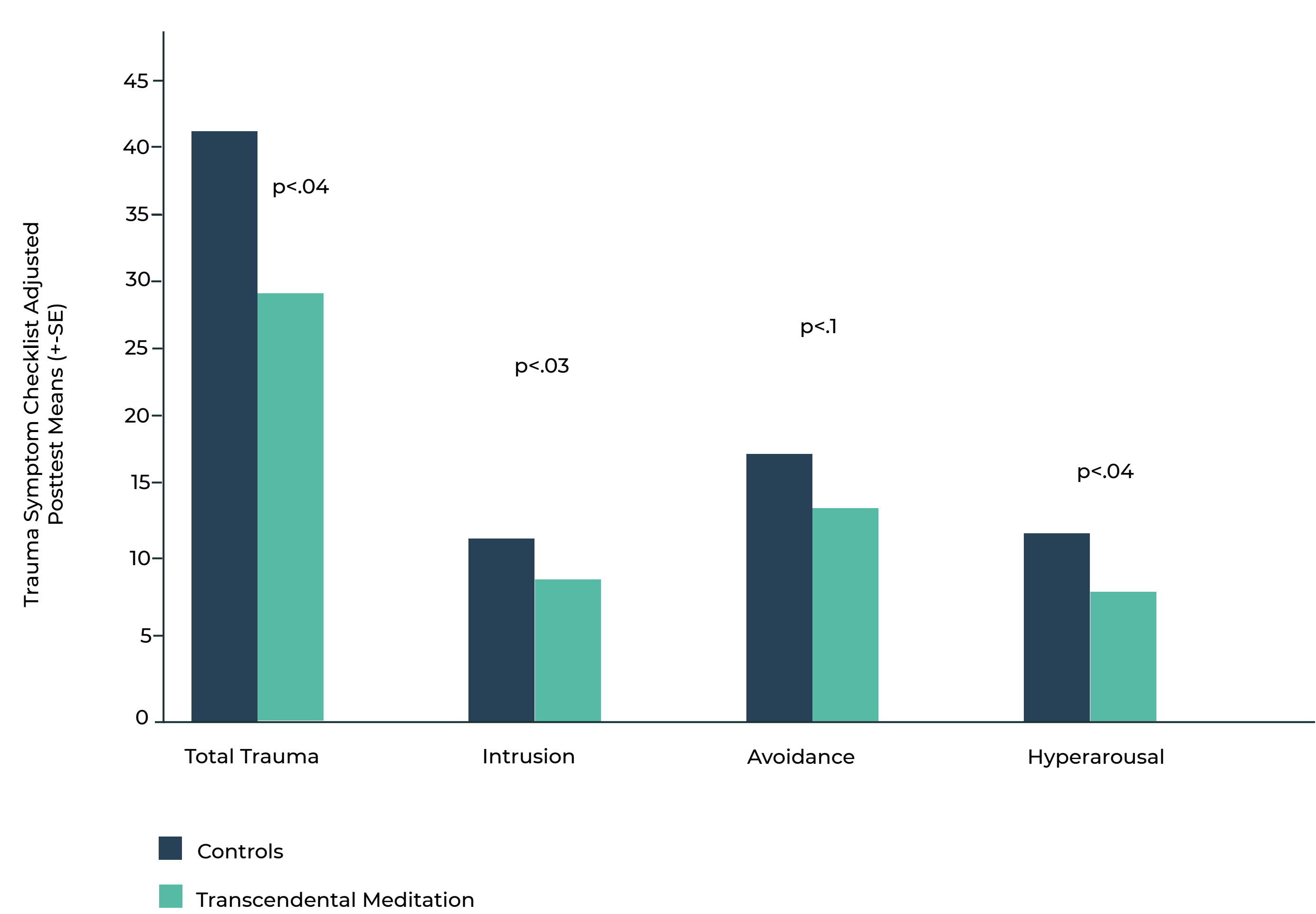


Decrease in PTSD	
Reference	Bandy, C. L., Dillbeck, M. C., Sezibera, Vincent , Taljaard, L., Wilks, M., Shapiro, D., & de Reuck, J. (2019). Reduction of PTSD in South African university students using Transcendental Meditation practice. Psychological Reports, February, 1–16. doi:10.1177/0033294119828036
URL	https://journals.sagepub.com/doi/abs/10.1177/0033294119828036
Journal	Psychological Reports
Effect Size	p<0,001

The probability of the results being random is 0,1%.

DECREASED PTSD IN FEMALE PRISON INMATES

RANDOMIZED CONTROLLED TRIAL

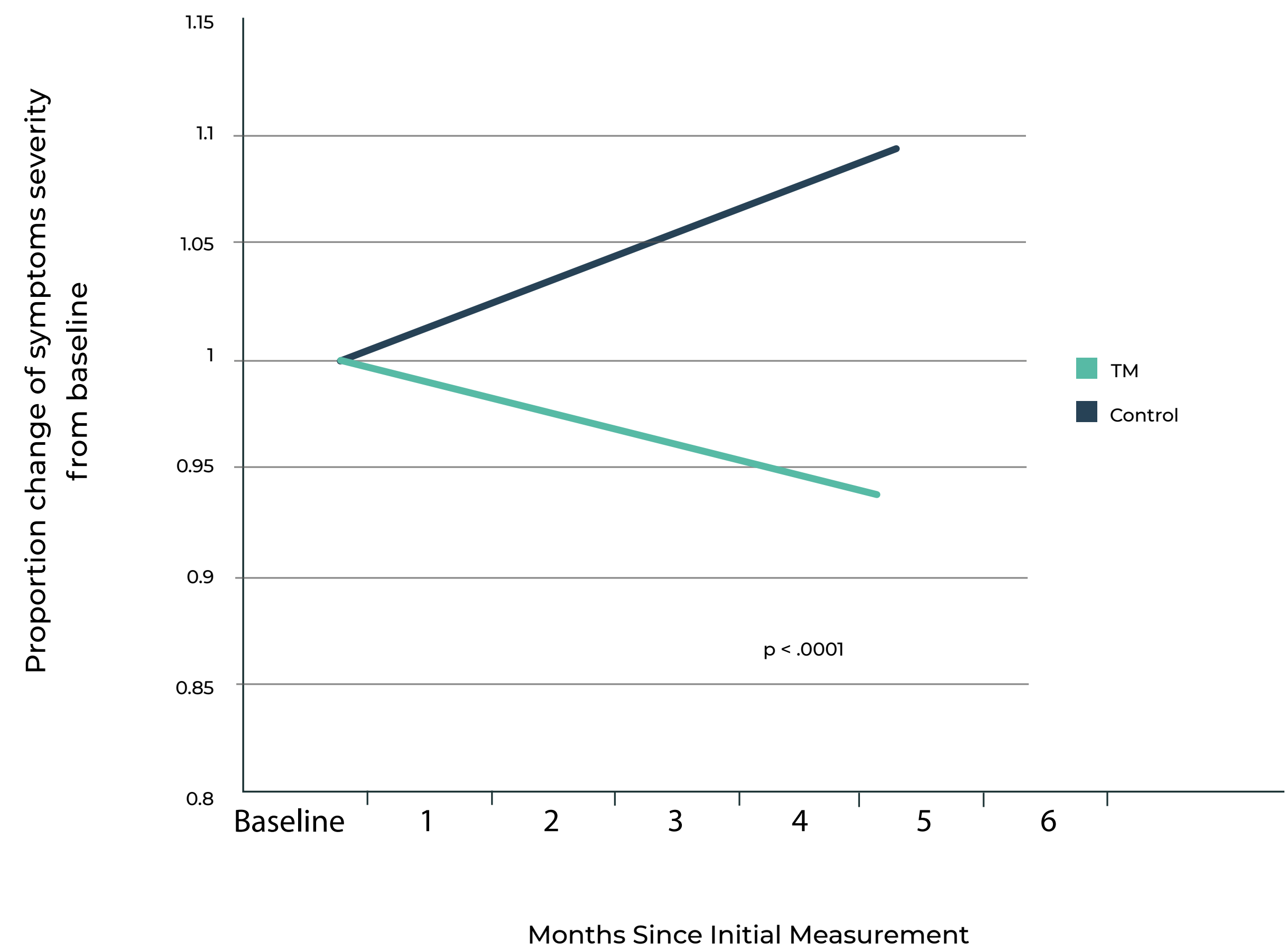


Decrease in PTSD	
Reference	Rees, B., Travis, F., Shapiro, D. and Chant, R. (2014), Significant Reductions in Posttraumatic Stress Symptoms in Congolese Refugees Within 10 days of Transcendental Meditation Practice. Journal of Traumatic Stress, 27: 112-115. https://doi.org/10.1002/jts.21883
URL	https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.21883
Journal	Journal of Traumatic Stress
Effect Size	d = 4.05
Type of Test	The Posttraumatic Stress Disorder Checklist–Civilian (PCL-C)
Type of Study	RCT

The probability of the results being random is between 3% and 10%.

DECREASED SEVERITY OF PTSD AND ANXIETY ALONG WITH DECREASED USE OF PSYCHOTROPIC MEDICATION

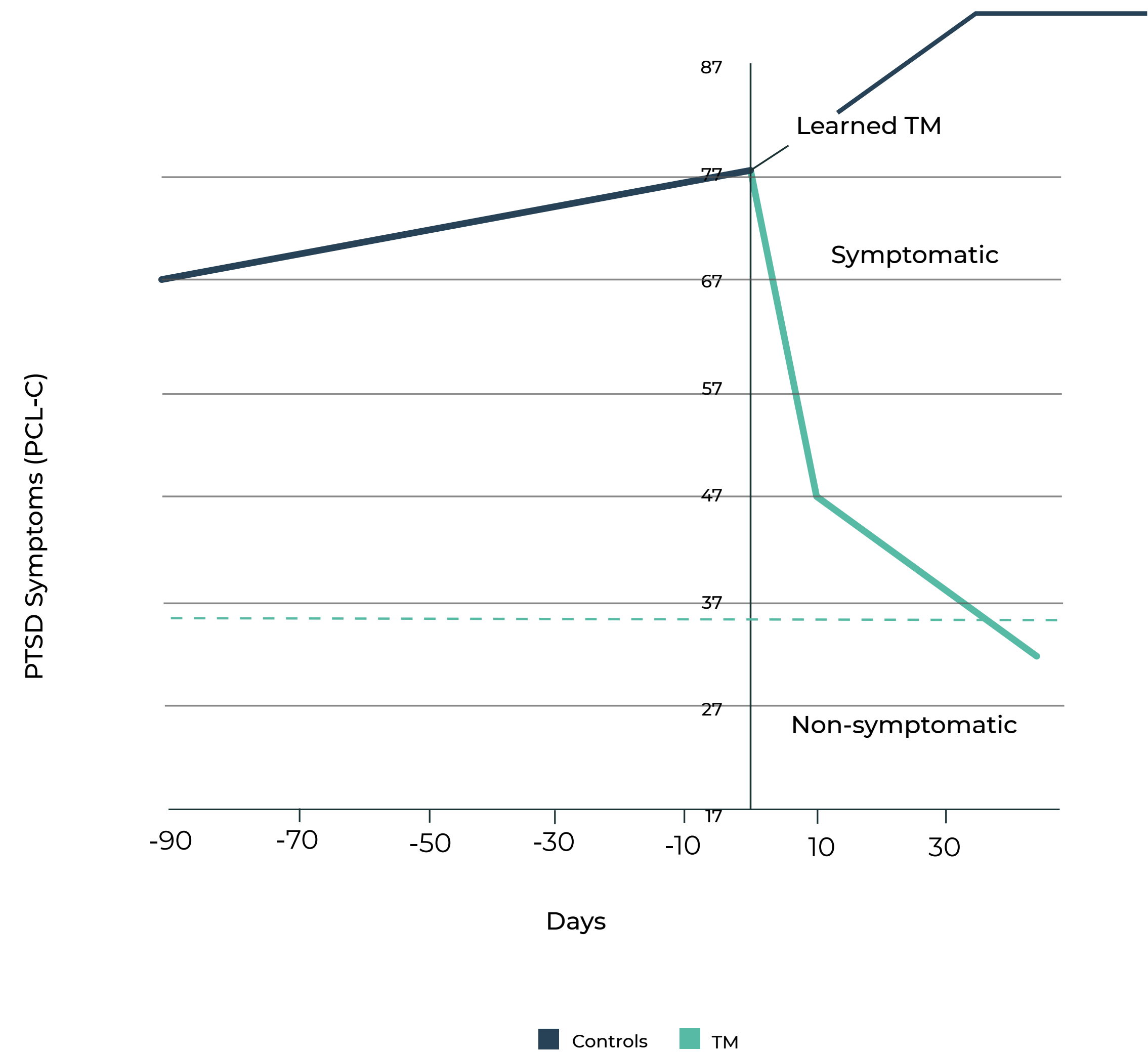
THROUGH THE TRANSCENDENTAL MEDITATION TECHNIQUE



Decrease in PTSD	
Reference	Barnes, Vernon & Monto, Andrea & Williams, Jennifer & Rigg, John. (2016). Impact of Transcendental Meditation on Psychotropic Medication Use Among Active Duty Military Service Members With Anxiety and PTSD. Military Medicine. 181. 56-63. 10.7205/MILMED-D-14-00333.
URL	https://www.researchgate.net/publication/289499363_Impact_of_Transcendental_Meditation_on_Psychotropic_Medication_Use_Among_Active_Duty_Military_Service_Members_With_Anxiety_and_PTSD
Journal	Military Medicine
Effect Size	p<0,002 after 3 months

DECREASED PTSD SYMPTOMS IN CONGOLESE WAR REFUGEES

THROUGH THE TRANSCENDENTAL MEDITATION TECHNIQUE

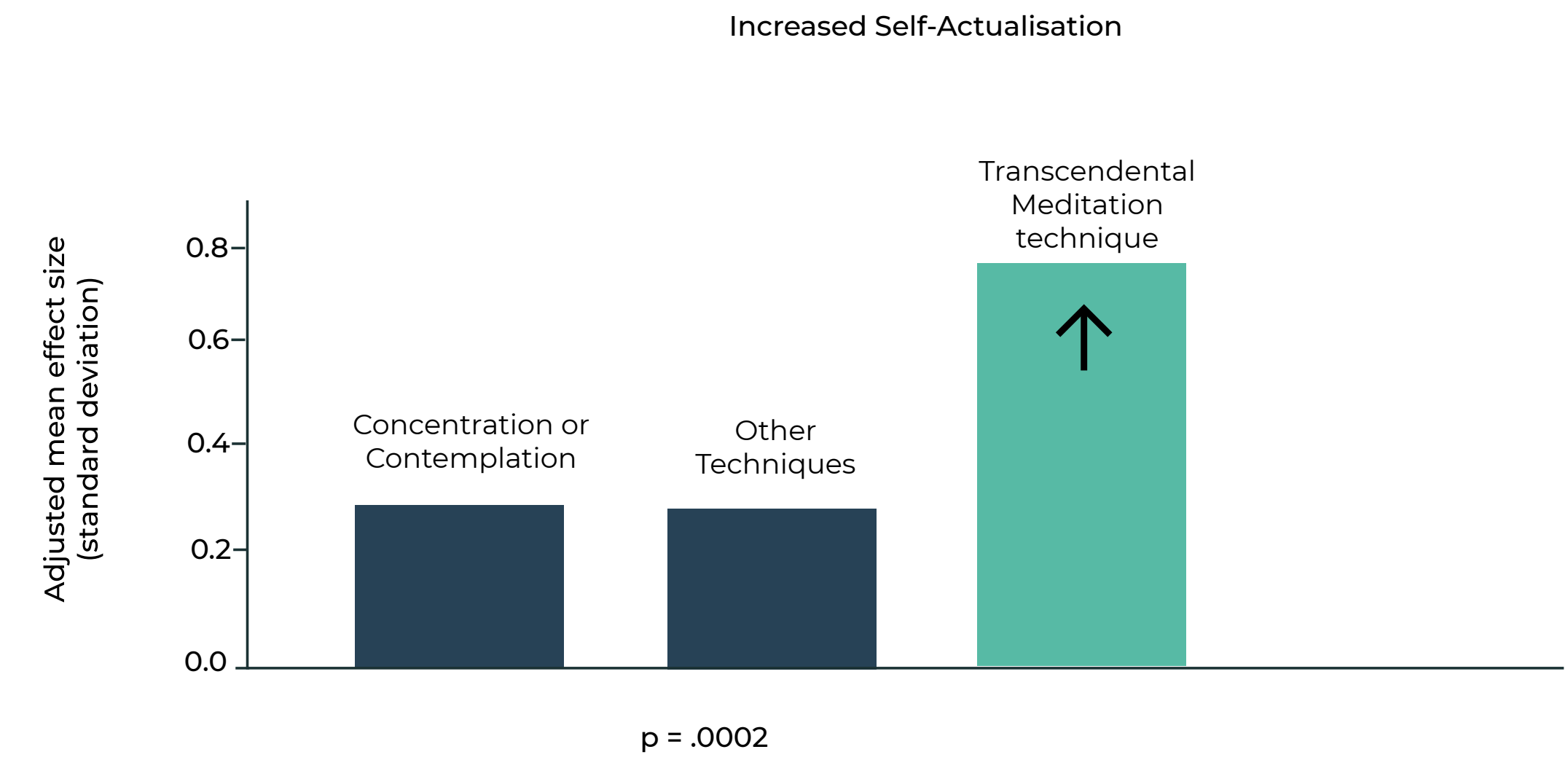


Decrease in PTSD	
Reference	Rees, B., Travis, F., Shapiro, D. and Chant, R. (2014), Significant Reductions in Posttraumatic Stress Symptoms in Congolese Refugees Within 10 days of Transcendental Meditation Practice. Journal of Traumatic Stress, 27: 112-115. https://doi.org/10.1002/jts.21883
URL	https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.21883
Journal	Journal of Traumatic Stress
Effect Size	d = 4.05
Type of Test	The Posttraumatic Stress Disorder Checklist–Civilian (PCL-C)
Type of Study	RCT

TM reduces PTSD symptoms within 10 days, and after 30 days they decline to non-symptomatic levels.

Reference. Rees, B., F. Travis, D. Shapiro, and R. Chant. “Significant Reductions in Posttraumatic Stress Symptoms in Congolese Refugees after 10 Days Transcendental Meditation Practice.” Journal of Traumatic Stress 27, no. 1 (2014): 112-15.

INCREASED SELF-ACTUALISATION



Statistical meta-analysis of all available research (42 independent study results) indicated that Transcendental Meditation practice increases self-actualisation (development of one's full potential) by about three times as much as procedures of contemplation, concentration, or other techniques.

Reference: Journal of Social Behavior and Personality 6: 189-248, 1991

Key finding - A meta-analysis published in the Journal of Social Behavior and Personality showed the Transcendental Meditation programme increased self-actualization by three times as large an effect as that of other forms of meditation or relaxation.

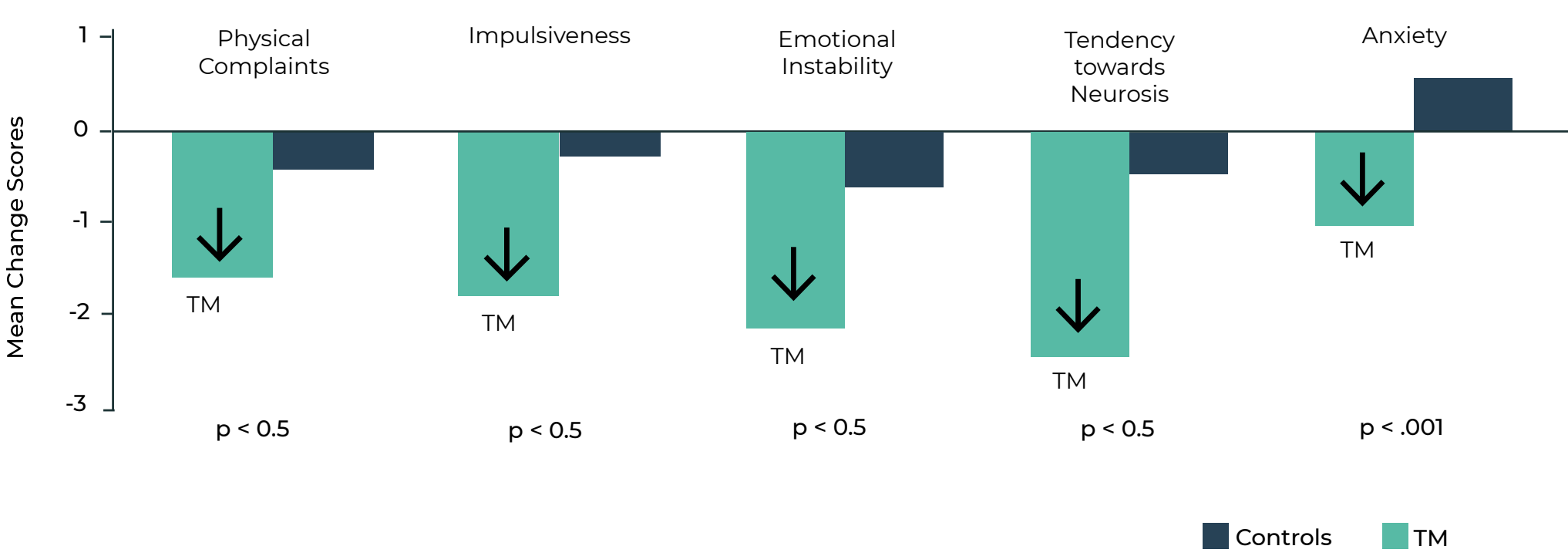
Statistical meta-analysis of all available studies (42 independent outcomes) indicated that the effect of the Transcendental Meditation programme on increasing self-actualisation is much greater than concentration, contemplation, or relaxation techniques.

Self- actualisation refers to realising more of one's inner potential, expressed in every area of life: integration and stability of personality, self-regard, emotional maturity, capacity for warm interpersonal relationships, and adaptive response to challenges.

