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Effect of Yoga on Mental Health: An Overview

Komal Kumari¹, Sweta Pathak²

¹Research Scholar, P. G. Department of Psychology, T. M. Bhagalpur University, Bhagalpur, Bihar, India.

²Assistant Professor, Department of Psychology, T. N. B. College Bhagalpur, Bihar, India.

ABSTRACT

Self as well as community development depends on mental health, which is a fundamental human right. Mental health problems can affect our thought pattern, mood states and different types of behaviors at every stage of life. A state of mental well-being is known as mental health which enables individuals to fulfill their potential, learn new skills and work productively, overcome obstacles of the life, and contribute back to their communities. This review assessed the effectiveness of Yoga as an intervention for improving mental health and its different aspects. The present review carried out from databases including Google scholar and PubMed using key terms Yoga, mental health, and well-being. Only randomized control trials and experimental studies were included based on their relevance. Inappropriate and qualitative studies were excluded from the present review. On the basis of inclusion and exclusion criteria, only seven studies published between 2014 and 2024 have been included for this review. Overall, the studies showed that comprehensive Yoga program is an effective tool to manage different aspects of mental health. The review suggests that Yoga and its various techniques shows considerable improvement in mental health and its various aspects. Yoga is the key to accomplishing both emotional and physical well-being.

Key words: Yoga, Mental health, Well-being, Mental illness

INTRODUCTION

Holistic development of an individual depends on the level of their mental health and it is a fundamental human right. For mental wellness, every stage of life from birth to maturity is important. Mental health problems can affect our thoughts, mood states, and behaviors at every stages of our life.^[1] Overall well-being is significantly affected by mental health. It can impact and be impacted by physical health.^[2] A state of mental well-being known as mental health enables an individual to fulfill his/her potential, learn new skills

and work effectively, overcome obstacles in their life, and contribute back to their communities. According to the World Health Organization (WHO), mental health is “a state of well-being in which the 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”.^[3] Depression, anxiety disorders, bipolar disorder, schizophrenia, and substance use disorders are prevalent mental health disorders in India.^[4] In India, mental disorders affected 197.3 million (95% UI 178.4-216.4) persons in 2017. Of these, 45.7 million (42.4-49.8) had depressive disorders and 44.9 million (41.2-48.9) had anxiety disorders.^[5]

The National Institute of Mental Health (NIMH) estimates that nearly one in five people have a mental illness.^[1] A single cause does not exist for mental illness. Unfavorable childhood experiences, such as trauma or a past of maltreatment (such as sexual assault, child abuse, seeing violence, etc.) may be the cause for mental illness. A person's risk of developing mental illness may be influenced by numerous factors, including past experiences with other ongoing

Address for correspondence:

Dr. Sweta Pathak

Assistant Professor, Department of Psychology, T. N. B. College Bhagalpur, Bihar, India.

E-mail: swetapsybhu@gmail.com

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(chronic) illnesses like diabetes or cancer, biological abnormalities or variations in the brain's chemistry, drug or alcohol use, and feelings of loneliness or separation.^[6]

If someone has a mental health issue, it may be challenging for them to work, go to school, keep up a regular schedule, maintain healthy relationships, socialize, and adhere to good hygiene, among many other things. However, many disorders, especially neurotic disorders, may be managed, obstacles can be overcome, and a meaningful, productive life can be lived with early and persistent treatment (usually a combination of medication and psychotherapy).^[1] These days Yoga therapy is a very popular intervention in many developed and developing countries to manage the symptoms of mental illness and for achieving work-life balance. Yoga therapy is the application of yogic principles to attain mental, emotional, and spiritual well-being. It limits itself to *Ashtanga Yoga* exercises, but it also includes chanting, mental and spiritual therapy, meditation, prayer, *Swadhyaya* and certain philosophical principles.^[7]

Ancient literature on Yoga states that practicing Yoga on regular basis connects individual consciousness with the supreme consciousness. The ultimate aim of Yoga is 'self-realization', which leads to the states of liberation, (*Moksha*) and (*Kaivalya*) which is also known as the state of 'free from everything'.^[8]

SEARCH METHODOLOGY

A thorough search was carried out utilizing key words like Yoga, mental health, and well-being in databases such as Google Scholar and PubMed (a reputable medical database). Scientific studies published between 2014 and 2024 were reviewed. Only randomized control trials and experimental studies were included based on their relevance. Inappropriate as well as duplicate studies, review articles and studies having no quantitative data were excluded from the present review. Seven significant studies were considered for this review based on the above mentioned inclusion and exclusion criteria. Summary of the included studies is mentioned below in Table 1.

