

Defence Personnel Worldwide Find Transcendental Meditation To be an Effective Tool in Combating Stress

Stress is a very major degrade factor on combat performance. Troops of the Army, CPOs and Police deployed in CI / CT operations must cope with high levels of stress. The article presents a solution in terms of TM. The TM technique is the most thoroughly researched and successful meditation practice in the world. Over 350 research studies published in leading, peer-reviewed scientific and medical journals have confirmed that TM practice produces wide-ranging, measurable benefits, including increased intelligence, creativity and mental clarity; reduced stress and improved health; and more fulfilling and harmonious interpersonal relationships. These studies have been conducted at more than 200 independent universities and research institutions in 30 countries. This stress-busting approach has been taught worldwide for the past 44 years and today over 6 million people in 180 countries have learned the practice.

Today's military personnel are constantly pressured to push beyond the ordinary limits of human performance. The ever increasing complexity of high-technology weaponry and the speed and accuracy of those weapons demand that military personnel using them continuously perform at optimum levels. Service personnel must remain physically strong and mentally clear even when their duties require strenuous and protracted hours; they are challenged to maintain heightened alertness, comprehension and mind-body coordination even under duress during arduous missions. If they fail to do so, the consequences can be tragic in both combat and non-combat situations.

For all these reasons, stress among today's military personnel is reaching epidemic proportions. The increased stresses of modern military duty can take their toll by leading to such problems as Post-Traumatic Stress (PTS), poor health, discipline problems, spousal abuse, jumps in suicide, marital discord and divorce, as well as the increased use of tobacco, alcohol and drugs. Such manifestations

of stress can further reduce the fitness, effectiveness and operational readiness of individuals. Military personnel worldwide are beginning to realise that if they can reduce their high stress levels; they could eliminate performance-limiting behaviours and perform more dynamically. Lower levels of stress provide a strategic advantage that would lead to more successful missions.

The writers urge more military leaders worldwide to follow the lead of Latin American militaries and examine a scientifically validated solution that will reduce the high levels of stress in the military today - the Transcendental Meditation (TM) programme.

First, we will examine the impact of stress on military personnel and then consider how TM practice can resolve this critical issue, including a review of key research findings.

Stress and its impact in daily life

The epidemic of stress in today's society creates profoundly damaging effects on individual and public

health. To help assess the impact of stress, the social sciences have developed the Social Readjustment Rating Scale, which ranks 43 life crises on a scale of Life Change Units (LCU; see Table 1). The ratings were arrived at by researchers who used in-depth interviewing techniques on an international sample of 5,000 people from Europe, the US, Central America and Japan.

The supporters contend that there is a direct correlation between Annual Life Change Units and stress-related illness. One of their studies found that with a "mild" stress level (150 to 199 LCUs in a single year), health problems increased by 37 per cent above the average; with a moderate level (200-299), the increase was 51 per cent; and with a high level (300 and up), the increase was 79 per cent. The researchers noted that what counted was the cumulative total, not whether the life changes in themselves were positive or negative.

The total LCU score for life events regularly affecting military personnel is a formidable 565 (see Table 1). This high stress level directly jeopardises military health.

Table 1: Rank life event LCU value

| | | |
|----|--|-----|
| 1 | Death of a spouse | 100 |
| 2 | Divorce | 73 |
| 3 | Marital separation | 65 |
| 4 | Jail term | 63 |
| 5 | *Death of close family member | 63 |
| 6 | *Personal injury or illness | 53 |
| 7 | Marriage | 50 |
| 8 | Fired from job | 47 |
| 9 | Marital reconciliation | 45 |
| 10 | Retirement | 45 |
| 11 | Change in health of family member | 44 |
| 12 | Pregnancy | 40 |
| 13 | Sex difficulties | 39 |
| 14 | Gain of a new family member | 39 |
| 15 | Business readjustment | 39 |
| 16 | *Change in financial state | 38 |
| 17 | *Death of a close friend | 37 |
| 18 | *Change to a different line of work | 36 |
| 19 | *Change in number of arguments with spouse | 35 |
| 20 | Mortgage over US\$ 100,000 or more | 31 |
| 21 | Foreclosure of mortgage loan | 30 |
| 22 | *Change in responsibility of work | 29 |
| 23 | Son / daughter leaving home | 29 |
| 24 | *Trouble with in-laws | 29 |
| 25 | *Outstanding personal achievements | 28 |
| 26 | *Wife begins or stops work | 26 |
| 27 | *Rejoin or end school | 26 |
| 28 | *Change in living condition | 25 |
| 29 | *Revision of personal habits | 24 |
| 30 | *Trouble with boss | 23 |
| 31 | *Change in work hours | 20 |
| 32 | *Change in residence | 20 |
| 33 | *Change in schools | 20 |
| 34 | Change in recreation | 19 |
| 35 | *Change in religious activities | 19 |
| 36 | *Change in social activities | 18 |
| 37 | Mortgage or loan less than US\$ 100,000 | 17 |
| 38 | *Change in sleeping habits | 16 |
| 39 | *Change in number of family get-together | 15 |
| 40 | *Change in eating habits | 15 |
| 41 | *Vocation | 13 |
| 42 | Festivals | 12 |
| 43 | Minor violations of the law | 11 |

* Life events having the greatest impact on military personnel.

