

GLOBAL PEACE INITIATIVE

A Brain-Based Approach
to Reducing Violence
and Global Conflict

“Violent behavior is rooted in the brain. The only way to prevent violent behavior is to restore balanced brain functioning. The Brain-Based Approach to Peace restores balanced neurological functioning on the individual and global scale.”

—John Hagelin, President
Global Union of Scientists for Peace



WHY A NEW APPROACH?

Conventional approaches to reducing violence and social conflict are costly and, ultimately, ineffective because they do not address the underlying cause: acute societal stress—including political, ethnic, and religious tensions in critical hotspots around the globe. Stress negatively impacts the brain, impairing reasoning and fueling impulsive, violent, antisocial behavior. The Global Peace Initiative has identified powerful, scientifically proven meditation-based “technologies of consciousness” that neutralize individual and societal stress, restore balanced brain functioning, and markedly reduce crime and social conflict. The Global Peace Initiative is now implementing this “Brain-Based Approach to Peace” on a national scale in the United States and on a global scale in India.

THE COST OF VIOLENCE

36 Number of wars and armed conflicts being waged in the world today¹

26 Number in thousands of terrorist attacks since September 11, 2001²

225 Deaths in thousands resulting from international military operations in Afghanistan, Iraq, and Pakistan since 2001³

61 Percentage of civilian casualties stemming from current international military operations,⁴ compared with 5 percent in World War I

4 Cost in trillions of dollars of the United States war on terror and of killing Osama bin Laden⁵

8 Cost in trillions of dollars of global violence in 2010⁶

AT A GLANCE:

THE BRAIN-BASED APPROACH TO PEACE

- 1** Behavior is directly linked to brain functioning.

- 2** Stress impacts the brain. It shuts down the *prefrontal cortex* (the “higher brain”) and can overstimulate the *amygdala* (“fear center”), causing fear-driven, aggressive, violent, antisocial behavior.

- 3** Acute stress on a societal scale similarly impacts the brain and behavior of everyone in society, fueling crime and social violence.

- 4** Extensive research shows that a simple, evidence-based meditation practice, Transcendental Meditation® (TM®), dramatically reduces individual stress and its deleterious effects on brain and behavior.

- 5** Twenty-three published studies have also shown that TM practice, and particularly group TM practice, effectively defuses acute societal stress, and markedly reduces associated violence and social conflict—including war and global terrorism.

- 6** The Global Peace Initiative is dynamically implementing this Brain-Based Approach to Peace on a national and global scale, and is conducting large-scale research on its global effects as well as cutting-edge research on the fundamental physical, neurophysiological, and sociological mechanisms that underlie these global effects.

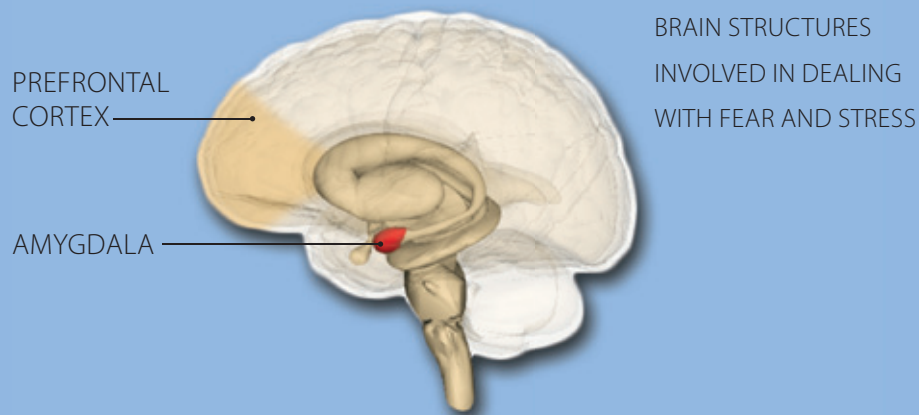
More than 4,000 advanced meditation experts gathered in Washington, D.C., during the summer of 1993 to scientifically demonstrate the effect of the Brain-Based Approach to Peace on reducing violent crime in the U.S. capital city. Fulfilling predictions lodged in advance, crime decreased more than 23 percent during the demonstration project ($p < 10^{-8}$), according to research published in the peer-reviewed scientific journal *Social Indicators Research* (see page 19).



1 BEHAVIOR IS LINKED TO BRAIN FUNCTIONING

How we perceive, and respond to, the environment is governed by the brain:

- Whether a situation is seen as threatening or safe depends on the degree of excitation of the *amygdala*, or “fear center.”
- The ability to control impulsive, violent behavior depends on the development of the *prefrontal cortex*—the “higher brain”—which governs higher executive functioning, such as impulse control, judgment, decision-making, and moral reasoning.

