

# **Impact of Yoga Practices on Occupational Stress among Indian Army Personnel**

**Dr. Vijay Kumar Singh\* & Dr. Raju Adhikari\*\***

\*Assistant Prof., Dev Sanskriti Vishvavidyalay, Haridwar, Uttarakhand, India.

\*\* Dev Sanskriti Vishvavidyalay, Haridwar, Uttarakhand, India.

## **Abstract:**

This study aimed at exploring the impact of a Yoga Training Programme (YTP) on Occupational Stress (OS) among serving Indian army personnel at 4<sup>th</sup> Battalion Rajput Regiment, Sahajapur, UP. The programme spread over for 30 days, scheduled two sessions each day in the morning and evening, each session lasting 1.30 hour. The programme consisted of an integral yoga practice which included selected Asanas, Pranayamas, Prayer (Omkar & Gayatri Mantra Chanting) and Yoganidra. A sample of 60 army personnel, rank of jawan participated in the study. Participants completed the standard self-reported Occupational Stress Index Test before and after the training programme. Result revealed that participants experienced a statistically significant ( $p < 0.05$ ) reduction of stress at work place. The finding suggests the beneficial effects of yoga practices as well as yoga-based intervention in the management of emerging occupation related stress and associated hazards among force personnel.

**Key Words:** *Yoga, Occupational stress, Indian army personnel.*

---

## **Introduction**

Occupation related stress among working population is drastically increasing worldwide. Stress at work has become an integral part of everyday life. In 1992 the United Nation identified job stress as a '20<sup>th</sup> century epidemic'. The World Health Organization called it a 'worldwide epidemic'. In the USA, approximately one-quarter of the working population suffer from work related stress. The figures for India are not readily available but there is not much doubt that occupational stress affects a significant number of workers and costs heavy financial losses, human sufferings and mental illness.

Occupation related stress comes in many shapes and forms. HSE (2004) defines occupational stress as "The adverse reaction people have to excessive pressures or other types of demand placed on them." OS may have the harmful physiological and psychological effects on workers. Various studies have showed that workers suffering from stress exhibit decreased productivity, absenteeism, higher number accidents, lower morale and greater interpersonal conflict with colleagues and superiors (Cranwell & Alyssa, 2005; HSE 2004).

In the Indian Army, unfortunately, occupation related stress and associated

hazards are increasing day by day. Various static shows that the prevalence of stress among Army personnel have been causing many harmful impacts which is an alarm that cannot be ignored. “Every third day a soldier commits suicide and every tenth day another is killed by a colleague running amok. The growing stress level resulting in mental illness, resulting in suicide and killing of fellow soldiers have caused an alarm among the army forces (Tribune News, 2007).

At this juncture, in order to deal with problems the Army authority is embracing the various means and tools, out of them the Yoga is being recognized as a highly effective and multi-beneficial one. Yoga is a holistic science of life which deals with physical, mental, emotional and spiritual health. Various aspects of Yoga help in the management of stress (Ananda Balyogi Bhavanani, 2007). While reciting on Yoga for Stress Management, Lt. Col. D. R. Vaze (2007) has the opinion that “Approach of Yoga for stress management is unique. In one sentence it can be said that it slows the pace of body, mind and intellect level and increase the awareness about changes within.” For the personnel involved in highly physically and mentally demanding stressful occupations Yoga may play the vital role. A research officer of Delhi based Defense Research Institute (DIPAS) U. S. Ray (2007) suggests: “In the highly stressful environment in all branches of armed forces i.e. in the army, navy, air force, paramilitary forces and among police personnel it (Yoga) has application.”

Although it is widely acknowledged the fact that Yoga has an effective influence on releasing stress related to armed force occupations; relatively very few researches exist in this area. It was therefore, the present study was an endeavor to explore the fact, how Yoga effect on management of stress. It was hypothesized that the Yoga Training Programme causes the significant reduction of occupational stress level of participated Army personnel.

#### **Sample:**

This study was conducted on a sample of 60 army personnel. The participants of YTP were all serving personnel, rank of jawan. They were from different Regiment and Battalion and were pursuing the shooting competition practice. Their age ranged from 19-40 years. The education qualification ranged from secondary level to graduate. None of them had previous exposure to yoga practices and was practicing it.

