

# TRANSCENDENTAL MEDITATION- ITS EFFECT ON CUTANEOUS DISORDERS

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## INTRODUCTION:

It was found that the today's lifestyle changes, the food we take and the work place we work in are seen to increase the stress and depression levels of people nowadays. The major causes of depression and stress are found to be the death of a loved one, Divorce, Loss of a job, Increase in financial obligations, Getting married, Moving to a new home, Chronic illness or injury.

**India** is the **seventh**-largest country in the world by area .Studies have found many health **problems related to stress**. **Stress** seems to worsen or increase the risk of conditions like obesity, heart **disease**, Alzheimer's **disease**, diabetes, depression, gastrointestinal **problems**, and asthma. Before you get too **stressed** out about being **stressed** out, there is some good news.

Physiological **stress** is measured, by monitoring heart rate variability, breath frequency, blood pressure, and by measuring different stress hormones. Saliva can be used to measure stress hormone levels. Cortisol hormone is released by the adrenal glands when one is under stress. Higher levels of cortisol would indicate higher levels of stress.

A depression rating scale is a psychiatric measuring instrument having descriptive words and phrases that indicate the severity of depression for a time period. Depression may lead to hopelessness, irritability, and frustration, loss of interest, sleep disturbance and tiredness.

Thus it is necessary to reduce the stress and depression levels of people invariably and this can be done by following certain practices which reduce the stress and depression levels extremely. Thus in this review we are about to see various cutaneous disorders of psychic origin and the techniques that reduce the stress levels and decrease the symptoms of the disorders.

## **PSYCHODERMATOLOGY:**

**Psychodermatology** is the treatment of **skin** disorders using **psychological** and **psychiatric** techniques by addressing the interaction between mind and skin. Existent statistical evidence does not appear to support these claims. Research has shown the impact of **stress** can cause premature wrinkles and constantly being **stressed** certainly doesn't help **your** anti-aging routine. Cortisol, the primary **stress** hormone, has been known to break down the collagen in **your skin**.

## **METHODS AND MATERIAL:**

### **CASE-1**

[Haroon MZ](#) Department of Community Medicine, Ayub Medical College, Abbottabad, Pakistan. et.al... done a research on **Quality Of Life And Depression Among Young Patients Suffering From Acne** on the ages of acne patients ranged between 14 years to 28 years and found that the acne patients were under prolonged depression..

### **CASE-2**

[Iulia Solomon](#) et.al... researched on **the impact of lifestyle factors on evolution of atopic dermatitis: An alternative approach** and found that stress results in an imbalance between the requirements of the body and its ability to cope with it. This in turn leads to series of dermatological disorders, such as skin cancer, psoriasis, acne, rosacea, vitiligo, various cutaneous disorders.

### **CASE-3**

[Gupta MA](#) Department of Psychiatry, University of Michigan Medical School, Ann Arbor. et.al... study on **Depression modulates pruritus perception: a study of pruritus in psoriasis, atopic dermatitis, and chronic idiopathic urticaria** Observed that the degree of depressive psychopathology directly correlated with pruritus severity.

### **CASE-4**

[Sanford I. Nidich](#) et.al.. study on **A Randomized Controlled Trial on Effects of the Transcendental Meditation Program on Blood Pressure, Psychological Distress, and Coping in Young Adults** found TM showed improvement in total psychological distress.

### **CASE-5**

**Stanford University** researchers conducted a meta-analysis of 146 independent studies on the effect of various meditation techniques and found that TM is twice as effective at reducing stress.

