

# EFFECT OF YOGA ON MENTAL HEALTH

Priya Senan V and Sona A

Post Graduate Department of Biotechnology, SAS SNDP Yogam College, Konni,  
Pathanamthitta, Kerala, India-689691,

## Abstract

Yoga is a system of mind-body techniques for improving physical and mental health which includes physical postures, breathing, focused concentration, and meditation. Currently yoga is being taken as a therapeutical agent for health. It not only prevents and cures the disease but also helps in maintenance of positive health. Increased stress, depression and anxiety are the features of modern lifestyle. Due to the adverse effects of drugs in the treatment of anxiety and depression, and in some cases their lack of effectiveness, researchers seek nonpharmacological and noninvasive treatment for these disorders. Yoga would be an attractive option because it is non-pharmacological and has minimal adverse effects.

*Key words-* Yoga, Mental health, Anxiety, Depression

## 1. INTRODUCTION

The practice of yoga originates in India and is over 4000 years old. It is a form of complementary and alternative medicine, that thus has a long tradition of use in the east and has gained popularity in the west as a means towards developing and maintaining good mental and physical health. There is mention of yoga postures in texts of the Upanishads from the 6th century BCE, but it was the sage, Patanjali, in circa 2nd century BCE, who first described the main principles of the best yoga practices (called Raja or 'royal' yoga) in the *Yoga Sutras* and incorporated them into an eight-part system called Ashtanga (Sanskrit for 'eight limbs'). Between the 6<sup>th</sup> and 15<sup>th</sup> centuries ACE, other yoga texts appeared that provided more practical applications of these principles, such as the *Hatha Yoga Pradipika* by Swatmarama, the *Goraksha Samhita* by Yogi Gorakhnath, the *Gherand Samhita* by Gherand, and *Hatharatnavali* by Srinivasabhata Mahayogindra [1]. In recent decades, several medical and scientific studies on yoga proved it to be very useful in the treatment of mental problems. Patient use of complementary and alternative treatments, including yoga, to manage mood and anxiety disorders, has been well documented. Despite research interest, there are few recent reviews of the evidence of the benefit of yoga in these condition.

## 2. YOGA AND MENTAL HEALTH

Yoga is commonly perceived as an alternative medicine. In Sanskrit, Yoga means union or unification. Yoga techniques aim to develop and retain a healthy balance between all aspects of body and mind. Yoga can be divided into four main branches which are: Bhakti yoga, Karma yoga, Gyana yoga, and Ashtanga yoga, these variations fundamentally offer a means by which individuals are able to enhance their control and development of body and mind. Ashtanga Yoga can also be divided into two branches. Firstly, Hatha yoga, involving exercises (Asana), deep relaxation, control of breathing (Pranayama), and meditation. Secondly, Raja yoga which generally focuses on the mind, which may promote mind skills, such as accuracy, concentration, determination and memory. Yoga can offer an effective method of managing or reducing stress [2].

Yoga is an ancient Indian science which helps to improve physical, mental, social and spiritual health [3]. Yoga is defined as a practice consisting of three components: gentle stretching; exercises for breath control; and meditation as a mind-body intervention [4]. The version used mainly in the west is hatha yoga, which consists of an integration of asana (postures), pranayama (breathing exercise), and meditation. Although yoga has its origins in Indian culture and religion, it can be practised secularly [5]. The eight limbed path of yoga includes: Yama (moral codes), niyama (self-discipline), asana (postures), pranyama (breath practices promoting life force), pratyahara (sensory transcendence), dharana (concentration), dhyana (meditation), samadhi (state of bliss). The word roots of yoga mean "to join" in Sanskrit. Joining mind and body, and individual and collective selves is the essence of this ancient South Asian practice. Yogic philosophy posits that every life form is interconnected and united [6-7]. "Yoga exists in the world because everything is linked" [8]. As the Patanjali Sutras note: "Yoga is the practice of quieting the mind" [9]. Positive mental health is "a state of well-being in which every individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community [10].

From a yogic perspective, the breath is a bridge between mind and body. Slow diaphragmatic breathing is common to almost all forms of yoga. The key to quieting the mind is slowing and deepening the breath. Practicing yoga helps to regain mental stability, calmness, and tranquility, primarily because of this kind of breathing[11].