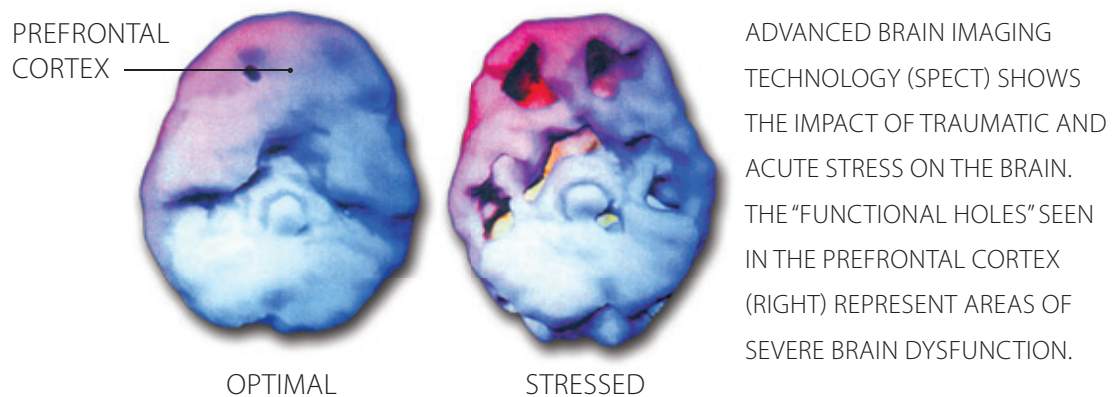


2 STRESS IMPAIRS THE BRAIN, NEGATIVELY IMPACTS BEHAVIOR

Brain functioning and overall brain development are a function of age, education, genetics, and environmental factors, such as stress.

Stress shuts down the prefrontal cortex, shunting blood flow away from the higher brain to the primitive, or reactive, brain—a historic defense mechanism known as the “fight-or-flight response.” Unfortunately, under chronic stress, which is increasingly endemic in the world today, the prefrontal cortex shuts down chronically and fails to develop properly. The underdevelopment and/or underutilization of the prefrontal cortex is a fundamental cause of the pervasive violence in society today.

Traumatic stress also leads to hyperstimulation of the amygdala, a condition seen in millions of military combatants and an increasing number of civilians suffering from PTSD. Such stressed individuals experience chronic fear, perceive threats where none exist, and tend to respond accordingly.



3 SOCIETAL STRESS FUELS CRIME AND SOCIAL VIOLENCE

The U.S. Surgeon General has stated that Americans are living in “an epidemic of stress,” which leads to epidemic levels of heart disease, stroke, and other stress-related illnesses.

According to research, pervasive stress on a societal scale also correlates with higher crime, including homicide, aggravated assault, rape, and robbery⁷—and contributes to the outbreak of war, terrorism, and other social violence.⁸

According to prevailing theory in the field of conflict management,⁹ the first stage in the emergence of war is mounting stress—political, ethnic, and religious tensions—in critical hotspots throughout the world. Such social stress, if unchecked, erupts as social violence or war. When such societal tensions run deep, history confirms that diplomatic efforts, negotiated settlements, and ceasefires produce fleeting results and provide no stable basis for lasting peace.



4 TM REDUCES STRESS, IMPROVES INDIVIDUAL BEHAVIOR

Extensive research has shown that a simple, evidence-based meditation practice, the Transcendental Meditation (TM) technique, markedly reduces individual stress and its damaging effects on the brain and behavior.

Transcendental Meditation is an easily learned mental procedure, practiced for 20 minutes twice daily sitting comfortably with the eyes closed. The TM technique provides the individual with the experience of a unique, fourth major state of consciousness (distinct from waking, dreaming, or sleep states of consciousness)—a state of deep physiological relaxation and heightened mental alertness. Practice of the technique does not involve religion, philosophy, or change in lifestyle.