Self Actualisation		
Reference	Seeman, W., Nidich, S., & Banta, T. (1972). Influence of transcendental meditation on a measure of self-actualization. Journal of Counseling Psychology, 19(3), 184-187. https://doi.org/10.1037/h0032712	Alexander CN et al. Transcendental Meditation, self-actualization, and psychological health: a conceptual overview and statistical meta-analysis. Journal of Social Behavior and Personality 1991 6:189-247
URL	https://psycnet.apa.org/record/1972-29165-001	https://www.proquest.com/open-view/96282a627d15a9e40a80a4c5ea6c-cba4/1?pq-origsite=gscholar&cbl=1819046
Journal	Journal of tCounseling Psychology	Journal of Social Behaviour and Personality
Effect Size	*not available	ES (Standard Deviation)= 0,78
Type of Test	Personal Orientation Inventory (POI)	NA
Type of Study	RCT	Statistical Meta Anlaysia

REDUCTION IN ALCOHOL USE AND SUBSTANCE ABUSE

Key Finding – A meta-analysis, published in Alcoholism Treatment Quarterly, showed the practice of the Transcendental Meditation programme to result in a greater degree of reduction and more lasting reduction in consumption of alcohol, drugs, and cigarettes than other relaxation or preventive education programmes with this not reducing over time provided the individual is regular with the practice of the meditation.



The probability of the results being random is between 0,1% and 5%

Statistical meta-analysis of all available research (42 independent study results) indicated that Transcendental Meditation practice increases self-actualisation (development of one's full potential) by about three times as much as procedures of contemplation, concentration, or other techniques.

Reference: Journal of Social Behavior and Personality 6: 189-248, 1991

Reduction in drug / alcohol dependency			
Reference	Haaga, D. A., Grosswald, S., Gaylord-King, C., Rainforth, M., Tanner, M., Travis, F., Nidich, S., & Schneider, R. H. (2011). Effects of the Transcendental Meditation Program on Substance Use among University Students. Cardiology research and practice, 2011, 537101. https://doi.org/10.4061/2011/537101	Monahan R. J. (1977). Secondary prevention of drug dependence through the transcendental meditation program in metropolitan Philadelphia. The International journal of the addictions, 12(6), 729-754. https://doi.org/10.3109/10826087709024122	M. Shafii, R.A. Lavelly, and R.D. Jaffe, "Meditation and Marijuana," American Journal Psychiatry 131(1974): 60-63
URL	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3087968/	https://pubmed.ncbi.nlm.nih.gov/338516/	https://ajp.psychiatryonline.org/doi/abs/10.1176/ajp.131.1.60
Journal	Cardiology Research and Practice	The International Journal of the Addictions	American Journal
Effect Size	illicit drug use (P < .05); alcohol use (P < .05)	p(0,05 - p<0,001)	*not available
Type of Test	ANCOVA	Questionnaire	Questionnaire
Type of Study		RCT	

FINDINGS

A random sample of practitioners of the Transcendental Meditation programme and matched control subjects responded to a questionnaire about their substance usage habits.

After an average of 19 months practising the TM programme, usage levels of all substances declined significantly among TM participants, while those of controls did not.

Length of time meditating and regularity of meditation were positively correlated with decreased substance usage.

INTERPRETATION

- The TM programme was associated with significant decreases in the use of a variety of substances – prescribed and non-prescribed, addictive and non-addictive, legal and illegal.
- These changes occurred spontaneously – the TM programme does not involve restrictions in lifestyle or behaviour.
- Transcendental Meditation has been found to reduce negative psychological traits, while simultaneously increasing positive traits that are related to drug usage.
- Research has also found that TM develops a more orderly style of neurophysiological functioning that enables meditators to respond more effectively to stressful situations.
- These results support the hypothesis that the TM technique cultures a balanced state of physiological and psychological functioning, in which potentially detrimental behaviour is naturally avoided without strain or effort.

QUALITATIVE FINDINGS

IN SOUTH AFRICAN SCHOOLS AND AROUND THE WORLD REDUCED ALCOHOL DEPENDENCY

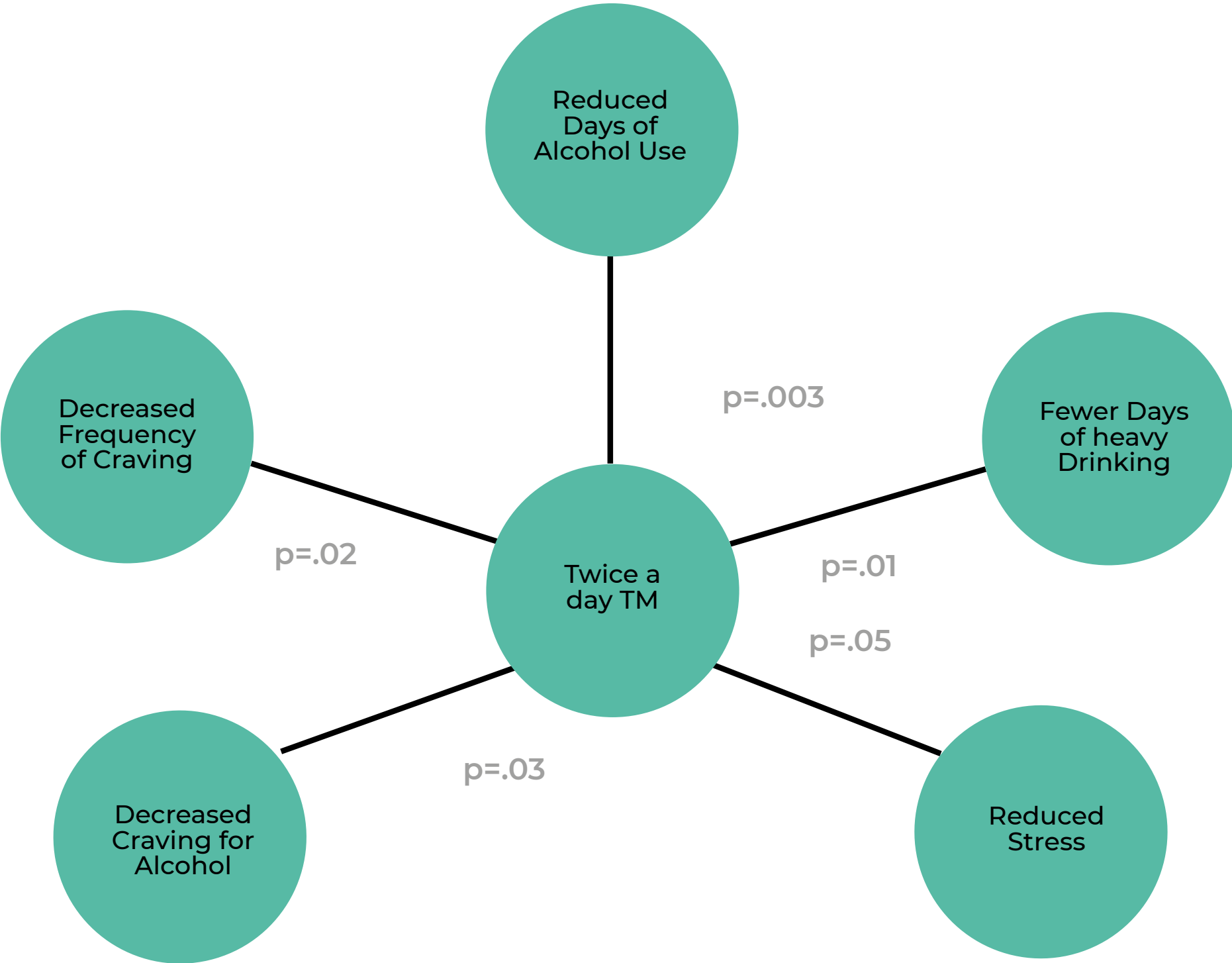
“I was an alcoholic. For most of my adult life I’ve been unable to sleep at night without drinking something to help me fall asleep. Sometimes as much as two bottles of whiskey before I would pass out. After I learned to meditate, I sat at home the first evening next to my bed. I had just finished meditating and then the thought came to have a drink.

I poured it out and just looked at it. I don’t know why but for the first time I didn’t want this drink. I felt too pure after meditation. And that’s been the case ever since – it’s just that I can’t bear to pollute my body like that any more. Once thing more, is that now I just fall asleep every night without trying.”

H.O.D . – Secondary School

DECREASED STRESS, DECREASED CRAVING FOR ALCOHOL AND HEAVY DRINKING

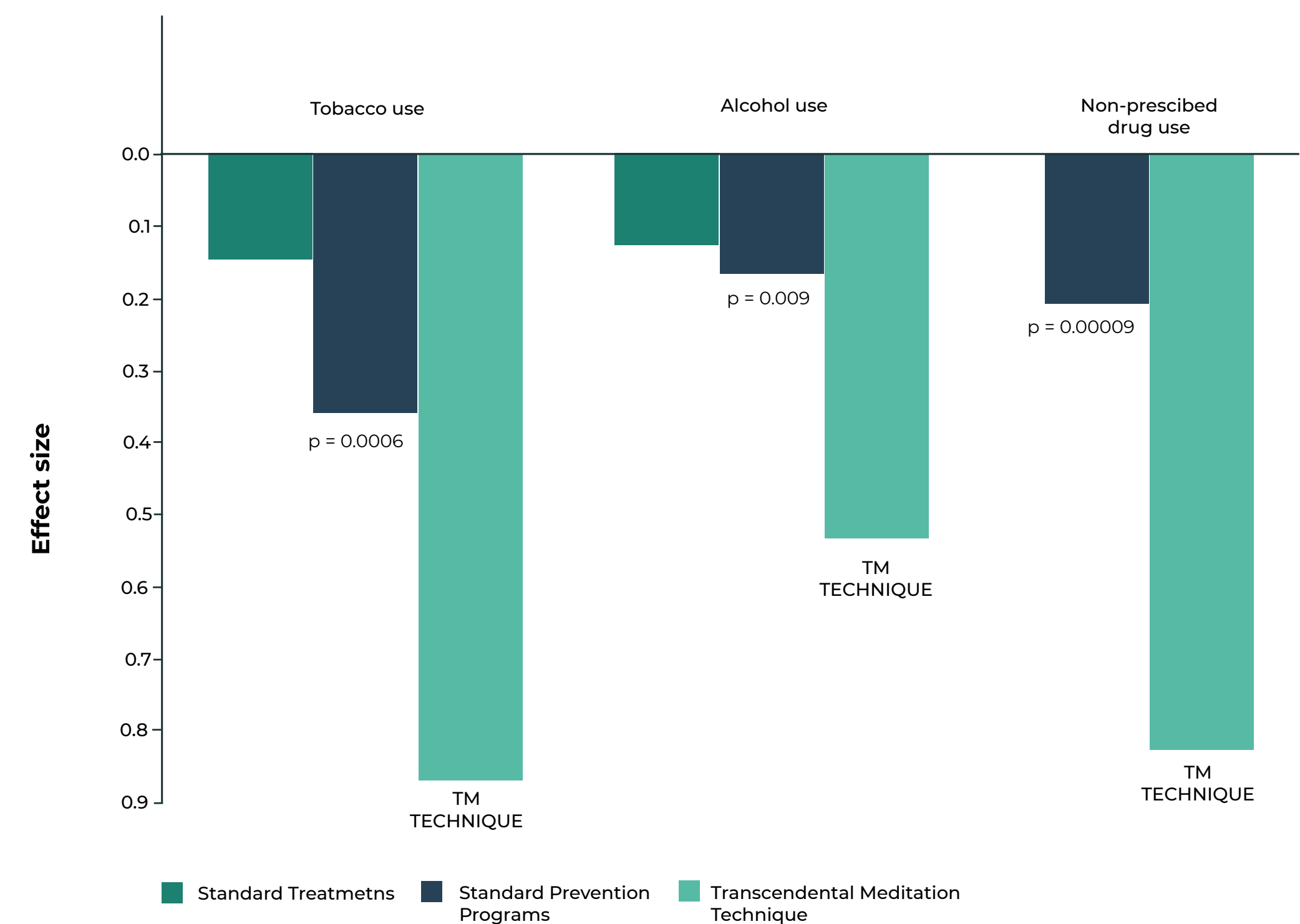
ONLY 25% OF MEDITATORS RETURNED TO DAILY DRINKING COMPARED WITH 59% OF NON-MEDITATORS



Reduced Days of Alcohol Use, and reduced heavy drinking	
Reference	Gryczynski, J., Schwartz, R. P., Fishman, M. J., Nordeck, C. D., Grant, J., Nidich, S., Rothenberg, S., & O'Grady, K. E. (2018). Integration of Transcendental Meditation® (TM) into alcohol use disorder (AUD) treatment. Journal of substance abuse treatment, 87, 23–30. https://doi.org/10.1016/j.jsat.2018.01.009
URL	https://pubmed.ncbi.nlm.nih.gov/29471923/
Journal	Journal of substance abuse treatment
Effect Size	heavy drinking post-discharge (p < .001); return to any drinking (p = .02)
Type of Test	Neural imaging - MRI
Type of Study	RCT

The probability of the results being random is between 0,3% and 5%

REDUCED DRUG AND ALCOHOL USE



A comparison of the results of several statistical meta-analyses indicate that the Transcendental Meditation technique produces significantly larger reductions in tobacco, alcohol, and non-prescribed drug use than standard effects of conventional programs typically fall off rapidly within three months, the effect of TM increase over time.

Treatment and Prevention of Alcohol, Nicotine and Drug Abuse through TM	
Reference	Charles N. Alexander PhD, Pat Robinson PhD, OTR & Maxwell Rainforth MS, MA (1994) Treating and Preventing Alcohol, Nicotine, and Drug Abuse Through Transcendental Meditation.; Alcoholism Treatment Quarterly, 11:1-2, 13-87, DOI: 10.1300/J020v11n01_02
URL	https://www.tandfonline.com/doi/abs/10.1300/J020v11n01_02
Journal	Alcoholism Treatment Quarterly
Effect Size	Tobacco p=0,0006; Alcohol use p = 0,009; Non-prescribed drugs p=0,00009
Type of Study	Statistical meta Analysis

Findings from a study presented recently, “Exploring the Science of Meditation on Trauma, Stress and the Brain”

Video of the event found here
And a summary of presentations here

The probability of the results being random is 0,06% for tobacco and 0,09% for drug abuse

REDUCTION IN CIGARETTE USE: QUITTING SMOKING

BACKGROUND FACTS: Cigarette smoking causes roughly one in every five deaths in the US. Life expectancy for smokers is at least 10 years shorter than for non-smokers.

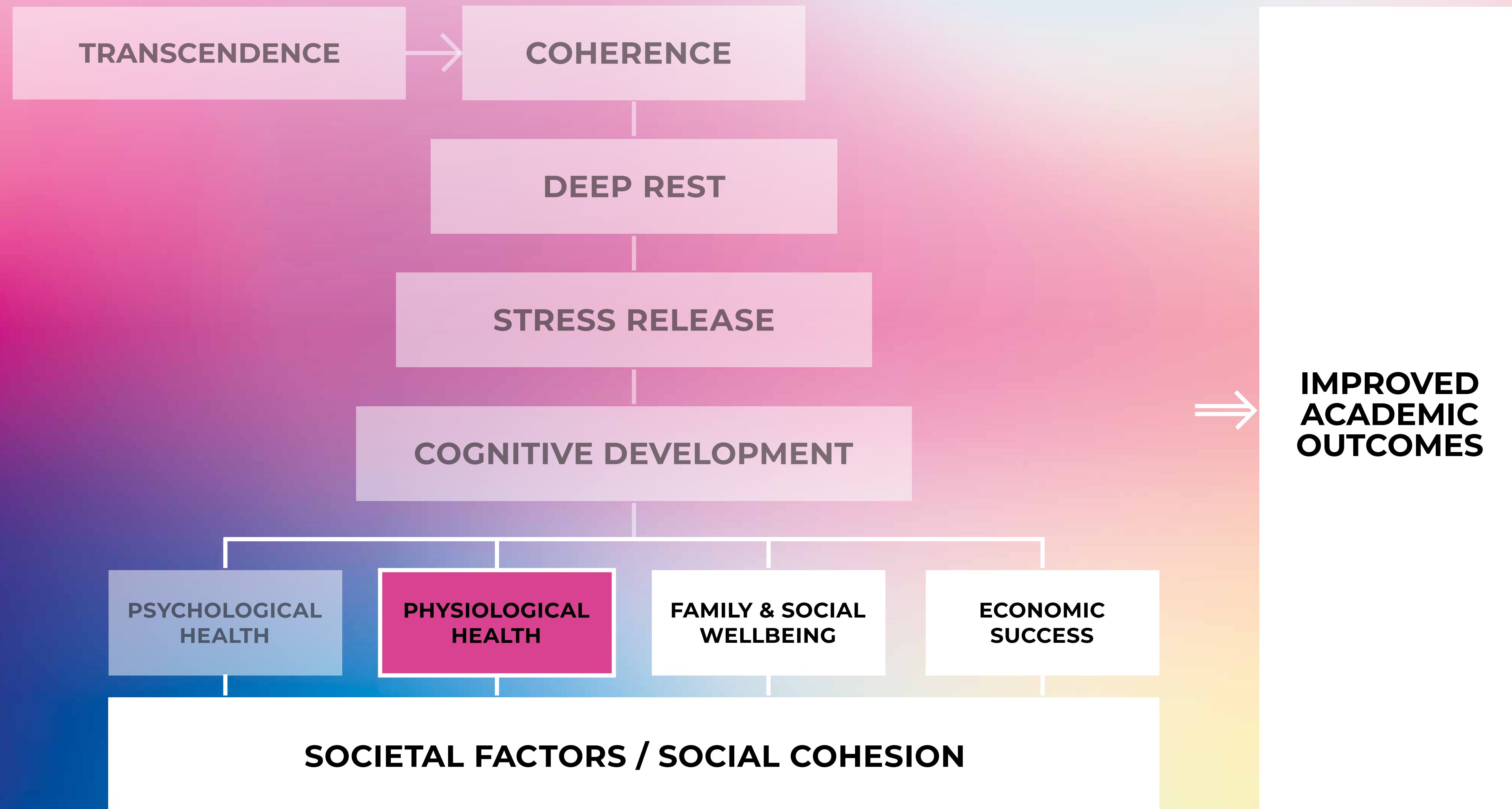
KEY STUDY: 226 smokers learning the TM technique and 850 who didn't. All subjects were asked to complete a questionnaire on their smoking habits. After 20-24 months a follow up questionnaire was undertaken, both on smoking habits and the regularity of Transcendental Meditation practice.

FINDINGS: 51% of those fully adherent to TM practice had quit smoking and an additional 30% had decreased the number smoked daily by at least 5 cigarettes. For those partially adherent to Transcendental Meditation practice, these numbers were respectively 21% and 34%. In the non-TM group, 21% had quit smoking and 12% had reduced the number of cigarettes smoked daily by at least 5.





PHYSIOLOGICAL HEALTH





The more you practice meditation, the stronger & better your prefrontal cortex, the greater your emotional well-being and balance. If you want to rewire your brain for happiness while freeing yourself from the chains of depression, meditation is key.

MEDITATION STRENGTHENS THE PRE-FRONTAL CORTEX

HA landmark study by Harvard neuroscientist Dr. Sara Lazar

Showed that the brains of meditators had remarkably more “prefrontal cortex gray matter thickness” — with degree directly linked to level of meditation experience. Lazar found that people who meditate don’t show a decline in the thickness of the prefrontal cortex which usually comes with age. In other words, the more you practice meditation, the stronger & better your prefrontal cortex, the greater your emotional well-being and balance.

Just one of many studies illustrating the same thing: researchers continually find meditation to increase intelligence, happiness, and good health”.

Physiological Changes to the Brain			
	Cortical Thickening	Fluid Intelligence Gyri-fication	Strengthening pre-frontal cortex
Reference	Lazar, Sara W.a; Kerr, Catherine E.b; Was-serman, Rachel H.a b; Gray, Jeremy R.c; Greve, Douglas N.d; Treadway, Michael T.a; McGarvey, Mettae; Quinn, Brian T.d; Dusek, Jeffery A.f g; Benson, Herbertf g; Rauch, Scott L.a; Moore, Christopher I.h i; Fischl, Brucej Meditation experience is associated with increased cortical thickness, NeuroReport: November 28th, 2005 - Volume 16 - Issue 17 - p 1893-1897doi: 10.1097/01.wnr.0000186598.66243.19	Ehsan Tadayon, Al-varo Pascual-Leone, Emiliano Santarnecchi, Differential Contribu-tion of Cortical Thick-ness, Surface Area, and Gyrfication to Fluid and Crystallized Intelligence, Cerebral Cortex, Volume 30, Issue 1, January 2020, Pages 215–225, https://doi.org/10.1093/cercor/bhz082	Engen, H. G., Bernhardt, B. C., Skottnik, L., Ricard, M., & Singer, T. (2018). Structural changes in socio-affective networks: Multi-modal MRI find-ings in long-term med-itation practitioners. Neuropsychologia, 116(Pt A), 26–33. https://doi.org/10.1016/j.neuropsychologia.2017.08.024
URL	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1361002/	https://academic.oup.com/cercor/article/30/1/215/5482387	https://pubmed.ncbi.nlm.nih.gov/28842274/
Journal	NeuroReport	Cerebral Cortex	Neuropsychologia
Effect Size	*Both hemispheres (P=0.0001) *Left hemi-sphere (P=0.0025) *Right hemisphere (P=0.013)	P = 0.01	*not available
Type of Test	Kolmogorov-Smirnoff statistics	*Raven’s Standard Progressive Matrices (RSPM) *Penn Progres-sive Matrices (PMAT)	*not available
Type of Study	Cross-sectional		Cross-sectional

“Neuroimaging research indicates that human intellectual ability is related to brain structure including the thickness of the cerebral cortex. Most studies indicate that general intelligence is positively associated with cortical thickness in areas of association cortex distributed throughout both brain hemispheres.”

Associations between cortical thickness and general intelligence in children, adolescents and young adults.
Menary et al.

“The thickness of the cortex is of great interest in both normal development as well as a wide variety of neurodegenerative and psychiatric disorders.”

Measuring the thickness of the human cerebral cortex from magnetic resonance images. Fischi and Dale.



MEDITATION SIGNIFICANTLY CORRELATED WITH INCREASED GYRIFICATION

Meditation **increases** brain size/surface area by making its outward features (known as “gyri”) more grooved, wrinkled, ridged, and folded. This process of **“gyrification”** is a bit like stuffing your whole wardrobe into one tiny suitcase. Don’t worry, it’s a very good thing. We actually **want** our brain to look like a **super-complex maze**.

