THINK INDIA (Quarterly Journal)

ISSN: 0971-1260
Vol-22-Issue-3-July-September-2019

Effect of yoga on State and Trait Anxiety of

Adolescent: A Case Study

***Jesna& **Vidhya**

Abstract

In today's competent world adolescents find it difficult to stick to the societal frames of identity formationand cope up with the challenges of daily life. This induces a lot of anxiety within the adolescent, which is reflected not just in studies but also in their behaviour.Yoga has been proven as a therapy system and a number of research has been done in the area of Anxiety. This case study attempts to analyse and the remedial aspect of yoga and its impact on the coping of the individual. The participant is a female of 14 years, who was going through severe anxiety issues with respect to studies and had behaviour issues related to the same. Yoga therapy has been provided for three months continuously. From the pretest and post test comparison intervention was found effective to reduce both state and trait anxiety of the participant.

Key words: Yoga, Anxiety, Adolescent.

****Jesna Sivasankar, Research Scholar, Research and Development Centre, Bharathiar University, Coimbatore, Tamil Nadu, India***

***** Vidhya Ravindranadan, Asst. Professor of Psychology, Union Christian College, Aluva, Kerala***

Adolescence is the time of rapid growth and inconsistent change that varies widely among individuals. Anxiety is a universal human emotion; it alerts us to potential threats and motivates us to prepare for challenges (Simpson, Neria, Lewis-Fernández, &Schneier, 2010). Anxiety is a state of uneasiness, accompanied by dysphoria and somatic signs and symptoms of tension, focused on apprehension of possible failure, misfortune, or danger. Many teenagers are seriously affected with the experience of stress and depression. They may rely on their negative or positive behaviour while dealing with their problems Stress features feeling of anxiety, frustration, worry and withdrawal and a typical session of anxiety may last for few hours to few days (Kender, 2007). "Many people believe that the anxiety experienced by higher secondary school girls relates only to school. However, the picture is far broader. Girls Feel responsibility for various types of relationships, such as with friends and siblings, or have taken upon themselves leisure time commitments in various associations and organizations (Katrina, 2009).

Yoga is a system of physical exercise and mental/emotional focus that incorporates components of the mind (cognitive and meditative concentration) and the body (postures and breathing exercises). While the goal of yoga historically has been to create a spiritual state of unity, it is also practiced to produce physical and emotional wellbeing. Research

ISSN: 0971-1260
Vol-22-Issue-3-July-September-2019

suggests that yoga can improve mood (Streeter et al., 2010), anxiety (Khalsa & Cope, 2006; Kirkwood, Rampes, Tuffrey, Richardson, & Pilkington, 2005), sleep disturbance, hypertension and headaches (Field, 2011). For example, Streeter et al. (2010) recruited a nonclinical sample through advertisements and then randomly assigned participants to a yoga (n=19) or walking (n=15) group. Participants in the yoga group reported significantly greater improvement in mood and in anxiety than the walking group. A review of over 150 studies of yoga as a therapeutic intervention revealedanumberofresearchtrialsreporting reductions in anxiety across a variety of medical disorders (Khalsa, 2004).

Kirkwood et al. (2005) identified and verified eight controlled studies, all with positive results on the effect of yoga on anxiety. Other single group (uncontrolled) studies showed improvements in anxiety for populations with primarily anxiety disorders (de Vicente, 1987) and with mixed psychopathology (Allen &Steinkohl, 1987). Yoga may exert its effect on psychophysiology by invoking the relaxation response, an endogenous, coordinated response in which arousal of the autonomic nervous system and activation of the hypothalamic pituitary axis are reduced in direct opposition to the well-known fight-or-flight stress response (Jacobs, 2001). Furthermore, the meditative component of yoga practice involving relaxed control of attention has direct effects on cognitive activity by reducing the ruminative and mind wandering activity of the default mode network (DMN) in the brain (Hasenkamp, Wilson-Mendenhall, Duncan, &Barsalou, 2012). Broyd and colleagues (2009) found that higher activity in parts of this network is associated with depression, anxiety, rumination and other negative self-referential thoughts. Rumination and selffocused attention are central features of anxiety disorders and depression (Rochat, Billieux, & Van Der Linden, 2012). Zhao and colleagues (2007) reported that when compared with controls, students with anxiety disorders were less able to deactivate aspects of the DMN.