Table 1: Summary of the studies on Yoga for mental health published between 2014 and 2024 based on the inclusion & exclusion criteria

SN	Author(s) (Year)	Study design	No. of participants (ages in years)	Intervention(s)	Assessment(s)	Outcomes
1.	Taspinar et al. (2014)	Randomized control trial	51 adults with mean age \pm S.D. (25.6 \pm 5.7 years)	21 sessions, 3 days per week for 7 weeks of <i>Hatha Yoga</i> and resistance exercise	Mental health and general well-being	<i>Hatha Yoga</i> and resistance exercise both were effective to improve mental health and well-being in inactive adults.
2.	Rathod & Vishwakarma (2022)	Ex-post facto research	60 adults (both genders) with ages from 16 to 30 years	Comparative study without intervention	Mental health and personality	The study showed that mental health and personality of both groups are most probably similar.
3.	Chang et al. (2022)	Randomized control trial	679 college students	<i>Isha upa Yoga</i> for 12 weeks	Mental health and well-being	Yoga helps to deal pandemic's negative effect on mental health and improve their well-being.
4.	Immink et al. (2014)	Randomized control trial	22 individuals with at least 18 years of age	10 weeks of Yoga practice	Motor function, mental health, and quality of life	Yoga is effective intervention to address

						mental health and quality of life.
5.	Baklouti et al. (2023)	Web-based Randomized control trial	200 older adults ages between 65 and 85	Eight weeks of <i>Hatha Yoga</i> practice	Psychological distress, quality of sleep and mental health	Web-based <i>Hatha Yoga</i> practice is beneficial to improve mental health and quality of sleep in older adults.
6.	Adhikari & Rath (2023)	Comparative study (Yoga versus naïve-to-Yoga)	100 male students' ages between 12 and 18 years	Comparison between Yoga and non-Yoga practitioners	Emotional intelligence and mental health	Significant improvement found in emotional intelligence and mental health of the students who were practicing Yoga regularly.
7.	Dubey et al. (2021)	Pre-post experimental study	120 female adolescent students with average age of 16 years	35 minutes Yoga practice daily for 2 months	Social stress, academic stress, emotional maturity and their different components	Yoga practices reduced social stress, academic stress and improve emotional stability and maturity

Overview of the included studies

A randomized controlled study was conducted to assess the effect of resistance training and *hatha Yoga* on mental health and general well-being of 51 adults with mean age \pm S.D. (25.6 \pm 5.7 years). Following 21 sessions, 3 days per week for 7 weeks of *hatha Yoga* and resistance exercise showed that *hatha Yoga* and resistance exercise both were effective to improve mental health and well-being in inactive adults. They may improve various aspects of mental health and well-being.^[9]

60 adult participants of both genders and ages ranging from sixteen to thirty years old participated in a separate comparative study on mental health and personality using an ex-post facto research approach to look at differences in these domains. A standardized mental health inventory created by Dr. Kamlesh Sharma was used to evaluate mental health, while Dr. Giridhar Prashad Thakur's Eysenck personality inventory was used to evaluate personality. The investigation revealed that both groups' personalities and mental health were most likely comparable.^[10]

Another randomized controlled trial was designed to assess mental health and well-being of 679 undergraduate students following *Isha Upa Yoga* for 12

weeks during COVID-19. The result showed significant reduction in the level of stress and improvement in mental health and well-being. Study suggested that Yoga helps to deal pandemic's negative effect on mental health and improve their well-being.^[11]

A different RCT aims to evaluate the impact of a 10-week Yoga practice on motor function, mental health, and quality of life outcomes in individuals suffering from chronic post-stroke hemiparesis. 22 people were randomly assigned to the intervention group or the no intervention group. The results indicated that while there was no discernible increase in motor functions, practicing Yoga greatly enhanced quality of life in relation to perceived motor function and memory. According to a study, Yoga is a useful intervention for improving mental health and quality of life.^[12]

