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Yogic model of Pt. Shriram Sharma Acharya for treating PTSD

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Abstract

Background: Pt. Shriram Sharma Acharya developed variety of Yogic practices, which helps in get rid of physiological as well as psychological problems. Post-traumatic stress disorder (PTSD) is an anxiety disorder. It can develop following a traumatic event that threatens safety or makes feel helpless. PTSD is a serious potentially debilitating condition that can occur in people who have experienced or witnessed a natural disaster, serious accident, terrorist incident, and sudden death of a loved one, war, violent personal assault such as rape, or other life-threatening events.

Aims: To examine the effect of yogic package on PTSD in the survivors of 2013 Uttarakhand Flood Disaster.

Method: All subjects (18 to 55 years) were taken from Uttarkashi district (Uttarakhand). The sample will be chosen by the administration of Posttraumatic Diagnostic Scale (PDS) on the people affected by the 2013 Uttarakhand Flood Disaster. Those who suffer from the PTSD, from them 80 subjects will be selected randomly. The sample is divided into 2 groups equally 40-40 as control and experimental group.

Results: The result shows the significant difference between experimental group and control group.

Conclusions: These finding demonstrated that the effect of yoga has a positive impact on PTSD in the survivors of 2013 Uttarakhand Flood Disaster.

Keywords: Posttraumatic stress disorder, flood disaster, Jyoti avtaran dhyana sadhana, Pragma yoga asana, pranakarshan pranyama

Introduction

Pt. Shriram Sharma was a social reformer, a prominent philosopher, a visionary of the New Golden Era, and founder of "All World Gayatri Pariwar". He pioneered the revival of spirituality and creative integration of the modern and ancient sciences and religion, relevant in the challenging circumstances of the present times. He develops variety of Yogic models which is useful for being healthy and for get rid of diseases or disorders. He explains yoga as an art of living.

Health has become most sought after and precious asset these days. Even if one does not have any ailment or health problem today, he/she is not sure of remaining fit in the near future too. The fear and risk of physical and psychological diseases and disorders in the present times are unprecedented. The causes are numerous: air-water pollution, verities of viruses, food adulteration, use of pesticides and other hazardous chemicals in day to day life in several forms, stresses of traffic, workload competition, financial insecurity, terror-attack, natural calamities etc. What to control? What to change and how? Everyone who thinks is confronted with these concerns in one way or the other. The rising cost of medication, hospitalization and health insurances adds to these concerns. Everyone who is health conscious is in search of some guidance to minimize the risk to his/her health. Many doctors and medical scientists too have geared up with new interest in finding risk free viable solutions.

The upcoming trends to healthcare underline the need for holistic or multidimensional approach. The WHO defines health as "a state of physical, mental and social wellbeing and not merely the absence of disease or infirmities". In a popular article Dr. HS Wasir, Head of Cardiology Department of All India Institute of Medical Sciences has pointed out the need of a fourth dimension: spiritual well-being. He asserts that spirituality energies the other

components of health, namely, physical, mental, and social. Similar views are also expressed by several other doctors of international repute.

Without spirituality no resource or support-be that physical vigor, mental sharpness or prosperous social status-can ensure positivity and righteousness in one's interpersonal dealings and responses to life's many pressures and challenges and consequent stresses. The conventional approach of 'clinical health' cannot take care of tensions and stresses.

Tension and 'stresses are two universally recognized causes of a wide range of diseases gripping larger and larger section of the society. Stress is no longer regarded as only a psychological problem. It has been affirmed as a principle cause of psychosomatic disorders such as heart attacks, angina, arrhythmias, hypertension, certain forms of cancer etc.

Psychology defines variety of categories of stressors by which the stress creates like stressful life events, conflicts of motives, daily hassles, work related sources, environmental sources, frustration etc... Stress can be any type but it creates worst effect on person's emotional and physical health. Then slowly it start effecting person's day to day activities and creates problem with adjustment.

DSM III-R and DSM IV (TR) created a separate group of adjustment related disorders. There will be some behavioural and psychological disconcertness in person for the reaction of clear stressor in adjustment. Posttraumatic stress disorder (PTSD) is recognized as one diagnosis of the severe level of stress in DSM III, in which increased anxiety is also included. But in DSM IV (TR), PTSD is clearly described under anxiety disorder, which is originates by severe level of stress. Post-traumatic stress disorder (PTSD) is an anxiety disorder. It can develop following a traumatic event that threatens safety or makes feel helpless. PTSD is a serious potentially debilitating condition that can occur in people who have experienced or witnessed a natural disaster, serious accident, terrorist incident, and sudden death of a loved one, war, violent personal assault such as rape, or other life-threatening events. PTSD develops differently from person to person. PTSD most commonly develop in the hours or days following the traumatic event, it can sometimes take weeks, months, or even years before they appear.

