

EFFECT OF YOGA ON PSYCHOSOMATIC SKIN DISORDERS

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ABSTRACT

The aim of this study is to explore the effects of Yogic practices on psychosomatic disorders. Psoriasis, a psychosomatic skin disorder, has a profound potential to create an impact on the patient's mental well-being. A pilot study was done prior only to assess psychological changes in Psoriasis. Skindex-29 scale used, (psychological assessment test) revealed that these patients reported more stress, anxiety and depression symptoms. This implies need of a careful examination of mental state followed by de-stressing Yoga techniques. Thereafter, a thorough literature review on Yoga showed that it has a comprehensive effect on physical, mental and spiritual health. Amongst all yogic practices *Bhramari Pranayam* and *Sakshi Bhava* have a peaceful effect on mind. *Bhramari Pranayam* works on calming the nerves and soothes them especially around the brain and forehead. *Sakshi Bhava* means becoming a witness to all that arises, giving rise to a feeling of

peace and relaxation. These stress relieving practices lowers the levels Cortisol in the body. Excess cortisol in the body suppresses the immune system and increases the inflammatory process, which is seen in the skin of psoriatic patients. It also relieves the patients of symptoms like anxiety, depression, low self-esteem, gradually leading to a feeling of well-being. This process could aid to the treatment of Psoriasis and other psychosomatic disorders.

KEYWORDS: Psoriais, Yoga, *Bhramari Pranayam*, *Sakshi Bhavana*.

INTRODUCTION

Mind and emotions play a crucial role in our health and well-being. Health is defined by various ancient and modern sciences as equilibrium of mind, body and spirituality. As a result, there is always an interaction between psychological factors and physical illness and vice-versa. This is the basic concept of psychosomatic disorders. Skin being the first presenting organ of the body, dermatological disease has effects on the mental well-being of the patient. These emotions in turn tend to worsen the skin disease, thus becoming a vicious cycle. *Yoga* and such other meditative techniques help to break this cycle. Yogic practices like *Pranayam* have a positive effect on the physiology of the body like lowering the heart rate and respiration rate. It helps to lower the stress hormones and relieves the patients of symptoms like anxiety, depression, low self-esteem, gradually leading to a feeling of well-being. This process could aid to the treatment of Psoriasis and other psychosomatic disorders.

AIM

The aim of this study is to explore the effects of Yogic practices on psychosomatic skin disorders.

METHODOLOGY

The study is divided into two phases:

1. Pilot study to assess the psychological changes in skin diseases – Sample size for this pilot study was 15. Fifteen patients of Psoriasis were randomly selected. They were presented with a questionnaire, Skindex-29, which is used to assess psychological changes in skin disease. Scores were recorded of the 15 patients. The scores between 30-70, 71-110 and 111-150 showed least, intermediate and maximum psychological changes or effects due to skin disease, respectively.
2. Literature review related to effects of *Yoga* on mind – A thorough literature search was conducted in various books related to *Yoga*. Also online research papers and literature concerned with *yoga* were also studied.

Observations of pilot study

Pilot study revealed that there is an association between the severity of Psoriasis, measured by PASI (Psoriasis area severity index) and the psychological changes, observed by using Skindex-29 scale. Also if the lesions are more on the exposed areas of the body, the

psychological effects were more pronounced. The chronicity as well as recurring habit of this disease tends to depress the patients to a greater extent.

From this study it is proved that Psoriasis is a psychosomatic disease and the physical symptoms in a long run produce psychological effects on the patient.

What are Psychosomatic disorders? ^[1]

According to Farlex Partner medical dictionary, psychosomatic is a disorder characterised by physical symptoms of psychic origin usually involving a single organ system, innervated by the autonomic nervous system.

Psychiatry has differentiated these diseases into two types-

1. Psychosomatic diseases- Mental factors play a significant role in development of physical illness.
2. Somatoform- Mental factors are the only cause of physical illness.

Psoriasis ^{[2][3]}

Prevalence of skin diseases in India is 10-12% of the total population, with Psoriasis and Eczema, being the major contributors. Psoriasis is a noncommunicable, chronic inflammatory skin disease. About 30-50% cases with psoriasis, develop psoriatic arthritis. In some cases, joints may become deformed, causing significant disability. Fingernails and toenails may be affected leading to disfigurement. World-wide prevalence of this disease is 2%, but in developed countries the percentage is higher being 4.6%. According to an article published in Indian Journal of Dermatology, Venereology and Leprology (2010), the prevalence of Psoriasis in India is 0.44-2.8%.