#### **Procedure:**

The YTP was scheduled for 30 days particularly for army shooting practitioners. It was spread approximately over one and half hour of two sessions each day in the morning and evening. All the participants were encouraged to attain the classes regularly. The YTP was an integrated yoga practices taught by post graduated certified yoga teacher from Dev Sanskriti University, Shantikunj, Haridwar. Participants completed a standard self-reported questionnaire of Occupational Stress Index before and after the YTP.

The **morning session** focused on somatically active asana practices followed by Savasana and Pranayamas, and were graduated into three intensity level is gentle, moderate and vigorous. The session consisted of the following:

**Omkar and Gayatri Mantra recitation (Prayer)** - 10 minutes

**Asanas Practices** - 1 hour

**Pragya Yogasana** (invented by Pandit Sriram Sharma Acharya, including 16 Asanas) Tadasana, Padahastasan, Vajrasana, Ustrasana, Yogamudrasana, Ardhatadasana, Sashankasana, Bhujangasana, Tiryak Bhujangasana (left), Tiryak Bhujangasana (right), Sashankasana, Ardhatadasana, Utkatasana, Padahastasan, Tadasana and Om chanting.

**Shavasana** - 10 minutes

**Pranayama** -10 minutes

Nadi shodhan Pranayama

The **evening session** focused on predominantly mindfulness and relaxing practices as following:

**Omkar & Gayatri Mantra recitation (Prayer)** -10 minutes

**Balancing Asanas** - 45 minutes

Vrikshasana, Garudasana, Tolasana, Padangusthasana, Sankatasana, Bakasana, Ekpadasana, Utthithasta padangusthasana, Merudandasana and Vashisthasana.

**Yoga Nidra** - 35 minutes

**Method of recite Omkara:** Sit in any comfortable meditative posture. Spine erect body remains steady and relaxed. Close the

eyes and feel the calmness of mind. Take a deep breath in and pronounce ‘O’ in low voice by parting the lips sufficiently. After few seconds, just shutting the lips ‘Ma’ is produced, this is nasal in nature. Feel its vibration while chanting.

**Measure:**

Occupational Stress Index was developed by Dr. A. K. Shrivastava & Dr. A. P. Sinha, Banaras Hindu University, Varanasi to assess occupation related stress. The OSI consists of 46 items, each to be rated on the five point scale from strongly agree to disagree. Out of the 46 items 28 are true keyed and the remaining 18 are false keyed. These items relating to the 12 factors of occupational stress i.e. Role overload, Role ambiguity, Role conflict, Group & political pressure, Responsibility for persons, Under participation, Powerlessness, Poor peer relations, Intrinsic improvement, Low status, Strenuous, Working condition and Unprofitability. The scores were divided into three categories: high (151-230), moderate (128-150) and low (46-127).

**Result & Discussion:**

The result was found applying the statistical data analysis with respect to  $\chi^2$  (chi) test. The significant difference was observed between the scores of pre and post test, which is significant at 0.05% ( $p < 0.05$ ) of confidence (table-1). This finding supports the hypothesis. This indicated that the YTP caused the experiencing effect in reducing occupational stress level of participants.

**(Table-1)** showing the obtained scores (level) of occupational stress:

<b>Occupational Stress</b>	<b>Low</b>	<b>Moderate</b>	<b>High</b>
<b>Pre Test (before YTP)</b>	20(33.3%)	28 (46.7%)	12 (20%)
<b>Post Test (after YTP)</b>	30 (50%)	24 (40%)	6 (10%)

$X^2 = 5.605$

df = 2

p < 0.05

**Results:**

In considering the result, it may be argued that this change must be attributed mainly by the yoga practices. The YTP was an integral package of yogic tools including selected Asanas, Pranayamas, Yoganidra and Omkar & Gayatri Mantra recitation. All these were practiced in synchronizing and gradual manner. Of course, practice of Asanas and Pranayamas has been shown to improve and sustain physical as well as mental efficiency. Although the Army personnel regularly practice physical training, there is lack of synchronizing breath and relaxation. In this contrary it can be said that this synchronized practice could bring them in balance of homeostatic efficacy on psycho-neuro-immuno-endocrine network and which helped to enhance strength, endurance, vitality, body-mind harmony and balance. Thus, this could contribute to reduce physical and mental stress level. There are ample numbers of research evidences supporting this finding. A feasibility study conducted at Walter Road Army Medical Center, Washington DC, USA (2007) by revealed that a particular approach of Yoga has a positive healing effect on military

personnel suffering from post-traumatic stress disorders.