Symptoms of PTSD often are grouped into four main categories, including:

- Reliving
- Avoiding
- Increased arousal
- Negative Cognitions and Mood

The victims of Uttarakhand floods are more susceptible to PTSD as majority of them have lost their families, home and some have seen their loved ones dying in front of them. Even the army and rescue workers are vulnerable to this anxiety disorder (Gagan, Times of India, 2013, July 5) [22]. Bushra Baseerat (TNN 2013, Jun 28) reported that the victims might have dodged death but hundreds of Uttarakhand pilgrims who managed to return home are struggling with nightmares and battling severe trauma after having seen people getting washed away, victims and family members said.

Pandit Shriram Sharma has provided very effective technique of Pragyā Yoga Vyayam, which include 16 asana

in series, Jyoti avtaran dhyān sadhana, Nadi Shoddhan Pranayam. Also provide Sarvangasana, Shavasana and Om chanting. These practices are very helpful to reliving from the symptoms of PTSD and help in returning back in a normal life. Regular practice of Pragyā Yoga Vyayam, pranayama and meditation increases the activation of the nervous system, help in creating the balance between day to day life. With the help of these practices body learns to remain calm in stressful situations. By practicing these yoga model person is able to develop a state of physical, mental and emotional health.

The present study was motivated by the need to develop effective yogic model for the PTSD of mass disasters.

Sample and Sampling

- Total 80 samples.
- Sample will be selected between the ages of 18 to 50 years.
- The sample will be chosen by the administration of Posttraumatic Diagnostic Scale (PDS) on the people affected by the 2013 Uttarakhand Flood Disaster. Those who suffer from the PTSD, from them 80 subjects will be selected randomly.
- The sample is divided into 2 groups equally 40-40 as control and experimental group.

Tools

Posttraumatic Diagnostic Scale (PDS)

PDS prepared by Edna B. Foa in 1995 [19]. The PDS is a 49-item self-report measure in clinical or research settings to measure severity of PTSD symptoms related to a single identified traumatic event. It assesses all of the DSM-IV criteria for PTSD. The scale is valid on samples age 18-65 years.

Research Design

Pretest-Posttest Group Design used in the Study

Firstly Researcher visited to some flood affected places in Uttarakhand. After that researcher choose Uttarkashi Dist. for collecting the sample. Sample specially chosen from Uttarkashi and nearby affected villages. Then researcher had administered Posttraumatic Diagnostic Scale (PDS) over the people. After administration of that scale researcher got the desired samples. The sample is divided into 2 groups equally 40-40 as control and experimental group respectively. After that researcher gave yoga model to the experimental group sample for 1 month. No yoga model given to the control group. One month later when the yoga model was over researcher again administered PDS to the both group sample. After getting the entire scores researcher compared the results between both the groups with the help of t-test.

Yoga Package

- Pragyā Yoga Vyayama and Sarvangasana-10 min.
- Shavasana-5 min.
- Nadi Shoddhan Pranayama-10 min.
- Om chanting-5 min.
- Jyoti Avatara Dhyān Sadhana-10 min.

Yoga package was given to subjects for 5 weeks.

Intervention starts with the Gayatri Mantra recitation followed by all the yogic practices and ends with shantipath.

Result

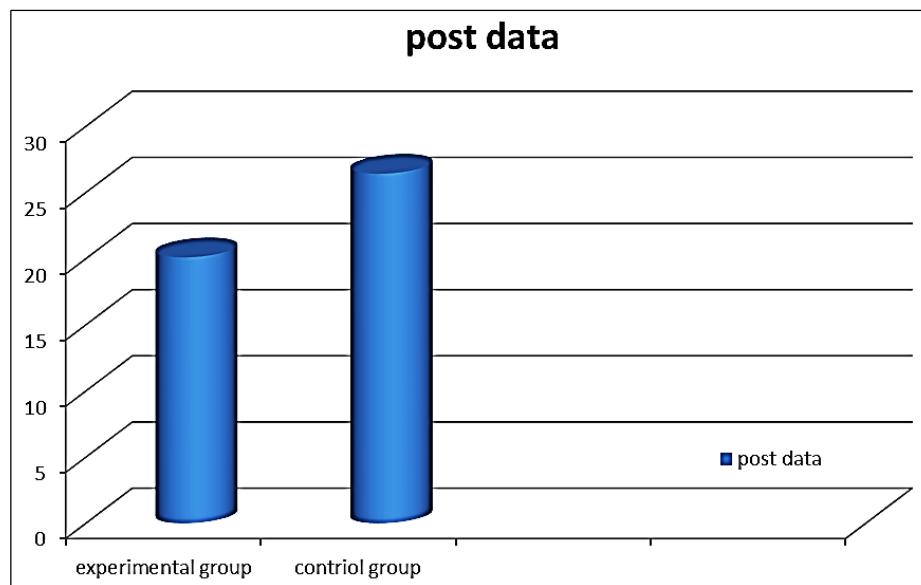
The obtained data was analyzed in terms of mean, SD, 't' and is presented in the table is as follows:

