

Exploring the Psychological Dimensions of Yoga: A Scientific and Therapeutic Perspective

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Abstract: *The present study explores psychological aspects of yoga from a scientific and therapeutic perspective, with the goal of yoga to be established as a holistic framework for mental wellbeing. Although traditionally viewed as a largely physical and spiritual practice, yoga has increasingly gained recognition in the field of psychological research as a result of its complex effects on human functioning. Accordingly, this manuscript adopts an analytical methodology to scrutinize the effects of yogic practices on cognitive processes, regulation of emotional states, behavioral patterns and physiological responses. With its reliance on the empirical evidence gathered and the theorized constructs, the present research highlights the method of integration of yoga in modern psychological modalities, such as mindfulness and cognitive-behavioral therapy. It provides a critical review of the mechanisms by which yoga enhances self awareness, stress levels and psychological strength. The analysis further outlines on salient restraints that are prominent in the existing fringe of literature, in particular, methodological inconsistencies, absence of standardised protocols and lack of extensive longitudinal investigations. The results suggest that yoga is a comprehensive and integrative model that complements contemporary psychological interventions and particularly in the area of mental health promotion and therapeutic application. In addition, the study called for the necessity to be interdisciplinary in order to overcome a gap between the traditional yogic philosophy and contemporary psychological science. In sum, the aim of this review is to suggest that yoga is a scientifically valid and therapeutically efficacious method and thus holds a significant implication on future studies and clinical practice in the psychological field.*

Keywords: Yoga, Psychological well-being, Mindfulness, Emotional regulation, Cognitive processes, Stress reduction, Therapeutic intervention, Mental health.

I. INTRODUCTION

In the modern age, with the rapid development of technology, urbanization, and growing socio-economic pressures, psychological problems like stress, anxiety, depression, emotional instability etc have greatly contributed to the increasing number of psychological problems. The high-paced lifestyle, along with digital overload and reduced social connectedness, has led to a mental health crisis being experienced to cross-age levels. While modern psychology has developed a plethora of therapeutic techniques, that is, Cognitive Behavioral Therapy (CBT), mindfulness-based treatments, and pharmacological treatments, these interventions often focus on an emphasis on alleviation of symptoms rather than holistic well-being. Accordingly, both researchers and practitioners are becoming more likely to explore integrative and alternative paradigms that simultaneously consider the mind, body, and emotions in an integrated way. Yoga, an old science ingrained in the body of Indian philosophical knowledge, has gained recognition as a holistic modality. The nomenclature of "Yoga" is Etymologically derived from Sanskrit word "Yuj" meaning union or integration which encompasses the synergist play between corporeal, psychological as well as conscious dimension. Canonical literature, most notably Patanjali's Yoga Sutras, defines Yoga as "Chitta Vritti Nirodha," which refers to the



regulation or halting of cognitive fluctuations. Traditionally, Yoga consists of several parts, such as asanas (somatic postures), pranayama (respiratory regulation) and dhyana (meditative concentration). Although asanas primarily foster somatic health and relaxation, pranayama influences respiratory normative processes and has an impact on affective states in addition to providing dhyana for the benefits of heightened attention, lucidity and cognizance of states. Consequently, Yoga is an integrative system above the apparent physical exercise form to embrace with disciplined cognition and affective equilibrium.

From a psychological perspective, yoga can be described in several dimensions that are associated with major domains of human functioning. First, the cognitive dimension of yoga consists of the improvement of attention, concentration, and mental clarity. The practice of meditation can help people to observe their thoughts without judgment, which can help to reduce cognitive distortions and enhance decision-making capabilities. Second, the emotional dimension of yoga is related to the regulation of affective states such as stress, anxiety and anger. Techniques such as pranayama stimulate the parasympathetic nervous system, promoting relaxation and emotional stability. Third, the behavioral dimension shows itself through development of discipline, self-control and consistent practice that together contributes to positive changes in lifestyle. Additionally, physiological dimension of yoga plays an important role in its impact of brain functioning, hormonal balance and nervous system functioning, conducive to overall psychological well-being and well-being. These dimensions suggest that yoga works at multiple interconnected levels making it a multidimensional psychological tool.