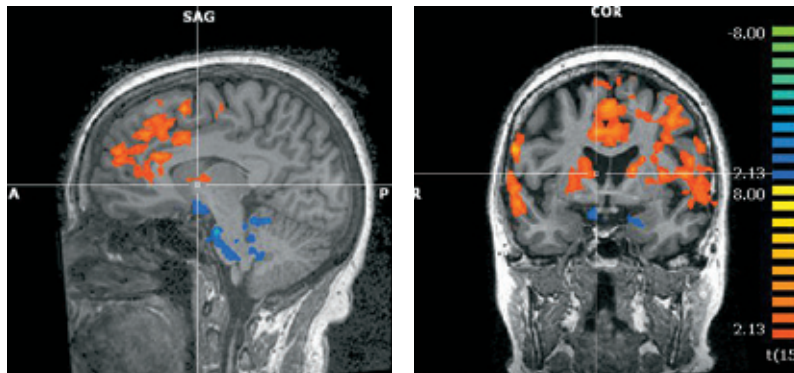
Reducing anxiety; promoting a state of deep relaxation

According to research, the Transcendental Meditation technique reduces acute stress far more effectively than other available meditation or relaxation techniques. For example, in a meta-analysis of 142 published scientific articles studying various meditation and relaxation methods, the TM technique was more than twice as effective as other methods in reducing trait anxiety¹⁰ and produces a correspondingly deeper state of physiological relaxation.¹¹

Activating the “higher brain,” deactivating the “fear center”

Equally important, TM activates the prefrontal cortex (“higher brain”) and strengthens communication between the prefrontal cortex and different areas of the brain, while deactivating the amygdala (“fear center”). As a result, even previously stressed or traumatized individuals display enhanced executive functions, with less impulsive, aggressive, violent behavior.

For example, research shows Transcendental Meditation practice reduces symptoms of combat PTSD among veterans by 50 percent within eight weeks of learning the technique,¹² and sharply reduces recidivism rates among incarcerated adults,^{13, 14} substance abuse,^{15, 16} and stress-related diseases, including a 66 percent reduction in heart attack, stroke, and death compared to controls.¹⁷



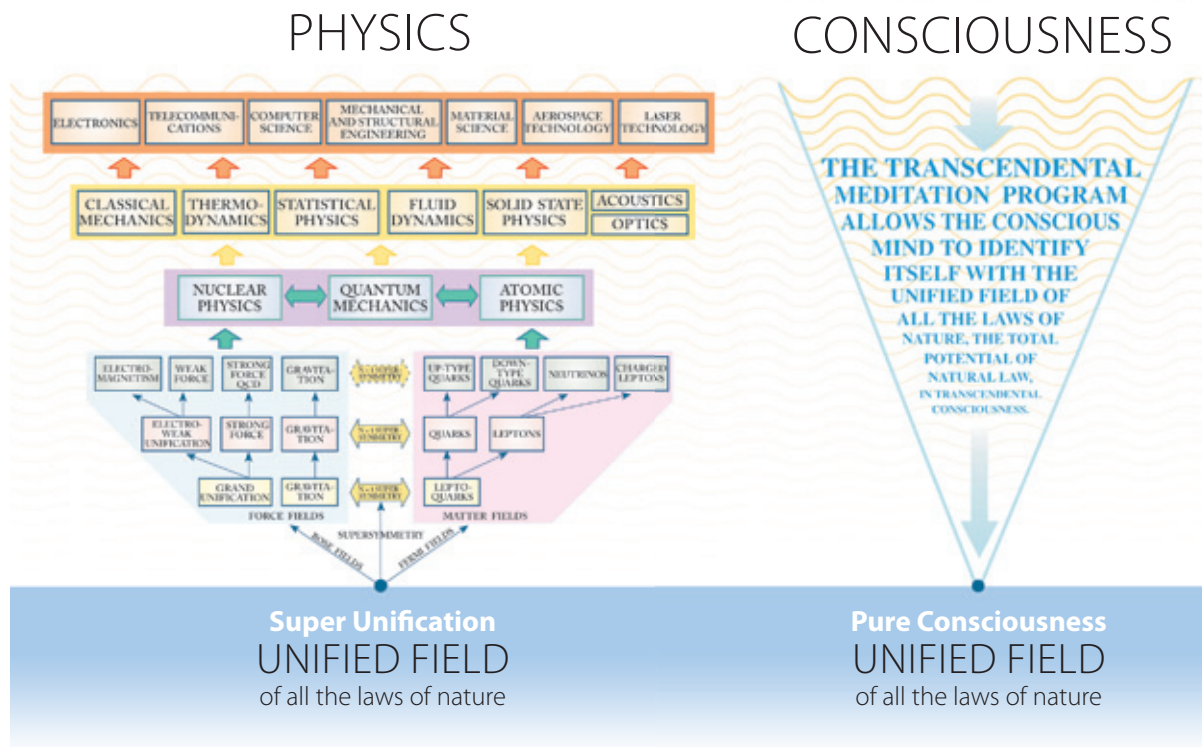
fMRI: Restoration of balanced brain functioning. Chronic and/or traumatic stress shuts down the prefrontal cortex (“higher brain”) and causes chronic excitation of the amygdala (“fear center”). TM practice deactivates the amygdala and surrounding subcortical structures (blue, above), and stimulates activity in the prefrontal cortex (orange).¹⁸

