

YOGA AS THERAPY FOR MENTAL HEALTH

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ABSTRACT

Yoga is developing as therapy for various disorders in mental health, at same it is used in daily life for mental health wellness. The aim of this article is to determine development of yoga as therapy, and where it's role in mental health as a novel exercise modality. Yoga is developing as science, in various forms and in different life situations. Mental health is one of the life situations where yoga is more evidently applicable to maintain wellness as well as improving physical and psychological health. The research is going on how yoga can be utilized in its full form to minimize impact of psychiatric disorders, furthermore it's direct effect has been not yet revealed and yoga is used as adjunctive therapy modalities in various disorders. Therefore, further research indeed to understand direct effect of yoga as therapy. This article tries to describe current developments in yoga as therapy in mental health.

Keywords: Yoga, Mental Health, Social Cognition, Electroencephalography.

INTRODUCTION

Yoga is an ancient system of body and mind exercises that began during the Indus Valley Civilization in South Asia. The first written record of this technique appears in the Yoga Sutras of Patanjali in the 3rd or 4th century BC (Singh, 1983). Yoga is conceptualized as the science of consciousness that deals with the transformation of the individual self (Nagendra, 2008). Patanjali defines it as *masa* (control), *niyamas* (observation), *asana* (postures), *pranayama* (control or breathing), *pratyahara* (sensory withdrawal), *dharana* (concentration), *dhyana* (meditation) and *Samadhi* (self-realization). Yoga has been around for centuries in the Indian

subcontinent and is promoted as a lifestyle and a means to improve overall health. Yoga has been used to improve health and reduce pain (Chong et al., 2011). Yoga has been used as a therapeutic measure in the treatment of mental illnesses (Posadzki et al., 2010). Yoga is not used to treat stress, depression, anxiety, and childhood pain (Cramer et al., 2013; da Silva et al., 2009; Galantino et al., 2008); and childhood illness. Treatment of substance abuse (Posadzki et al., 2010). The course of drug addiction often escalates with relapse and withdrawal. Chronic pain treatment leads to the search for new treatments. As a complementary therapy, yoga holds the

promise of providing an alternative treatment to substance abuse.

With many changes in lifestyle, the stress of thinking in daily life is also increasing, and many relaxation techniques are becoming popular to reduce this situation. But one of the most common practices is various types of yoga and yoga breathing. Sudarshan Kriya and other practices is a type of yoga that teaches breathing exercises (Pranayam) in addition to physical postures (asanas) (Kjellgren & Anderson, 2015).

WHY YOGA AS THERAPY?

Yoga may be beneficial as a complementary treatment for individuals with alcohol addiction and personality disorders. Yoga practices, such as pranayama (breathing exercises), asanas (yoga postures), and meditation, have been shown to reduce symptoms of anxiety and depression, which are common comorbidities of alcohol addiction. Additionally, the mindfulness and self-awareness practices incorporated in yoga may help individuals with personality disorders and alcohol addiction to gain insight into their own thoughts and emotions, which can be beneficial in therapy. However, it's important to seek guidance from a mental health professional before starting yoga as part of a treatment plan and to work with a qualified yoga therapist who is trained to work with individuals with addiction and personality disorders.

Self-control, meditation, cleansing (Kriya), yoga asanas (postures), pranayama (breathing) and meditation (Dharana and Dhyana) are some of these (Malhotra, 2017). Yoga-based interventions are interventions that include at least one of these activities. Yoga helps in whole personality development against many diseases and spiritual uplift. Many people practice yoga to improve overall health and prevent disease (Cramer et al., 2016; Stussman et al., 2012). Conditions such

as anxiety, depression, back pain, asthma, hypotension, musculoskeletal disorders, obstructive pulmonary disease (chronic obstructive pulmonary disease), and cancer are increasingly considered medical conditions. Brenes (2018) reviewed all available evidence on the benefits of yoga for adults with Alzheimer's disease and cognitive impairment. After reviewing six studies combining cognitive and behavioral changes in people with cognitive impairment, they concluded that yoga may be an effective treatment for people with dementia. Yoga has been shown to be more effective than no intervention for mental health, but it is not more effective than mental activity or physical activity. No significant effects of yoga have been shown to be affected in terms of life satisfaction and relationships (Hedriks et al., 2017).

USE OF YOGA AS THERAPY IN MAJOR PSYCHIATRIC DISORDERS

Schizophrenia

Schizophrenia is characterized by three main symptoms: positive symptoms, negative symptoms and cognitive symptoms. Schizophrenia patients often seek treatment for positive and negative symptoms. But cognitive impairment occurs earlier and has a greater impact on performance.