The nexus between yoga and psychology attains special salience when their coexisting goals of and underlying mechanisms are discussed. Both disciplines aim to increase self-worth, regulate the affective state and increase general well-being. Contemporary psychological interventions, such as mindfulness based practices, have considerable resemblance with yogic meditative approaches, which emphasize the present moment awareness and non-judgmental observation of cognition. Likewise, cognitive therapies attempt to reprogram maladaptive propositional structures whereas yoga has an indirect effect on the cognitive process through heightened awareness as well as mental self-regulation. Recent neuroscientific investigations have further supported the psychological advantages of yoga by explaining the effect of yoga on neural substrates implicated in attention and affective regulation as well as in the stress response.

Despite these similarities, however, yoga differs from the conventional psychological approaches in its holistically experiential nature. While common practice in psychology involves a structured intervention process, as well as measurable results, yoga emphasizes self-practice, self-awareness, and lasting transformation. This differentiation emphasizes both the possible potential benefits and challenges of the use of yoga within the framework of mainstream psychology. Concurrently, a systematic study of yoga from a psychological standpoint is of utmost importance to bridge the gap between the ancient and modern knowledge.

The purpose of the current research is to explore the psychological aspects of yoga and assess its scientific and therapeutic application. This paper will examine the theoretical basis, psychological processes and integration potential of yoga in order to help develop an overall framework that provides a link between yoga and modern psychological theory and practice.

II. REVIEW OF LITERATURE

The growing popularity of yoga as a comprehensive way of dealing with mental health led to more and more empirical studies of its psychological, therapeutic impacts. Attempts to integrate Eastern contemplative practices into Western psychology have a rather long history starting with Kabat-Zinn (1990) who came up with a Mindfulness-based stress reduction (MBSR) program. His studies showed that mindfulness-based interventions have significant stress, anxiety, and chronic pain alleviation effects, creating a scientific basis behind the interventions based on being mindful. It has been said that mindfulness is often rooted in Buddhist tradition; although conceptually similar to yogic meditation, it is more similar to yogic meditation in its aim of developing awareness of the present moment and non-judgmental awareness of thoughts. Expounding on this, Brown and Ryan (2003) discovered that mindfulness has close



relationships with psychological well-being in terms of the increased emotional regulation and decreased psychological distress. But their work is rather focused on awareness of cognition and does not reflect to a full extent physiological and behavioral aspects that lie at the heart of yoga.

Later studies have given neuroscientific support to the psychological benefits of yoga. Streeter et al. (2012) established that there is the elevation of gamma-aminobutyric acid (GABA) which is a neurotransmitter that impacts anxiety and mood enhancement. This observation is an indication that yoga has a direct neurochemical effect on emotional regulation, which increases its scientific plausibility. On the same note, Field (2011) found that yoga also lowers cortisol by a great percentage which shows that the stress response is lowered and at the same time the mood and emotional balance are increased. These results highlight the importance of yoga at regulating physiological and psychological mechanisms together. In addition, Gard et al. (2014) discovered that yoga improves executive functioning, such as attention control, working memory, and cognitive flexibility. This fact suggests not only that yoga is useful in terms of emotional health but also that it has a significant influence on enhancing cognitive functioning.

Besides the cognitive and physiological implications, yoga has gained growing acceptance as a treatment option in the field of clinical psychology. Uebelacker et al. (2010) discovered that yoga can be an effective adjunctive therapy to depression or when used alongside traditional psychotherapeutic systems. Similarly, Ross and Thomas (2010) made a comparison between yoga and conventional physical activity and found out that yoga produced better effects in mental health, including anxiety decrease and mood improvement. These results indicate that yoga has advantages more than physical exercise due to its mind-body approach that combines physical exercise with mental consciousness.