### **CASE-6**

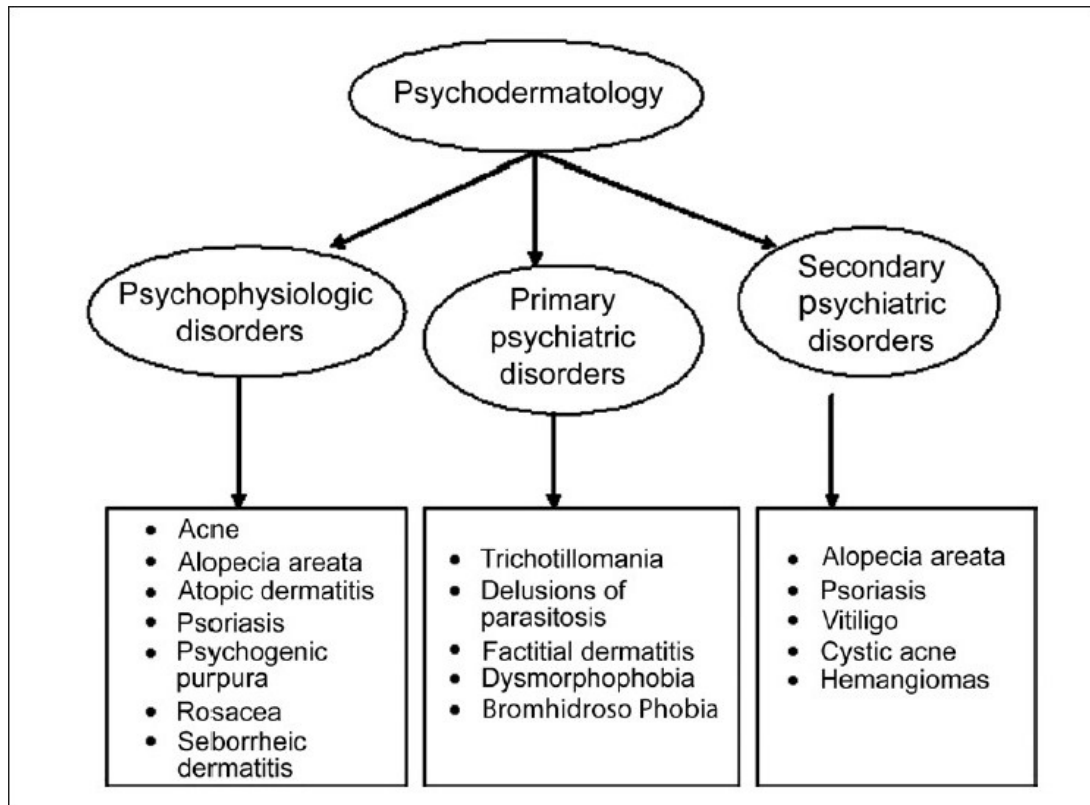
[Charles Elder](#), MD, MPH, FACP et.al... study on **the Effect of Transcendental Meditation on Employee Stress, Depression, and Burnout: A Randomized Controlled Study** and found TM program was effective at four-month follow-up in reducing psychological distress.

## **DISCUSSION:**

### **CUTANEOUS DISORDERS:**

Psychodermatologic disorders fall into three categories: psychophysiologic disorders, primary psychiatric disorders and secondary psychiatric disorders. Psychophysiologic disorders (e.g., psoriasis and eczema) are associated with skin problems that are not directly connected to the mind but that react to emotional states, such as stress. Primary psychiatric disorders involve psychiatric conditions that result in self-induced cutaneous manifestations. Secondary psychiatric disorders are associated with disfiguring skin disorders. The disfigurement results in psychologic problems, such as decreased self-esteem, depression or social phobia. The classification is explained in figure 1.

figure 1



## CUTANEOUS DISORDERS AND THEIR RELATION WITH MIND:

### PSYCHOPHYSIOLOGIC DISORDERS

**Psoriasis** is associated with a variety of psychological difficulties, including poor self-esteem, sexual dysfunction, anxiety, depression and suicidal ideation.

**Atopic dermatitis** often follows stressful life events. Symptom severity has been attributed to interpersonal and family stress, and problems in psychosocial adjustment and low self-esteem have been frequently noted. Adults with atopic dermatitis are more anxious and depressed.

Severe emotional stress may exacerbate pre-existing **urticaria**. Increased emotional tension, fatigue, and stressful life situations may be primary factors in more than 20% of cases and are contributory in 68% of patients. Patients with this disorder may have symptoms of depression and anxiety, and the severity of pruritus appears to increase as the severity of depression increases.

**Acne** has association with depression and anxiety and psychiatric comorbidity of acne includes body image disorder, depression, anxiety, obsessive-compulsive disorder (OCD), delusional disorders, personality disorders and social phobias.

### PRIMARY PSYCHIATRIC DISORDERS

**Delusions of parasitosis**-The most common form of monosymptomatic hypochondriacal psychosis encountered among patients with skin problems is called delusions of parasitosis. The psychiatric differential diagnosis include schizophrenia, psychotic depression, psychosis in patients with florid mania or drug-induced psychosis,

**Trichotillomania** - condition in which a person pulls out his or her own hair as a reaction to stress, anxiety, depression, behavioural disorder, mental retardation and delusions.

**Obsessive-compulsive disorder**-Patients usually present to dermatologists because of skin lesions resulting from scratching, picking, and other self-injurious behaviours.

**Dermatitis artifacta (Factitial dermatitis)**-Patients may induce lesions by rubbing, scratching, picking, cutting, punching, sucking or biting or by applying dyes, heat or caustics. Reported associated conditions include OCD, borderline personality disorder, depression, psychosis and mental retardation.