5 GROUP MEDITATION DEFUSES ACUTE SOCIETAL STRESS, REDUCES CRIME AND SOCIAL VIOLENCE

Extensive research, including 50 scientific replications and 23 studies published in peer-reviewed journals, demonstrates that TM practice, and in particular group TM practice, is an effective, and highly cost-effective, approach for reducing societal stress and associated violent crime and social conflict.

It is not surprising that reducing stress on the individual level causes a corresponding reduction of stress on the societal level. Yet it is both surprising and fortunate that even a relatively small proportion of a population practicing this powerful, stress-reducing technology in a group produces an almost disproportionate and demonstrable reduction in societal stress and in associated crime and social violence. The meditating group produces an extensively documented “spillover” effect of orderliness and calm in the surrounding society.

Theoretical explanations of this surprisingly powerful impact of group meditation on crime and social stress include a “field model of consciousness,” in which consciousness, at its deepest level, is a field that underlies and connects individuals throughout society. Such a theory is consistent with the latest findings in physics, physiology, and neuroscience. (See figure to the right.) In any such model (irrespective of its details), the stress-reducing, peace-promoting influence generated by a group will grow as the square of the size of the group. This N^2 power of a peace-creating group has been observed and repeatedly confirmed by dozens of published scientific studies—and renders this Brain-Based Approach to Peace especially practical. It means that only a few thousand individuals are needed to produce an extremely powerful and scientifically demonstrable effect of orderliness and calm in the surrounding society—even on a national or global scale. (See research, pages 16–19.)



Modern physics has located more unified levels of nature’s functioning at smaller time and distance scales, culminating in the discovery of the unified field (“superstring field”) at the foundation of the universe. The TM and more advanced TM-Sidhi program provides direct experience of quieter, deeper levels of thought—culminating in the experience of the unified field at the basis of mind and matter. Group practice powerfully stimulates this universal, unified field of collective consciousness, creating a demonstrable, coherent influence throughout society.



SCIENTIFIC RESEARCH ON THE BRAIN-BASED APPROACH TO PEACE

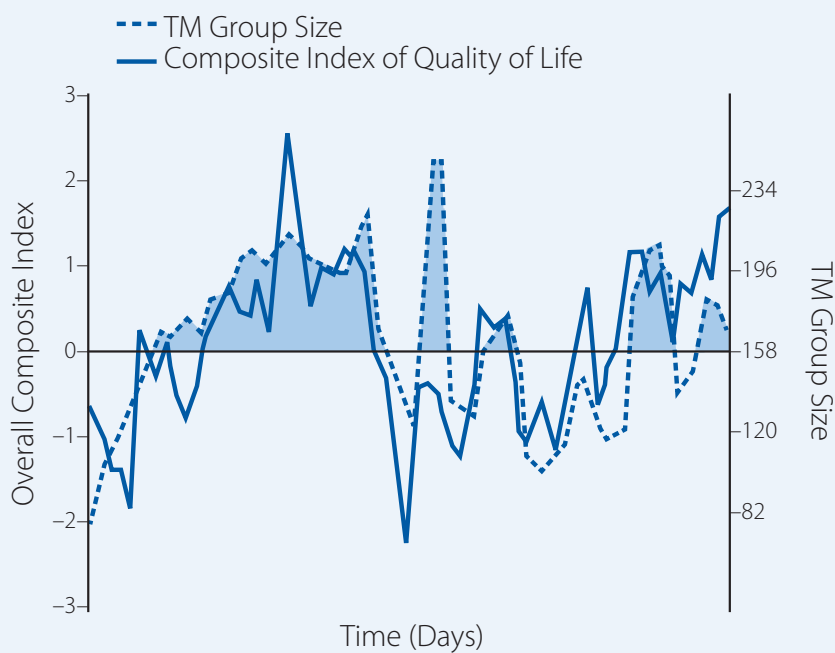
The unique effectiveness of this Brain-Based Approach to Peace has been confirmed by more than 50 demonstrations and 23 scientific studies.