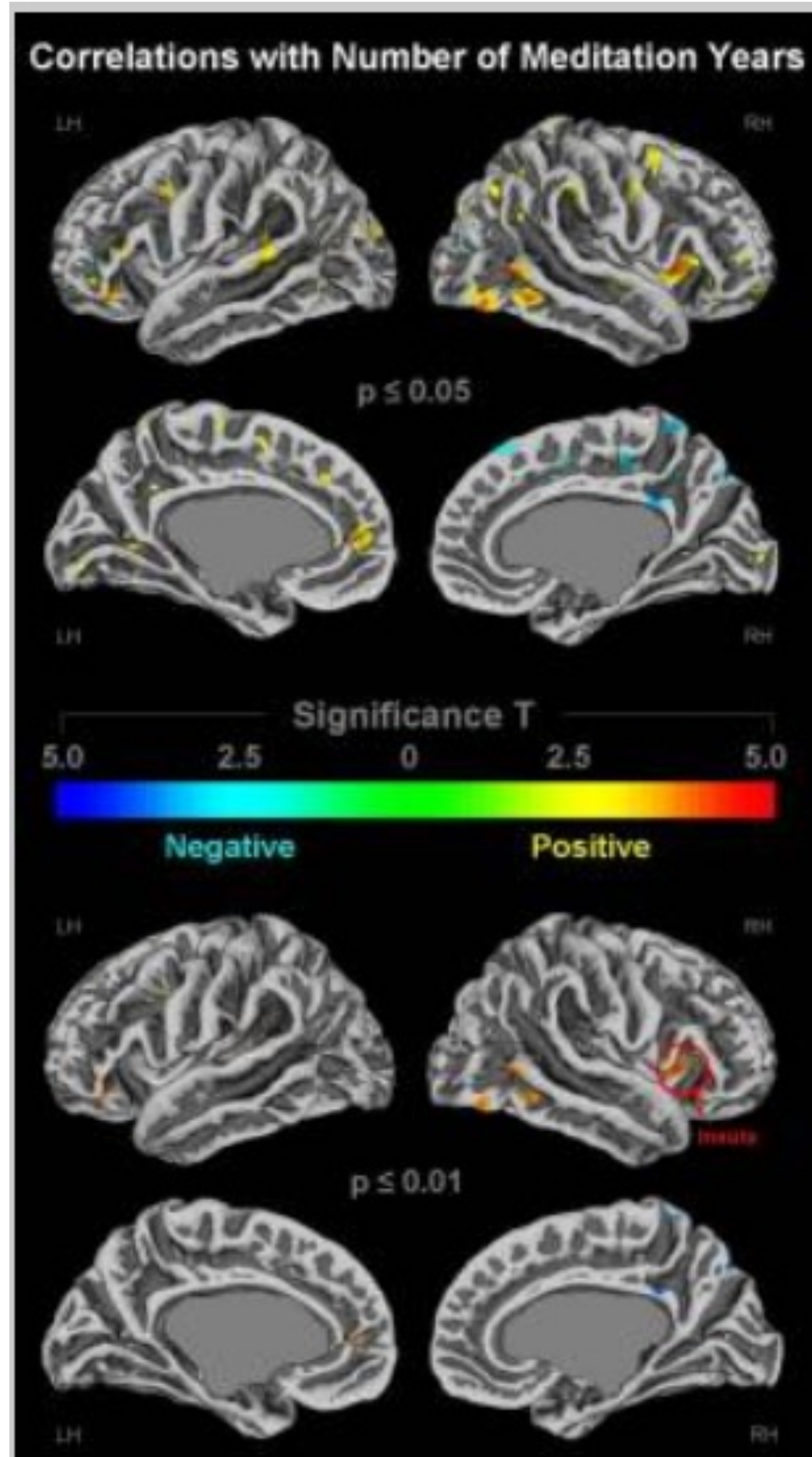
The more **intricate and detailed** we make its outward features (through neuroplasticity), the further we get from “smooth-brained” lower animals. In this way, harnessing the power of meditation to “pack-in” **loads of gray matter** not only “spring-loads” our brain power, but also **slingshots** our place on the **evolutionary timeline**. Darwin would approve.

Back to fluid intelligence. Where does **“fluidly-intelligent” activity** occur in the brain? In the thin, outermost surface layers (of the cerebral cortex, especially). On the edges. Then, like a compressed spring, a brain with compact outward features would catapult this “MacGyver-like” ability.

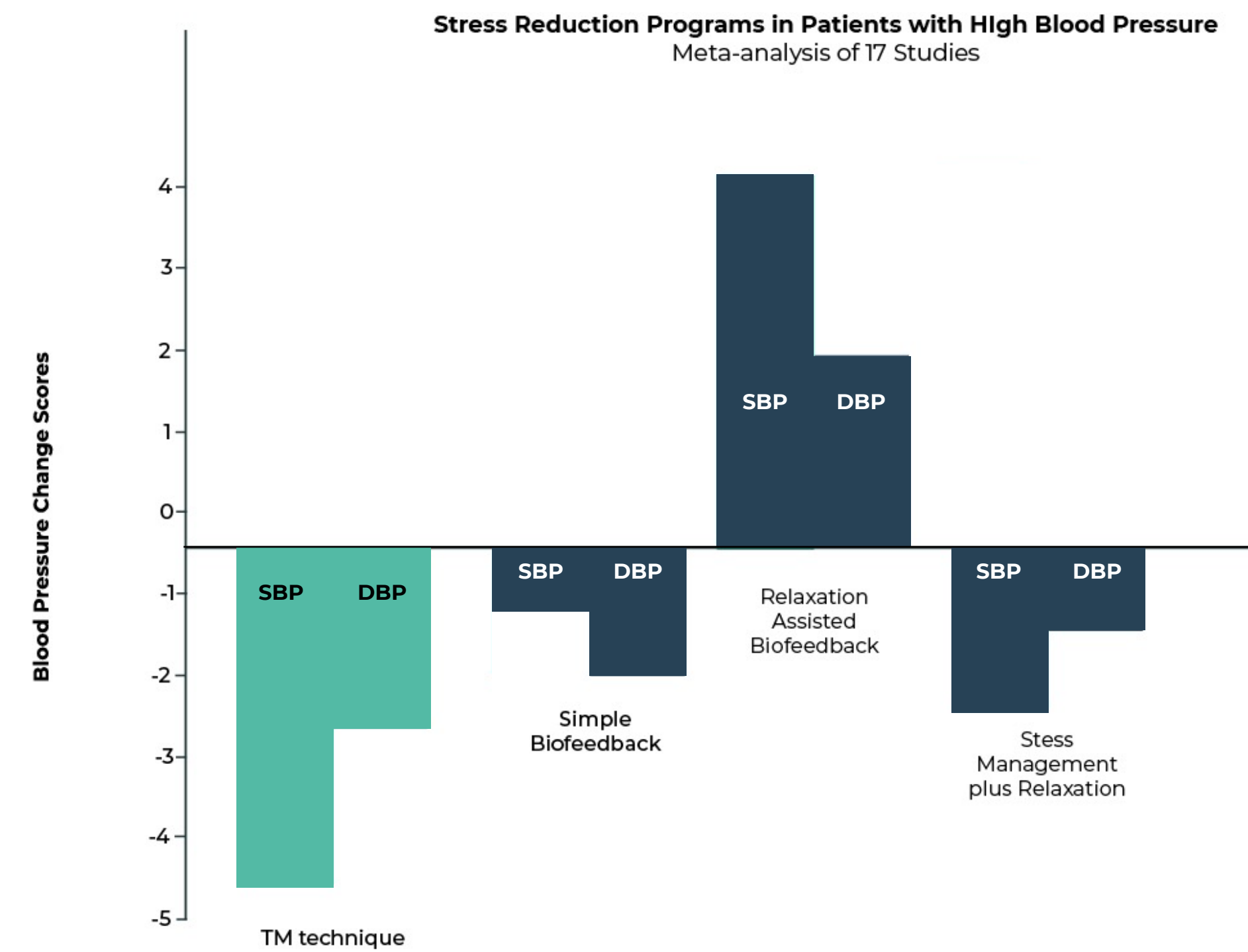
For meditators, with their **grooved, wrinkled**, and ridged brain features all “packed in nice and tight” (of the cerebral cortex, especially) — their brains are naturally wired for high fluid intelligence. “All that brain” stuffed into one cranium. That’s the magic.

POSITIVE CORRELATION BETWEEN YEARS MEDITATING AND GYRIFICATION

Shown are correlations at $p \leq 0.05$ (upper panel) and $p \leq 0.01$ (lower panel), uncorrected for multiple comparisons. The color bar encodes significance (T). Areas with positive correlations (i.e., more meditation years link with more gyrification) are depicted in yellow/orange; negative correlations (i.e., more meditation years link with less gyrification) are depicted in cyan. Callosal, subcallosal, and midbrain regions have been excluded on the medial surface maps. The red circle indicates the global maximum. LH, left hemisphere; RH, right hemisphere.



STRESS REDUCTION IN PATIENTS WITH HIGH BLOOD PRESSURE



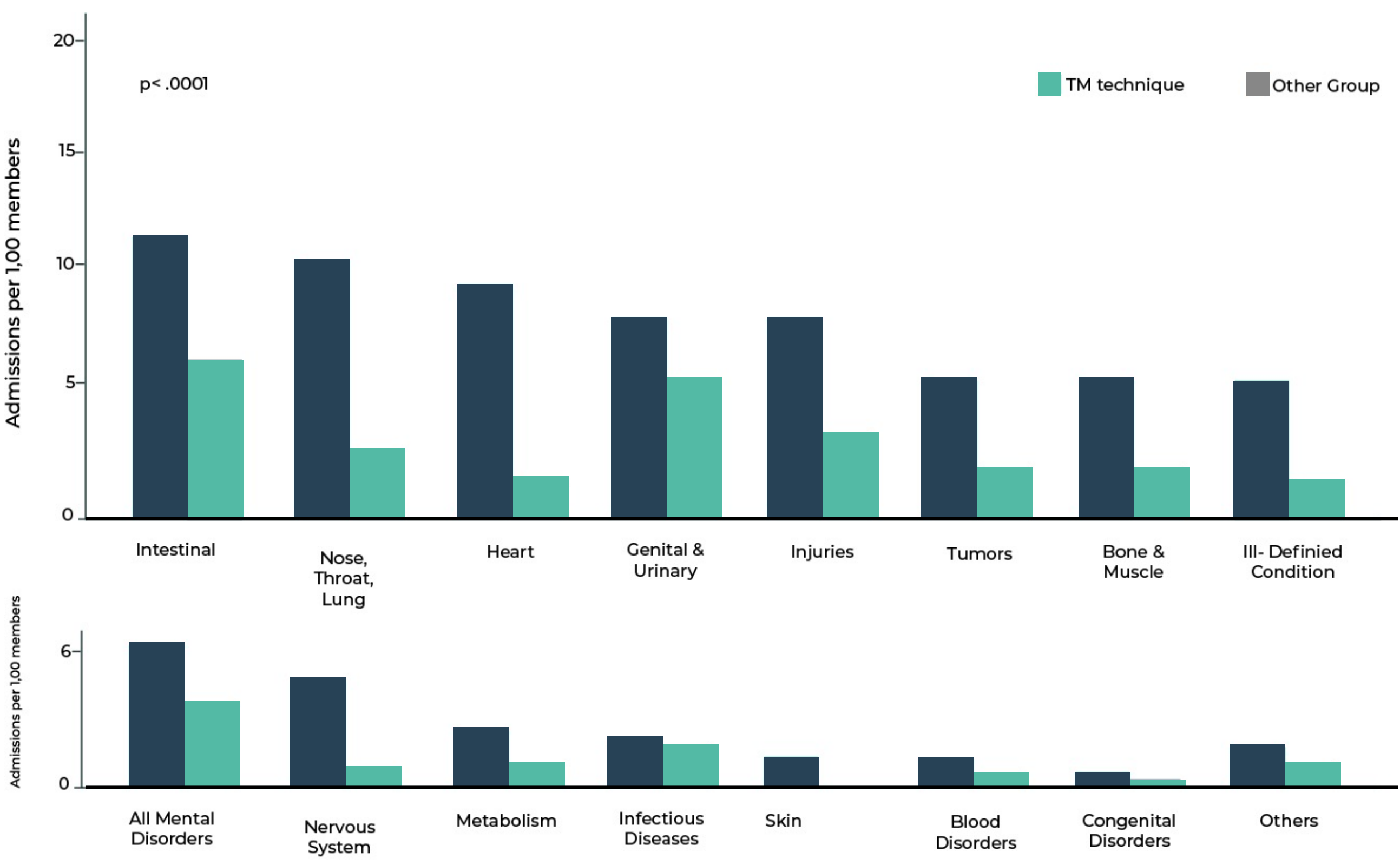
Rainforth, M. V., Schneider, R. H., Nidich, S. I., Gaylord-King, C., Salerno, J. W., & Anderson, J. W. (2007). Stress reduction programs in patients with elevated blood pressure: a systematic review and meta-analysis. Current hypertension reports, 9(6), 520–528.

Reduction in incidence of high blood pressure	
Reference	Rainforth, M. V., Schneider, R. H., Nidich, S. I., Gaylord-King, C., Salerno, J. W., & Anderson, J. W. (2007). Stress reduction programs in patients with elevated blood pressure: a systematic review and meta-analysis. Current hypertension reports, 9(6), 520–528. https://doi.org/10.1007/s11906-007-0094-3
URL	https://pubmed.ncbi.nlm.nih.gov/18350109/
Journal	Current Hypertension Reports
Effect Size	P = 0.002
Type of Study	Meta-Analysis

The probability of the results being random is 0,2%

HEALTH INSURANCE STATISTICS: FEWER HOSPITAL ADMISSIONS IN ALL DISEASE CATEGORIES

THROUGH THE TRANSCENDENTAL MEDITATION TECHNIQUE



Reduction in hospital admissions	
Reference	Herron, R. E., & Hillis, S. L. (2000). The impact of the transcendental meditation program on government payments to physicians in Quebec: an update. American journal of health promotion : AJHP, 14(5), 284–291. https://doi.org/10.4278/0890-1171-14.5.284
URL	https://pubmed.ncbi.nlm.nih.gov/11009854/
Journal	American journal of health promotion : AJHP
Effect Size	p = .0017
Type of Study	quasi experimental, longitudinal, cost-minimization study.

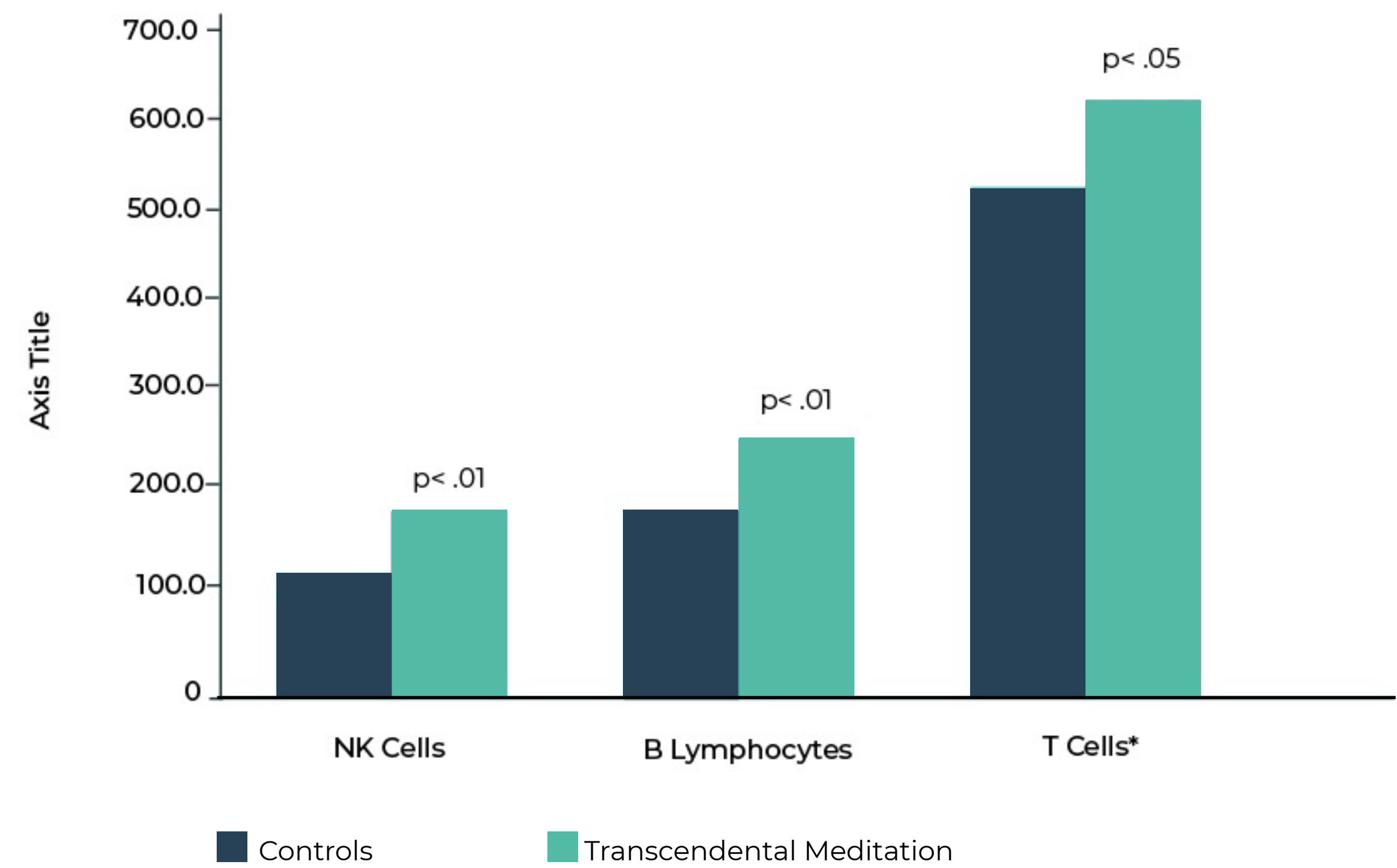
Fewer Hospital Admissions for All Disease Categories through the Transcendental Meditation technique

TM group was -30.6% lower than the norm for the category of Mental Health/Substance Abuse, which includes anxiety and PTSD.

This study of 2000 TM practitioners over a five-year period found reduced hospital admissions in all categories of disease for TM, compared to the norm.

IMMUNITY

TM INCREASES WHITE BLOOD CELLS THAT DEFEND THE BODY FROM INFECTION AND CANCER.



Increased white blood cell count (improved immunity)	
Reference	Infante, J. R., Peran, F., Rayo, J. I., Serrano, J., Domínguez, M. L., Garcia, L., Duran, C., & Roldan, A. (2014). Levels of immune cells in transcendental meditation practitioners. International journal of yoga, 7(2), 147–151. https://doi.org/10.4103/0973-6131.133899
URL	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4097901/
Journal	CD3+CD4–CD8+ lymphocytes (P < 0.05), B lymphocytes (P < 0.01) and natural killer cells (P < 0.01)
Effect Size	*automated quantitative hematology analyzer *flow cytometry
Type of Study	RCT

The probability of the results being random is less than 5%

*** CD3+CD4–CD8+ lymphocytes**

HEART DISEASE – 48% REDUCTION IN TM GROUP

Background facts: Heart disease accounts for 1 in 4 deaths in the US.

Coronary heart disease alone costs the United States \$108.9 billion each year.

(Heidenreich PA, Trogon JG, Khavjou OA, et al. Forecasting the future of cardiovascular disease in the United States: a policy statement from the American Heart Association. Circulation. 2011;123:933-44. Epub 2011 Jan 24)

Key study: 201 black people with coronary heart disease were evaluated. The subjects’ ethnicity was selected as black people in the US are more likely to suffer from heart disease. The subjects were split between two groups; TM and traditional health education.

Findings: During an average follow-up of 5.4 years, the consequences of coronary heart disease (mortality, myocardial infarctions, or stroke) for the TM group was reduced by 48%.

Increased white blood cell count (improved immunity)	
Reference	Walton, K. G., Schneider, R. H., & Nidich, S. (2004). Review of controlled research on the transcendental meditation program and cardiovascular disease. Risk factors, morbidity, and mortality. Cardiology in review, 12(5), 262–266. https://doi.org/10.1097/01.crd.0000113021.96119.78
URL	https://pubmed.ncbi.nlm.nih.gov/15316306/
Journal	Cardiology Review
Effect Size	48% reduction
Type of Study	Meta-Analysis

OTHER STUDIES ON HEALTH BENEFITS

Heart Disease (p = 0,05)

“Meditation protects against heart disease. One study of 40 older adults found that the wight-week MBSR training reduced concentrations of the marker C-reactive protein, which is associated with the development of heart disease”
<https://pubmed.ncbi.nlm.nih.gov/28963100/> (American Heart Association)

Immune System

The same study (above) found drop in the group of genes that activate inflammation and are part of the body’s immune response
Reduced Hypertension (p = 0.008 reduction in diastolic)

This study found that meditation practice resulted in blood pressure

This Study shows the mechanism through which this can happen, reducing stress, and decreasing anxiety. They specifically noticed differences in gene expression over the period, thereby establishing the biological pathways for improvement.