The psychological importance of yoga practice is also further supported by empirical studies of the regulation of emotions. Shapiro, et al. (2006) hypothesized that self-awareness is a central process, by which mindfulness and meditation enable one to adjust the state of affect. Yoga supplements this process through the incorporation of breath control and somatic awareness thus providing a more comprehensive approach to the control of emotional reactions. Regular practice of yoga has been associated with moderate emotional responsiveness, resilience, and self-regulation.

However, the existing body of literature is marred with a number of limitations. A majority of the research has focused on isolated psychological products and not questioning yoga as a system of integration. In addition, the diversity of modalities of yoga, the lack of universal practices, and the lack of longitudinal studies limit the extrapolations of these results. Furthermore, there is still a lack of theoretical synthesis between classical yogic doctrine and modern psychological constructs, and many studies take a descriptive, not an analytical approach.

In general, the literature suggests that yoga has much potential as a psychological and therapeutic tool. However, a need to have a single conceptual framework that coherently describes its multifaceted effects on cognition, emotion, physiology, and behavior remains. Such an integrative approach would not only strengthen the empirical basis of yoga but would also help to make its application in a clinical, educational, and research setting effective.

III. METHODOLOGY

Objectives:

1. To examine the psychological dimensions of yoga in terms of cognitive, emotional, behavioral, and physiological aspects.
2. To analyze the scientific and therapeutic relevance of yoga in the context of modern psychology.
3. To explore the relationship between yogic practices and contemporary psychological approaches such as mindfulness and cognitive behavioral therapy.
4. To critically evaluate existing literature on yoga and mental health.
5. To develop a conceptual understanding of yoga as a multidimensional psychological system.
6. To identify research gaps and suggest future directions for yoga-based psychological research.

The current study follows a descriptive-analytic research design to specifically focus on the psychological aspects of yoga and its scientific/therapeutic value. The overall objective of this type of research design is to critically analyze and



evaluate existing theories, studies, and perspectives in the domain of yoga and psychology and develop an integrative perspective to understand their interrelationship.

Research Design

The present study is qualitative in nature and follows a descriptive-analytic research design. In this type of design, while the descriptive part focuses specifically on providing an overview of concepts relevant to yoga and its psychological correlates, the analytic part focuses specifically on critically evaluating existing literature. In this study, no experimental manipulation is required; instead, it is based on its theoretical interpretations and synthesis.

Sources of Data

The study is based entirely on secondary data sources, which include:

- Peer-reviewed journal articles related to yoga and psychology
- Books and classical texts on yoga, such as Patanjali's Yoga Sutras
- Research studies on mindfulness, cognitive behavioral therapy, and yoga-based interventions
- Reports and publications from psychological and health organizations.

Selection Criteria for Literature

The following criteria were used for selecting literature:

- Studies published in reputed peer-reviewed journals
- Research focusing on psychological outcomes such as stress, anxiety, cognition, and emotional regulation
- Studies that explore yoga, meditation, or mindfulness-based interventions
- Recent and widely cited research to ensure scientific validity

IV. ANALYTICAL FRAMEWORK

The given study relies on the multidimensional analytic model to explore yoga as a psychological construct that includes cognitive, affective, behavioral, and neurophysiological settings. As an alternative to previous reductionist paradigms where discrete variables normally remain isolated, this framework organizes yoga as an integrative system, which simultaneously mediates many levels of human functioning. Its analytical perspective lies within modern psychological theoretical schools of thought (self-regulation theory, mindfulness-based models, cognitive-behavioral models, neuropsychological processes).

The main assumption of the framework is that yoga is an organized psychophysiological therapy and is not a purely somatic activity, which enhances inner awareness and self-regulation ability. Meditation and concentration on breathing (pranayama) are some of the cognitive practices which encourage an attentional regulation, cognitive flexibility, and metacognition awareness. These impacts are related to executive-function processes particularly those moderated by prefrontal cortex, a subservient of the planning, decision making and impulse control. Empirical evidence shows that consistent practice of yoga enhances the attentional networks and prevents the mental distortions that lead to poor psychological functioning.