This research has been carefully scrutinized by independent scholars and accepted for publication in top academic journals. In every case, this approach produced marked reductions of crime, social violence, terrorism, and war, and increased peace and positivity in society. In addition, these studies are backed by more than 380 additional published studies conducted at over 200 independent universities and research institutes in 30 countries on the individual and societal benefits of these technologies of consciousness. This extensive body of scientific research makes the Brain-Based Approach to Peace the most thoroughly tested and rigorously established technology of peace in the world today.

DECREASED WAR AND TERRORISM

A critical experimental test of the Brain-Based Approach to Peace was conducted during the peak of the Lebanon war. A day-by-day study of a two-month assembly in Israel in 1983 showed that, on days when the number of participants ("TM Group Size," right) was high, war deaths in neighboring Lebanon dropped by 76% ($p < 10^{-7}$). In addition, crime, traffic accidents, fires, and other indicators of social stress in Israel (combined into a Composite Index) all correlated strongly with changes in the size of the peace-creating group. Other possible causes (weekends, holidays, weather, etc.) were statistically controlled for.⁸

Decreased war deaths in Lebanon



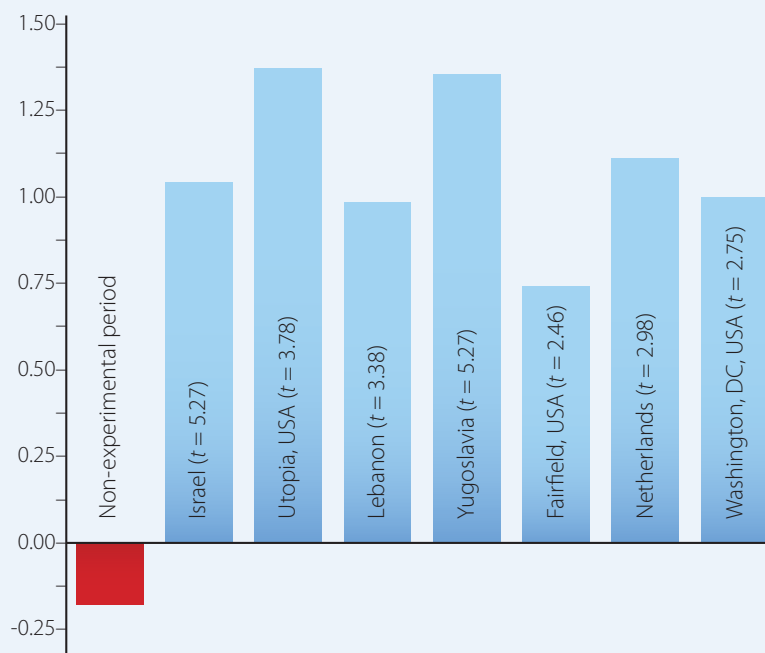
Changes in the quality of life in Israel correlate with changes in the numbers of people practicing the Transcendental Meditation and TM-Sidhi program (Orme-Johnson et al., 1988)⁸

These results were subsequently replicated in seven consecutive experiments over a two-year period during the peak of the Lebanon war. The results of these interventions included:

- **war-related fatalities decreased by 71%** | $p < 10^{-10}$
- **war-related injuries fell by 68%** | $p < 10^{-6}$
- **the level of conflict dropped by 48%** | $p < 10^{-8}$
- **cooperation among antagonists increased by 66%** | $p < 10^{-6}$

The likelihood that these combined results were due to chance is less than one part in 10^{19} , making this approach of reducing societal stress and conflict the most rigorously established approach in the history of conflict management.⁹

Replications of Lebanon study

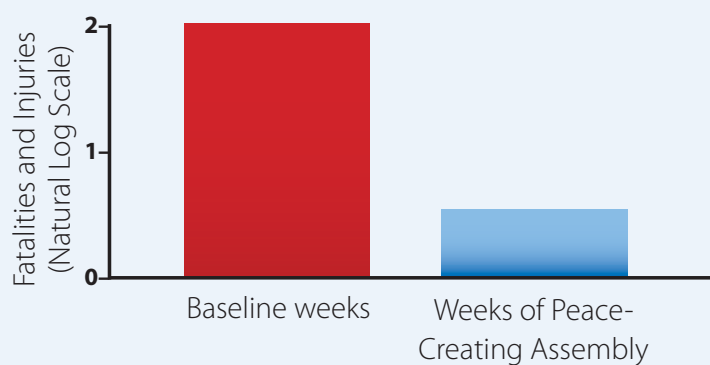


This meta-analysis shows increases in a Peace-War Index during seven assemblies of experts practicing the Transcendental Meditation and TM-Sidhi program (Davies and Alexander, 2005)⁹

In addition, the global influence on terrorism of three large peace-creating assemblies was studied retrospectively through an analysis of data compiled by the Rand Corporation.

