



Evaluating the Efficacy of Yoga Based Coping Strategies with YBCSQ: A Cross-Sectional Pilot Study

Viral Raval¹, Dr. C. Nagraj², Dr. Dinesh Panchal³

Lakulish Yoga University

ABSTRACT

Background: Coping, in the context of stress and challenges, includes various strategies and approaches that individuals naturally employ to manage and navigate difficult situations. The Yogasutras prescribe an efficient course and a set of techniques for managing and mastering emotions, with the overarching goal of stabilizing the mind and purifying the Chitta (consciousness), as coping strategies.

Material and Methods: A cross-sectional online survey was conducted among 160 individuals in which 80 were Yoga practitioners and 80 were Non-Yoga practitioners. This study used as self administered study tool using the online Google form platform for data collection and assessed the efficacy of Yoga based coping strategies in variety of situations by using YBCSQ. A multivariable binary logistic regression analysis was done to find out the efficacy of coping strategies.

Results: Yoga group demonstrated comparatively better coping skills (148.6 ± 7.4) than Non-Yoga group (130.6 ± 8). Data analysis had shown highly significant values ($P < 0.001$).

Conclusion: The results observed in this study indicate that Yoga based responses might be utilized as effective coping strategies for variety of demanding situations. Though the demanding situations are highly subjective in nature but can be classified into four categories as described by Maharshi Patanjali in Yogasutra, and the responses shown towards all such demanding situations are proven to be highly effective coping strategies in order to obtain the psychic harmony or Chitta Prasadana.

Key words: Coping Strategies, Yogasutra, YBCSQ, Chitta Prasadana,

Introduction

Coping:

Coping, in the context of stress and challenges, includes various strategies and approaches that individuals naturally employ to manage and navigate difficult situations. The term “coping” is derived from the idea of effectively dealing with or successfully managing these challenges. In the field of stress psychology, coping has two main connotations. First, it refers to the specific methods people use to address and handle stressors. Second, it signifies the effort made to gain control over situations involving hurt, fear, or challenges when the usual or automatic responses are not readily available.

According to Lazarusⁱ, “the process of coping involves three main stages: primary appraisal, secondary appraisal, and the actual coping response.” Primary appraisal is the initial assessment of a situation where an individual perceives a potential threat to themselves. Secondary appraisal follows and involves considering potential responses to the perceived threat. Coping, then, is the practical implementation of the chosen response to manage or alleviate the stressor.

Coping encompasses a wide range of behavioural and cognitive hard work that individuals employ to navigate the challenges they encounter in their daily lives. It encompasses the thoughts, emotions, and actions individuals use in response to their environment. While there are countless potential coping strategies, researchers have practically categorized various coping responses to better understand the conception. Coping can also be described as the thoughts or strategies individuals use to address and overcome pessimistic or stressful eventsⁱⁱ.

Coping is a term that distinguishes itself from defence mechanisms, which are typically subconscious or unconscious adaptive responses to stressors. While both coping and defence mechanisms aim to reduce or tolerate stress, coping strategies are characterized by their conscious and voluntary natureⁱⁱⁱ.

Coping involves a complex interplay of physiological, psychological, and social factors. It draws upon various aspects of psychological functioning, including emotions, motivations, attention, volition, cognition, and communication, to facilitate adaptive responses to stressors. Social relationships and cultural systems also play a significant role in coping. Coping mechanisms are essential for adjusting to the demands imposed by stressors, which require

better effort and energy than the routine activities of daily life. However, long-standing periods of heightened effort can lead to elevated levels of stress-related hormones and, eventually, physical breakdown and ill health.

Coping includes both normative and individual difference features. Normatively, humans are inherently equipped to cope adaptively with various stressors. Stress, to some extent, is a necessary element for promoting sustained constructive interactions that contribute to personal development and growth. It can serve as a catalyst for individuals to engage in problem-solving and develop resilience. However, it's crucial to recognize that while stress is a part of life, excessive or chronic stress can pose risks. When stress becomes overwhelming, it has the potential to harm individuals and their well-being. Balancing the benefits of stress as a motivator for growth with its potential drawbacks is a complex aspect of coping.

Furthermore, there are substantial variations among individuals and social groups in terms of the resources available for coping. These resources span physiological, psychological, social, and cultural dimensions. Some individuals and groups may possess greater coping resources and resilience, while others may face significant challenges in dealing with stressors. These differences can significantly impact how people respond to and manage stress in their lives.

Coping is a dynamic process that unfolds over time, involving various timeframes and strategies. It operates at different temporal scales, from moment-to-moment interactions to more extended episodic and developmental timescales.