Despite advances in the pharmacological and psychological treatment of mood and anxiety disorders, a significant percentage of patients remain refractory to treatment, which often leads to a chronic course of illness and long-term functional impairment [12]. In addition, patients often face practical limitations when seeking these interventions, such as cost, availability of clinicians, and intolerance of medication. Effective alternate interventions that are self-administered and easy to use could enhance compliance and treatment response.

In recent years, researchers have begun to investigate the efficacy of complementary and alternative medicine therapies (CAMs, e.g. herbs, nutraceuticals, meditation, yoga) in mood and anxiety disorders. Such treatments have a long history of use in the East, but their application in the West is more recent and largely focuses on symptoms such as fatigue, insomnia and stress. An increasing trend in the West towards patient use of these treatments to manage depressive and anxiety symptoms, independent of medical advice, has been noted in the literature [13].

## **2.1 DEPRESSION**

Depression is one of the most common mental illnesses in the world. It is estimated that there are 350 million people worldwide who have some form of depression. Depression is the leading cause of disability worldwide and is believed to be a major contributor to the overall global burden of disease[14]. Symptoms are depressed or sad mood, shorttempered or easily annoyed, loss of interest or enjoyment in hobbies or activities that was previously enjoyed, feeling of worthlessness or guilt, thoughts of death or suicide, difficulty with concentrating or making decisions, feeling tired or fatigue, feeling restless or slow, changes in appetite such as overeating or loss of appetite, changes in weight such as weight loss or weight gain, and changes in sleep pattern. [15]. According to the National Institute of Mental Health, depression occurs due to a combination of genetic, biological, environmental, and psychological factors[16].

There is a body of research supporting the use of yoga to reduce depression or depressive symptoms[17]. published a systematic review of literature on yoga and depression, searching research articles in English from 2005 to June 2010. They reviewed 18 studies describing the extent to which yoga has been found to be beneficial as a complementary therapy for depression and depressive symptoms[18].

In the United States, the prevalence of depression is quite high—9% in the general population—with women, young adults, and seniors particularly vulnerable. In recent years, increasing numbers of people are turning to complementary and alternative medicine (CAM) for relief from depression and other mental health problems. As a form of CAM, yoga has been growing in popularity; this rise in popularity has, in part, been driven by interest in how this practice, with its mindfulness and meditation aspects, may decrease depression[19].

## **2.2 FATIGUE**

yoga, one of the best known and frequently used mind-body interventions, combines physical exercises and meditation and might thus also be effective to attenuate fatigue[20].

## **2.3. ANXIETY AND ANXIETY DISORDERS**

Depressive and anxiety disorders are two of the most common mental health disorders affecting the general population, with an estimated prevalence of 10–20% for any 1-year period. Though mood disorders (with an estimated prevalence of 20.8%) tend to have a higher public profile, a recent US epidemiological survey found that anxiety disorders were even more common, with an estimated lifetime prevalence of 28.8%. Mood and anxiety disorders tend to be chronic and highly co-morbid with each other, as well as with other psychiatric illnesses. The individual's personal, social and occupational functioning, as well as physical health, can be affected considerably by these disorders, with additional high costs to society through utilization of healthcare resources and loss of worker productivity [21].

Studies have shown that the practice of yoga reduces perceived stress and negative feelings and improves mental and physical symptoms [22-24]. Studies have indicated that anxiety, depression, anger, fatigue, and confusion in psychiatric in-patients improved following at least one yoga session[25]. Research has demonstrated that long-term yoga practitioners have lower mental disturbances, anxiety, anger and fatigue scores in the Profile Of Mood State (POMS) test in comparison to non-experienced participants, although there were no significant differences in the levels of urinary stress-related markers [26-27].

## **2.4 STRESS**

Increased stress, depression and anxiety are the features of modern lifestyle. Due to the adverse effects of drugs in the treatment of anxiety and depression, and in some cases their lack of effectiveness, researchers

seek nonpharmacological and noninvasive treatment for these disorders. Yoga exercise has improved the variables of self-description, psychological status, and the quality of life. Researchers suggest that yoga as an intellectual and mental exercise, improves health feeling. Furthermore, yoga can improve the psychological conditions for monitoring and managing stress and negative emotions, increase positive emotions, and help mental balance[28].