Schizophrenia is a chronic mental illness which causes significant distress and dysfunction. Yoga has been found to be effective as an add-on therapy in schizophrenia (Govindaraj et al., 2016). Schizophrenia has also been described as 'citta vikhalathe' (distortions of the mind). Yoga practice is defined as "citta vrtti nirodhah" (controlled mind change). Some yoga texts, such as Patanjali's Yoga Sutras, describe experiences similar to symptoms of schizophrenia (Iyengar, 2007). Therefore, yoga is considered an adjunctive treatment alongside antipsychotics in the treatment of schizophrenia. These studies have yielded

positive results demonstrating the role of yoga in schizophrenia (Bhatia et al., 2012; Duraiswamy et al., 2007; Varambaly et al., 2012). Studies using yoga modules vary depending on the experience of the researcher. However, although many people use yoga poses as therapy, there is little evidence that specific yoga poses are beneficial for psychosis or schizophrenia.

Table 1 Yoga Module for Schizophrenia

Loosening Practices				
Sl. No.	Practice (Sanskrit)	Practice (English)	Rounds/Cou unts	Time
a.	Shithilikarana Vyayama	Slow Jogging	10 counts	20 seconds
b.		Fast Jogging	10 counts	25 seconds
c.		Backward Jogging	10 counts	25 seconds
d.		Forward Jogging	10 counts	25 seconds
e.		Side Jogging	10 counts	25 seconds
f.	Mukha Dhauti	Mouth washout breathing	10 rounds	30 seconds
g.	Shvasa kriya	Twisting	20 counts	30 seconds
h.	Shvasa kriya	Hand Stretch Breathing 90°	10 counts	30 seconds
i.		Hand Stretch Breathing 135°	10 counts	30 seconds
j.		Hand Stretch Breathing 180°	10 counts	30 seconds
k.	Hastottanasa na Padhastasana Shvas Kriya	Forward & backward bending	20 counts	60 seconds
l.	Vyaghra Shvasa	Tiger breathing	20 counts	60 seconds
m.	Trikonasana Shvas Kriya	Sideward bending	20 counts	60 seconds
n.	Shashankasa na Shvasa	Moon Pose breathing	20 counts	60 seconds
Standing Asana				
a.	Suryanamask ara	Sun Salutations 10 step	8 rounds (4 rounds slow; 4 rounds fast)	7 minutes
Sitting Asana				
a.	Shithila Dandasana	Sitting relaxation pose	1	30 seconds
b.	Vakrasana	Twisted sitting pose	1 round each side; Right and left	Maintain each side for 10 seconds
c.	Ustrasana	Camel pose	2 rounds (1 st half camel pose; 2 nd full camel pose)	Maintain for 10 seconds
Prone asana				
a.	Makarasana	Crocodile Pose	1	10 seconds
b.	Bhujangasan a	Serpent Pose	2	Maintain each side for 10 seconds

Validated Yoga module (Govindaraj et al., 2016)

Yoga-based modules developed for schizophrenia (Table 1) are accepted by most experts from different schools of yoga. Yoga has been shown to be beneficial to cognitive development in healthy adults and older adults (Gothe & McAuley, 2015). As an adjunctive treatment, yoga is more effective than physical exercise in reducing negative symptoms in person with schizophrenia (Duraiswamy et al., 2007; Varambaly et al., 2012). It may also improve the quality of life of people with schizophrenia (Cramer et al., 2013). Recent studies have examined the therapeutic effects of yoga on neurocognition and reported cognitive gains in schizophrenia patients (Bhatia et al., 2017).

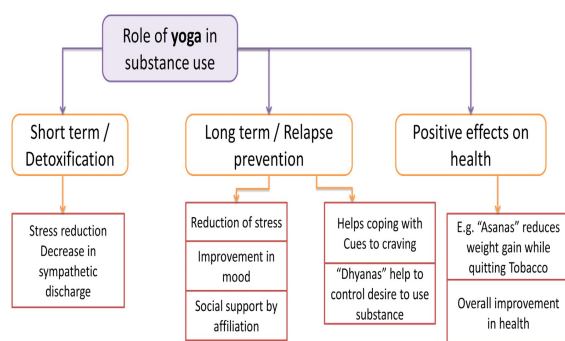
Anxiety and Depression

These yoga practices are effective and cost-effective and can be given to many adults to relieve mental stress and related conditions, which may also help prevent physical and psychological problems (Kjellgren & Anderson, 2015). Because depression is a significant mental health problem after a diagnosis of schizophrenia, and many clinical studies have shown that yoga practice is considered an adjunct to medical treatment, the data in this study and group have always been inconclusive in reducing symptoms of depression. Consider whether meditation is a good treatment for depression. Yoga therapy is often beneficial compared to uncontrolled therapy; however, results were lower when comparing active conditions to inactive controls (Yadav et al., 2022). The quantity and quality of available research data are not sufficient to determine whether studies focusing specifically on yoga postures are better than studies focusing specifically on meditation and pranayama. It is not clear whether lust is a problem for people with depression. Experiments have elucidated the mechanisms behind the anti-anxiety effects of yoga by examining electrophysiological