The data revealed a 72% reduction in worldwide terrorism during the three assemblies taken together, as compared to all other weeks during a two-year period. Each assembly had approached or exceeded the participation threshold (9,000) predicted to create a global influence of peace. The study ruled out the possibility that this reduction in terrorism was due to cycles, trends, or drifts in the measures used, or to seasonal changes.¹⁹

Decreased global terrorism



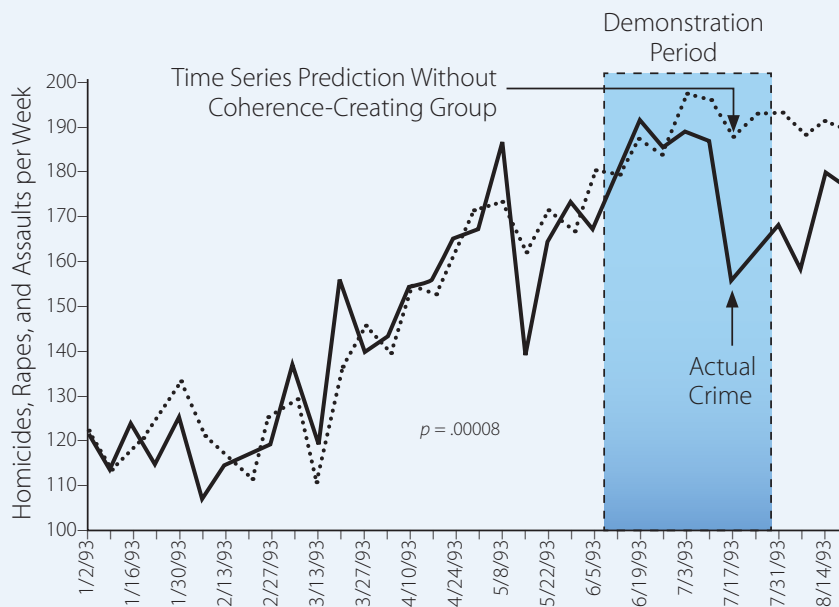
Reduced fatalities and injuries correlate with higher numbers of people practicing the Transcendental Meditation and TM-Sidhi program (Orme-Johnson et al., 2003)¹⁹

DECREASED CRIME AND SOCIAL STRESS

A National Demonstration Project conducted in Washington, D.C., from June 7 to July 30, 1993, tested the efficacy of this Brain-Based Approach in reducing crime and social stress and improving the effectiveness of government.

In this carefully controlled experiment, the peace-creating group increased from 800 to 4,000 over the two-month period. Although violent crime had been steadily increasing during the first five months of the year, soon after the start of the study, violent crime (measured by FBI Uniform Crime Statistics) began decreasing and continued to drop until the end of the experiment (maximum decrease 23.3%), after which it began to rise again. The likelihood that this result could be attributed to chance variation in crime levels was less than two parts per billion ($p < .000000002$). The drop in crime could not be attributed to other possible causes, including temperature, precipitation, weekends, and police and community anticrime activities.⁷

Decreased crime in Washington, D.C.



Decreased crime in Washington, D.C., correlates with increasing numbers of people practicing the Transcendental Meditation and TM-Sidhi program in the U.S. national capital (Hagelin et al., 1999)⁷

6 IMPLEMENTATION

The Global Peace Initiative is now dynamically implementing this Brain-Based Approach to Peace on a national and global scale.

NATIONAL IMPLEMENTATION—USA

Harnessing the power of a large group of peace-creating experts for America

The United States clearly plays a pivotal role in world events and in global policies and trends. Creating a powerful, peaceful influence in the U.S. and in its domestic and foreign policy will itself have a significant positive impact on global peace. In addition, building confidence in the scientific, public policy, and philanthropic communities in the U.S. through a successful implementation of this national project will accelerate its acceptance, support, and utilization on a global scale.

Previous research demonstrates that a group of 2,500 advanced meditation experts (approximately the square root of one percent of the national population) in one place in the U.S. is enough to produce the “National Maharishi Effect”—a peaceful, positive influence of sufficient magnitude to defuse national tensions and prevent the upsurge of crime and violence on a national scale.



The first phase of the Global Peace Initiative's national implementation to create a powerful influence of peace and positivity for the whole U.S. population is under way in the heartland of America—in two grand, 25,000-square-foot meditation domes at Maharishi University of Management in Maharishi Vedic City, Iowa.