Yoga, in terms of affect, is a critical mode of emotional control. Combined with the ability to become aware of, interpret, and regulate affective responses, the coordination of the process of controlled diaphragmatic respiration and sustained mindful attention allows one to achieve it. This conforms to Gross's process model of emotion regulation, which sees individuals develop the ability to re-evaluate and effectively deal with affective stimuli. Also, yoga helps to reduce clinical symptoms of anxiety, depression, and stress caused by the reduction of physiological arousal and the development of a relaxation state. Activation of the parasympathetic nervous system which is popularly referred to as the rest and digest response is an important central process by which yoga has its calming effects.

On the behavioral level yoga advocates patterns of adaptive response through practice of discipline, steadiness and mindful action. Frequent practice of yoga instills behaviours that strengthen psychological resilience and counter



maladaptive behaviours of impulsivity and avoidance. In the contexts of the cognitive-behavioural theory, yoga can be interpreted as a treatment that alters cognitive-evaluations and behavioural reactions so as to create a positive feedback loop which constitutes a process that strengthens the overall wellbeing.

The neurophysiological aspect of the model also contributes to the factual grounds of yoga as a psychological intervention. Empirical studies show that yoga can alter brain structure and functionality, and cortical thickness in the areas involved in attentional control and sensory processing has been proven. Furthermore, yoga has been linked with increased levels of gamma -aminobutyric acid (GABA) which is a neurotransmitter that has been linked to anxiolytic activity and mood elevation. All this data may indicate that yoga produces neuroplastic changes that support long-term psychological health.

V. DEVELOPMENTAL MODEL

The theoretical framework put across in this paper has been developed by synthesizing four key dimensions, which include cognitive, emotional, behavioral, and neurophysiological. Based on the model, yoga practice is considered to be an independent variable which has an impact on these psychological domains which in turn are seen to be mediating variables that help in the enhancement of psychological well-being. In this context, the concept of psychological well-being is determined as a multidimensional construct that includes lessened stress, heightened emotional stability, augmented mental clarity, and augmented level of overall life contentment.

The model can be seen as a dynamic system, as opposed to the simple linear sequence. Yoga interventions promote such changes in the physiological conditions that, consequently, influence the cognitive and emotional operations. These changes are not independent and complement each other. As an illustration, cognitive ability of augmentation of attentional control can be capable of promoting better emotional regulation that subsequently promotes adaptive behavioral responses. Similarly, neurophysiological changes, including the decrease in the level of cortisol, help to make the state of mind calmer and, consequently, improve cognitive and emotional performance.

Moreover, the construct of self-awareness is added to the model as one of the key mediating variables. Self-awareness, which is developed through mindfulness and self-reflecting activities, acts as a bridge between the independent psychological areas. It allows one to evaluate their cognitive processes, affective states and actions free of evaluative bias thus encouraging self-regulation and psychological growth. This aligns with the conceptualization of mindfulness-based interventions in general, where awareness is the hypothesized factor of change.

The model also acknowledges the effect of moderating factors- age, gender, frequency of practice as well as individual psychological predispositions. The variables have the ability to adjust the size of the yoga impact on psychological results. An example is that individuals who have high baseline stress can find more benefits in yoga as compared to those who have low stress levels. Similarly, long-term practitioners can be more impressive with significant neurophysiological changes compared to novices.

Apart from the above-mentioned theoretical significance of the proposed conceptual model of yoga, it also has practical significance for therapeutic interventions. It provides a framework for incorporating yoga in therapeutic modalities of psychology, especially for stress management, anxiety disorders, and emotional regulation problems.