A meta-analysis published in the Journal of Human Hypertension used an RCT of TM as an intervention for High blood pressure. “TM had greater effects among individuals with higher BP (P<0,05)

Slowed Disease Progression of HIV

A 2009 study used a small Randomised Control Trial which shows that Meditation buffered the CD4+ T lymphocyte declines (p=0,6)

	Reduced Hypertension	Slow disease progression of HIV	Cancer
Reference	Bai, Z., Chang, J., Chen, C. et al. Investigating the effect of transcendental meditation on blood pressure: a systematic review and meta-analysis. J Hum Hypertens 29, 653–662 (2015). https://doi.org/10.1038/jhh.2015.6	Chhatre, S., Metzger, D. S., Frank, I., Boyer, J., Thompson, E., Nidich, S., Montaner, L. J., & Jayadevappa, R. (2013). Effects of behavioral stress reduction Transcendental Meditation intervention in persons with HIV. AIDS care, 25(10), 1291–1297. https://doi.org/10.1080/09540121.2013.764396	Nidich, S. I., Fields, J. Z., Rainforth, M. V., Pomerantz, R., Cella, D., Kristeller, J., Salerno, J. W., & Schneider, R. H. (2009). A randomized controlled trial of the effects of transcendental meditation on quality of life in older breast cancer patients. Integrative cancer therapies, 8(3), 228–234. https://doi.org/10.1177/1534735409343000
URL	https://www.nature.com/articles/jhh20156	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3659206/	https://pubmed.ncbi.nlm.nih.gov/19815592/
Journal	Nature	AIDS Care	Integrative Cancer Therapies
Effect Size	p=0,019	Vitality (p=0.0133); *Improved General Health p=0.0299; *Improvement in physical well-being p=0.0127; *Improved Quality of Well-being (QWB	*FACT-B total score (P = .037); *Emotional well-being; (P = .046); *social well-being (P = .003); *subscales SF-36 mental health (P = .017)
Type of Test	Cochrane Collaboration's quality assessment tool	*Medical Outcomes Short Form SF-3; *HIV-specific HRQoL Functional Assessment of HIV Infection (FAHI) instrument; *Quality of Well-being (QWB-SA) survey	*Functional Assessment of Cancer Therapy-Breast (FACT-B), *Functional Assessment of Chronic Illness Therapy- Spiritual Well-Being (FACIT-SP), *Short-Form (SF)-36 mental health and vitality scales
Type of Study	Meta-Analysis	RCT	RCT

MEDITATION’S ANTI-AGING PROPERTIES

Protects against the degeneration of Chromosomes

30% more activity of the **enzyme telomerase**

TIME reports: “Telomerase is responsible for repairing telomeres, the structures located on the ends chromosomes, which, like the plastic aglets at the tips of shoelaces, prevent the chromosome from unraveling.”

Reduced stress appears to be the mechanism through which telomerase is preserved

Reversal of ageing		
Reference	Alexander, C. N., Langer, E. J., Newman, R. I., Chandler, H. M., & Davies, J. L. (1989). Transcendental Meditation, mindfulness, and longevity: An experimental study with the elderly. Journal of Personality and Social Psychology, 57(6), 950–964. https://doi.org/10.1037/0022-3514.57.6.950	Wallace, R. K., Dillbeck, M., Jacobe, E., & Harrington, B. (1982). The effects of the transcendental meditation and TM-Sidhi program on the aging process. The International journal of neuroscience, 16(1), 53–58. https://doi.org/10.3109/00207458209147602
URL	https://pubmed.ncbi.nlm.nih.gov/2693686/	https://www.tandfonline.com/doi/abs/10.3109/00207458209147602
Journal	Journal of Personality and Social Psychology	The International Journal of Neuroscience
Effect Size	*not available	standardized test of biological aging, utilizing auditory threshold, near point vision, and systolic blood pressure
Type of Study	RCT	RCT



HOW MEDITATION UNEXPRESSES CANCER

While we all have an at-birth set of genes, there is a layer above our DNA sequence which is ultimately responsible for which genes get expressed and which ones stay dormant.

Medication can affect Gene Expression

Empirical Research shows how TM can alter neural, behaviuoural and biochemical processes.

Dr. Dean Ornish and colleagues at the University of California, San Francisco had a group of low-risk prostate cancer survivors practice an hour long meditative breathing exercise. What did they find?

By decreasing the expression of cancer associated genes (RAN, RAB14, & RAB8A), they discovered that meditation could actually “molecularly mitigate” and “silence” the processes which play a role in developing cancer.

From Another Study: Found “reduced expression of histone deacetylase genes (HDAC 2, 3 and 9), alterations in global modification of histones (H4ac; H3K4me3) and decreased expression of pro-inflammatory genes (RIPK2 and COX2) in meditators compared with controls. ”

Mindfulness had exerted powerful “global influence” (histone modification) on the “chief regulators” (H4 pan-acetyl and histone H3 trim ethyl Lys4) responsible for cancerous tumor formation and development.

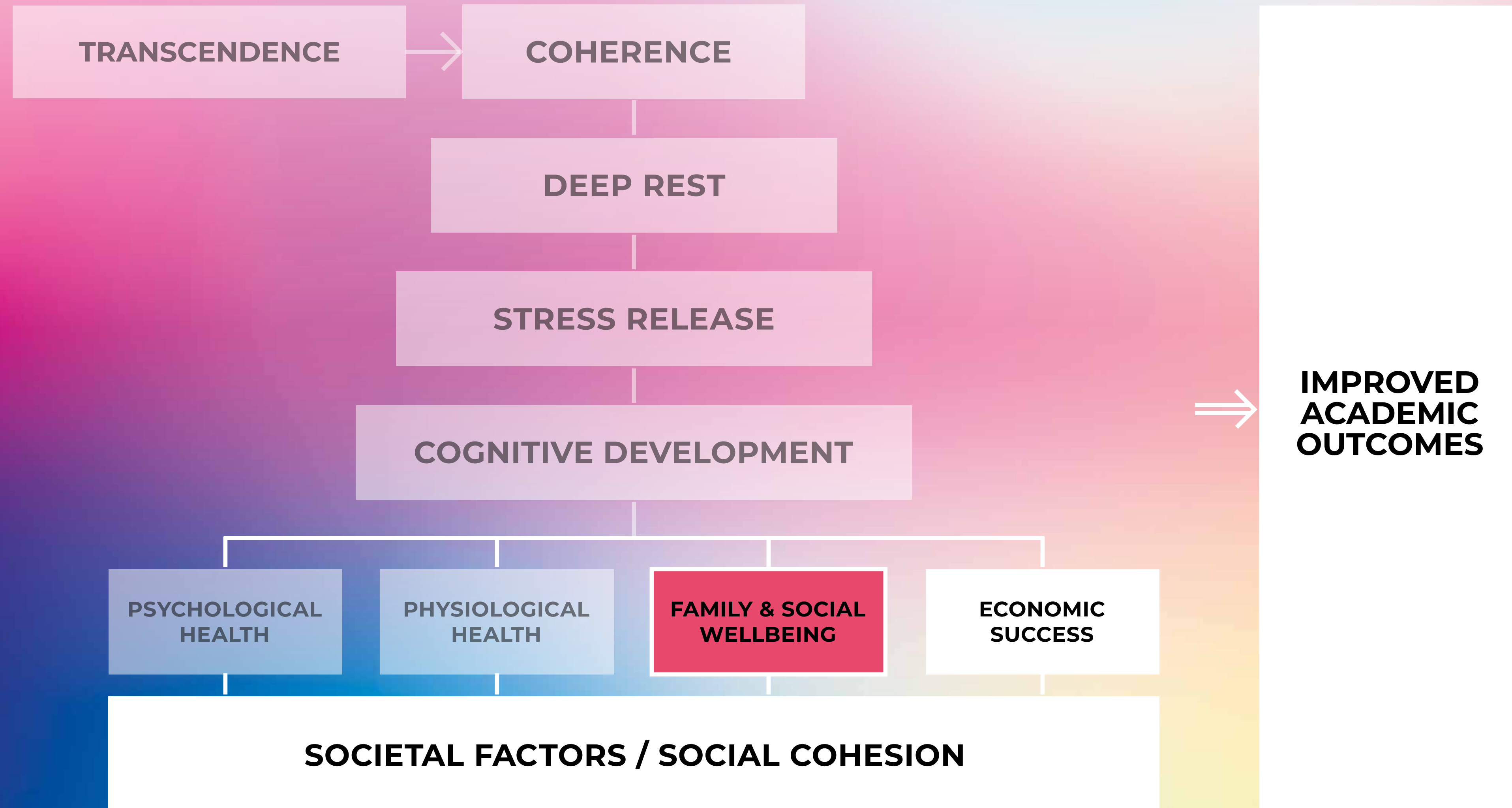
Cancer	
Reference	Nidich, S. I., Fields, J. Z., Rainforth, M. V., Pomerantz, R., Cella, D., Kristeller, J., Salerno, J. W., & Schneider, R. H. (2009). A randomized controlled trial of the effects of transcendental meditation on quality of life in older breast cancer patients. Integrative cancer therapies, 8(3), 228–234. https://doi.org/10.1177/1534735409343000
URL	https://pubmed.ncbi.nlm.nih.gov/19815592/
Journal	Integrative Cancer Therapies
Effect Size	*FACT-B total score (P = .037); *Emotional well-being; (P = .046); *so- cial well-being (P = .003); *subscales SF-36 mental health (P = .017)
Type of Test	*Functional Assessment of Cancer Therapy-Breast (FACT-B), *Func- tional Assessment of Chronic Illness Therapy- Spiritual Well-Being (FACIT-SP), *Short-Form (SF)-36 mental health and vitality scales
Type of Study	RCT

*“World-First Evidence
Suggests That Meditation
Alters Cancer Survivors’ Cells”*



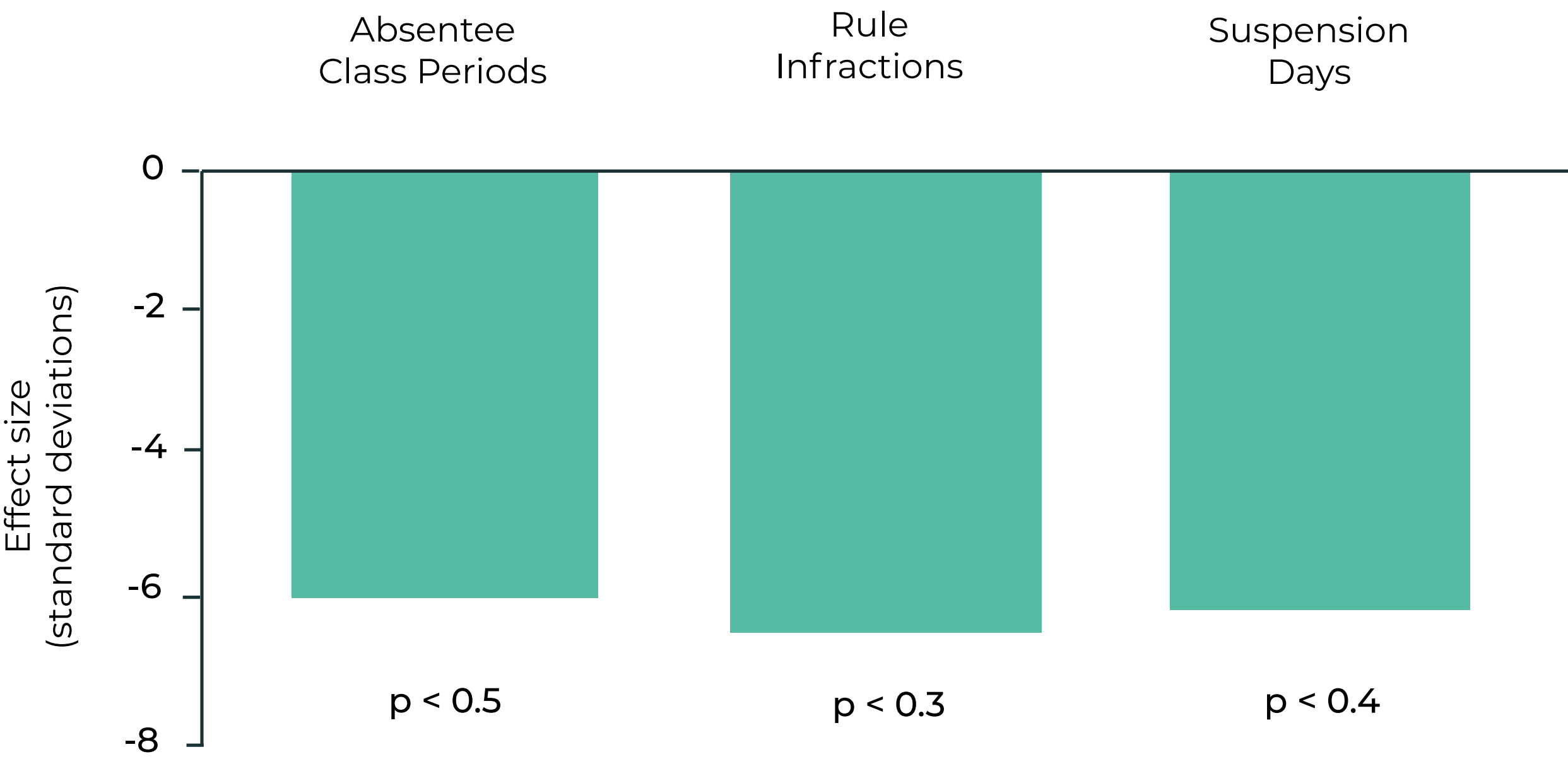


FAMILY AND SOCIAL WELLBEING



BEHAVIOUR IMPROVES

THROUGH THE TRANSCENDENTAL MEDITATION TECHNIQUE

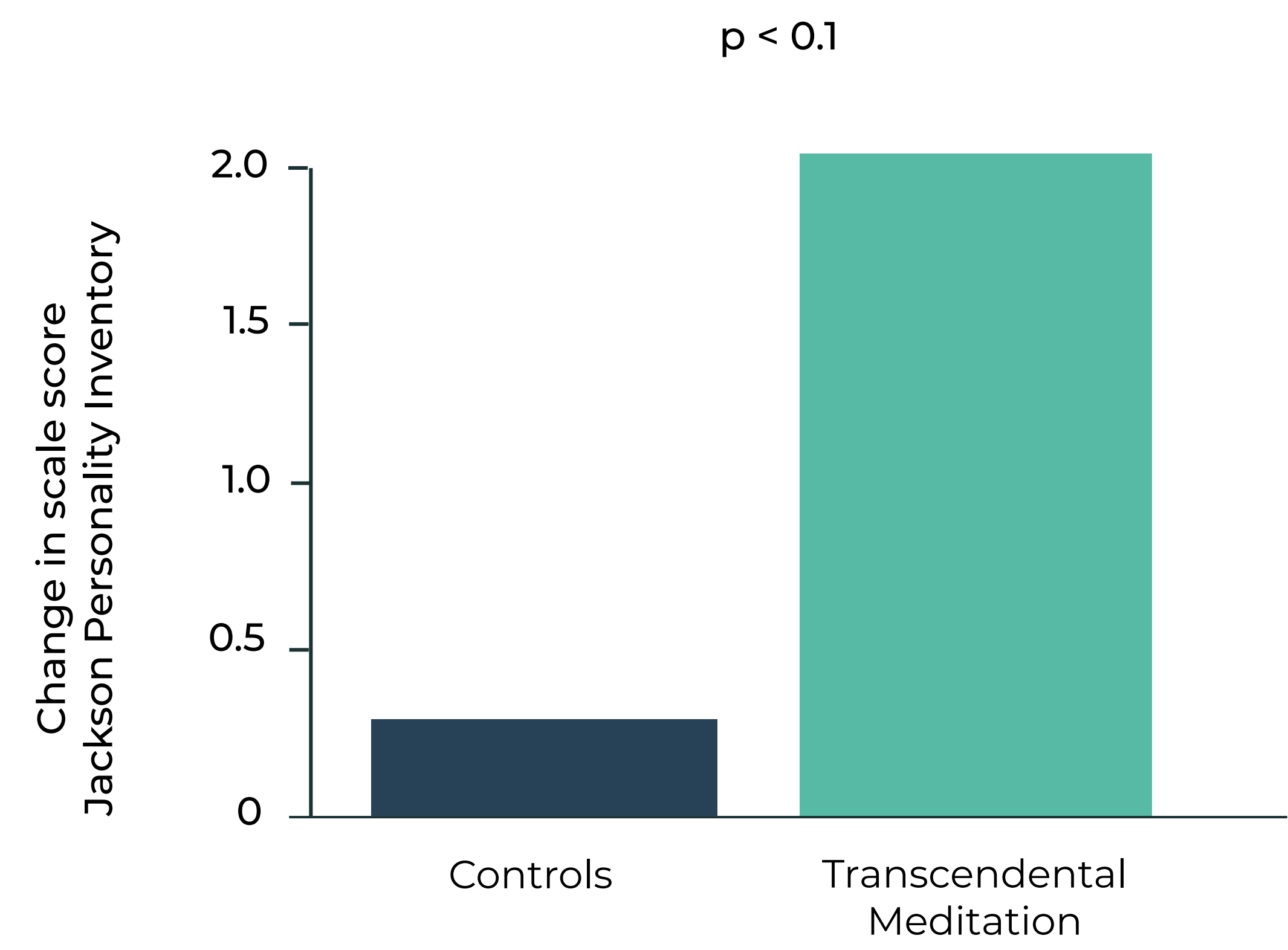


	Increased job satisfaction	Increased job performance	Decreased Desire to Change Jobs
Reference	D.R. Frew, "Transcendental Meditation and Productivity," Academy of Management Journal 17(1974):362-368		
URL	https://journals.aom.org/doi/abs/10.5465/254990		
Journal	https://journals.aom.org/doi/abs/10.5465/254990		
Effect Size	p<0,01	p<0,01	p<0,05

The probability of the results being random is less than 5%

TOLERANCE INCREASES

THROUGH THE TRANSCENDENTAL MEDITATION TECHNIQUE



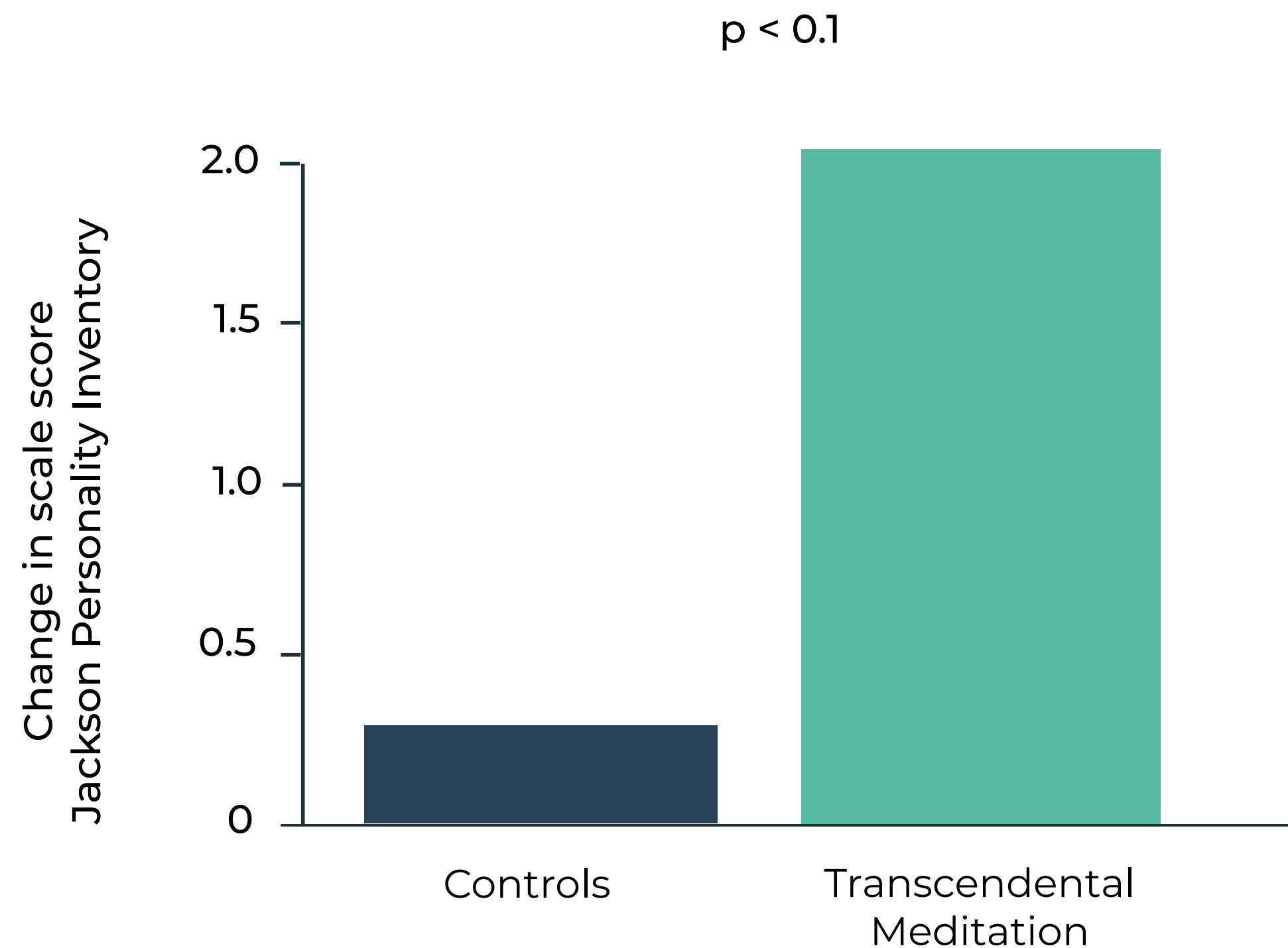
Reference. Dissertation Abstracts International 38(7): 3372B–3373B, 1978.