Psoriasis has an impact on the changes in behaviour, mental stress, which may in some cases lead to obesity, smoking, alcohol consumption etc. The patient may face embarrassment, ridicule, and avoidance by the society. More than cosmetic nuisance, skin disease can produce anxiety, depression, stress, anger, shame, embarrassment, low self-esteem and other psychological problems. It has a devastating effect on all spheres of the individual. These people may go into isolation. There is a higher risk of suicidal tendency, drug or alcohol misuse. The chronic behaviour of this disease and expensive treatment leads to financial burden further aggravating his/her mental disturbances. It may be observed that this in turn worsens the disease and a vicious circle continues. Depending on the severity and location of

the lesions, the patient may experience discomfort and disability. It prevents the sufferer to involve in certain occupations or socialising. There is low self-esteem due to fear of rejection. The percentage of anxiety and depression is more in these patients as compared to normal population.

Stress related pathophysiology of psoriasis-^[3]

Psychological stress activates the HPA axis. The hypothalamus produces excess of Corticotropin Releasing Hormone, which activates the pituitary to secrete ACTH. This ACTH stimulates the adrenal cortex to secrete Cortisol, a major stress hormone. These hormones activate the mast cells which is responsible for neurogenic inflammation observed in Psoriasis. According to a study conducted in Brazil, there was a direct co-relation between bedtime Cortisol and Psoriasis index (PASI). There is an increase in T₁ lymphocytes which are responsible for epidermal hyper-proliferation and psoriatic plaques.

Effect of Yoga on stress and other emotions^[4]

The word yoga is derived from the Sanskrit root 'yuj', which means to join. *Yoga* brings about a perfect harmony of body, mind and soul.

Yoga has been accepted world-wide not only as a type of physical exercise but also as a stress-relieving technique. It is proved that Yogic practices are helpful in reducing anxiety and depression. According to Harvard university article, *Yoga* helps in regulating a person's stress response, improves mental psychological well-being, positive impact on mood and attainment of inner peace. MBSR (Mindfulness Based Stress Reduction) program include *Yoga* as mind-body technique to reduce stress. According to a study conducted, a group treated with yoga techniques showed less sleep disturbances and stress levels as compared to the control group. Another study conducted on cancer patients showed positive effects on sleep, anxiety and quality of life after *Yoga* practices.

How does *Yoga* relieve stress?^{[5][6]}

According to a research article published in the Indian Journal of Psychiatry, *Yoga* may act at the level of hypothalamus by its anti-stress effects and reduce cortisol secretion.

Our body always likes to be in a phase of equilibrium. Likewise the brain also tries to keep the sympathetic nervous system and parasympathetic nervous system in a balanced state. So if one is activated the other remains suppressed. Sympathetic nervous system (SNS) is

activated by loud noises, harsh lights and day-to-day stressful activities. If this system is not balanced with parasympathetic nervous system (PNS), the stress will continuously trigger the SNS. *Yoga* claims to activate the PNS, which reduces the blood pressure, heart rate and respiratory rate. Stimulating the PNS through meditation elevates mood, decreases cortisol, strengthens the immune system and increases physical and psychological well-being. By strengthening the PNS, it minimizes the body's tendency to activate the SNS and thus reduces levels of the stress hormone cortisol.

Ayurvedic view of stress-relief through *Yoga*^[9]

Yoga is defined as '*chitta-vritti-nirodh*'. *Chitta* is the consciousness of mind and *vritti* are the different fluctuations or behaviour of mind. The mind is under constant oscillations of thoughts. It is never stable. So it is very difficult to purify the mind. *Yoga* strives to gain a control on these twisters of desires and feelings going on in the mind. Less the amount of processing in the brain, less is the response to it and thus less is the stress induced due to it.

It is mentioned in the *Yogavartik sutras* that the filth of the mind can be removed by means of *yoga*. Also it is stated by *Aacharya Chakrapani* that *manodosha* (impurities of mind) are cleared by *Yoga*.

Though all Yogic practices lead to reduction of stress, here two distinct Yogic practices are studied for the study. One is a type of *Pranayam* technique-*Bhramari* and the other is *Sakshi Bhavana*.

***Bhramari Pranayam*^[7]**

Pranayam is not just a breathing exercise. *Prana* means life force and *ayaam* means control. So *Pranayam* is the control on this life force achieved by means of control on breathing. It provides deep relaxation to the body and mind, strengthens the nervous system and respiratory system. It improves concentration and relieves stress, depression and hypertension.

According to *GherandSamhita*, *Pranayam* helps cure diseases, increase spirituality, calmness of mind is achieved, and mind is full of bliss.

Of all the types of *Pranayam*, *Bhramari* is the mood elevating *Pranayam*. It is also called '*chidanandkaaripranayam*' '*Chid*' means mind or it also means 'everlasting'. *Anandkari* means giving happiness. So it gives a feeling of bliss to the mind which is everlasting. It

derives the name Bhramari from the humming sound of bee which is created while doing this *Pranayam*.