Table 1: Significant difference between Experimental group and Control group post-test scores of PTSD Variable.

	N	Mean	SD	SED	r	t-value	Level of Significance
Experiment	40	20.10	4.16	1.10	0.27	5.74	P<0.05
Control	40	26.42	5.59				

df=39

After one month, the mean value of experimental group's post data was 20.10 and the mean value of Control group's post-test was 26.42. The result shows the significant difference between experimental group and control group.

**Fig 1:** Shows the significant difference between experimental group and control group

The result table reveals that there was significant difference in the post test scores of experimental group and control group. Hence, it shows that there is a positive effect of yoga on PTSD, in the experimental group. Hence, on the basis of the result the hypothesis "There will be no significant effect of Yoga Package on Posttraumatic Stress Disorder (PTSD) in the Survivors of 2013 Uttarakhand Flood Disaster" was rejected.

Discussion

Results revealed that there is a significant difference between the post test score of experimental group and control group. The obtained value of t in experimental group is "t=5.74" which is significant at 0.05 due to the practice of yogic intervention in experimental group. Therefore, the practice of yoga by experimental group samples may help them from coming out of PTSD's effect and control group samples not. By the practice of Yoga package; subjects tried to improve their cognition, mood and help them to build a positive personality. Hence, on the basis of the result the hypothesis of the study i.e. "There will be no significant effect of Yoga Package on Posttraumatic Stress Disorder (PTSD) in the Survivors of 2013 Uttarakhand Flood Disaster" was rejected. The above table reveals that on PTSD there has been significant improvement among the experimental group.

In the present study, the effects of a month yoga module were studied in the survivors. Following a month of yoga practice, survivors showed a significant decrease in PTSD while the non-yoga control group showed no change in PTSD.

Previously a one week yoga program including Asanas, Pranayama, and guided relaxation reduced self-rated fear, anxiety, sadness and disturbed sleep of PTSD as well as decreased heart and breathe rates in tsunami survivors a month after the calamity (Telles S, Naveen KV, Dash M,

2007) [43]. The non-yoga control group in the present study showed a significant increase in self-rated anxiety. A combination of yoga postures and yoga breathing (similar to the practices used here) reduced state anxiety in normal volunteers (Telles S, Gaur V, Balkrishna A, 2009) [45]. Also, in another study, a combination of yoga breathing exercises and meditation reduced symptoms of anxiety and depression, while increasing feelings of wellbeing, compared to the control group (Blechert J, Michael T, Grossman P, Lajtmán M, Wilhelm FH, 2007) [6]

It is also being arrived through the following researches that the Pragyā Yoga, Pranakarsana Pranayama, Om chanting, Meditation develops the life face in order to promote energy, increase body awareness and coordination between mind and body. Swami Vedbharti in his speech 'International festival of Yoga, Culture and Spirituality' (Sanskriti Sanchar, 2010, 5th edition) said that "your body, breath and mind is always there anywhere in the world. Calm down your emotions, replaces the destructed thoughts by one noble thought, practice soham and one day you will get rid of disturbed thoughts and emotions".

In the "Stress and Its Management by Yoga", K.N. Udupa studies that during the meditation the blood acetylcholine levels increased considerably without causing any change in catecholamine levels. The EEG recording during this period exhibited increased alpha activity, which is associated with an increase in acetylcholine. The changes indicate increased mental tranquility during the period. At the same time, the changes in the catecholamine contents were minimal. Thus, meditation may be recommended in all stressful conditions to the person. Gayatri Mantra is chanted and contemplated in Jyoti Avataran Dhyān sadhana. Gayatri Mantra Meditation reduces the amount of adrenaline and cortisol that are circulating throughout in the body. The cortisol or "stress hormone" levels will also stay lowered. By such contemplation, the meaning of Gayatri Mantra is fully

assimilated in the heart of the sadhaka. The result is that in a short time his mind gets diverted from evil thoughts and devil deeds and he/she starts taking enthusiastic joy in righteous thinking and good actions. At the same time, the brain and mind become more aware, indicating a state of restful alertness (Akhand Jyoti, March/April 2003) [36].