Increased tolerace in secondary schools	
Reference	Rosaen, C., & Benn, R. (2006). The experience of transcendental meditation in middle school students: a qualitative report. Explore (New York, N.Y.), 2(5), 422–425. https://doi.org/10.1016/j.explore.2006.06.001
URL	https://pubmed.ncbi.nlm.nih.gov/16979106/
Journal	Explore (New York, N.Y.)
Effect Size	p<0,01
Type of study	Qualitative

IMPROVED RELATIONSHIPS

IMPROVED RELATIONS AT WORK THROUGH THE TM TECHNIQUE

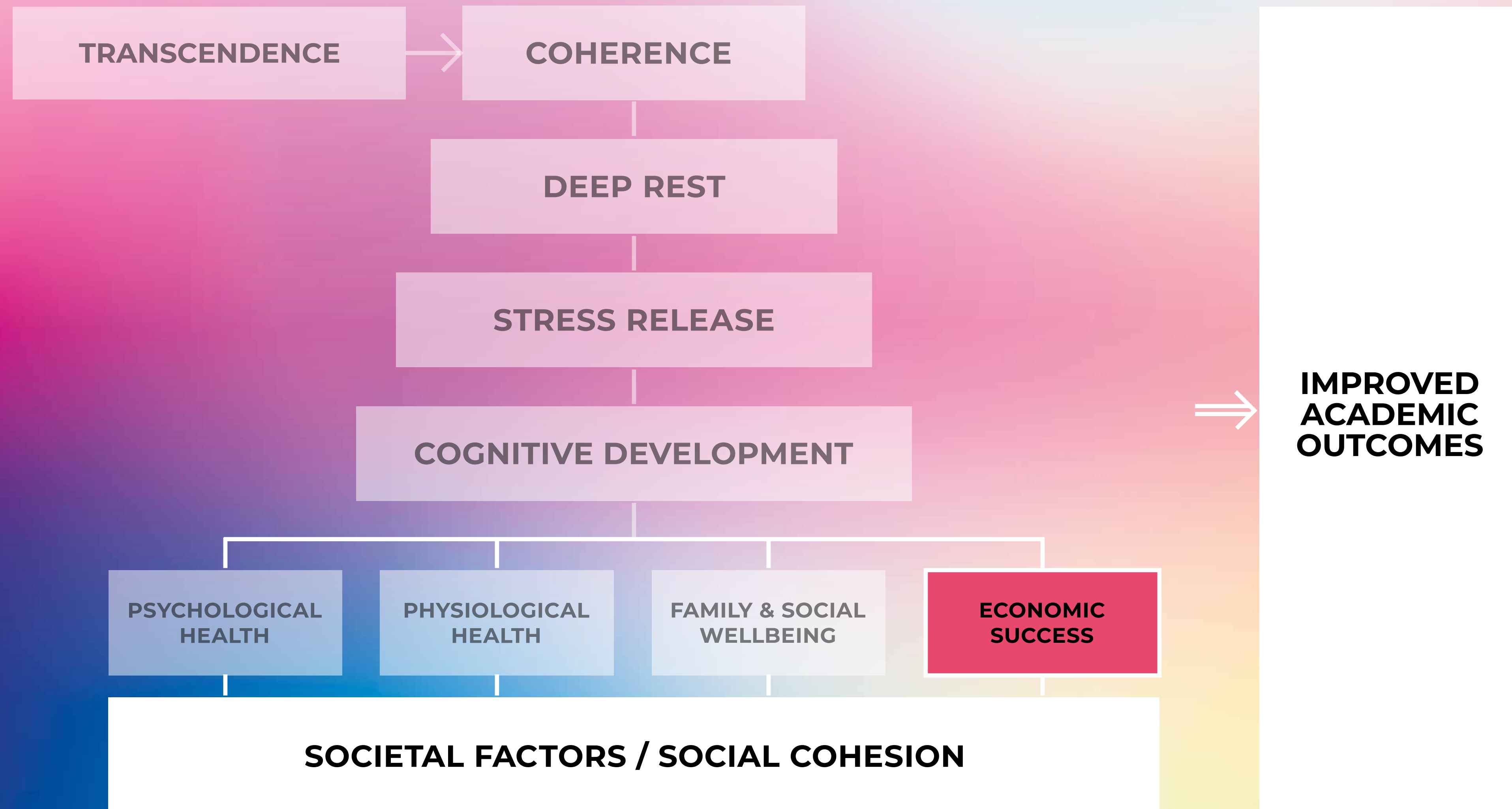
Key Finding - When teachers practise the TM programme regularly their relationships with fellow teachers, with students and with their management have been found to improve significantly



In a 1997 – 1999 implementation of the TM technique in schools, a study found significant improvements in relationships with co-workers and supervisors, a decrease in climb orientation, and increased productivity, after an average of 11 months practising the Transcendental Meditation programme in comparison to control subjects. A study with several control groups replicated these results and found that the degree of improvement was correlated with the length of time practising TM, and that administrators and employees both benefited from the TM programme.



ECONOMIC SUCCESS



INCREASED EFFICIENCY AND PRODUCTIVITY RELATED TO PRACTICING TM

Key Finding: Increased job satisfaction, increased performance and decreased desire to change jobs (p<0,01)



Academy of Management Journal

Subjects practising the Transcendental Meditation programme an average of 11 months showed significant improvements at work compared with members of a control group.

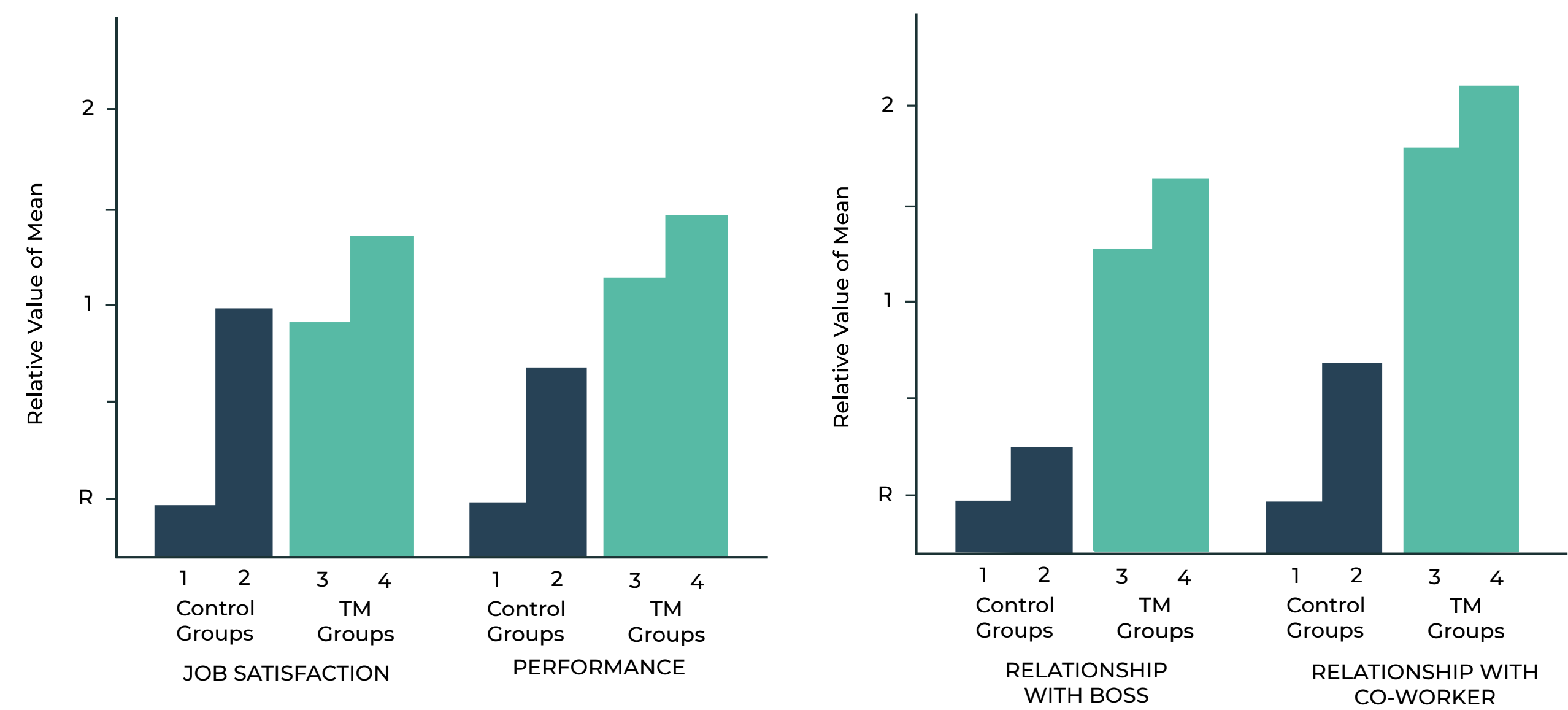
Study used 6 measures of productivity
Job performance and job satisfaction increased, while the desire to change jobs decreased.

Practicing TM improved relationships with co-workers and supervisors.

The results of this research were replicated in a study with several control groups which also found significant improvements was found to correlate with the number of months of participation in the TM programme, and people at every level of the organization benefited from practising TM.

	Increased job satisfaction	Increased job performance	Decreased Desire to Change Jobs
Reference	D.R. Frew, "Transcendental Meditation and Productivity," Academy of Management Journal 17(1974):362-368		
URL	https://journals.aom.org/doi/abs/10.5465/254990		
Journal	https://journals.aom.org/doi/abs/10.5465/254990		
Effect Size	p<0,01	p<0,01	p<0,05

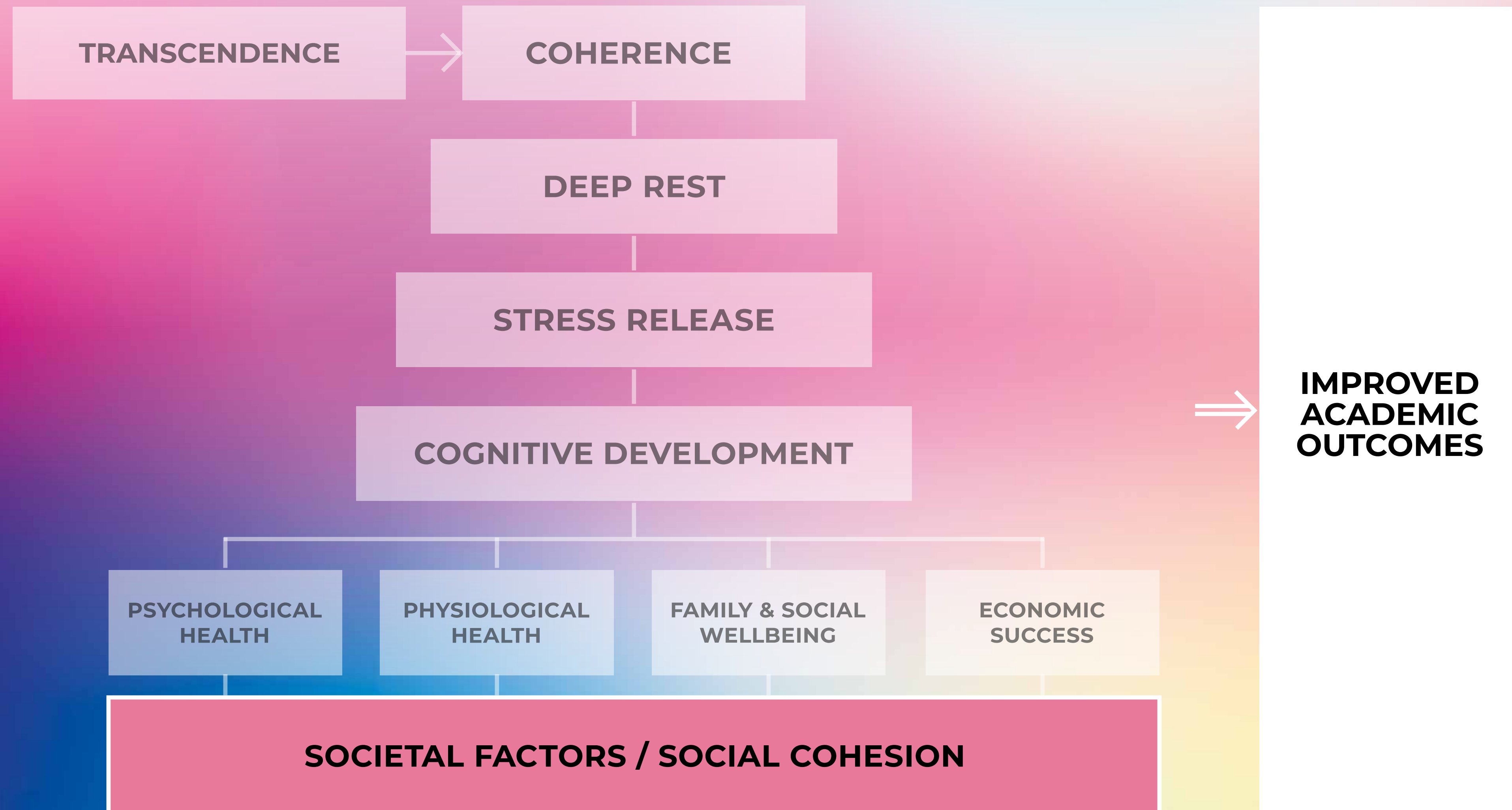
INCREASED JOB SATISFACTION AND BETTER WORKING RELATIONSHIPS FOR THOSE PRACTICING TM



Improved Work Attitudes and Behaviour				
Effects	Increased job satisfaction	Increased job performanvce	Improved relationships with supervisors	Improved relationships with cow-orkers
Reference	K.E. Friend, "Effects of the Transcendental Mediation Programme on Work Attitudes and Behaviour," in Scientific Research on the Transcendental Meditation Programme: Collected Papers, Volume 1 ed. D.W. Orme-Johnson and J.T. Farrow (Livingstone Manor, N.Y. MERU Press, 1977), 630-638			
URL	https://www.miu.edu/assets/collected_papers/frie1975e1coll1-97.pdf			
Journal	Scientific Research on the Transcendental Meditation Programme: Collected Papers, Volume 1 ed. D.W. Orme-Johnson and J.T. Farrow (Livingstone Manor, N.Y. MERU Press, 1977), 630-638			
Effect Size	p<0,05	p<0,05	p<0,05	p<0,05
Type of test	multivariate, t-test			
Type of study	RCT	RCT	RCT	RCT



SOCIAL COHESION



BENEFITS FOR COMMUNITIES

“With the new acquired attitude and behaviour my children are beginning to be more relaxed too.

Meditation proves to be “infectious” too.

I am now energetic, and full of life. I am very happy to be experiencing this feeling, of the New Nomakhosazana. Thanks to meditation I am now in full control of my life, and self.”

Nomakhosazana, Teacher - Alexandra High.



THE TEMPOROPARIETAL JUNCTION (TPJ) AND EQ

- Researchers have shown the importance of the TPJ for the development of EQ - a measure of emotional intelligence requires for improved inter-personal and pro-social skills. (Barbey et al)
- “A landmark finding, the brain map imaging showed one particular region, the “temporoparietal junction (TPJ),” to be especially important. Dubbed the so called EQ “command and control center,” figuring out how to strengthen this area of the brain would, in effect, power up emotional intelligence.” (ecoinstitute)
- A 2016 research study (Yang et al) used fMRI imaging before and after 40 days of meditation training. Anxiety was reduced as was depression, but the process also significantly increased the “internal consistency” of their temporoparietal junction (TPJ). (ecoinstitute)
- Activated TPJ Benefits: ▲Emotional Intelligence | ▲Altruism | ▲Motivation | ▲Empathy | ▲Better Relationships | ▲Conscientiousness | ▲Self-Awareness | ▲Information Processing | ▲Perception | ▲Focus | ▲Written Language | ▲Spoken Language | ▲Reading People | ▲Emotional Balance | ▼Social Anxiety |



REDUCES CONFLICT WITH LARGE GROUPS OF MEDITATORS

- Study found a significant effect in rates of reduction of homicide and violent crime using a quasi experimental design. (Dilbeck et al)
- The study found a 28,4% reduction in murders from 2007 - 2010

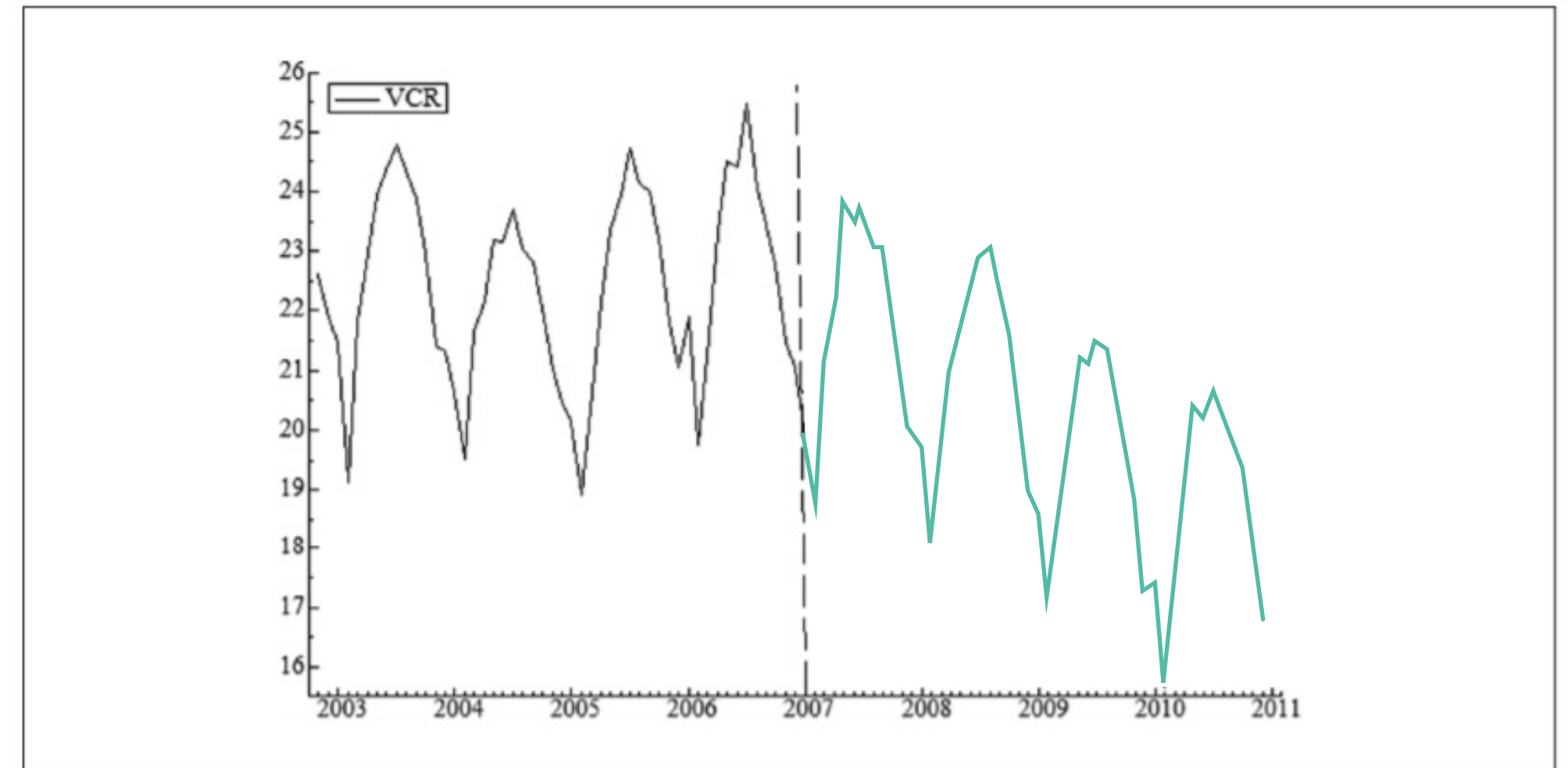


Figure 2. Plot of monthly VCR.

Note. The plot of VCR for Nov. 2002 to Dec. 2010 displays strong monthly seasonal variation, a relatively flat overall trend in the pre-intervention period, and beginning with the onset of the intervention period in January 2007 (see vertical line in the plot), a shift to a declining trend that continues through the end of the sample in December 2010. VCR = violent crime rate.

REDUCTION IN INTERNATIONAL CONFLICT WHEN LARGE GROUPS OF MEDITATORS

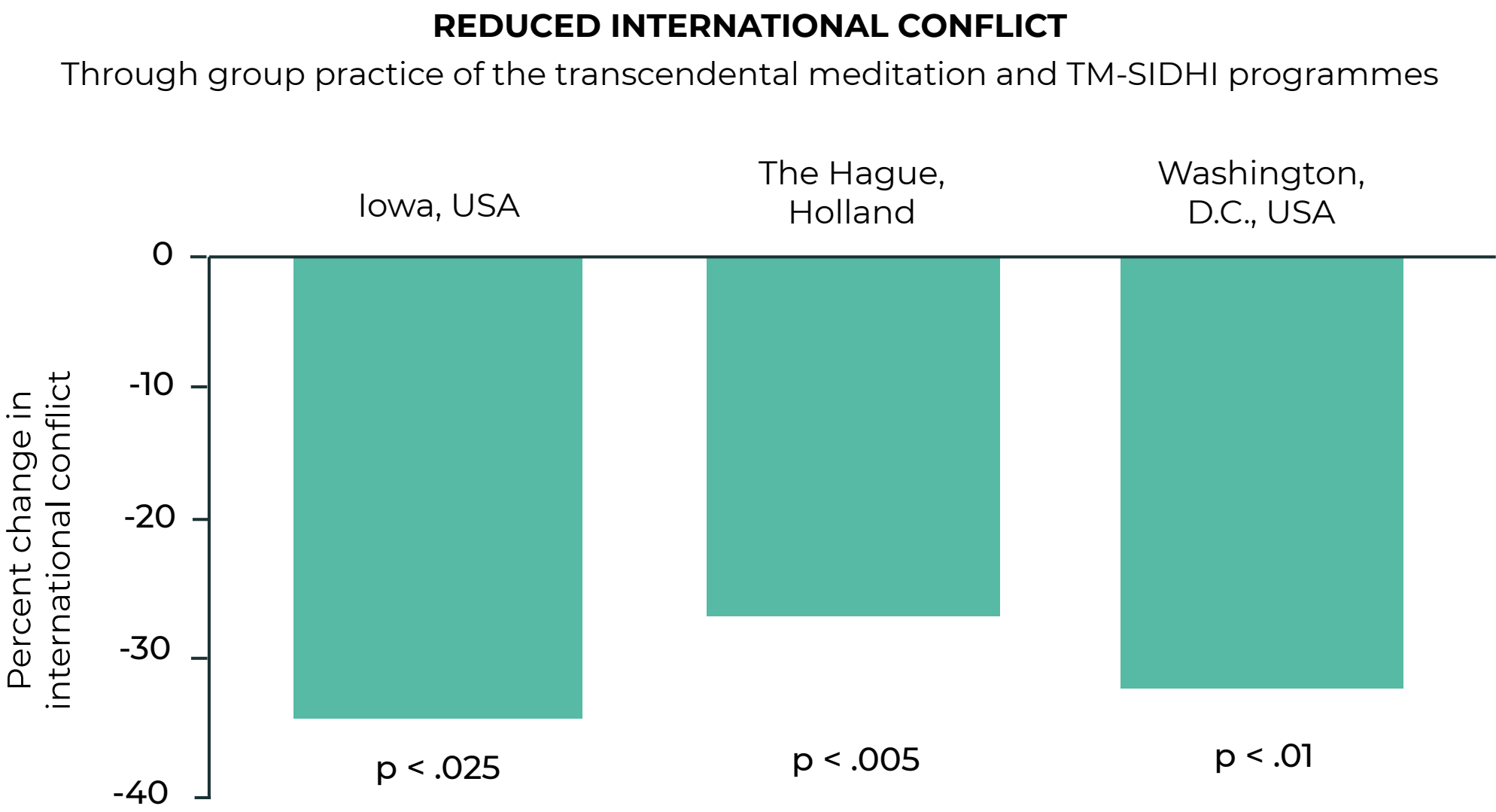
- On three occasions when there were groups of 8,000 TM and TM-Sidhi participants, international conflicts decreased approximately 30%
- On three occasions during 1981 to 1985, groups of 7,000-8,000 were formed for short periods, ranging in length from 8 to 21 days

Reference: Orme-Johnson DW, Dillbeck MC, Alexander CN. Preventing terrorism and international conflict: Effects of large assemblies of participants in the Transcendental Meditation and TM-Sidhi programs. Journal of Offender Rehabilitation. 2003;36:283-302.