**Psychogenic pruritus**-In this disorder, there are cycles of stress leading to pruritus as well as of the pruritus contributing to stress. Psychogenic pruritus has been noted in patients with depression, anxiety, aggression, obsessional behaviour and alcoholism.

### Secondary psychiatric disorders

**Alopecia areata** - Acute emotional stress may precipitate alopecia areata, perhaps by activation of over expressed type 2b corticotrophin-releasing hormone receptors around the hair follicles, and lead to intense local inflammation.

**Vitiligo** is a specific type of leukoderma characterized by depigmentation of the epidermis. In some studies, patients with vitiligo have been found to have significantly more stressful life events . 56% of the sample had adjustment disorder and 29% had depressive disorders. Younger patients and individuals in lower socioeconomic groups show poor adjustment, low self-esteem and problems with social adaptation.

**TREATMENT** - The treatment of these cutaneous disorders focus on reducing physical stress , depression , anxiety , post traumatic stress and various lifestyle induced stressful condition. This can be achieved by the regular practice of meditation techniques such as Mantra meditation, Mindfulness meditation, Transcendental meditation, Breath awareness meditation, Zen meditation, Loving kindness meditation which reduce stress levels. It is found that the practice of transcendental meditation for 20 minutes twice a day for 6 days may show an immense effect on reducing the stress and depression levels when compared to other techniques.

### **WHY TM?**

1. **Absolutely effortless** — It's so easy and enjoyable that anyone can do it — even [children with ADHD](#). This makes it very different from other techniques.
  - No concentrating
  - No control of the mind
  - No monitoring of thoughts (mindfulness)
  - No trying to “empty the mind”
2. **Authentic** — The TM technique was founded by Maharishi Mahesh Yogi over 50 years ago, and has been learned by more than six million people. It can only be taught by certified TM teachers in a course carefully personalized for each individual.
3. **Unique** — Other meditations often claim to be the same or similar to the TM technique. In fact, they are very different — and there is no evidence they provide the same benefits.
4. **Evidence-based** — Hundreds of [published research studies](#) on the TM technique have documented major benefits for:
  - stress and anxiety
  - brain function
  - cardiovascular health
5. **Established** — Over six million people have learned the TM technique and experienced its benefits — people of all ages, cultures, religions, and walks of life.

**Nothing to believe in** — The TM technique is not a religion, philosophy, or lifestyle. No belief or expectation is needed for it to be effective.

**TRANCENDENTAL MEDITATION:** Maharishi Mahesh Yogi created and introduced the TM technique and TM movement in India in the mid-1950s. The TM technique involves the use of a sound called a mantra, and is practiced for 15–20 minutes twice per day. It is taught by certified teachers through a standard course of instruction, which costs a fee that varies by country. According to the Transcendental Meditation movement, it is a non-religious method for relaxation, stress reduction, and self-development. TM says focused attention is not prescribed and that aims in an unified and open attentional state. Includes unstressing combining effortless relaxation with spontaneous imagery and emotion gives a feeling of serenity, energy and balance .

**MANTRAS CHANTED:** A **personal mantra** is a positive phrase or affirmative statement that you say to yourself for the purpose of motivation or encouragement. This could be your favourite quote, proverb, spiritual truth or religious saying that motivates and inspires you to be your best self.

**EXAMPLES:**

I choose to LIVE.

It’s time for you to move, realizing that the thing you are seeking is also seeking you.”

“I AM everything He created me to be.”

“Excellence does not require perfection.” – Henry James

“Trust in the process of life.”

**BASED ON AGE:**

0 – 11 years old	Eng
12 – 13 years old	Em
14 – 15 years old	Enga
16 – 17 years old	Ema
18 – 19 years old	Aing
20 – 21 years old	Aim
22 – 23 years old	Ainga
24 – 25 years old	Aima
26 – 29 years old	Shiring
30 – 34 years old	Shirim
35 – 39 years old	Hiring
40 – 44 years old	Hirim
45 – 49 years old	Kiring
50 – 54 years old	Kirim
55 – 59 years old	Sham
60+ years old	Shama

**How TM Mantras Work?**

A few essential factors are surrounding the use of mantras. First, mantras have various vibrational characteristics. That’s why each tm student uses its own unique mantra. “Love” and “Jealousy,” both words are exceptionally strong feelings, and both of them create a specific vibrational sound. You can actually try and repeat these two words to yourself a few times, and feel the difference that they create. That’s why it’s essential that you use a specific mantra and produce the energy you desire. Next important factor is the focus. Our minds are frequently cluttered with random stuff. By having a word that we can focus on our attention we can free ourselves from this “internal scuffle”.