Breathing is a regulatory tool. PTSD sufferer's ability to regulate the central nervous system is off. The hyper vigilance of PTSD means the person is always on alert. Their sympathetic nervous system, or "fight-or-flight" response, is completely jacked up constantly. The body is so overloaded with stress hormones that all it can do is keep itself in this sensitive state. Breathing is a natural tool to self-regulate and calm down without medication. It brings the parasympathetic nervous system back in line ahead of the sympathetic system, regulating the central nervous system. Nadi Shodhana Pranayama helps in balancing the flow of Ida and Pingala nadis in human body. Alternative nostril breathing is done in Nadi Shodhana pranayama. Anant Narayan Sinha, Desh Deepak and Vimal Singh Gusain (2013) study showed that the parasympathetic tone was enhanced appreciably in the participant of alternative nostril breathing. The observations of their study suggest that the yogic exercise of alternative nostril breathing influences the parasympathetic nervous system significantly. Pranakarsana Pranayama is a deep breathing technique, used to attract and increase *prana*, the vital energy in the body. Slow and deep breathing is known to increase the parasympathetic tone and is associated with a calm mental state (Kaushik R, Kaushik RM, Mahajan SK, Rajesh V, 2005) [30]. One important thing about all of these techniques is that they activate the parasympathetic nervous system, also known as the relaxation response. It is essential that people with PTSD do practices that strengthen the relaxation response, because this is the way to overcome their overactive sympathetic response.

In addition to yoga, other mind-body interventions have been found to be useful for trauma victims. One hundred and thirty-nine high school students in Kosovo participated in three separate programs which included several mind-body interventions spaced two months apart (Gordon JS, Staples JK, Blyta A, Bytyqi M, Wilson AT, 2008) [23]. The interventions included meditation, biofeedback, autogenic training, guided imagery, movement, and breathing techniques. The adolescents showed significantly lower symptoms of post-traumatic stress based on the Posttraumatic Stress Reaction Index, compared to the initial values. In another study refugees and survivors of torture appeared to respond positively to the practice of qi gong and t'ai chi, based on observations made on four refugee survivors (Grodin MA, Piwowarczyk L, Fulker D, Bazazi AR, Saper RB, 2008) [24]. Yoga typically combines physical postures, breathing techniques, meditation, and relaxation. Yoga has been shown to reduce physiological arousal in PTSD patients and is believed to affect the pathology of PTSD by improving somatic regulation and body awareness, which are imperative to emotion regulation (Van Der Kolk et al., 2014) [48].

Bessel Van der Kolk said that "Yoga became a major cornerstone in our understanding that it is imperative to befriend one's bodily sensations in order to overcome the imprint of trauma". Yoga is an excellent way to learn to confront internal sensations and to learn that it is safe to have these feelings and sensations.

Traumatic memories are not stored in time, but yoga with its powerful emphasis on present moment awareness re-establishes a sense of time in the individual. They discover that they can remember and deal with the past, without becoming overwhelmed by it.

Traumatized people have great difficulty in self-regulating, have high levels of sympathetic nervous system activation and low heart rate variability. Yoga teaches individuals how to self-regulate and gain control over their bodies once more. Asana, meditation and relaxation can reduce autonomic sympathetic activation, reduce blood pressure, muscle tension, improve hormonal activity and decrease the physical symptoms and emotional distress.

Individuals learn to reclaim their bodies and awaken their healing potential there, while also developing a new, healthy relationship with their body.

Conclusion

Yoga is holistic, as it is about connection and creates connections by working with the body and the mind together. PTSD is a state of disconnection in which the person is stuck in past experience. This stuckness is not only mental; it is also physiological, as we have seen in relation to the unhealthy dominance of the sympathetic nervous system. Yoga generates movement at the physical, energetic and mental levels, lifting the practitioner out of stagnation and back into the dynamism of life's flow.

A combination of simple yoga postures, breathing techniques, relaxation and meditation retrains the nervous system, tones all the physical systems and gives skills for management of the mind and emotions.

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