Additional stressful situations of service personnel

The list in Table 1 does not include many other unique sources of stresses in military life, such as:

- Military service in inhospitable terrain (deserts, jungles, high altitudes)
- Isolation (staying alone on pickets for long duration)
- Emergency duties (floods, earthquakes etc)
- Insurgency duties (controlling insurgency and violent law and order problems)
- Long separations from families and resulting domestic and personal complications
- Military service during time of war

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Col SP Bakshi, (retd)

Transcendental Meditation technique is strongly recommended for all military personnel to help them maintain a high level of proficiency despite the rigours of their job. TM practice can bring a new peak level of performance to individual military personnel and their units by improving physical, psychological and team productivity

Stress remains the cause of chronic tension, ill health and dissatisfaction. Tension, apprehension, shortness of breath, chest pain, heart palpitation, dizziness, trembling and easy tiring characterise anxiety neurosis. Psychic stress can further aggravate those conditions, causing constriction of blood vessels and increased oxygen consumption by the heart



Implications for defence personnel and paramilitary forces

Considering that the maximum LCU value is 100 and the minimum 11, if even 50 points to each are allotted to the above stresses, another 300 points would have to be added to the total of 565, making a grand total of 865 LCUs, which is far beyond the breaking point for any health afflictions due to stress. Even though military personnel will not necessarily experience all these events, they are at greater risk to experience many of them than are most civilians.

Effects of stress on the human physiology

Recent research has revealed a number of psychological imbalances underlying man's present problems. Stress remains the cause of chronic tension, ill health and dissatisfaction. Tension, apprehension, shortness of breath, chest pain, heart palpitation, dizziness, trembling and easy tiring characterise anxiety neurosis. Psychic stress can further aggravate those conditions, causing constriction of blood vessels and increased oxygen consumption by the heart.

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When people become stressed, they lose access to their inner resources. Their minds become weak, limiting the power and clarity of their thinking. They cannot provide sufficient organising force from within to engage in effective activity. Direction is lost because of failure to fulfill their desires. The breakdown of mind-body coordination is a vicious circle leading to increasing frustration, suffering and despair.

However, a solution to these issues has been repeatedly confirmed by scientific research – and has now been implemented in military institutions around the world.

The transcendental meditation technique

In 1957, the acclaimed Vedic scholar Maharishi Mahesh Yogi introduced to the world the simple, natural and effortless technique of Transcendental Meditation (TM). His goal was to unfold the full creative potential of higher consciousness that is latent in every individual. The Transcendental Meditation technique existed 5,000 years ago, but had been lost over the long expanse of time. It was rediscovered and revived by Maharishi.

The TM technique is the most thoroughly researched and successful meditation practice in the world. Over 350 research studies published in leading, peer-reviewed scientific and medical journals have confirmed that TM practice produces wide-ranging, measurable benefits, including increased intelligence, creativity and mental clarity; reduced stress and improved health; and more fulfilling and harmonious interpersonal relationships. These studies have been conducted at more than 200 independent universities and research institutions in 30 countries. This stress-busting approach has been taught worldwide for the past 44 years and today over 6 million people in 180 countries have learned the practice.

This simple, effortless TM technique is practiced sitting comfortably in a chair with the eyes closed for 20 minutes twice a day. Through the profound physiological rest provided by TM, deep-rooted stresses in the nervous system are dissolved, and practitioners experience more dynamic and fulfilling activity after meditation as a result. These benefits are measurable: in the United States, the National Institute of Health has given over US\$ 25 million in federal grant funding for research on the TM technique. As the research shows, TM practice reduces anxiety, develops mental potential and leads to more enjoyment and success in all aspects of a life.

The TM programme is systematic, repeatable, with verifiable results and therefore scientific in character. During the practice one experiences finer and finer levels of the thinking

process until thought subsides and one experiences the source of thought, one's own core reality: a field of unbounded awareness, pure consciousness, the Self – an infinite source of energy, intelligence and creativity within, from where all the laws of nature conduct and govern all processes of individual life. Modern physics calls this level of life the unified field, the ultimate source of both mind and matter – the basis of all forms and phenomena and the most concentrated level of energy and intelligence at the foundation of the universe. Maharishi, the founder of the TM technique, calls this reality Transcendental Consciousness.