In conclusion, the analytical framework and conceptual model of yoga that have been proposed in the present study provide a comprehensive and scientific understanding of yoga as a psychological intervention. The cognitive, emotional, behavioral, and neurophysiological aspects of the proposed model highlight the complexity of yoga and its potential to positively impact psychological well-being. Further research is required to validate the present model of yoga through scientific research to provide more concrete evidence of the efficacy of yoga as a psychological intervention from the perspective of the discipline of psychology.



VI. RESULTS

An overview of the existing literature and theoretical frameworks reveals that yoga has a significant multidimensional impact on psychological processes. The findings based on the existing literature and previous studies on the topic reveal that yoga practices have a significant impact on cognitive, emotional, behavioral, and neurophysiological processes.

In terms of cognitive processes, yoga practices have shown a significant impact on attentional control, mental clarity, and meta-cognitive processes. Meditation and pranayama practices have shown significant effects on executive functioning in terms of enhanced concentration and decision-making. Such effects are significant in contexts that require sustained attention.

In terms of emotional regulation, it can be concluded that yoga helps to alleviate the symptoms of stress, anxiety, and depression. This is owing to the fact that the practices of yoga, such as control of breathing and mindfulness, lead to reduced physiological arousal as well as emotional balance. This is evident from the various studies that show that yoga practitioners experience improved mood stability.

In terms of relating to behavior, it can be concluded that yoga helps to create positive response patterns by instilling discipline, regularity, and self-regulation. This is owing to the fact that yoga practitioners exhibit reduced impulsivity as well as positive behaviors. This behavior change is closely related to the concept of mindfulness.

The neurophysiological findings confirm the psychological benefits of yoga. Empirical research suggests that yoga influences brain structures and functions, including increased cortical thickness in areas of the brain that control attention and emotional regulation. Additionally, yoga has been linked to increased gamma-aminobutyric acid (GABA) levels and autonomic nervous system regulation, which reduces stress and increases relaxation. All these findings indicate that yoga is an integrative practice that concurrently influences multiple psychological domains to enhance overall psychological well-being.

VII. DISCUSSION

The present study provides a comprehensive analytical study of the psychological aspects of yoga. It conceives yoga as a multidimensional construct that transcends the general idea of physical exercises. The review of the literature and conceptual analysis of the construct of yoga reveal that yoga functions concurrently at the cognitive, emotional, behavioral, and physiological levels. This multidimensional nature of yoga differentiates it from modern psychological constructs that often focus on these aspects individually.

From a cognitive perspective, yoga, through meditation techniques, helps individuals develop attention control, mental clarity, and awareness. While cognitive behavioral therapy (CBT) focuses on the cognitive transformation of individuals through direct intervention in their cognitive processes, yoga facilitates cognitive change indirectly through the development of mindful awareness. This suggests that yoga is not only changing thoughts; it is changing the way individuals relate to their thoughts. This is more likely to bring cognitive transformation at a deeper level than other techniques. This perspective is consistent with modern psychological constructs that emphasize metacognition and self-awareness as critical determinants of mental health.

In the domain of emotional regulation, the analysis highlights the significant contribution of pranayama and meditation techniques in emotional control. By impacting the autonomic nervous system, especially through the activation of the parasympathetic subdivision of the nervous system, yoga helps to alleviate physiological arousal that is typically related to stress and anxiety. This biological mechanism is considered to be a unique advantage of yoga when compared to other purely cognitive approaches to emotional regulation. This is because yoga impacts emotional regulation at both the physiological and psychological levels. In this sense, yoga is considered to be a powerful tool for improving emotional stability.

In the behavioral domain of functioning, yoga is considered to promote discipline, regularity, and self-regulation, which are considered to be critical aspects of adaptive functioning. Regular engagement in yoga practices is considered to



promote positive behavioral traits, including self-control. However, it is important to note that yoga is purely self-driven and requires regular practice. This is considered to be a potential limitation of yoga as a therapeutic intervention. The comparison between yoga and contemporary psychological practices reveals similarities as well as differences. Mindfulness-based therapies show considerable similarity with yogic meditation practices. However, they are lacking in physical and physiological components that are an integral part of yoga. Similarly, while CBT practices show considerable structure and outcome in terms of measurable results, they are devoid of holistic integration with physical and respiratory components that are an integral part of yoga. This reveals that yoga and contemporary psychology can be seen as complementary practices that can be integrated to achieve better results.