### Can I learn TM from a book or video?

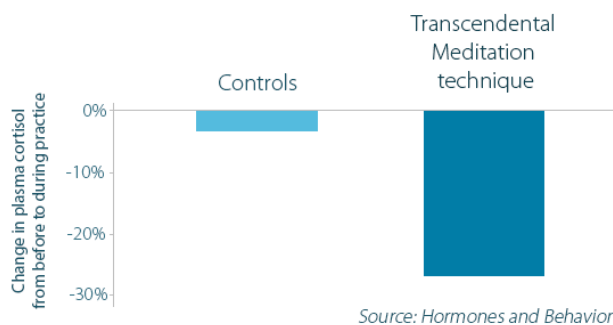
The TM technique is easy to learn, but requires personalized interactive guidance. For this reason, it's taught only through one-on-one instruction by a certified TM teacher.

There is no other way to learn the authentic TM technique — and there is no evidence that anything else provides the full range of benefits documented in the [published research](#) on the TM technique.

## EFFECT ON STRESS HORMONES:

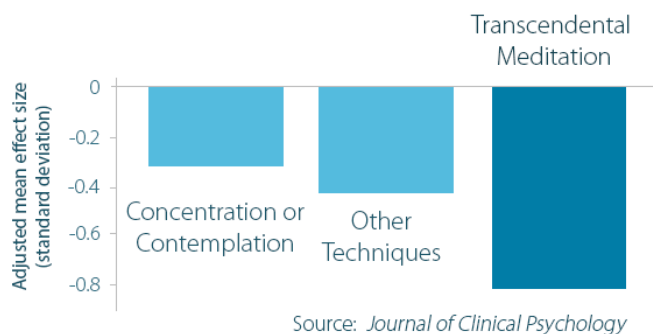
### TM's effect on cortisol — the stress hormone

A landmark study published in *Hormones and Behaviour* found the TM technique reduces cortisol by 30%. Plasma cortisol is a stress hormone. The study shows that plasma cortisol decreased during Transcendental Meditation, whereas it did not change significantly in control subjects during ordinary relaxation. Reference: Adrenocortical activity during meditation, *Hormones and Behaviour* 10(1): 54-60, 1978.



### Stanford study on anxiety

Researchers at Stanford University conducted a meta-analysis of 146 independent studies on the effect of various meditation techniques on anxiety. The study, published in the *Journal of Clinical Psychology*, found that the TM technique is twice as effective at reducing anxiety.



## EFFECTS ON STRSS MANAGEMENT:

### CASE-1

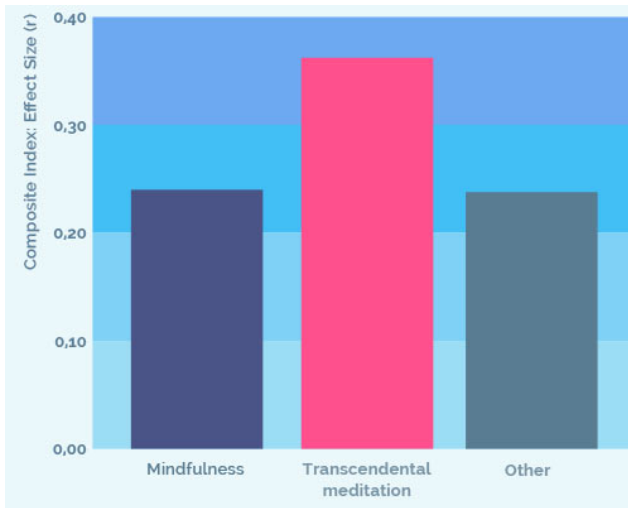
**Sanford I. Nidich** et.al.. study on **A Randomized Controlled Trial on Effects of the Transcendental Meditation Program on Blood Pressure, Psychological Distress, and Coping in Young Adults** found that College students are particularly prone to psychological distress, caused by interpersonal and social problems, pressures to succeed academically, financial strains, and uncertain futures. Previous controlled studies on the Transcendental Meditation (TM) program, one of the most widely used mind–body approaches for reducing psychological distress, has shown significant reductions in anxiety, depression, and improved coping ability in students and adults. The trial was conducted from January 2006 to May 2007. The subjects were 298 students from American University and other surrounding colleges, including Georgetown and University of District of Columbia. Inclusion criteria included enrolment in an undergraduate or graduate program through August 2006. Students were excluded if they had a history of hypertension, hypoglycaemia, chronic fainting, coronary heart disease, or current BP above 140/90 mm Hg or below 90/60 mm Hg. Subjects were included in a high-risk subgroup if they had one or more of the following risk factors for hypertension: systolic BP (SBP) >130, diastolic BP (DBP) >85, family history of hypertension, overweight, or obesity defined as body mass index  $\geq 25$ . **RESULTED** The TM group compared to controls showed improvement in total psychological distress ( $P = 0.004$ ), anxiety ( $P = 0.003$ ), depression ( $P = 0.012$ ), and anger/hostility ( $P = 0.06$ ), sub-scales, and coping ability ( $P = 0.003$ ).