to manage stress, which can lead an individual to healthier lifestyle. There are not enough studies to prove that yoga directly helping individuals with addiction, however, it is incorporate with mindfulness practices to support rehabilitation.

NDifferent yoga schools use all or some of the above steps. Kundalini Yoga or Primordial Energy Unification System is a well-established yoga school (Mahan, 1981; Maharishi, 1992). Different yoga schools use all or some of the above steps. Kundalini Yoga or Primordial Energy Unification System is a well-established yoga school (Mahan, 1981; Maharishi, 1992). A special feature of this school is the ability to solve problems when trying to cut and cut, starting with seven-step meditation (dhyana), which is especially useful for combating the negative effects of stress and encouraging smoking. Yoga techniques for smoking cessation have been suggested but have not been empirically tested (McIver, O'Halloran, & McGartland, 2004; Sahay & Sahay, 2002). A yoga intervention based on social psychology is more effective than a self-help approach in coping with the effects of smoking (Sahrma & Corbin, 2006).

Fig.1



Yoga in Substance Use Disorder Management. (Sarkar & Varshney, 2017)

Yoga intervention for addiction psychiatry can be considered as adjunctive and alternative treatment. In practical, this intervention is best combined with other treatments such as physical therapy or psychotherapy (Sarkar & Varshney, 2017). Khalsa et al. (2008)

YOGA AS THERAPY FOR MENTAL HEALTH investigated the effects of home-based Kundalini-based yoga therapy in eight patients with polydrug addiction (alcohol, opioids, and barbiturates). These subjects were members of a home clinic who practiced Kundalini yoga for ninety days. Compared to baseline, the intervention group indicated improvements in self-reported symptoms, problem severity, and recovery, although perceived stress during the yoga session did not change. Devi et al. (2014) randomly divided a group of drug addicts into a yoga group and a control group; The yoga group took daily yoga classes for 4 weeks. Yoga intervention reduced severity of depressive symptoms in the intervention group for 4 weeks. The intervention also improved quality of life, including physical, mental and health. The above information shows that yoga is used in the treatment of many drug addictions, including tobacco, alcohol, opioids, and others. It is often used as an adjunctive treatment to complement other medical treatments for substance abuse (Sarkar & Varshney, 2017). It can be used in both outpatient and inpatient settings, with the admonition that yoga sessions should rarely be held in outpatient clinics.

Personality Disorders

Personality is something unique that every person thinks, acts, and needs throughout their life. According to Allport (1961), personality is a dynamic organization in the psychophysiological system that determines the characteristics of a person's behavior and thoughts. According to Cattell (1950), attitude is something that predicts how a person will behave in any given situation. A negative attitude is a persistent pattern of behavior and internal experiences that are significantly affected by one's leadership expectations, influence, and change. Yes, it begins early in old age, stabilizes over time, and causes damage or stress. They are divided into three groups according to similar explanations. Yoga has been shown to be beneficial as a

complementary treatment for individuals with personality problems. Yoga practices, such as pranayama (breathing exercises), asanas (yoga postures), and meditation, have been shown to reduce symptoms of anxiety and depression, which are common comorbidities of personality disorders. Additionally, the mindfulness and self-awareness practices incorporated in yoga may help individuals with alcohol addiction with personality to gain insight into their own thoughts and emotions, which can be beneficial in therapy. Research has shown that individuals with personality disorders who suffer from alcohol addiction may have additional benefit from practicing yoga. Yoga has been found to help individuals with personality disorders improve emotional regulation, stress management, and self-awareness, which can be particularly beneficial for individuals who struggle with impulsivity and emotional regulation. Additionally, Yoga may also help to reduce symptoms of anxiety and depression associated with alcohol addiction and personality disorders. It is important to note that while yoga may be helpful as a complementary treatment for individuals with personality disorders and alcohol addiction, it should not be used as a replacement for conventional therapy or medication.