The state of the mind and that of the body are intimately related. If the mind is relaxed, the muscles in the body will also be relaxed. Stress produces a state of physical and mental tension[29].

Stress related disorders such as depression and anxiety are leading sources of disability worldwide. There is evidence that yoga has mood-enhancing properties possibly related to its inhibitory effects on physiological stress. However the biological mechanisms via which yoga exerts its therapeutic and inflammatory associated with affective disorders, mood-modulating effects are largely unknown. Review on the effects of yoga on sympathetic nervous system and hypothalamic pituitary adrenal axis regulation focuses on studies collecting physiological parameters such as blood pressure, heart rate, cortisol, peripheral cytokine expression and/or structural and functional brain measures in regions involved in stress and mood regulation. Further research is warranted to confirm these preliminary findings and facilitate implementation in clinical settings[30].

## 2.5 POST TRAUMATIC STRESS DISORDER

Several decades of research reveal chronic and debilitating biological, psychological, and social ramifications for individuals suffering from posttraumatic stress disorder (PTSD). Both pharmacological and psychological interventions are used in the treatment of PTSD. Increasingly, researchers are investigating the use of complementary approaches for treating PTSD. Complementary therapies used to treat PTSD include acupuncture, mindfulness-based stress reduction, meditation, yoga, deep-breathing exercises, guided imagery, hypnotherapy, progressive relaxation, and tai chi [31].

The studies suggest that more intensive trauma-sensitive yoga treatment characterized by longer duration and intentional assignment and monitoring of home practice may be more advantageous for individuals with severe and chronic PTSD. The implications of the findings for the potentially more substantial role of yoga as an intervention for a subset of adults with chronic treatment-resistant PTSD [32].

## 3. CONCLUSION

Yoga has an effective role in reducing stress, anxiety, and depression that can be considered as complementary medicine and reduce the medical cost per treatment by reducing the use of drugs. It is suggested that future studies are done to investigate the long-term effect of yoga on stress, anxiety, and depression. Yoga helps to improve the mental health. The practice of yoga shows promise for promoting better mental health. Yoga has minimal side effects and is cost-effective in comparison with pharmacological treatments and psychotherapy. Yoga's added benefit is that it improves physical fitness and encourages self-reliance. Further studies are needed to understand the mechanism of action of yoga.

## 4. REFERENCES

1. Riley D. 2004. Hatha yoga and the treatment of illness. *Altern Ther Health Med* 10:20–1
2. M. Javnbakht, R. Hejazi Kenari, M. Ghasemi. 2009. Effects of yoga on depression and anxiety of women, *Complementary Therapies in Clinical Practice*; 15(2)
3. Gururaja D, Harano K, Toyotake I, Kobayashi H, 2011 Effect of yoga on mental health: Comparative study between young and senior subjects in Japan. *Int J Yoga*, 4:7-12.
4. Ernst E. Therapies: yoga (section 3). 2001. In: Ernst E, ed. *The desktop guide to complementary and alternative medicine. An evidence-based approach*. Edinburgh: Mosby.; 76–8.
5. Kirkwood, H Rampes, V Tuffrey, J Richardson, K Pilkington, 2005; Yoga for anxiety: a systematic review of the research evidence, *Br J Sports Med* 39:884–891.
6. F Shroff, 2011. We are all one! A Yogic travel tale. *J Postcolonial Cultures Societies* 2: 124-128.
7. F Shroff .2011. We are all one: Holistic Hought-Forms within Indigenous Societies Indigeneity and Holism. Wien: Peter Lang Publishin, Oxford pp: 53-67
8. Desikachar TKV .2011. He heart of yoga: developing a personal practice.
9. Patañjali .2003. He Yoga Sutras of Patañjali. Dover publications
10. World Health Organisation 2014; A state of well being
11. Shroff, Farah & Asgharpour, Mani. 2017. Yoga and Mental Health: A Review. *Journal of Physiotherapy & Physical Rehabilitation*. 02. 10.4172/2573-0312.1000132.
12. F. Goldberg *et al.* 2005 Long-term remission and recovery in bipolar disorder: a review. *Curr. Psychiatry Rep.*
13. G. Elkins. 2005. Complementary and alternative medicine use by psychiatric inpatients *Psychol. Rep.*