Despite the positive findings in support of yoga as an effective psychological intervention, several challenges in its acceptance as a mainstream psychological practice are identified in the study. The most important challenge relates to the absence of standardized yoga practices, which are reflected in the variety in intervention designs and the lack of long-term empirical studies to prove its efficacy in psychology. Additionally, the lack of a unified theoretical model to explain the process and mechanism of its impact on psychological health represents an important gap in contemporary psychology.

The above discussion reveals that yoga is an important psychological intervention that can be used to promote mental health in an holistic manner. Its potential to integrate different dimensions of human psychology lies in its holistic nature. However, to ensure its integration into contemporary psychology as an important tool to promote mental health, it is important to develop standardized practices in yoga and conduct rigorous research to ensure its integration with contemporary psychology.

VIII. CONCLUSION

This study undertakes a critical analysis of the psychological aspects of yoga, with a focus on its importance as a holistic practice for mental well-being. The analysis reveals that yoga transcends its common interpretation as a physical practice, instead serving as a multidimensional framework that affects various aspects of cognitive, emotional, behavioral, and physiological human functioning. Through the practice of asanas, pranayamas, meditation, and other related practices, yoga enables an individual to attain greater self-awareness, emotional balance, cognitive clarity, and behavioral control.

The analysis reveals that yoga resonates with a number of psychological principles, especially with respect to mindfulness, emotional regulation, and self-development. Nevertheless, whereas conventional psychological practices focus primarily on isolated aspects of psychological functioning, yoga provides a holistic framework that treats the individual as a whole. This holistic framework of yoga makes it an important practice in the realm of mental health.

Furthermore, the study reveals a number of critical limitations with respect to the extant research, including a lack of standardized intervention protocols, a lack of large-scale studies, and a lack of a unified theory that links yoga with contemporary psychological theories. These limitations hinder the greater acceptance and application of yoga as a psychological practice.

In conclusion, the study reveals that yoga has tremendous potential as a scientific and therapeutic practice for the improvement of mental well-being. The integration of yoga with contemporary psychological theories has the potential of improving the efficacy of conventional therapeutic practices, as well as providing a more holistic understanding of human psychology.

IX. IMPLICATION OF THE STUDY

The results of this study have important implications in a variety of fields, including education, clinical psychology, and public health.

If viewed from an educational point of view, the incorporation of yoga in the curriculum may have a positive impact on the concentration, emotional stability, and mental health of students. The incorporation of yoga in the educational environment may also contribute to the inculcation of important life skills in young minds.



If viewed from a clinical point of view, the incorporation of yoga may be used in conjunction with existing forms of therapy. The ability to influence physiological and psychological processes simultaneously makes it a powerful tool in the treatment of stress, anxiety, and even mild to moderate forms of depression. However, to effectively incorporate this in the clinical environment, it is important to develop models.

If viewed from a social point of view, the incorporation of yoga in the mental health environment may prove to be an important tool in the promotion of mental health. In the current scenario, where mental health problems are on the rise, this may prove to be an important tool in the prevention and promotion of mental health.

Moreover, this study highlights the importance of inter-disciplinary research in the fields of psychology, neuroscience, and traditional yoga studies, which may have important implications in the development of new models and the expansion of the scope of this important psychological discipline.

Scope and Limitation

The scope of this study is limited to the examination of existing literature. It does not extend to the collection of primary data or experimental validation of the study. Accordingly, although the study provides valuable insights into the topic, it is based upon interpretation rather than actual evidence. Further, there are differences in yoga practices and research methodologies that may affect the overall validity of the study.

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