COLLECTIVE CONSCIOUSNESS AND SOCIETAL VIOLENCE

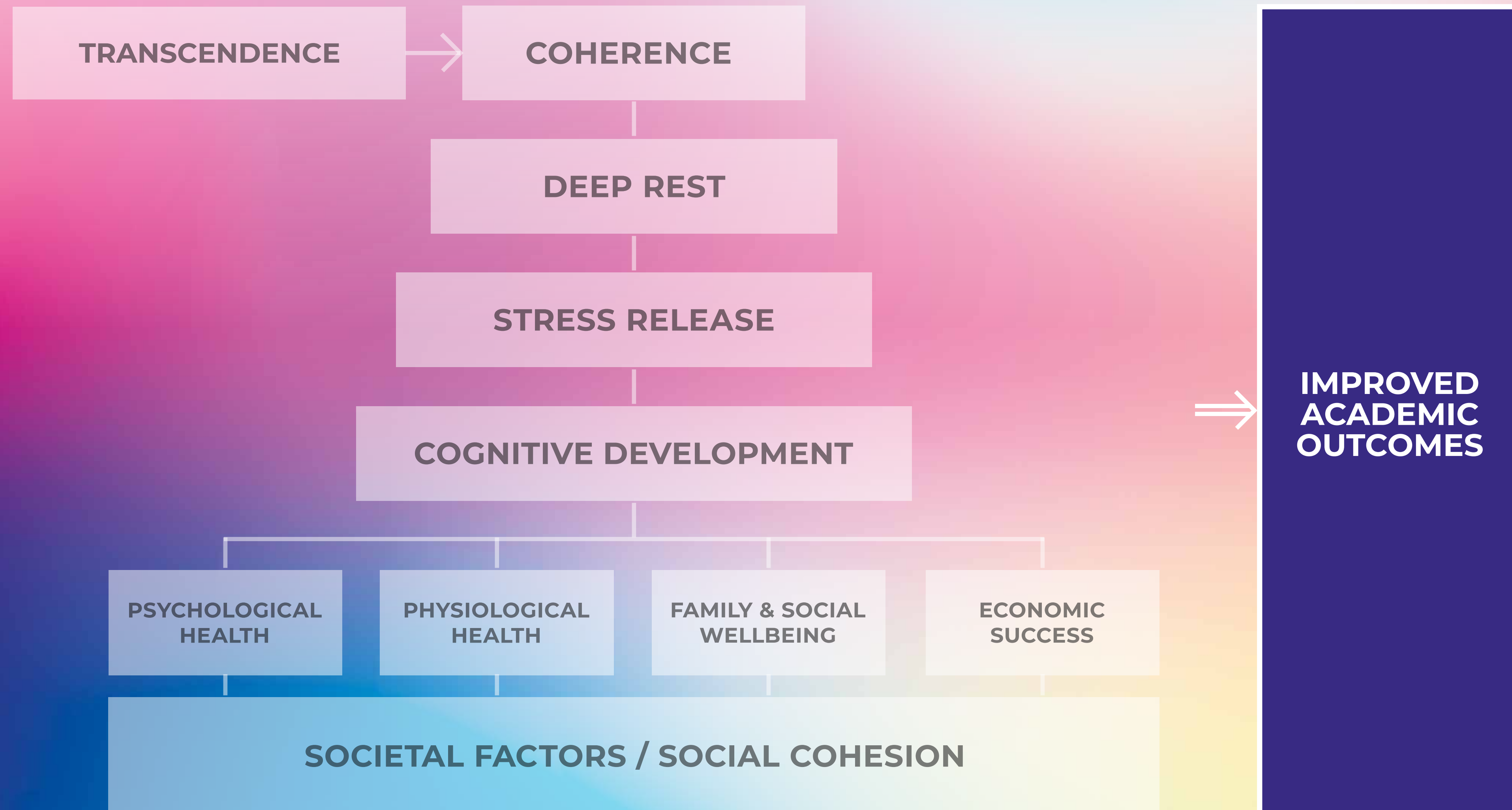
Study has found a 72% drop in terrorism ($p < 0,025$) and a 32% drop in international conflict (p values from $< 0,005$ to $< 0,025$) during large assemblies of meditators.

David W. Orme-Johnson, Michael C. Dillbeck & Charles N. Alexander (2003) Preventing Terrorism and International Conflict, Journal of Offender Rehabilitation, 36:1-4, 283-302, DOI: 10.1300/J076v36n01_13



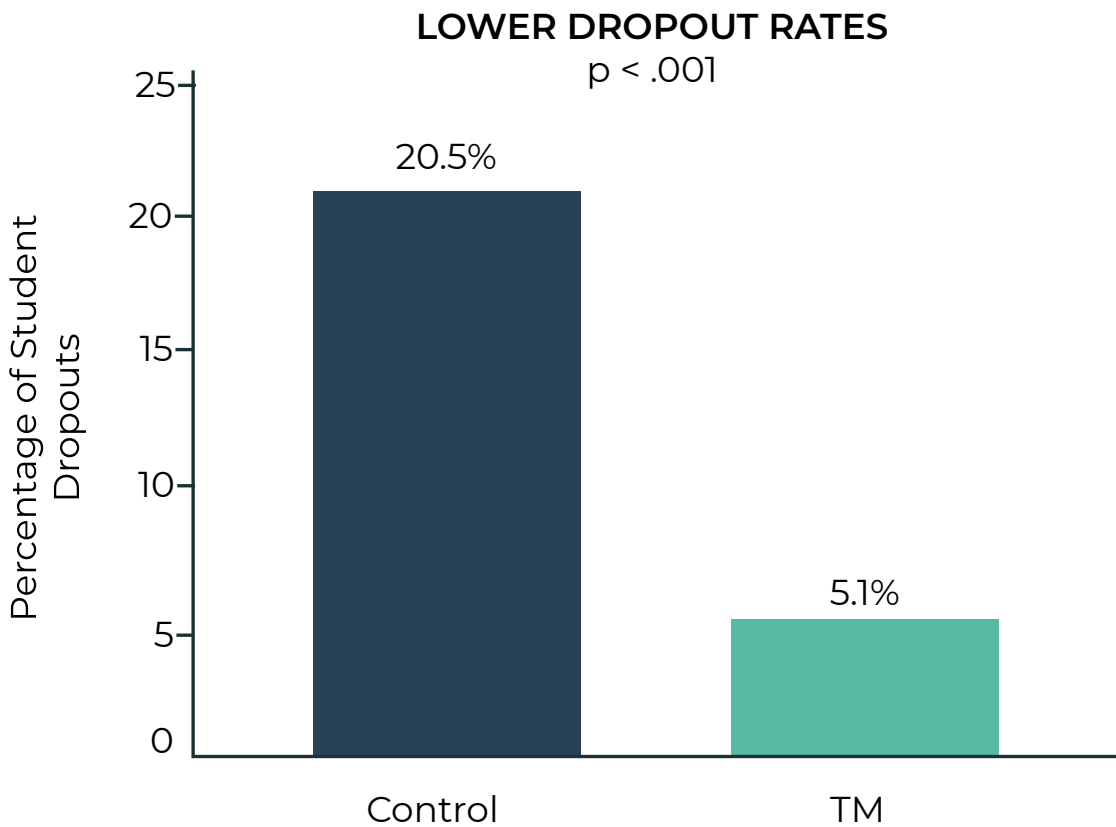
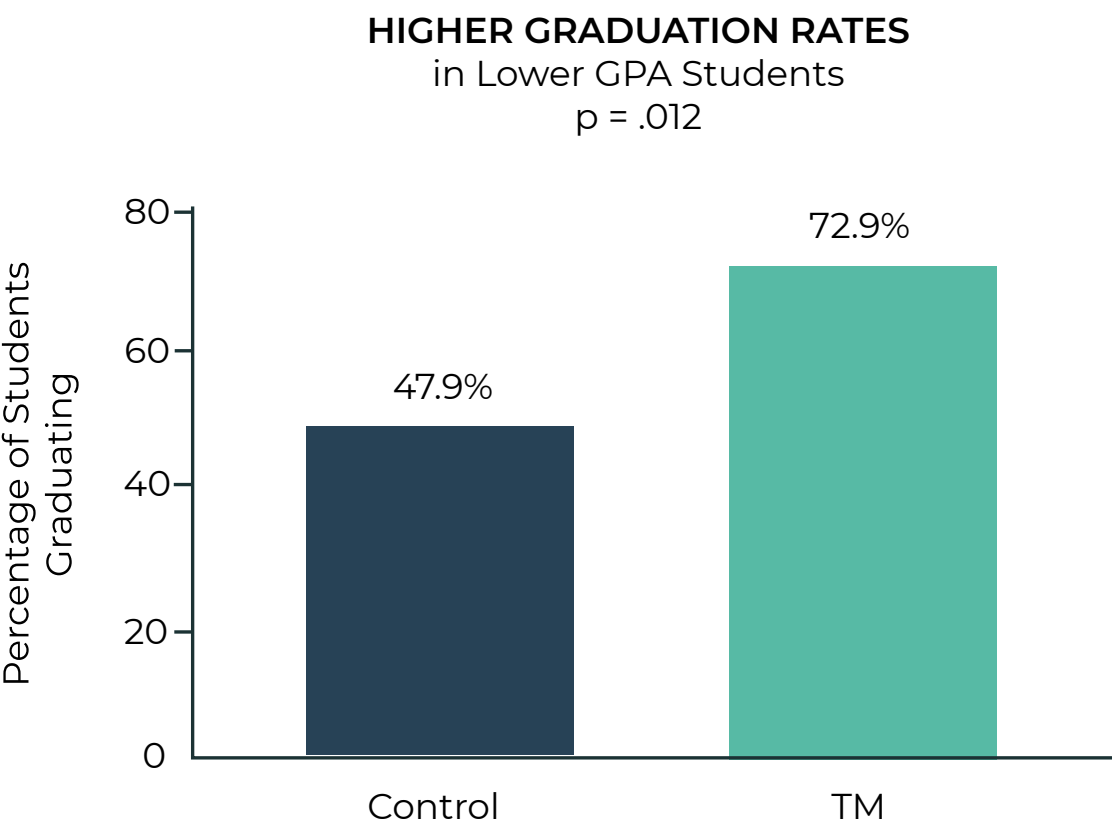
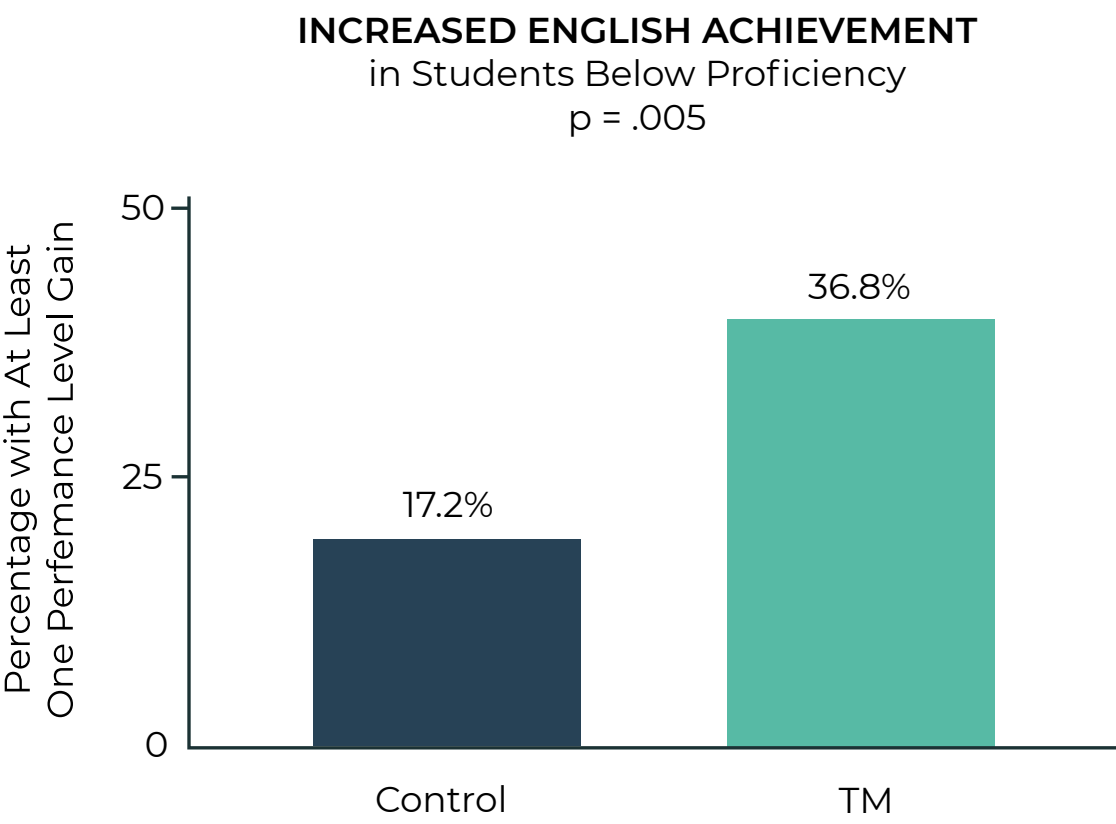
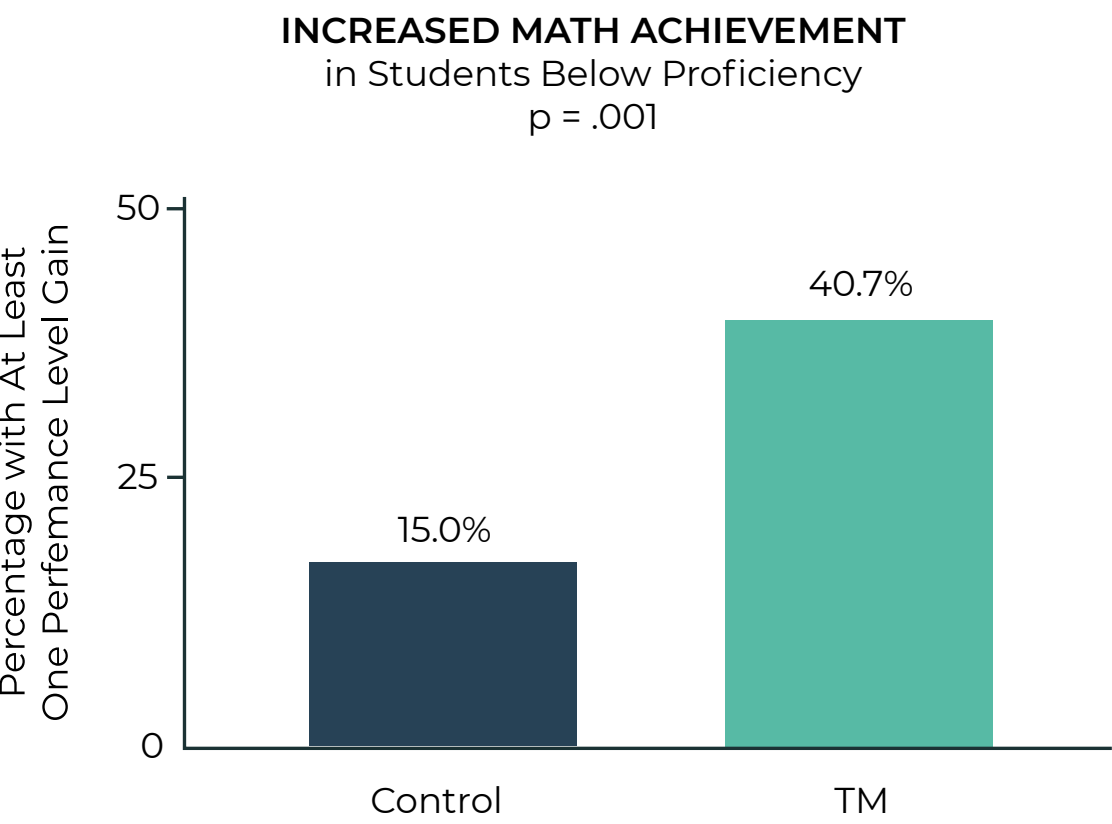


IMPROVED ACADEMIC OUTCOMES



IMPROVED ACADEMIC PERFORMANCE

THERE ARE MULTIPLE STUDIES SHOWING IMPROVED ACADEMIC OUTCOMES.
A SAMPLE ARE DRAWN FROM ACADEMIC JOURNALS.



A p-value is the probability of the result being chance or coincidence P<0,001 means that there is less than 1 in a 1000 chance that the result showing the correlation is false.

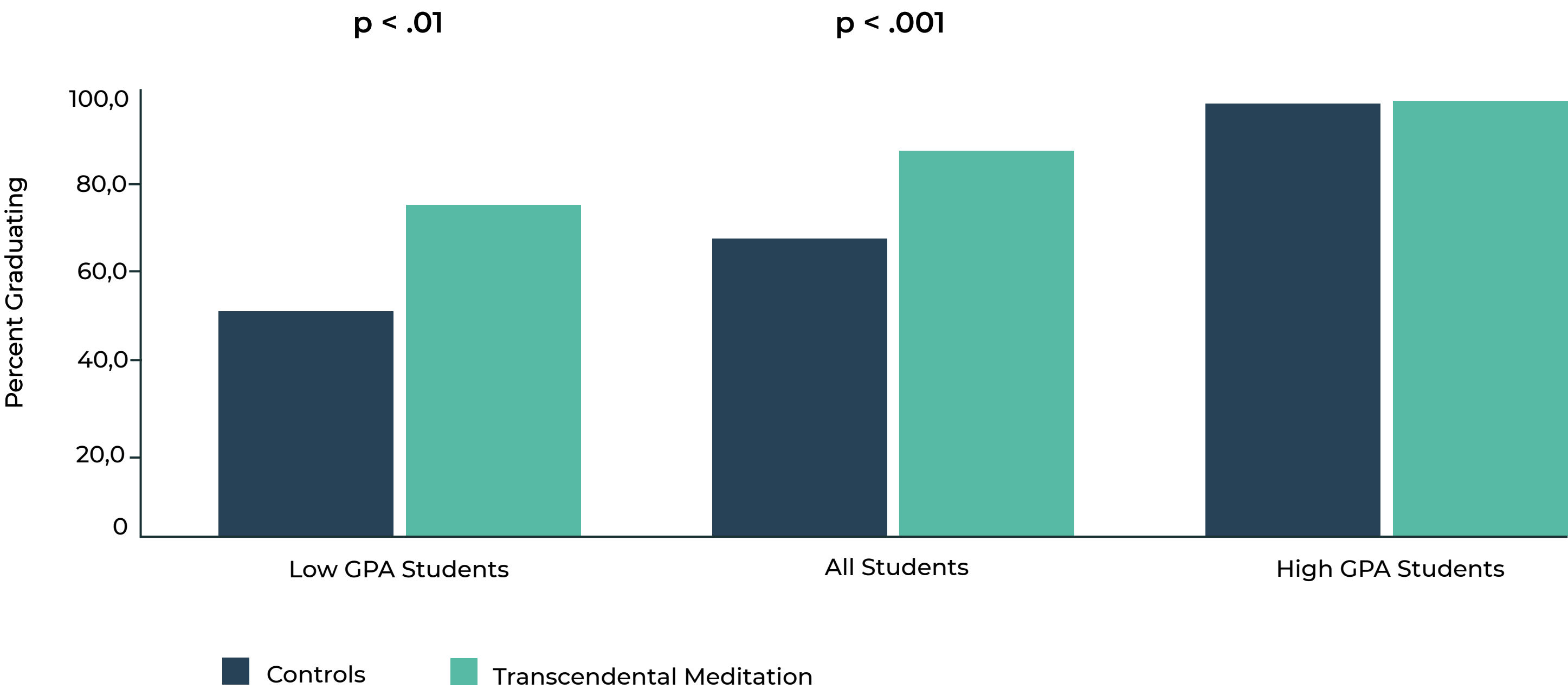
	Reduced Dropout	Increased Math Achievement	Increased English Achievement	Increased Graduation Rates
Reference	Nidich S, Mjasiri S, Nidich R, Rainforth M, Grant J, Valosek L, Chang W, Zigler RL. Academic achievement and Transcendental Meditation: a study with at-risk urban middle school students. Education,131(3): 556-564 (2011).			
URL	https://eric.ed.gov/?id=EJ996375			
Journal	Education			
p-value	p<0,001	p=0,001	p=0,005	p=0,012
Type of test	Longitudinal with non-randomized control			

Academic achievement and Transcendental Meditation: A study with at-risk urban middle school students, Education, 131(3): 556-564 (2011). Education 133(4): 495-501 (2013).