Case :-

The participant was a 9thstandard student, single child, who had issues in academic functioning.She couldn't concentrate and exhibited social withdrawals along withsevereanxiety issues. She would stay back in her bedroomevenwhile known people come home. Parents complained about her lying tendency and that she never understood how a 14 year old should behave. Whenever parents tried to discipline her, shewould become very much frustrated and shows stubbornness to mother and would stay inside the room. Studies were affected and maths was toughest subject. Daily learning was not there for any subject. She would sleep off as soon as she was forced to do her studies.Nowin class 9, she keeps away from her studies and school friends. Her absenteeism rate was higher as she fails to go to school at least twice a week

Instrument used:

State and Trait Anxiety Test (STAT) by Sanjay Vohra, 2001is based upon MAP series that measures 20 personality dimensions. Separate scores measuring Trait and State Anxiety may also be derived apart from total anxiety score. The test includes 40 anxiety items that measures five dimensions of anxiety. They are (1) Guilt Proneness (Gp): a

ISSN: 0971-1260
Vol-22-Issue-3-July-September-2019

person with high score on the dimension tends to be depressed, apprehensive, troubled, mood, a worrier, full of foreboding and brooding. He has a childlike tendency anxiety in difficulties and does not feel accepted and or free to participate in groups. Low score on dimension Gp tends to be self-assured, confident, serene, and placid with unshakable nerve. He has a mature, un anxious confidence in himself and his capacity to deal with things. (2) Tension (Tn): the individual who scores high on Tn tends to be very tense, excitable, frustrated driven, restless, fretful and impatient. Often fatigued, the person is unable to remain inactive and it is often seen that high tension level disrupt school and work performance. The person who scores low on Tn tends to be sedate, relaxed, tranquil, composed and satisfied. (3) Maturity (Ma): the person scoring high on this dimension is easily affected by feelings and tends to be low in frustration tolerance, changeable and plastic. He evades necessary realty demands and is neurotically fatigued. Easily annoyed and emotion may show symptoms like phobias, sleep disturbances, psychosomatic complaints etc. The person scoring low on Ma is emotionally stable faces reality and calm. He tends to emotionally mature, stable and realistic about life and is able to maintain solid group morale. (4) Suspiciousness (Su): the person who scores high on SU tends to be suspicious, mistrusting,doubtful and hard to fool. He is often involved in his own ego and is self -opinionated and is unconcerned about other people. Hence is a poor team member the person scoring low on dimension Su tends to be trusting, free of jealous tendencies, adaptable, cheerful, and concerned about other people and is a good team worker. Self-Control (Sc): the person scoring high on dimension Sc will not be bothered with will control and regard for social demands. He is careless of protocol and follows own urges. Not overly considerate, careful or painstaking and can be maladjusted. The person scoring low on dimension Sc tends to have strong control of his emotions and general behaviour. He is inclined to be socially aware and careful and gives evidence of what is commonly termed "self-respect" and regard for social reputation.

State-Trait Anxiety Scale was given one week before and after the intervention.

Intervention schedule:

Intervention was given for 6 days a week for a period of 3 months. Each session contained about 30min of yoga and yoga based meditation, including breathing practices (especially long, slow abdominal breathing), loosening warm-up exercises (particularly for spinal flexibility), physical postures and movements, yoga meditations, awareness, breath regulation and deep relaxation practices.The asanas practicedare:

Vrikshasana or the tree pose – part of hatha yoga, vrikshasana is an excellent remedy for stress and anxiety. It clears the mind and help in focussing and concentration. **Ardhakatichakrasana** also helps release stress and excellent for metabolism. The asana helps the digestive, circulatory and respiratory system maintain balance, helps open the mooladharachakra**.**

Padahastasana, helps in releasing anxiety, this posture is highly beneficial for the hormonal balancing. Endocrine, pituitary and thyroid glands are highly benefitted. Padahastansana also activates the sacral chakra that unleashes creativity in a person. Parvathasana/ tadasana or the

ISSN: 0971-1260
Vol-22-Issue-3-July-September-2019

mountain pose – known as the mother of all asanas, helps in physical and mental health transformations. It improves the calmness of mind, sharpens focus and helps in mind-body connection. It is excellent in reducing anxiety.

Pranayamas used are:

Kapalbhati pranayama - one of the most effective form of pranayama, is simple to practise and have beneficial physiological and psychological effects. Kapalbhati pranayama is accepted by neuro scientists as an excellent way of reducing stress, anxiety and even depression.

Bastrikaparanayam – bastrikaprayanam is more effective in treating stress, migraine, anxiety and depression. It helps increase the capacity of the respiratory system that calms the body and mind.

Nadisudhi pranayama – brings balance to both the right and left hemisphere of brain. It calms and rejuvenates the nervous system, balances hormones, and thus alerts the mind, provides clarity to thought and enhances concentration. Reciting of 'OM' mantra.

Result:

The Pre test and post test scores are given in table 1 and table 2.

Table 1: Pre testScores of State and Trait Anxiety Scale

Variable	Gp	Ma	Sc	Su	Tn
State	16	8	14	5	12
Trait	17	9	12	5	17

The score of the subject on State and Trait Anxiety Scale shows that the subject is having high anxiety on both state and trait anxiety. However, the subscale maturity scored average anxiety on both state and trait and average anxiety was exhibited on state anxiety with regards to tension.