At the most immediate level, coping occurs in real-time during specific stressful situations. Each stressful transaction involves a sequence of moment-to-moment interactions and decisions. As noted by White, "These interactions can be likened to a military operation, involving strategies such as delay, strategic retreat, regrouping, seeking new information, and adapting tactics based on changing circumstances^{iv}". Coping also unfolds over episodic time, encompassing a series of specific real-time transactions. Dealing with ongoing demands and stressors involves a protracted series of individual coping efforts, each contributing to the overall adaptation process.

Additionally, coping strategies evolve over developmental time. As individuals progress through different life stages, the means of coping, as well as the personal and social resources they bring to cope with stress, undergo significant changes and qualitative shifts. Researchers have observed that coping strategies and resources vary across the lifespan, impacting how individuals adapt to stressors^{v,vi}.

Efforts to determine the effectiveness of coping strategies have led to a consensus on specific criteria. Effective coping involves factors such as the removal of the stressor, a reduction in the psychological stress reaction and subjective distress, the ability to function normally, the resumption of interrupted activities, improved physical and subjective well-being, maintained self-esteem, and individual satisfaction with their coping efforts. While there is general agreement on what active coping looks like, there are less consent on how to define and describe specific coping strategies and their relative effectiveness^{vii}.

Yoga:

The term 'Yoga' incorporates a range of meanings, from union and integration to concentration, discipline, and control. Its essence lies in achieving a state of equanimity, where the mind is free from distractions and disturbances, leading to a deep connection with the self and the universe. The Bhagavad Gita and Patanjali's Yoga Sutras provide profound insights into the multifaceted nature of Yoga and its significance in human spiritual and mental development. Indeed, the term 'Yoga' encapsulates the notion of comprehensive functional integration, especially at the highest echelons of spiritual and psychosomatic development. It not only promotes physical health but also fosters a profound sense of well-being that encompasses the senses, the mind, and the soul in unison. Consequently, Yoga has articulated various physical and mental practices and methodologies aimed at mitigating the detrimental influences emanating from both within and outside the individual's being. These practices serve as a pathway to harmonize and balance the multifaceted dimensions of human existence, ultimately leading to a state of holistic well-being.

Processes and techniques of Yoga exist for the management, refinement, and transformation of emotions, particularly the conversion of negative emotions into positive ones. Diligent Yoga practice is essential for nurturing and augmenting positive emotional states. In instances where the mind becomes disturbed due to inappropriate thoughts, emotions, or actions, such as violence, it is imperative to engage in contemplation of opposing thoughts. It becomes essential to scrutinize whether these actions were initiated personally, executed through intermediaries, or endorsed. Regardless of their origin or whether they are driven by passion, anger, or delusion, such actions result in perpetual suffering and ignorance, as elucidated in Sutra 2.34. Emotions, as they arise in the mind, enable individuals to react personally and immediately to sensory stimuli. They represent a personal response to sensory input, fostering a sense of fear towards sources of pain and desire for experiences that yield pleasure. However, emotions have the capacity to distort the objectivity of the mind, leading to mistaken perceptions. Therefore, it becomes imperative to cultivate specific mental outlooks that can diminish the overpowering influence of emotions^{viii}.

It is important to note that Patanjali's focus in this context is not centred on addressing the fundamental issue of human anguish and unhappiness. Instead, he directs his attention to those settings of the mind that engender Vikshepa, disturbances, and disrupt the practice of Dharana (concentration), Dhyana (meditation), and Samadhi (absorption). This issue is of a more circumscribed nature, necessitating the adoption of more targeted and specific means for resolution.

The Yogasutras prescribe an efficient course and a set of techniques for managing and mastering emotions, with the overarching goal of stabilizing the mind and purifying the Chitta (consciousness). This approach is elucidated in Sutras 1.32 to 1.39. Moreover, Patanjali introduces the concept and practice of Ashtanga Yoga, comprising eight limbs, to address these aspects comprehensively.

Available Coping Strategies

Coping strategies are diverse and can vary based on the specific stressors individuals encounter. Various models and questionnaires, such as **Folkman and Lazarus**^{xix} Ways of Coping Questionnaire and **Charles Carver and colleagues**^{xx} Coping Orientation of Problem Experience (COPE), have identified several common coping strategies or categories:

1. **Acceptance:** Acknowledging and accepting the situation or one's role in it without attempting to change it. This can be a way to find peace with uncontrollable stressors.
2. **Active/Problem-Focused Coping:** Taking proactive steps to remove the stressor or oneself from the stressful situation. This approach involves addressing the root cause of the stress.
3. **Anticipatory Coping:** Preparing and planning for an expected but uncontrollable event, such as a major life change or natural disaster.
4. **Avoidance:** Deliberately avoiding the stressor or the associated feelings of distress. This can be a temporary way to reduce immediate discomfort.
5. **Denial:** Refusing to acknowledge the existence of the problem or one's emotional response to it. Denial can be a defence mechanism.
6. **Disengagement:** Physically or mentally disengaging from the situation or stressor. This can involve distractions or withdrawing from the problem temporarily.
7. **Distancing:** Minimizing the significance of the stressor by mentally distancing oneself from it. This can help reduce the emotional impact.
8. **Problem-Solving:** Planning and strategizing steps to solve the problem causing stress. It involves active efforts to address the stressor.
9. **Positive Reinterpretation:** Viewing the stressor as an opportunity for personal growth or a positive experience. This mindset shift can lead to resilience.
10. **Seeking Social Support:** Turning to friends, family, or support networks to share feelings and gain emotional assistance.
11. **Emotion Regulation:** Exerting control over one's emotions and waiting for an appropriate time to act or express feelings.
12. **Substance Use:** Using substances like alcohol or drugs to numb or cope with emotional distress, although this is not a healthy coping strategy.
13. **Suppression:** Suppressing competing activities and focusing on addressing the immediate problem until it subsides.
14. **Religion/Spirituality:** Turning to religious or spiritual beliefs and practices for comfort and guidance in times of stress.
15. **Humour:** Using humour as a coping mechanism to find lightness or irony in challenging situations.
16. **Emotional Venting:** Expressing emotions, frustrations, or stress through talking or other forms of emotional release.

Coping styles are individuals' characteristic approaches to dealing with stressors. These coping styles are fairly constant traits that influence how a person responds to stressors, and they tend to remain consistent over time and across different situations.^{xi} Coping styles can be thought of as the habitual ways in which individuals cope with life's challenges.

There are numerous coping strategies that individuals can employ when faced with stressors, and these strategies can vary widely. Researchers have identified hundreds of coping strategies^{xii}, and they often categorize these strategies into different coping subtypes to describe how individuals respond to stress. These subtypes are not arbitrary groupings; rather, they are derived based on a conceptual understanding of coping.

The classification of coping strategies into a broader design is a subject of ongoing research and discussion among scholars. Researchers use various methods, such as rational grouping, empirical factor analysis, or a combination of both, to create meaningful categories of coping responses^{xiii}.

Need of exploration of new perspectives

Advancements in medical science have led to the successful conquest of many infectious diseases. This is a significant achievement in the field of medicine and has contributed to longer and healthier lives for many people.^{xiv} Lifestyle-related conditions, such as those associated with diet, exercise, and stress management, have become prevalent health concerns. Most of the existing psychological theories and coping strategies are sometimes not entirely convincing or effective in addressing the complexities of mental health. Several ongoing researches in the field of neuroscience and cognitive science aimed at understanding the mind and the process of cognition. John Searle^{xv} considers consciousness as mind and claims that there is a lack of adequate neurobiological theories to explain consciousness.

The information processing approach to cognition is really a complex and evolving field, and it often draws from various disciplines, including psychology, neuroscience, computer science, and philosophy. Medical books, as well as those on physiology and anatomy, may not extensively cover topics related to the mind, cognition, and cognitive processes. These books may generally refer to these topics as "higher functions of the brain," providing a basic understanding without probing deeply into the complexities of cognition. To gain a deeper understanding of the mind, cognition, and cognitive

processes, the authors suggest turning to philosophical texts. The Yogasutra of Patanjali is specifically mentioned as a resource that extensively addresses questions related the mind.

According to Ganong, “cognition is defined as the awareness of sensation and typically an awareness of its cause”^{xvi}. It is a biological perspective on cognition which is in line with Piaget’s theory of cognition^{xvii}. This hints a connection between the physiological definition of cognition and psychological theories. Clark views that “cognitive science is, in some sense, the science of the mind.” This perspective highlights that cognitive science bridges the gap between psychology and philosophy.^{xviii}

One of the research articles highlights the significance of integrating eastern perspectives on the mind into medical sciences, mainly in the context of psychiatry and psychology. Modern psychologists and psychiatrists may tend to label behaviours or thought processes as abnormal when they are not fully understood. It shows that much psychotherapy may be based on imposing the therapist’s personal views on the patient, which can lead to a lack of conformity to societal norms. This can result in individuals being stigmatized or marginalized for thinking or behaving differently.^{xix} Bernie Siegal quotes that “Science teaches us that we must seem to believe, but we must also believe to see. We must be receptive to possibilities that science has not yet grasped, or we will miss them.”^{xx} This viewpoint encourages receptivity to unconventional or unexplained phenomena.