A web-based randomized controlled trial assessed the effect of eight weeks *Hatha Yoga* practice on psychological distress, quality of sleep and mental health of 200 older adults during COVID-19 pandemic. Following *Hatha Yoga* practice, significant reduction in depression, stress and the level of anxiety and significant improvement in quality of sleep were reported. Study proposed that web-based *hatha Yoga* practice is beneficial to improve mental health and quality of sleep in older adults.^[13]

A comparative study designed to assess the emotional intelligence and mental health of 100 male students' ages between 12 and 18 years. 50 students were Yoga practitioners and 50 were naive-to-Yoga. Emotional health and mental health were assessed through reliable and valid questionnaires. Study revealed significant improvement in emotional intelligence and mental health of the students who were practicing Yoga on regular basis.^[14]

A pre-post experimental study involving 120 female adolescent students was done to look into how Yoga affected social stress, academic stress, emotional maturity and their components. Every day for two months, the Yoga group practiced Yoga for thirty-five minutes. Research revealed that practicing Yoga improved emotional maturity while lowering stress related to social interactions and academics.^[15]

DISCUSSION

This review looked at the commonly used yogic interventions, and contemporary approaches to managing and preventing mental health. The review has extensive range of studies with yogic interventions in Table 1. A substantial amount of evidence-based research indicates that it is turning into a major global health issue. Mental health problems can have an ongoing impact on our cognition, emotion and conation.

Early childhood internalizing and externalizing disorders, along with other indicators of mental health problems, are included in a study conducted by the American Sociological Association (ASA). This also takes consideration of behavioral problems that have a significant connection to mental health. Yoga is the key to accomplishing both emotional and physical well-being.^[16] Also, Yoga is a way of life that combines mental, physical, and spiritual components to reach perfection, completeness, meaningfulness, and holism in every aspect of human functioning.^[17] It also improves a person's capacity to integrate and harmonize their objectives, feelings, desires, and sentiments.^[16] Recent studies indicate the benefits of Yoga in reducing stress. Yoga has been documented to help people with specific sympathetic nervous system

(SNS) overactivity that results in uncontrolled hypertension. Yoga reduces the damage that chronic stress causes to the body and enhances parasympathetic tone, as evidenced by heart rate, oxygen consumption, and the high-frequency component of heart rate variability (HRV).^[18]

Adopting physical postures (*Asanas*) is linked to increased GABA levels. For 12 weeks, healthy participants were randomized to receive either a Yoga or walking intervention for 60 minutes three times a week. Comparing the Yoga subjects (n=19) to the walking group (n=15), the Yoga subjects reported higher mood improvements and lower anxiety levels. Improved mood was positively correlated with lower levels of anxiety and thalamic GABA. GABA level changes were positively correlated with mood scale alterations in the Yoga group. More improvements in mood and anxiety were linked to the 12-week Yoga intervention than to a walking activity that was physiologically equivalent. This is the first instance of a positive connection between acute elevations in thalamic GABA levels and improvements in mood and anxiety measures linked to a behavioral intervention (Yoga poses).^[19]

There are various processes by which Yoga is beneficial to mental health. First, Yoga's physical component, which consists of strengthening and stretching exercises improves physical health by releasing tension in the body and fostering relaxation.^[20] Second, Yoga's mindfulness component makes individuals more conscious of their thoughts and feelings, which improves their ability to control stress and negative emotions.^[21] Moreover, Yoga triggers the relaxation response, which lowers the synthesis of stress hormones to counteract the body's stress response.^[22] This physiological impact elevates happiness and reduces anxiety. subsequently, Yoga fosters community and social engagement, which can improve social support and lessen feelings of loneliness, especially for college students who may be spending time away from home for the first time.^[23]

The practice of different aspects of Yoga (physical postures, breath regulation, cleansing interventions,

meditative as well as relaxation practices) resulted in increased well-being, reduced stress, and helped in treatment.^[24] Practice of Yoga on regular basis may change the level of anxiety by the effect on breathing through muscular relaxation, and hence modifying the mental state to induce feelings of psychological well-being.^[25] Slow and deep breathing increase the parasympathetic tone which are linked with a calm state of mind.^[26]

CONCLUSION

The review suggests that Yoga and its related techniques shows considerable improvement in mental health and its related components. Overall, the above-mentioned studies revealed that Yoga is significant means to improve different aspects of mental health. Yoga has been used as an effective therapeutic tool to attain positive health and to enhance satisfaction towards psychological as well as physical states. Yoga is the key to accomplishing both emotional and physical well-being.

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