EEG research shows that during TM practice, the brain gains a state of global EEG coherence: across the entire brain, brain waves come into synchrony, indicating a much greater degree of integration and communication within the brain. Higher brain wave coherence has been scientifically correlated with rising IQ, increased intelligence, increased creativity, improved academic performance and learning ability, increased moral reasoning, improved psychological stability, increased emotional maturity and improved alertness and reaction time

This process of transcending thought during TM practice and thereby experiencing the core of one's own existence – the unified field of consciousness – completely reorganises brain functioning. EEG research shows that during TM practice, the brain gains a state of *global EEG coherence*: across the entire brain, brain waves come into synchrony, indicating a much greater degree of integration and communication within the brain. Higher brain wave coherence has been scientifically correlated with rising IQ, increased intelligence, increased creativity, improved academic performance and learning ability, increased moral reasoning, improved psychological stability, increased emotional maturity and improved alertness and reaction time. Everything good about the brain is based on its orderly functioning and TM practice develops this improved functioning and allows it to become stabilised in daily life.

TM compared with other techniques of meditation

TM is not a religion or system of beliefs, but rather a scientifically verified technique that produces predictable positive benefits, regardless of one's language, education, cultural group, religion or lifestyle. Historically, meditation has often been understood in terms of concentration, contemplation or attempts to control the mind; it was difficult to do and the goal of meditation was considered to be unrelated to the practicalities of life. In contrast, the TM technique is an effortless process, based on the mind's natural tendency to move in a direction of greater charm. To ensure maximum results, the technique is always taught by a fully trained teacher in a step-by-step method of instruction with proper feedback.

Research has also shown that regular TM practice decreases most of the major risk factors for heart disease and stroke, including hypertension, anxiety and depression. The cost savings in healthcare alone would justify implementation of the TM programme by the military during these times of reduced financial budgets

Not surprisingly, *meditation practices that use concentration or contemplative approaches produce different effects on brain functioning than the TM technique and therefore lead to different results*. Meta-analyses published in peer-reviewed journals have shown that TM practice results in *higher levels of self-actualisation, greater decreases in anxiety, reduced high blood pressure, physiological relaxation, improved psychological outcomes and decreased use of drugs, alcohol and cigarettes* in comparison with other self-development programmes. During TM practice the entire process by which the mind settles to more silent levels is completely spontaneous and involves no effort or manipulation.

As mentioned above, the research conducted on the TM technique shows significant effects on psychological measures – creativity, cognitive flexibility, coping, problem solving and improved moral reasoning; improved health



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– reductions in blood pressure and in hospitalisations; and significant improvement in social interactions.

A fourth major state of consciousness

Research confirms that waking, dreaming and sleeping states of consciousness each have their own distinct physiological markers – characteristic styles of functioning of the nervous system. TM practice produces a unique *fourth* state of consciousness, different from waking, dreaming or sleeping. During TM practice, as the senses turn inward, the physiology gains deep rest – metabolic rate is significantly reduced – while simultaneously brainwave functioning becomes increasingly coherent, leading to increased mental clarity and inner wakefulness. Scientists have described this experience as “restful alertness” – a profoundly refreshing experience, both physically and mentally. Accumulated fatigue and tension, which hinder efficient functioning of the nervous system, are dissolved in a natural way. The result is increased energy, more inner stability and improved clarity of perception at all levels of experience.

Scientific experiments have found that during the period of TM practice, oxygen consumption, carbon dioxide, cardiac output, heart rate and respiratory rate significantly decrease. The metabolic rate is reduced by an average of 18 per cent. This physiological evidence, together with measurement of galvanic skin resistance, blood chemistry and brain wave patterns, shows that an individual gains a profoundly deep state of rest, while the mind remains awake and able to respond to stimuli. These natural effects distinguish the TM technique from all other

self-development techniques. Maharishi has explained that true mental health has its foundation in the integration of mind and body gained through regular experience of the fourth state of consciousness during TM practice.

Deeper rest is the basis of more dynamic activity. Deep rest to the physiology releases deep-rooted stress, which is the cause of psychosomatic diseases (which amounts to 85 per cent of human suffering). Stress is eliminated through the regular TM practice as both body and mind gain a profound state of restful alertness.

Practical implications of TM practice for military personnel

The Transcendental Meditation technique is strongly recommended for all military personnel to help them maintain a high level of proficiency despite the rigours of their job. TM practice can bring a new peak level of performance to individual military personnel and their units by improving physical, psychological and team productivity.

As noted above, stress-related problems can ultimately undermine mental and physical health. TM practice increases mind-body coordination, thus making the individual more resistant to stressful environments and better able to maintain health, satisfaction and improved job performance.