Table 2: Post test Score of State and Trait Anxiety Scale

Variable	Gp	Ma	Sc	Su	Tn
State	8	2	5	1	2
Trait	7	3	4	2	5

The scores after the remedy shows marked improvement in the factors of guilt proneness, maturity, self-control, suspiciousness and tension both in the state and trait scale. The subject showed marked difference in both her academic and related psychological functioning after the intervention. The subject showed maturity in her attitude and positivity towards her studies. She completely improved on the behavioural aspects of anxiety. Her negative thoughts disappeared and could focus on her studies. Daily learning has become a practise which she started enjoying. Even though math is a little difficult for her to understand, she is more focussed and hence is able to work interestingly more on the subject. She enjoys going

ISSN: 0971-1260
Vol-22-Issue-3-July-September-2019

to school and meeting her friends and hence absenteeism has reduced. She became more independent in doing her routine work without any parental involvement.

Conclusion:

In conclusion, yoga intervention shows beneficial findings in managing anxiety and related issues and it is a proven science in increasing the concentration level of individuals. Yoga is found not only beneficial for mental health but also improves physical health and thereby improving wellness of the individual. Yoga, however has to be practised under the supervision and advice of yoga specialists.

REFERENCES :

Allen,K.S., Steinnkohl, R.L., Yoga in Geriatric Mental Clinic, DOI:10.1300/J016v09n04_04., 1987

Billieux, Joel & Van der Linden, Martial. (2012). Problematic Use of the Internet and Self-Regulation: A Review of the Initial Studies. The Open Addiction Journal. 5. 24-29. 10.2174/1874941001205010024.

Broyd.J,S; Demanuele. C; Debener.S; et al.,Default-mode brain dysfunction in mental disorders: a systematic reviewNeurosciBiobehav Rev. 2009 Mar;33(3):279-96. doi: 10.1016/j.neubiorev.2008.09.002. Epub 2008 Sep 9.

Eysenck, M.W. (2001). Principles of cognitive psychology. Hove, East Sussex: Psychology Press

Feldman, R. S.(2011) Understanding Psychology, (10th Edition). (pp 285-286) Tata McGraw- Hill Edition

Hasenkamp, Wendy & D Wilson-Mendenhall, Christine & Duncan, Erica &Barsalou, Lawrence. (2011). Mind wandering and attention during focused meditation: A fine-grained temporal analysis of fluctuating cognitive states. NeuroImage. 59. 750-60. 10.1016/j.neuroimage.2011.07.008.

Jacobs,G.D.,Physiology of mind-body interactions: the stress response and the relaxation response, The Journal of Alternative and Complementary Medicine 7 Suppl 1(supplement 1):S83-92 · February 2001

Kirkwood,G., Rampes.H., Tuffrey.V, Richardson.J., &Pilkington,Yoga for anxiety: A systematic review of the research evidence., British Journal of Sports Medicine · January 2006 DOI: 10.1136/bjsm.2005.018069 · Source: PubMed

Katarina Haraldson, (2009). How adolescent girls manage anxiety. University of Gothenburg.

Kender, K. (2007).Adolescent anxiety and Depression.

Khalsa, M.K.,Greiner – Ferris, J. M, Hofmann, S.G., Khalsa,S.B., Yoga-Enhanced Cognitive Behavioral Therapy (Y-CBT) for Anxiety Management: A Pilot Study., online library, Whiley.com https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4224639/

ISSN: 0971-1260
Vol-22-Issue-3-July-September-2019

Khalsa,S.B.,Yoga as a Therapaeutic Intervention: A Bibliometric Analysis of Published Research Studies,Indian J PhysiolPharmacol 2004; 48 (3) : 269–285

Simpson, H. B., Neria, Y., Lewis-Fernández, R., &Schneier, F. (Eds.). (2010). Anxiety disorders: Theory, research and clinical perspectives. Cambridge University Press.

Sivasankar.J.; Ravindranadan.V (2016) Gender Difference on Anxiety, Adjustment, Emotional Intelligence, Study Habitand Attitude among Adolescents-The International Journal of Indian Psychology ISSN 2348-5396 (e) | ISSN: 2349-3429 (p) Volume 4, Issue 1, No. 79.

Streeter, C.C., et al, Effects of Yoga Versus Walking on Mood, Anxiety, and Brain GABA Levels: A Randomized Controlled MRS Study – Journal of alternative and Complimentary Medicine,Volume 16, Number 11, 2010, pp. 1–8 [a] Mary Ann Liebert, Inc. DOI: 10.1089/acm.2010.0007

Zhao, Hao & Wayne, Sandy &Glibkowski, Brian & Jesus, Bravo. (2007). The Impact of Psychological Contract Breach on Work-Related Outcomes: A Meta-Analysis. Personnel Psychology. 60. 647-680. 10.1111/j.1744-6570.2007.00087.x.