14. Tricia L. da Silva, Lakshmi N. Ravindran, Arun V. Ravindran, 2009. Yoga in the treatment of mood and anxiety disorders: A review, *Asian Journal of Psychiatry*, 2(1)-6-16.
15. World Health Organization. Depression. 2016. <http://www.who.int/mediacentre/factsheets/fs369/en/>. Accessed June 6
16. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)*. 5th ed. Arlington, VA: American Psychiatric Association; 2013.
17. National Institute of Mental Health. Depression basics. [http://www.nimh.nih.gov/health/publications/depression/index.shtml# pub5](http://www.nimh.nih.gov/health/publications/depression/index.shtml#pub5). Accessed June 6, 2016
18. Mehta P, Sharma M. Yoga and complementary therapy for clinical depression. 2015. *Complement Health Pract Rev.*;15
19. Bridges, L., & Sharma, M. 2017. The efficacy of yoga as a form of treatment for depression. *Journal of evidence-based complementary & alternative medicine*, 22(4), 1017-1028.
20. Boehm K, Ostermann T, Milazzo S, Büsing A. 2012. Effects of yoga interventions on fatigue: a meta-analysis. *Evid Based Complement Alternat Med*.
21. Lila Louie .2014. The Effectiveness of Yoga for Depression: A Critical Literature Review, *Issues in Mental Health Nursing*, 35:4, 265-276,
22. Granath J, Ingvarsson S, von TU, Lundberg U. 2006. Stress management: a randomized study of cognitive behavioural therapy and yoga. *Cognitive Behavior Therapy*;35:3-10.
23. Smith C, Hancock H, Blake-Mortimer J, Eckert K. 2007. A randomized comparative trial of yoga and relaxation to reduce stress and anxiety. *Complementary Therapy & Medicine* ;15:1277-83.
24. Luebbert K, Dahme B, Hasenbring M. 2001. The effectiveness of relaxation training in reducing treatment-related symptoms and improving emotional adjustment in acute non-surgical cancer treatment: a metaanalytical review. *Psychooncology*;10:490-502.
25. Lavey R, Sherman T, Mueser KT, Osborne DD, Currier M, Wolfe R. 2005 The effects of yoga on mood in psychiatric inpatients. *Psychiatric Rehabilitation Journal* ;28:399-402.
26. Yoshihara K, Hiramoto T, Sudo N, Kubo C. 2011. Profile of mood states and stress-related biochemical indices in long-term yoga practitioners. *Biopsychosocial Medicine* ;5:6
27. Joshi, Anjali & Desousa, Avinash. 2012. Yoga in the management of anxiety disorders. *Sri Lanka Journal of Psychiatry*. 3. 10.4038/sljpsyc.v3i1.4452.
28. Shohani M, Badfar G, Nasirkandy MP, Kaikhavani S, Rahmati S, Modmeli Y, 2018. The effect of yoga on stress, anxiety and depression in women. *Int J Prev Med*;9:21.
29. Parshad O. 2004. Role of yoga in stress management. *West Indian Med J.* ;53(3) 191-194. PMID: 15352751.
30. Michaela C. Pascoe, Isabelle E. Bauer, 2015 'A systematic review of randomised control trials on the effects of yoga on stress measures and mood, *Journal of Psychiatric Research*, Volume 68-270-282,
31. Autumn M. Gallegos, Hugh F. Crean, Wilfred R. Pigeon, Kathi L. Heffner, 2017. Meditation and yoga for posttraumatic stress disorder: A meta-analytic review of randomized controlled trials, *Clinical Psychology Review*, Volume 58-115-124, ISSN 0272-7358.
32. M. Price, J. Spinazzola, R. Musicaro, J. Turner, M. Suvak, D. Emerson. 2017. Effectiveness of an Extended Yoga Treatment for Women with Chronic Posttraumatic Stress Disorder. *The Journal of Alternative and Complementary Medicine*;23(4)-300-309.