Method: It should be ideally practised in a place and time where there is calmness and no disturbance of sound. Sit in a comfortable position and concentrate on your breathing. The index finger should be gently placed on the ears. Take a deep breath and then exhale out slowly by making the humming sound like that of a female bee. Melodious resonating sounds are heard which gives a sense of relaxation. With regular practice first the sounds of cricket insect, then flute, followed by thunder, bee, drums, trumpet, *mridinga*, military drums are heard.

According to *Gherand Samhita*, the *yogis* who practice for a long time hear the resonant sound arising from the heart ie the *anahatnaad*. It is illuminating in which the mind should be immersed and which leads to *Samadhi*.

The ringing and melodious vibrating and sweet sound in *Bhramari* elevates the mind and body to a higher level. These resonances have a soothing effect on the nerves thus achieving calmness of mind. Mental stress is eliminated, the whole body relaxes and sound sleep is attained. These vibrations are experienced by each and every cell of the body. They travel by the Vagus nerve and create a soothing effect on the brain waves, heart rate and respiratory rate. It gives a deep sense of peace and a balance in the physical, emotional and spiritual levels is created. It has an effect on the neuropeptides which regulates the immune mechanism of the body. It reduces the levels of cortisol secreted as an effect of stress.

A study published in International Journal of *Yoga* shows positive effects on response inhibition after practising *Bhramari Pranayam*.

***Sakshi Bhavana*^[8]**

Sakshi Bhavana is also called passive observation of self. This is a stress relieving technique in which the person looks at various events in his own life just in the role of an observer or witness, without getting mingled in them or passing judgement about them. This is a type of *chitta-vritti-nirodh*.

As the mind is active every second and it is impossible to stop the thought process, the least thing we can do is avoid responding to the situations. This is the concept behind *Sakshi Bhavana*.

Method: Sit in a comfortable position and concentrate on your breathing. Allow the thoughts to flow through your mind. Do not try to stop them or do not ponder over them.

It is an effective mind cleansing process. *Sakshi* means a witness and *Bhavana* means feelings or sentiments. It is a therapeutic technique to clear the mind of undesirable emotions, urges, ambitions and aspirations. This soothes and purifies the mind.

According to the Psychodynamic concept of Freud, the mind comprises of three phases-conscious (real experiences), pre-conscious (awareness) and unconscious. This unconscious state of mind is a storehouse of all unfulfilled emotions, social anti-social thoughts which never come to a conscious level. These are forgotten, but not completely destroyed. They lie in the mind and create psychosomatic difficulties. This junk of mind is cleared by *Sakshi Bhavana*.

DISCUSSION

After thorough study of psychosomatic disorders and *yoga*, the following associations can be thought upon.

Psychosomatic disorders are that set of diseases which require a psychological component along with physical, in terms of treatment. *Nidanparivarjan* being the first step in the treatment of any disease, these stress factors which are acting as trigger factors for the disease should be avoided. But in today's world life being increasingly stressful, it is very difficult to eliminate these factors. And this is the reason diseases such as skin diseases or IBS take longer time to heal. Psoriasis is a disease in which along with other factors like heredity, stress and stress induced hormones plays an important role. And this is the reason that along with drug treatment or *panchkarma*, *yoga* also should be accepted as a supportive line of treatment. The yogic practices described here particularly help in reduction of the level of stress and benefits to respond to stressful situations in a better way. The lowering of the hormone Cortisol reduces the inflammatory activity going on in the skin cells ie keratinocytes in psoriatic patients. Also as the hormones like ACTH, CRH are controlled, there is less production of mast cells which responsible for producing histamine and itching. The patient is relieved of the irritable itch, which relaxes the patient to a great extent. Also these techniques can be practised easily and do not require any special equipment or space. The psychological symptoms observed in the Skindex-29 scale, like shame, low self-esteem, fear, detachment from loved ones may also reduce by practising these yoga techniques. It creates

an acceptance of self, thus building up the confidence levels of the patient. The cumulative effect of all this obstructs at least the stress induced pathology in the patients of Psoriasis and as a result aids to the other lines of treatment. Lastly this improves the quality of life of the patients, which is the ultimate goal of any therapy.

CONCLUSION

1. Psoriasis is a psychosomatic disorder.
2. Stress acts as a trigger factor in such diseases.
3. *Yoga* helps to combat physical and mental stress.
4. *Yoga*, if used, along with the other medicines could speed up the recovery period in the patients of Psoriasis.
5. *Yoga*, if continued, after recovery from Psoriasis, could prevent the recurrence of this disease.
6. A further study can be conducted by comparing the scores of Skindex-29 before and after practicing *Yoga*.

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