A BRIEF STATUS REPORT:

PHASE 1: NATIONAL DEMONSTRATION PROJECT

In July 2006, the largest-ever long-term demonstration project on the effects of group meditation on national trends was launched as the “Invincible America Assembly” (IAA) in Maharishi Vedic City, Iowa. Predictions lodged in advance with the press included a marked reversal in the escalating violent crime rates in the country.

Today, with an average of 1,700 experts participating in the Invincible America Assembly, the FBI Uniform Crime Index shows a dramatic decline in violent crime rates since the launch of the demonstration project, including a reduction in murder rates in major U.S. cities to the lowest levels in over 40 years.

PHASE 2: FULL IMPLEMENTATION

The Global Peace Initiative now seeks to increase the number of advanced meditation experts from 1,700 to the desired level of 2,500 in order to produce a more powerful, peaceful, coherent influence in national consciousness. This will further reduce societal stress and associated crime and violence and, according to previous research, help to elevate the country above its current political and economic instability.



Peace-creating experts. More than 1,700 experts practice advanced TM techniques daily in two domes in Maharishi Vedic City, Iowa.

GLOBAL IMPLEMENTATION—INDIA

Harnessing the power of a large group of peace-creating experts for the world

Previous published research^{9, 19} indicates that one large group of 9,000 experts (approximately the square root of one percent of the world's population) in one place would be sufficient to produce the "Global Maharishi Effect"—a positive, peaceful influence of sufficient magnitude to defuse global tensions and prevent the outbreak of violence and conflict anywhere on earth.

For the combined reasons of lower per-capita costs, widespread availability of trained experts, and presently secured land and facilities, this global group of 9,000 peace-creating experts would be most practically situated in India. The critical task of assembling and training these 9,000 experts is well under way, with over 1,500 experts already in place.

India is the home of the ancient Vedic wisdom, which is the knowledge source of the powerful, peace-creating technologies of Transcendental Meditation and its advanced technique—the TM-Sidhi program. Consequently, instruction in these technologies can be integrated easily and cost-effectively into the current training of the custodians of the Vedic tradition in India, who are known as "Vedic Pandits." Thousands of these experts have already been trained in these technologies, and many thousands more are being trained in villages and cities across the country. From these will be culled the most proficient to comprise the core group of 9,000 experts.

At the center of India, the Global Peace Initiative has acquired 1,800 acres of land, and the basic infrastructure of roads, utilities, water, and communications is now in place. More than 200 buildings have been completed, capable of comfortably accommodating more than 2,000 peace-creating experts, and further construction is under way. At this current rate of progress, and with access to funding, we will soon complete facilities to house 9,000 experts so that we can accomplish, from this one place, the peace and security of the entire world.



More than 1,500 specially trained Vedic Pandits

currently at the Maharishi Capital of World Peace

INVESTIGATING THE EFFECTS

To promote broader acceptance and support within the scientific, public policy, and philanthropic communities, GPI is supporting large-scale, independent, rigorous research on the crime-reducing, peace-promoting impact of this Brain-Based Approach, as well as *cutting-edge research on the fundamental physical, neurophysiological and sociological mechanisms that underlie these far-reaching societal effects*. In addition to the reductions in crime and social violence found previously, we anticipate, and will investigate, broader evidence of reduced stress in non-meditating subjects in the vicinity of the peace-promoting groups, including:

- increased serotonin
- increased alpha EEG coherence
- reduced plasma cortisol (“stress hormone”)
- reduced stress-related illness
- reduced alcohol and drug abuse
- reduced psychiatric crisis calls
- reduced emergency room admissions
- reduced other established indicators of societal stress



EEG recordings show how TM practice changes brain functioning during the practice and leads to greater brain integration in activity.

BRAHMANANDA SARASWATI FOUNDATION

Honoring one of the world's most revered spiritual leaders

Funding for the Global Peace Initiative and the Brain-Based Approach to Peace is being organized by the Brahmananda Saraswati Foundation. The Foundation was established by Maharishi Mahesh Yogi—the founder of the Transcendental Meditation program and principal architect of this Brain-Based Approach to Peace. It is named in honor of Maharishi's teacher, Brahmananda Saraswati, one of the world's most highly revered spiritual leaders, who served as Shankaracharya of Jyotir Math—the chief representative of the Vedic tradition of knowledge.

The Brahmananda Saraswati Foundation is a non-religious, 501(c)(3) charitable organization that is overseen by an international board of scientists, financiers, and business leaders from around the world. The Foundation has put in place the rigorous financial and operational controls needed to ensure the project's success and to provide its donors with the high level of disclosure that such a project merits. In addition to its own audits, the Brahmananda Saraswati Foundation maintains a system of detailed grant requests and grant reports, including audits, from the recipient Indian organizations, as well as a team for onsite progress verification.