INCREASED GRADUATION RATE IN SECONDARY SCHOOL STUDENTS

ESPECIALLY FOR LOW PERFORMING STUDENTS

87.1% graduation rate for meditators, compared with 66.7% for non meditators.
For the low GPA students, 72.9% graduation rate for meditators compared to 47.9% for non-meditators (p = 0.012)

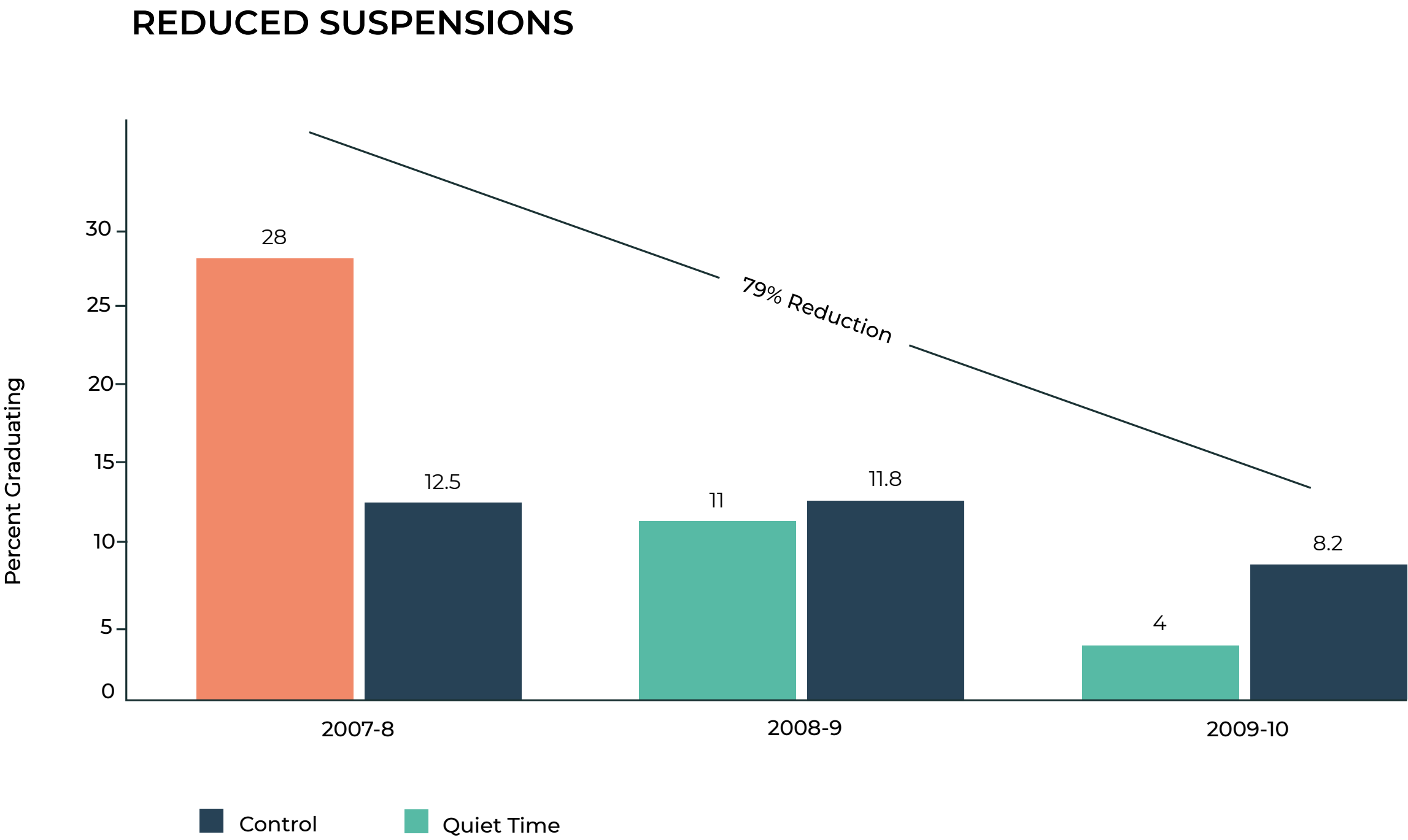


A group of low-performing urban secondary school students in the US who learned the Transcendental Meditation technique and practiced it during their senior year had a higher graduation rate than a control group of students matched for prior academic performance who did not learn the technique.

Effect	Increased Graduation Rates
Reference	Colbert, R.D. and Nidich, S. (2013). Effect of the Transcendental Meditation Program on Graduation, College Acceptance and Dropout Rates for Students Attending an Urban Public High School. Education, 133 (4), 495-501.
URL	https://eric.ed.gov/?id=EJ1032008
Journal	Education
p value	p <0.001
Type of Study	RCT

The probability of the results being random range from 1% to 0,1%.

REDUCTION IN SUSPENSION IN UNDERSERVED CHICAGO HIGH SCHOOLS OF 79%



This data shows that suspension rates dropped over time as the Quiet Time Program became more established at the school. In the first full year of the program, the suspension rate was 28%, more than twice the district average for middle schools. In the third full year of the program, the suspension rate was 4%, less than half the district average.

A study from the “Quiet Time” program run in underserved Chicago government high schools showed a 79% reduction in suspensions.

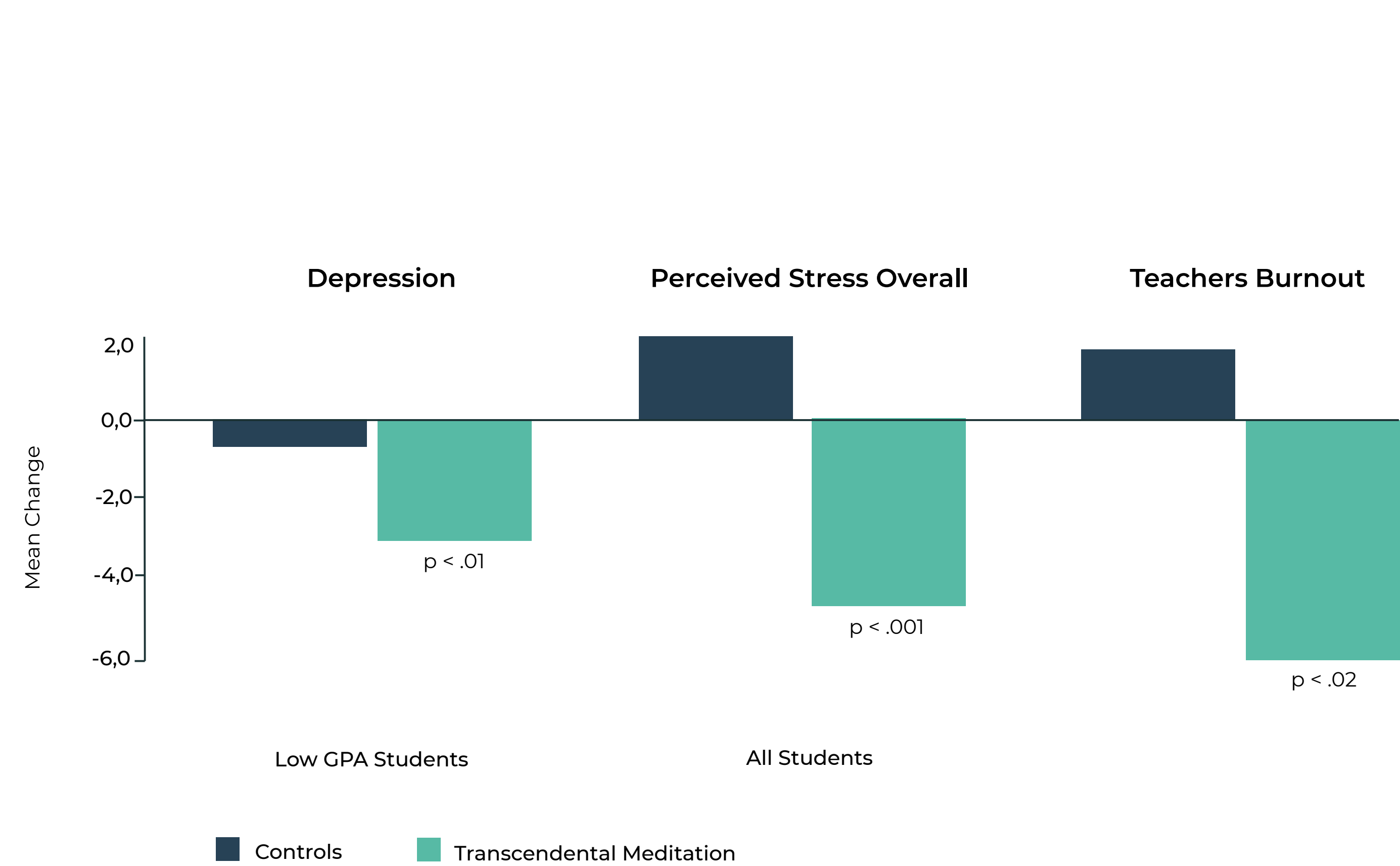
“Wolf pointed out that growing up in violent communities results in clear disadvantage for the children as the stress they experience lowers their cognitive capacities.”

Effect	Increased Graduation Rates
Reference	Colbert, R.D. and Nidich, S. (2013). Effect of the Transcendental Meditation Program on Graduation, College Acceptance and Dropout Rates for Students Attending an Urban Public High School. Education, 133 (4), 495-501.
URL	https://eric.ed.gov/?id=EJ1032008
Journal	Education
p value	p <0.001
Type of Study	RCT

REDUCED TEACHER BURNOUT

THROUGH THE TRANSCENDENTAL MEDITATION TECHNIQUE

TM DECREASES DEPRESSION, STRESS, AND BURNOUT IN TEACHERS.



Effect	Reduced Absenteeism (teacher)
Reference	Elder, C., Nidich, S., Moriarty, F., & Nidich, R. (2014). Effect of transcendental meditation on employee stress, depression, and burnout: a randomized controlled study. The Permanente journal, 18(1), 19–23. https://doi.org/10.7812/TPP/13-102
URL	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3951026/
Journal	The Permanente Journal
Effect Size	Perceived Stress (F[1,32]=13,42; p<0,001);Depression (F[1,32] = 6.92; p=0,013); and overall teacher burnout (F[1,32] = 6.18; p=0,018) Effect size: 0,4 - 0,94
Type of Test	Univariate F-test
Type of Study	RCT

The probability of the results being random is between 0,01% and 2%

EMPIRICAL CASE STUDY

SUCCESS OF THE MAHARISHI UNIVERSITY – IOWA USA



Rankings of MUM MBA students came top in the USA, competing against 147 Universities business schools around the country in a business simulation competition.



Listed in Peterson's 440 Great Colleges for Top Students.



Placed among Tier 2 Regional Universities (Midwest) by US News



Selected for the Top 100 Campus Challenge, a 3-day student conference held in Washington, DC. It was in the top 10% for: active and collaborative learning, supportive campus environment, enriching educational experiences and student-faculty interaction (National Survey of Student Engagement).





EVIDENCE FROM WORK IN SA: A CASE STUDY

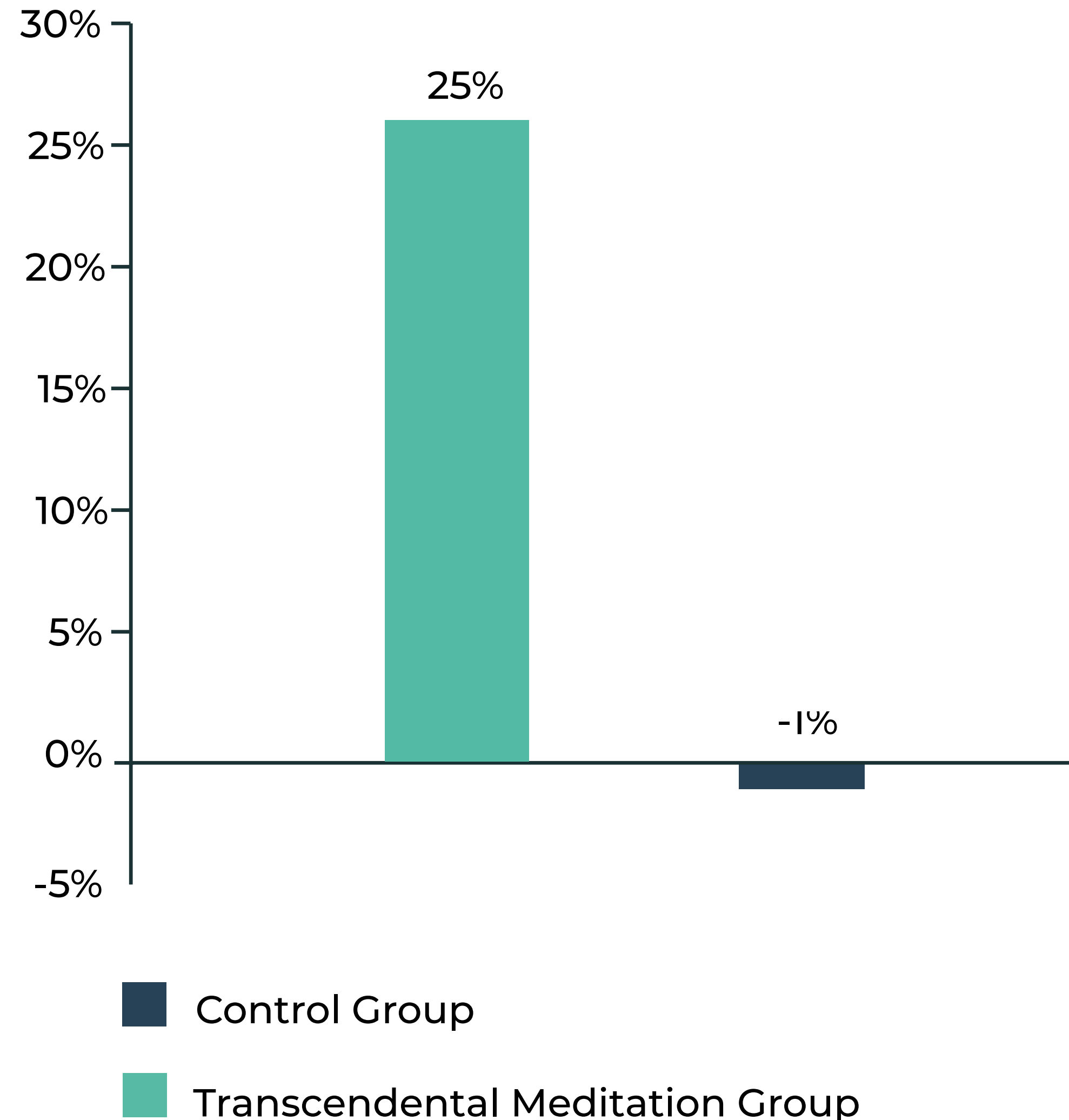
TM TRAINING FOR 9 000 IN ALEXANDRA

From 1995 - 1999, 9 000 school learners trained in Transcendental Meditation in primary and high schools in Alexandra, Soweto, and Daveyton Townships.



C.I.D.A teaching students in Alexandra Township 1995

INCREASED PASS-RATES BY A FACTOR OF 25% SUSTAINED OVER 3-YEARS: ALEX TOWNSHIP



RESULTS:

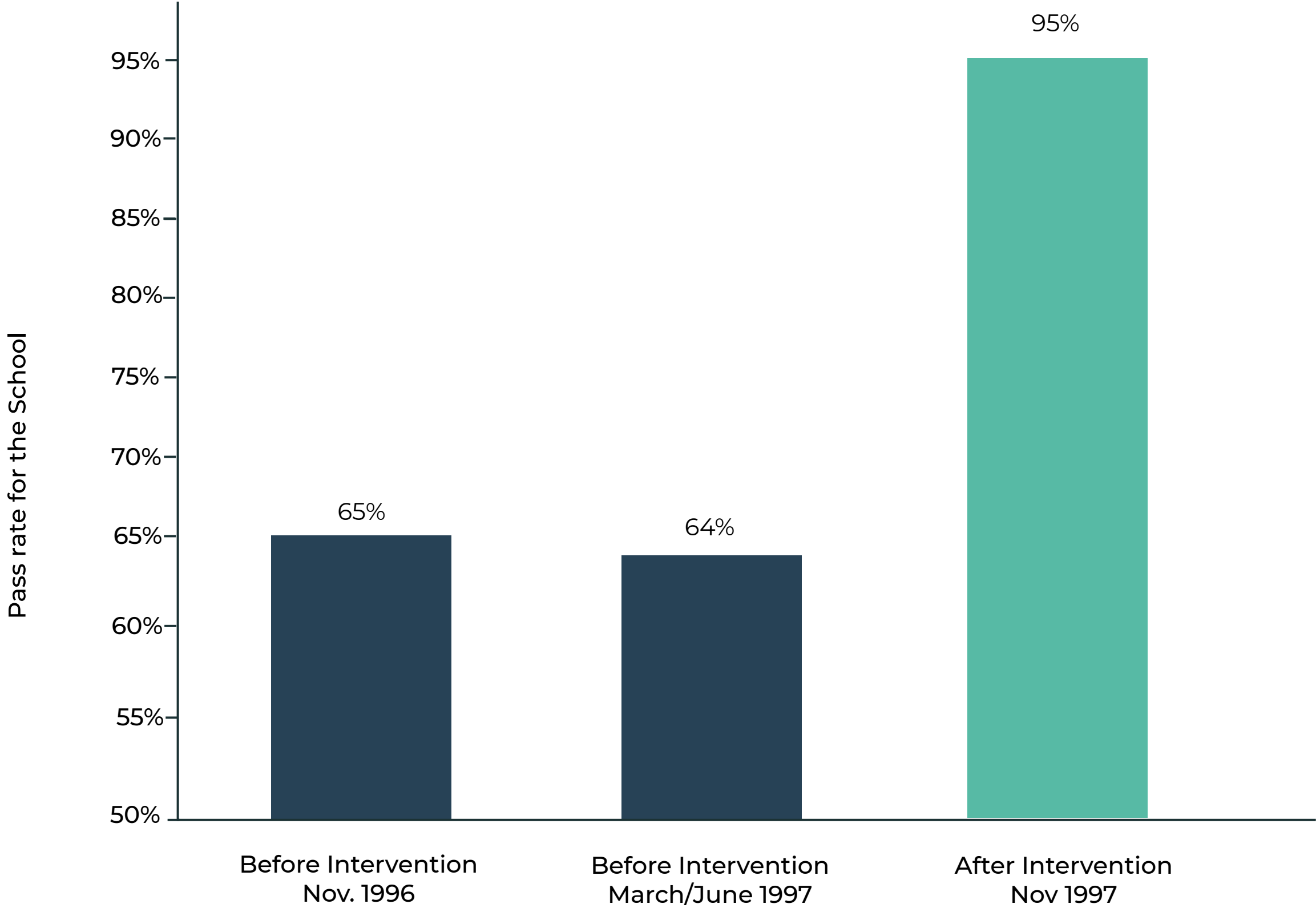
Increased pass rates for 9,000 students by a factor of 25% across the board on over 100,000 school marks (results taken from Department of Education reports).

A control group of 12,000 students in Alex was simultaneously tracked, results dropped 1%.

ACADEMIC RESULTS AT SKEEN PRIMARY IN ALEXANDRA PASS RATES (SCHOOL)

INCREASED FROM 64% TO 95%

A 30% improvement in pass rates for the entire school within six months -
The blue bar shows the improvement after intervention



Improvement in Pass Rates For The Entire School - Skeen Primary School

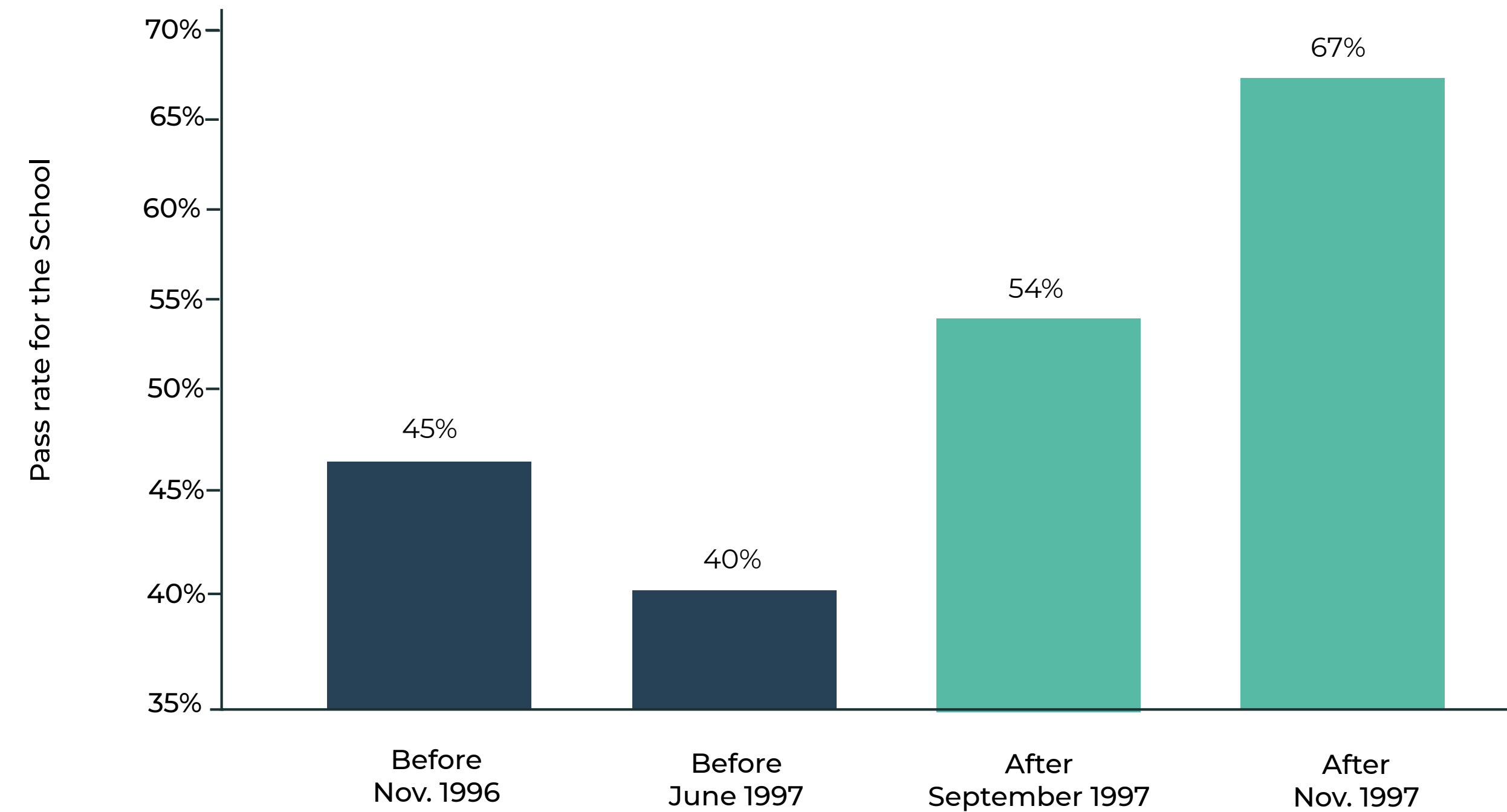
(Before and After the Introduction of the TM Programme)

Marks have improved very significantly since the programme was begun in June 1997. Full schedules of mark improvements are available in a separate report.