Yoganidra is recognized as a beneficial art and means of relaxation. It is known that the practice of Yoganidra creates a deep rest by improving physical, sensory and mental equilibrium and control. This ultimately helps to have a counterfoil to existing stress, pressure or tension. A study conducted by Kamakhya Kumar (2004) also showed the positive effect of Yoganidra for reducing stress & anxiety which is responsible for improve well-being. Therefore it seems to appear that this also may be responsible to fall the stress level. Number of studies showed that the practice of Shavasna and Yoganidra significantly reduced the plasma catecholamines. This indicates that the Shavasana and Yoganidra types relaxation practices considerably reduces the sympathetic nervous activity (Udupa et al., 1978)

However, Omkar and Gayatri mantra was part of YTP. There are various research evidences regarding Omkar and Gayatri mantra recitation which reported the positive impact in reducing stress by improving

neuro-psycho- spiritual benefits. As we know that such recitations contribute to create the positive stimulation and vibration in on nerve plexus and chakras whereas concentration on meaning of mantra may encourage to positive thinking. This is because the participants may experience reduction of stress level. An earlier research conducted by Bhogal *et al.*, (2000) is in harmony with this finding which reported that Omkar and Gayatri mantra recitation caused significant reduction on neuroticism among police trainees. Thus, it was observed that YTP had significant contribution for

reducing stress level. Moreover, the subjective feelings of participant were also supportive the result.

#### **Conclusion:**

It may be concluded that yoga practice has highly positive impact in the management of stress and related hazards. The strong need is that the various aspects of yoga may suitably be embraced as a part of regular training particularly among the armed forces. This finding also encourages there is a scope to carry out the various research studies in this regard.

#### References:

1. Bhavanani, Ananda, Balyogi. (2007). Yoga and Stress. Yoga Vigyana. MDNIY, 1, 1, 9-6.
2. Bhogal, R.S., Gore, M.M., Oak, J.P., Kulkarni, D.D., Bera, T.K. (2004). Psycho-Physiological Responses to Omkar and Gayatri Mantra Recitation in Police Trainees, Undergoing Professional Training. Yoga-Mimansa 36, 1&2, 11-27.
3. Cranwell, Ward & Alyssa, Abbey. J., (2005). Organizational Stress. Palgrave. Macmillan, New York-10010, USA.
4. Health and Safety Executive (2004). Management Standards for Tackling Work-related Stress, [www.hse.gov.uk/stress/standards](http://www.hse.gov.uk/stress/standards). Accessed 22 Jan, 2008.
5. Kumar, Kamakhya. (2004). Yoga Nidra and its Impact on Students Well-being. Yoga-Mimansa, 36, 1&2, 71-76.
6. Ray, U.S.(2007), Importance of Yoga in the Armed Forces. Souvenir, National Yoga Week-2007. MDNIY. 70-73.
7. Sharon, Steffen (2007). The Healing Effect of Yoga on PTSD. [www.yogacichago.com/mar07/yoganidra.shtml](http://www.yogacichago.com/mar07/yoganidra.shtml). Accessed 24 Jan, 08.
8. Tribune News, Editorial (05-072007). Soldier in Stress, Ignore symptoms to court disaster. <http://www.tribuneindia.com/2007/2007/0705/edit.htm#1>. Accessed 24 Jan, 08.
9. Udupa, K.N., Singh, R.H. and Settiwar,R.M.(1978).Studies on the physiological effects of the yogic posture- Shavasana. Jour.Res. Ind. Med., Yoga and Homeo. 12,1.
10. Vaze, D.R., Lt. Col. (2007). Yoga for Stress Management, Souvenir, National Yoga Week-2007. Morarji Desai National Institute of Yoga: 106-109.