INVITATION TO JOIN US

Supporting large groups of peace-creating experts

Farsighted well-wishers of humanity are invited to support the establishment of a large, permanent group of 2,500 peace-creating experts in America and 9,000 peace-creating experts in India, to establish a basis for lasting peace and harmony among nations.

The Maharishi Capital of World Peace

The Global Peace Initiative
1,800-acre campus in
central India



ENDORSEMENTS FROM LEADING SCHOLARS

“This work... deserves the most serious consideration.”

“The claim can be plausibly made that the potential impact of this research exceeds that of any other ongoing social or psychological research program. The research has survived a broader array of statistical tests than most research in the field of conflict resolution. I think this work, and the theory that informs it, deserve the most serious consideration by academics and policy makers alike.”

—**David Edwards, Ph.D., Professor of Government at the University of Texas at Austin**

“We have to take these studies seriously.”

“In the studies that I have examined on the impact of the Maharishi Effect [the Global Peace Initiative] on conflict, I can find no methodological flaws, and the findings have been consistent across a large number of replications in many different geographical and conflictual situations. As unlikely as the premise may sound, I think we have to take these studies seriously.”

—**Ted Robert Gurr, Ph.D., Emeritus Professor of Government and Politics at the University of Maryland**

“The work is sound.”

“The hypothesis definitely raised some eyebrows among our reviewers. But the statistical work is sound. The numbers are there. When you can statistically control for as many variables as these studies do, it makes the results much more convincing. This evidence indicates that we now have a new technology to generate peace in the world.”

—**Raymond Russ, Ph.D., Professor of Psychology at the University of Maine; editor, *Journal of Mind and Behavior***

“This research... demands action.”

“I have been following the research on the Maharishi Effect [the Global Peace Initiative] as it has developed over the last twenty years. There is now a strong and coherent body of evidence showing that [this approach] provides a simple and cost-effective solution to many of the social problems we face today. This research and its conclusions are so strong, that it demands action from those responsible for government policy.”

—**Huw Dixon, Ph.D., Professor of Economics at Cardiff Business School, Cardiff University**

CONTACT US

Brahmananda Saraswati Foundation

For more information, please contact:

The Global Peace Initiative

Brahmananda Saraswati Foundation

80 Broad Street, 5th Floor

New York, NY 10004

1750 Maharishi Center Avenue

Maharishi Vedic City, IA 52556

877-222-7231

Director@GlobalPeaceInitiative.org

www.GlobalPeaceInitiative.org

REFERENCES

1. Uppsala University. Uppsala Conflict Data Program. *UCDP Conflict Encyclopedia*. Retrieved on 8/12/2011 from www.ucdp.uu.se/database.
2. National Consortium for the Study of Terrorism and Responses to Terrorism (START). (2011). *Global Terrorism Database*. Retrieved on 08/12/2011 from www.start.umd.edu/gtd.
3. Watson Institute. (2011). *The Costs of War Since 2001: Iraq, Afghanistan, and Pakistan*. Brown University, p. 1.
4. Ibid.
5. Ibid.
6. Vision of Humanity. (2011). *Global Peace Index*. Retrieved on 8/12/2011 from <http://www.visionofhumanity.org/info-center/global-peace-index-2011>.
7. *Social Indicators Research*, 47, 153–201, 1999.
8. *Journal of Conflict Resolution*, 32(4), 776–812, 1988.
9. *Journal of Social Behavior and Personality*, 17(1), 285–338, 2005.
10. *Journal of Clinical Psychology*, 45(6), 957–974, 1989.
11. *American Psychologist*, 42, 879–881, 1987.
12. *Military Medicine*, 176(6), 626–630, 2011.
13. *Journal of Offender Rehabilitation*, 36(1–4), 161–180, 2003.
14. *Journal of Offender Rehabilitation*, 36(1–4), 181–203, 2003.
15. *Alcoholism Treatment Quarterly*, 11, 13–87, 1994.
16. *International Journal of the Addictions*, 26, 293–325, 1991.
17. *Archives of Internal Medicine*, in press.
18. M. Ludwig. (2011). *Brain activation and cortical thickness in experienced meditators*. Dissertation, The California School of Professional Psychology, Alliant International University, San Diego.
19. *Journal of Offender Rehabilitation*, 36(1–4), 283–302, 2003.

GLOBAL PEACE INITIATIVE

A Brain-Based Approach
to Reducing Violence
and Global Conflict