YOGA AND SOCIAL COGNITION

Humans are better able to understand and evaluate social situation by understanding other people's minds, facial expression, prosody of speech, body posture, emotions, and intentions (Uekermann & Daum, 2008). All together such processes are incorporated under the umbrella of term Social Cognition. Social cognition is defined as psychological functionality in social relationships (Brothers, 1990). The most common cognitive skills in schizophrenia are Mind Thinking (ToM), Thinking (EP), Perception (SP), Intelligence, and Intelligence (AS) (Couture et al., 2006; Penn et al., 2008). Apart from positive

YOGA AS THERAPY FOR MENTAL HEALTH symptoms, there is no effective treatment for negative symptoms and cognitive symptoms (including social cognition) (Buckley and Stahl, 2007). Additionally, current treatments are not without side effects. Some cause extrapyramidal side effects and some cause metabolic effects (Abbott, 2010). Psychological interventions can target some or most social cognition, with or without neurocognitive training. But many of these [such as Clinical Cognitive Training (CET), Social Cognitive Training (SCIT)] are effective products and the question is whether they work well in all countries. These are also designed for Western patients, and their cultural impact on other cultures is questionable. Additionally, the magnitude of benefits provided by these interventions varies (size 0.30–1.29) (Kurtz et al., 2016), and the extent to which they improve work is not a good measure. The uniqueness of yoga among complementary therapies is that, unlike other therapies, it is a treatment for the body, breath and mind. Yoga has been shown to be beneficial for cognitive development in healthy adults and older adults (Gothe & McAuley, 2015).

Yoga has been shown to have a positive effect on social cognition, which includes aspects of mental functioning such as perception, attention, memory, and decision-making related to social interactions. Studies have found that practicing yoga can improve empathy, emotional regulation, and theory of mind, which are all important components of social cognition. Additionally, yoga may also improve attention and memory, which can be beneficial for social interactions and communication. Overall, yoga has the potential to positively impact an individual's social cognition, making it easier to navigate social interactions and relationships.

YOGA AND ELECTROENCEPHALOGRAPHY (EEG) /EVENT RELATED POTENTIALS (ERP)

In a study using emotional intelligence, EEG

showed increased emotion-related gamma activity (Lutz et al., 2004). A study found that after doing yoga, alpha, beta, delta and theta wave energy in the frontal and occipital regions of the right brain was better than that of the left brain. For this reason, the right side of the brain shows more power than the left side (Kochupillai, 2015). Additionally, after doing yoga in 2016, an increase in alpha power and a significant difference in gamma, alpha, and theta2 rhythms were observed.

After doing yoga, the amplitude of mismatch negativity (MMN) increases and therefore the interest and prioritization of ERP studies increases (Srinivasan & Baijal, 2007). Also in 2011, this study showed a decline in ERP; as a result, hope and emotional control are better after yoga (Gootjes et al., 2011).

The P300 ERP is a neural response that occurs about 300 milliseconds after the presentation of an infrequent or unexpected stimulus, such as a target in a visual or auditory oddball task. The P300 is thought to reflect cognitive processes such as attention allocation and decision-making and is often used as a measure of cognitive function. Facial emotional recognition is the ability to identify and understand the emotions being expressed by another person's face. It involves the neural processing of facial cues such as eye gaze, facial expressions, and other nonverbal cues. Research has shown that the P300 is related to facial emotional recognition. Studies have found that the amplitude and latency of the P300 is modulated by the valence (positive or negative) and the intensity of the facial expression. Moreover, individuals with higher P300 amplitude and shorter latency tend to score higher in facial emotional recognition tests. The P300 is a neural response that occurs in response to

YOGA AS THERAPY FOR MENTAL HEALTH
infrequent or unexpected stimuli, and it is related to cognitive processes such as attention allocation and decision-making (Chandra et al., 2016). Research has shown that the P300 is also related to facial emotional recognition, with studies suggesting that the amplitude and latency of the P300 is modulated by the valence and intensity of the facial expression, and individuals with higher P300 amplitude and shorter latency tend to score higher in facial emotional recognition tests.

CONCLUSION

Yoga is a developing science as therapy, and there is not much evidence to prove direct effect of Yoga Therapy in mental health, while it is used as adjunctive with traditional treatment. Yoga can utilize positively for better mental health by reducing stress, improving mood, enhancing emotional regulation, promoting better sleep, increasing resilience, boosting self-esteem, fostering social connection, and improving focus and concentration. While it offers valuable mental health benefits, it should be seen as a complement to, not a replacement for, traditional treatment. Overall, it can incorporate into individuals' mental well-being and overall health. Further studies are needed to find out the effect of various Yoga practices in mental health.

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Conflict of interest: None

Role of funding source: None