Worldwide military personnel need – and deserve – every opportunity to regain and / or sustain optimum health. Research shows that TM practitioners gain a higher level of overall physical and psychological



wellness. For instance, a pioneering 1987 study in *Psychosomatic Medicine*, a mainstream medical journal, monitored for five years the medical care utilisation of 2,000 people who regularly practiced the TM technique. The findings: 50 per cent fewer doctor visits and hospital admissions than among non-meditators of comparable age, gender, profession and insurance terms.

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programme was recently published in the *American Journal of Health Promotion* (2011, Sept-Oct; 26(1): 56-60). The study found that people with consistently high healthcare costs experienced a 28 per cent cumulative decrease in physician fees after an average of five years practicing the stress-reducing Transcendental Meditation technique compared with their baseline.

Studies documenting the benefits of the TM programme show that practitioners also gain a competitive

focus, increased stability of spatial orientation, broader comprehension and increased resistance to distraction as compared to controls. In other words, TM practitioners gain a greater ability to maintain awareness of the whole situation while simultaneously focusing on a critical aspect of it - without being distracted.

Other research has measured greater ability to assimilate and structure experience; improved memory and learning ability; increased creativity; and greater autonomic stability.



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A study on the healthcare cost-effectiveness of the TM

and strategic edge. One study showed that speed, agility, reaction time, coordination, endurance and perception improve after learning the TM programme. In other studies, subjects practicing the TM technique for three months significantly increased in field independence, ie, they gained increased ability to

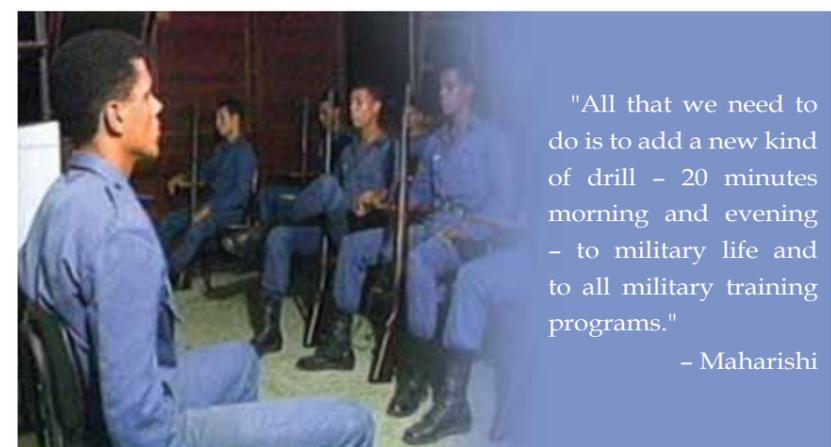
Among the improvements are enhanced neurological efficiency, faster choice reaction time, improved self-confidence, increased self-reliance and greater inner control. Holistic growth has been indicated by psychophysiological means, such as measures of increased global EEG coherence and through



psychological tests of intelligence, moral reasoning and personality (References to the above mentioned research are available in an online paper originally published by *India Defence Consultants*).

TM programme offers a scientifically verified, long-term solution to help PTSD sufferers conquer this affliction: a study published in *Military Medicine* shows that US veterans of the Iraq and Afghanistan

in the US, recently implemented the TM technique at Norwich as a preventive measure and to increase the performance of his cadets. According to a recent article published in *The Boston Globe*, retired US Army Chief of Staff General Gordon R Sullivan, an influential booster of the TM programme at Norwich University, commented, “It is a way to get out in front and expose them, in a prophylactic way, to help them handle stress before the fact.” Sullivan heads the influential Association of the United States Army in Washington.



“All that we need to do is to add a new kind of drill - 20 minutes morning and evening - to military life and to all military training programs.”

- Maharishi

All the above outcomes demonstrate the powerful impact that TM practice could have on military preparedness and effectiveness. In addition, the TM programme could help military personnel suffering from post-traumatic stress disorder (PTSD). PTSD has become alarmingly prevalent in recent years, especially among military personnel. Conventional modalities to treat this condition are often unsuccessful and frequently sufferers receive only temporary relief from symptoms. The

wars experienced a 50 per cent drop in PTSD symptoms after just four weeks of TM practice.

Implementation of TM practice at Norwich University

Due to the positive stress-reducing benefits of TM practice, as confirmed by this extensive scientific research, Rear Adm (Retd) Richard W Schneider, president of Norwich University, the oldest private military college

Rear Adm Schneider agreed with Sullivan's assessment. He commented, “We owe it to them to give them the very best tools to win and I think this is one of those tools.”

To find out more about the scientific research conducted on the TM programme, visit: <http://www.tm.org/research-on-meditation>. 