#### Pre/post-test changes in the transcendental Meditation group compared to controls

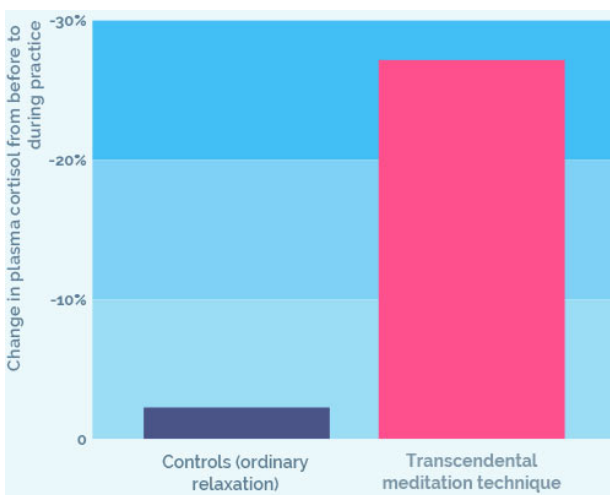
Variable	Adjusted mean change $\pm$		P value
	s.e.m.		
	TM ( $n = 93$ )	Control ( $n = 114$ )	
Total psychological distress	-18.9 $\pm$ 3.2	-6.1 $\pm$ 2.9	0.004
Anxiety	-3.7 $\pm$ 0.7	-1.0 $\pm$ 0.6	0.003
Depression	-5.2 $\pm$ 1.0	-1.9 $\pm$ 0.9	0.012
Anger/hostility	-3.2 $\pm$ 0.8	-1.0 $\pm$ 0.8	0.06

### CASE-2

**Stanford University** researchers conducted a meta-analysis of 146 independent studies on the effect of various meditation techniques and found that TM is twice as effective at reducing stress.



TM's effect on cortisol: this landmark study published in *Hormones and Behaviour* found that Transcendental Meditation reduces cortisol by 30%.



### CASE-3:

[Charles Elder](#), MD, MPH, FACP et.al... study on **the Effect of Transcendental Meditation on Employee Stress, Depression, and Burnout: A Randomized Controlled Study** found that Workplace stress and burnout are pervasive problems,<sup>1</sup> potentially affecting employee performance<sup>2</sup> and personal health. The issue is thus of prominent importance not only to employers but also to health care professionals.

From among approximately 75 potentially eligible employees working at a residential therapeutic school for students with behavioural problems, 40 teachers and support staff volunteered for the study. They were randomized to 2 groups: either TM (n = 20) or wait-list controls (n = 20). Recruitment, intervention, and follow-up took place between February 2010 and August 2010 at the Bennington School in North Bennington, VT, a therapeutic school for children with behavioural problems. The treatment group was taught the TM technique in a standard 7-step course. Two certified TM instructors who had previously undergone 6 months of residential training and had more than a dozen years of teaching experience were used for this study. Participants were advised to practice the technique twice a day for 15 to 20 minutes at home.

### Four-month change scores for perceived stress, depression, and teacher burnout



Variable	Transcendental Meditation (n = 17)	Wait-list control (n = 19)	p value	Effect size
Perceived Stress Scale, mean (SD)	-4.65 (5.94)	1.79 (4.63)	< 0.001	0.94
Mental Health Inventory-5 (depression), mean (SD)	-2.83 (2.96)	-0.32 (3.87)	0.013	0.67
Maslach Burnout Inventory, mean (SD)	-5.61 (10.69)	1.58 (12.42)	0.018	0.40

SD = standard deviation.

The results of this randomized controlled study indicate that the TM program was effective at four-month follow-up in reducing psychological distress and burnout in employees working in a therapeutic school for students with behavioural problems.

## **RESULT:**

From the review, systematic practice of transcendental meditation for a prescribed period of time for 20 minutes twice a day with proper guidance by a trained TM instructor by an appropriate mantra regularly will have a positive effect on reducing the stress levels to a great extent and this has an intact effect on the cutaneous disorders of psychogenic origin, without the existing side effects.

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