PASS RATES FOR THE ENTIRE SCHOOL – KWA BHEKILANGA HIGH SCHOOL IN ALEXANDRA:

27% INCREASE WITHIN 5 MONTHS

A 27% improvement in pass rates for the entire school within five months -
The blue bar shows the improvement after intervention



Improvement in Pass Rates For The Entire School – Kwa Bhakilanga High School

(Before and After the Introduction of the TM Programme)

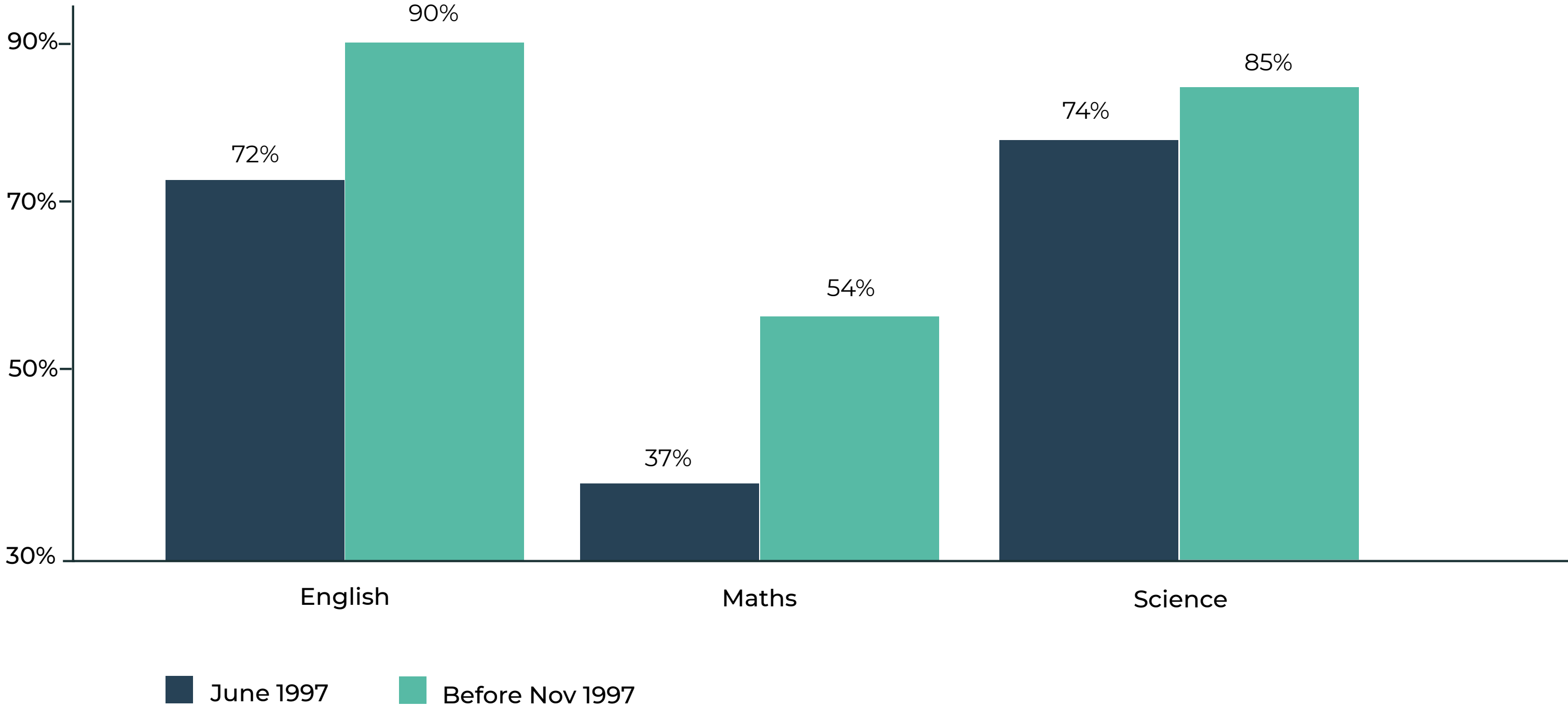
Marks have improved very significantly since the programme was begun in June 1997. Full schedules of mark improvements are available in a separate report.

IMPROVEMENT IN EVERY SUBJECT

27% INCREASE WITHIN 5 MONTHS

Improved School Marks: Improvements in Every Subject

A 27% improvement in pass rates for the entire school within five months -
The yellow bar shows the improvement after intervention



Note: The programme was introduced in Skeen In June 1997

KWA-BHEKILANGA HIGH COMPETITIVE RESULTS

Kwa-Bhekilanga won the only competition in which the school entered (the SADTU Old Mutual Cultural Day held in Alexandra) since the introduction of the TM programme.

Competition	Position	Number of Schools Competing	Won Before (Y/N)
Old Mutual SADTU Cultural Day - 12 events	1st	5 high schools	No Previously the school had always come last in this competition

ALL ROUND IMPROVEMENTS IN PERFORMANCE

(Before and After the Introduction of the TM Programme)

– IMPROVEMENTS IN ARTS AND CULTURAL ACTIVITIES

Schools practising the TM technique have been found to improve in all arts and cultural activities compared to other schools in their district and province. This includes art, dancing, music, poetry and mime.

Skeen Primary Competitive Results in Art and Cultural Activities

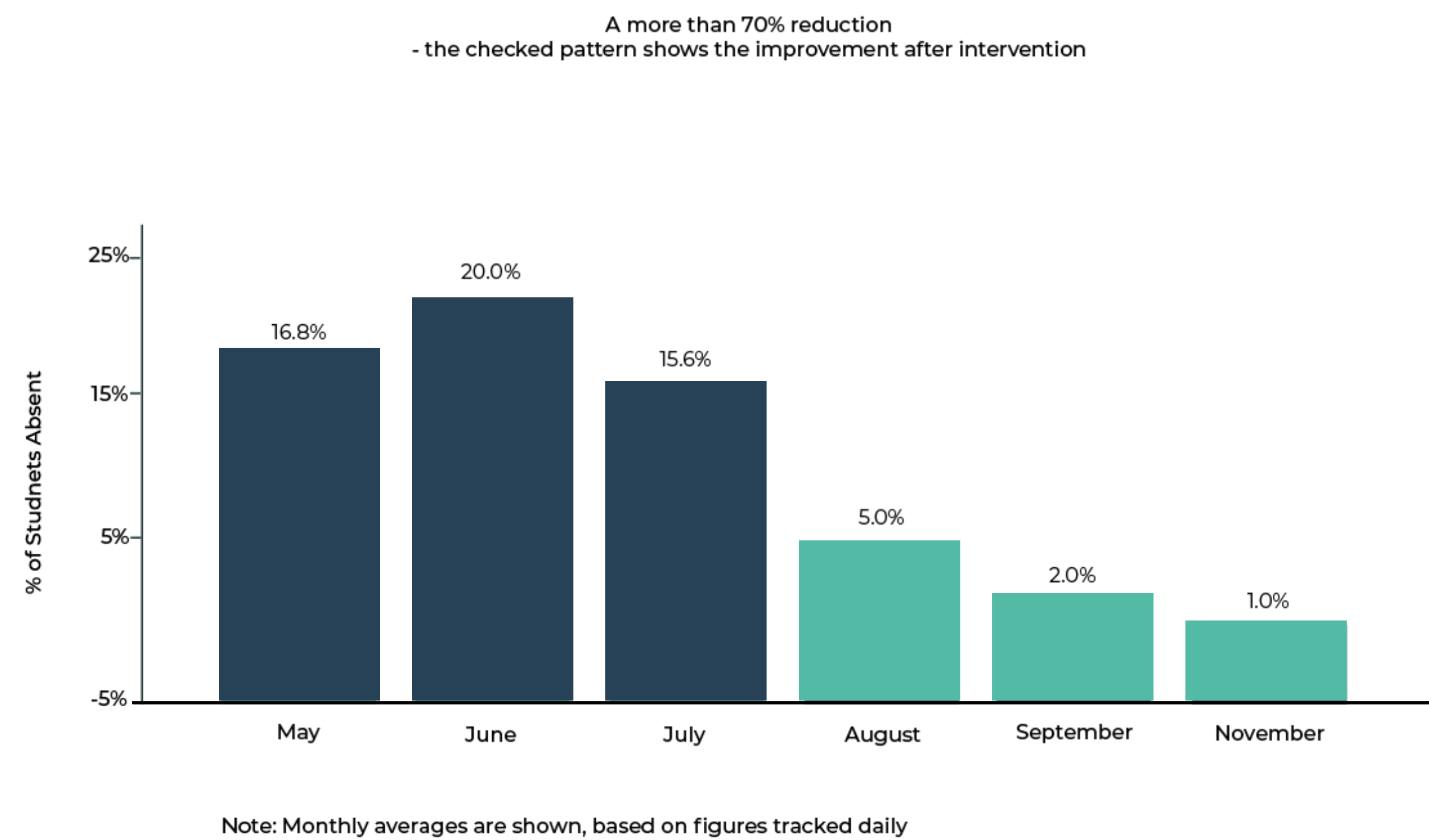
Competition	Position	Number of Schools Competing	Won Before (Y/N)
Traditional Dance Eistedd for	1st	Johannesburg region schools	No
Old Mutual SADTU Cultural Day Competition	1st	12 schools	Yes
Traditional Music- Cultural Day	1st	12 schools	Yes
TUATA Music Competition	2nd	All Alexandra and all Soweto schools	No

Marks have improved in every class in every subject; English, maths and science are shown as examples.

Improvement in Individual Subjects for the Entire School - Skeen Senior Primary

REDUCED ABSENTEEISM – 70% REDUCTION

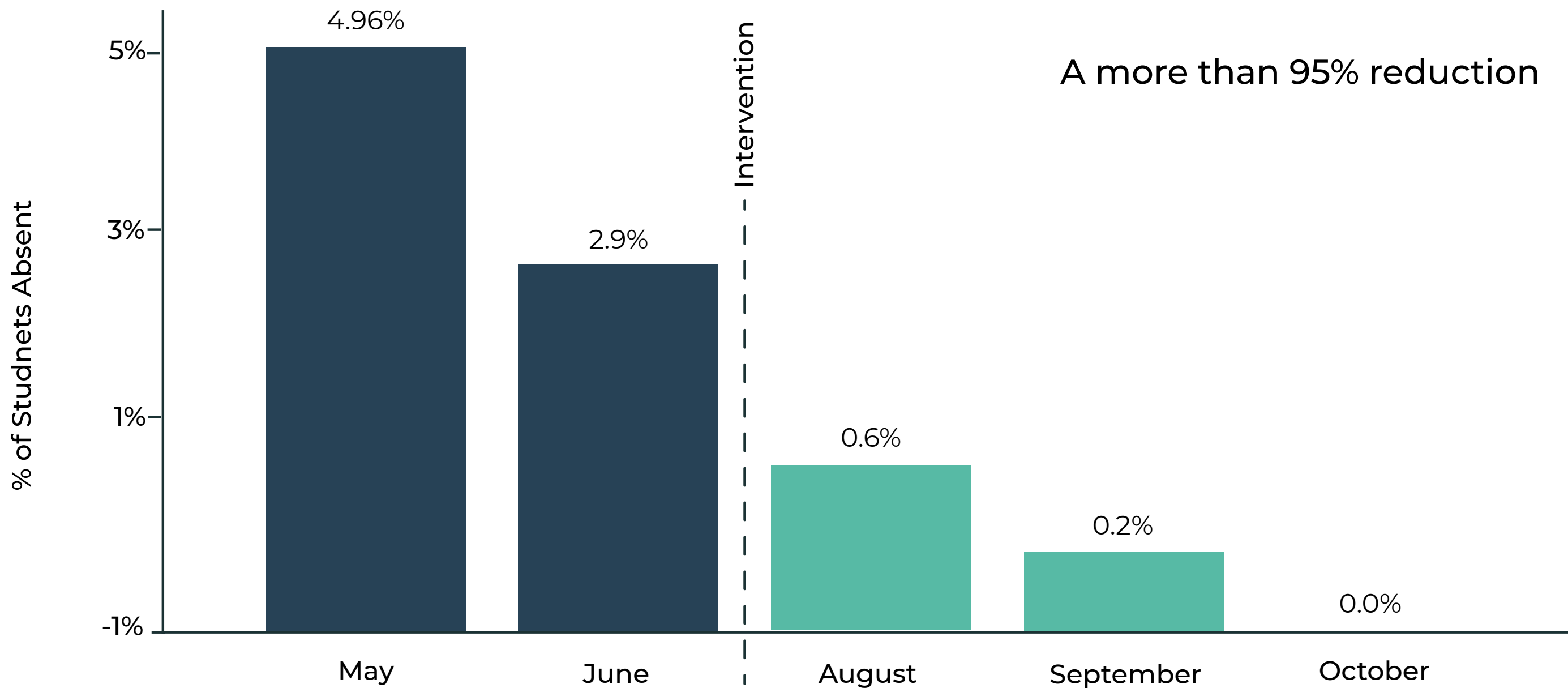
STUDENT ABSENTEEISM AT KWA-BHEKILANGA HIGH SCHOOL



- Absenteeism is a key indicator of dropout
- Absenteeism reduced by 70% at Kwa-Bhekilanga, Alexandra, since TM was introduced in late July 1997. Not only were most students attending school, but also more students were attending school the whole day.
- With increased enjoyment of school and of academic activities, student absenteeism has been found to reduce in township schools where the technique is practised regularly.

REDUCED TEACHER ABSENTEEISM

Teacher Absenteeism at Kwa-Bhekilanga High School



In a programme implemented in the late 1990s, significant reductions in teacher absenteeism were discovered as an outcome practicing TM.

Teacher absenteeism fell by over 90% since the introduction of TM at Kwa-Bhekilanga Secondary School in July 1997. By October 1997 (10 months after the introduction of the programme) the school had 100% teacher attendance.

“TM helped me with thinking. Before I was having a problem with thinking but since I started meditation I am thinking well and I feel so relaxed and happy.”

**Brenda Sheera, Student -
Alexandra High School (Grade 10E)**

“Before I started meditation, I was stressed out, very impatient and lacked self confidence. Today I am completely a new person. I am energetic, full of good memory and have self - confidence.”

**Otto Lekgoathi, Teacher -
Alexandra High**





QUALITATIVE FEEDBACK FROM SOUTH AFRICAN TEACHERS

“My concentration has improved and my work is more pleasing to those people in authority. In other words I am more productive and faster in doing my work.”

Edwin Machuba, Teacher - Kwa-Bhekilanga High

“I wasn’t sure if there was a way - I didn’t know one - to make pupils more attentive and creative. Now through TM I find I can impart more knowledge to students and in a simpler way. Sometimes I become surprised with myself e.g.: the way I think even since I started the technique: I make decisions more easily and automatically. I can just see things unfolding themselves without any hard thinking. Every minute of my life is now meaningful as I know that there is no boredom or idling of the mind.”

Gordon Kutu, Teacher - Skeen Primary School

“Before I began with this technique I am now more confident, happier and I think I have acquired not only the art of coping with stress, but also have become wiser and more intelligent.”

Sizwe, Teacher - Skeen Primary School

“Because of meditation I am what I wanted to be. My life has changed, I am no longer short tempered. I have good relationships with others. Meditation is a very nice thing to do. When I meditate I feel more relaxed and comfortable. These days when I sleep, I sleep like a baby.”

Louisa Sekhu, Teacher - Skeen Primary School

“I always knew or had an inner feeling that I had a lot of ability, but until the introduction to the TM technique, I was not able to reach my full potential. In most situations I felt like a lost sheep because most of my working days were filled with mental blocks, nervousness, psychosomatic illness, negative emotions, depression and much more. I lacked a sense of purpose and direction. I have tried many avenues to free both my mind and body from these ailments, but it was as if I was chained to the upsets of my past.

The TM technique addressed the unwanted stops in my life and I am gradually reaching my fullest potential. I feel that life can be lived much easier now without all the efforts I have previously experienced.”

Abner Modiba, Headmaster - Skeen Primary School



QUALITATIVE EVIDENCE FROM SA TEACHERS

“I am more tolerant with my colleagues. In addition, my relationships have improved at home.”
Nomokhsana Leotlela, Teacher - Alexandra High

“My relationships improved, both at work and home.”
Gordon Kutu, Teacher - Skeen Primary School

“I have always perceived myself as a very impatient, moody and aggressive person. Sometimes I just feel jealous of people that I don’t even know. I am now receptive to the differences between me and other people. I am able now to understand peoples’ perspectives of doing things. I am more considerate of other peoples’ situations and problems.”
Mpho Mmolawa, Teacher - Kwa-Bhekilanga High

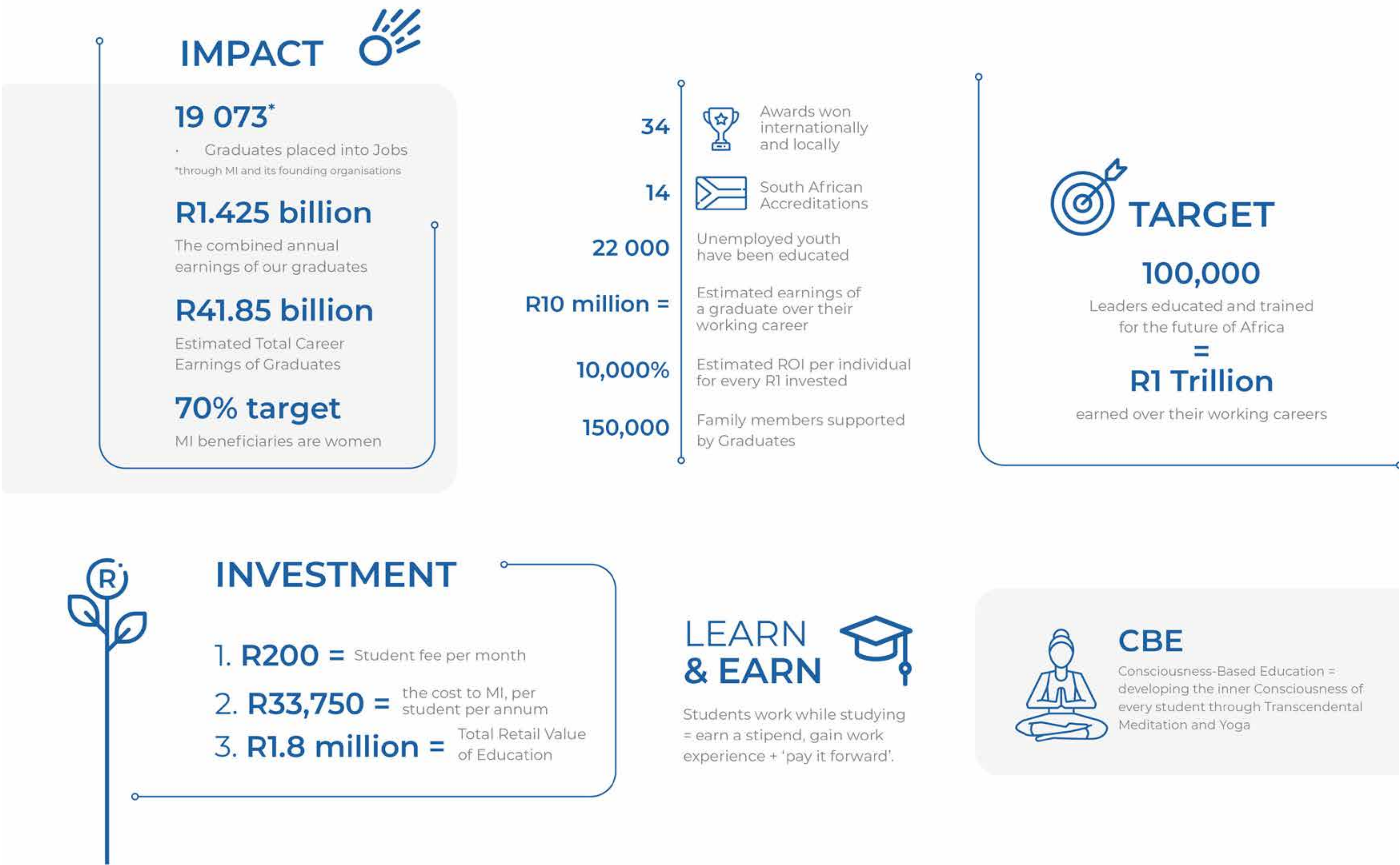
“I also relate better with the students that I come into contact with. My relationship with members of my family is great, it is so much better. I cannot describe it.
I wish they could also be introduced to T.M.”
Joe Shibambu, Deputy Principal - Kwa-Bhekilanga High

“Relating to pupils has become very, very great. I am able to understand the situations in which they live in a more professional and considerate way. These situations might be affecting them a lot in school.”
Mpho Mmolawa, Teacher - Kwa-Bhekilanga High

With the pupils TM has worked very effectively. Children are now communicating freely and they feel free to ask where they did not understand. For me as their teacher it has helped me a lot.”
Comfort Ramahuta, Teacher - Skeen Primary School



IMPACT OF THE MAHARISHI INVINCIBILITY INSTITUTE – SOUTH AFRICA





**Inside... there is a world
as big as the one outside,**

**...it starts with an
inner ocean of silence.
A deep feeling of being
at ease.**

Unboundedness.