Usefulness of Yoga based coping strategies

Patanjali’s Yogasutra provides a framework for understanding the mind and its obstacles in an updated and contemporary manner. This perspective is seen as more relevant for mainstream psychology and modern coping strategies. It offers an additional tool to the way the Western world typically perceives the mind and its hindrances. It provides an alternative and complementary viewpoint, offering fresh insights into the human mind. By integrating the principles of Yogasutra into psychology and coping practices, it is believed that more holistic interventions can be developed. These holistic approaches have the potential to address the interconnectedness of the mind and body, taking into account the comprehensive well-being of individuals.

Given the growing need for psychological interventions in contemporary society due to factors like increased competition and stress, it is highly pertinent to explore ancient systems of understanding the mind. Specifically, systems like Yogasutra are valuable because they contain techniques and approaches for alleviating pain and suffering and assisting individuals dealing with psychological issues. By integrating Yogasutra-based coping strategies, it is possible to introduce alternative perspectives on and solutions to the evolving field of psycho-physiological health problems. This can provide fresh proposal into how to address the mental and emotional well-being of individuals in the face of modern challenges.

Methodology

Hypothesis:

Yoga based specific responses to variety of demanding situations maybe utilized as the effective coping strategies.

Aims and objectives of the study:

- To evaluate the efficacy of Yoga based coping strategies.
- Applying selective *Yogasutra* principles to enhance and improve coping strategies in order to deal with stressful conditions.

Design

Cross-sectional pilot study

Sample size

80 participants in each group who have satisfied the selection criteria.

Selection criteria

- Inclusion
 - Yoga practitioners: > 6 months
 - Age group: 20yrs to 45yrs
 - Males and Females
 - Working and Non-working
 - Those who consent to participate in the study
- Exclusion
 - Those who were having co-morbid conditions like CHD, IHD, Paralysis, Asthma, Pregnancy etc.
 - Those who did not consent to participate in the study

Variables

- Independent variable: Yoga practice
- Dependent variable: Coping responses

Parameters

- YBCSQ

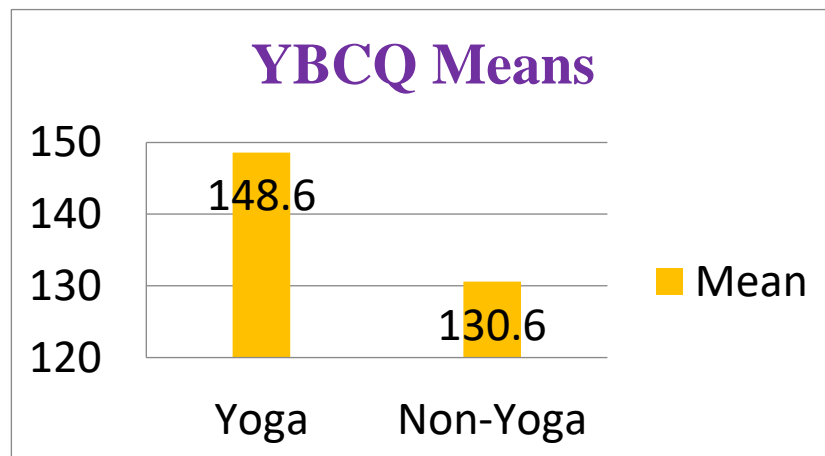
Yoga based coping strategy questionnaire (YBCSQ) has been used as a tool to obtain the nature of coping strategies being used by individuals in order to cop up with the variety of situations. This questionnaire has been developed based principles explained in Yogasutra of Patanjali as the strategic responses to various demanding situations of life.

This questionnaire has four components which are crucial to attain Chittaprasadana (mental tranquility). To obtain the varied degrees of these components forty factors have been synthesized in the form of statements and responses. Through these factors responses from the participants have been collected which have given graded arithmetic values and calculated the sum accordingly for further analysis. (Annexure 1)

Results

Groups	Mean	SD	P-Value	t-Value
Yoga	148.6	7.4	<0.001	14.7735
Non-Yoga	130.6	8		

Graphical Representation



Conclusion and Discussion

The results observed in this study indicate that Yoga based responses might be utilized as effective coping strategies for variety of demanding situations. Though the demanding situations are highly subjective in nature but can be classified into four categories as described by Maharshi Patanjali in Yogasutra, and the responses shown towards all such demanding situations are proven to be highly effective coping strategies in order to obtain the psychic harmony or Chitta Prasadana. Furthermore improvised and widely standardized modules, questionnaires and randomized controlled trials (RCTs) are required to evaluate the efficacy of these coping strategies on larger sample size is warranted.

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