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A STUDY OF YOGA EFFECTIVENESS FOR SENIOR SECONDARY SCHOOL STUDENTS

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ABSTRACT

This study reports on the findings of a qualitative evaluation of a yoga intervention program for senior secondary school students. Six focus groups were conducted with students who participated in a year-long yoga program to determine their perceptions of mental and physical benefits as well as barriers and challenges. Students perceived the benefits of yoga as increased self-regulation, mindfulness, self-esteem, physical conditioning, academic performance, and stress reduction. Barriers and challenges for a yoga practice include lack of time and space. The extent to which the benefits experienced are interrelated to one another is discussed. Suggestions for future research and school-based programming are also offered. Students completed baseline and end-program self-report measures of mood, anxiety, perceived stress, resilience, and other mental and physical health variables. Independent evaluation of individual outcome measures revealed that yoga participants showed statistically significant differences over time relative to controls on measures of anger control and fatigue/inertia. Most outcome measures exhibited a pattern of worsening in the control group over time, whereas changes in the yoga group over time were either minimal or showed slight improvements. These preliminary results suggest that implementation of yoga is acceptable and feasible in a senior secondary school setting and has the potential of playing a protective or preventive role in maintaining mental and physical health.



KEYWORDS: Yoga, Effectiveness, senior secondary school students, mental and physical benefits.

INTRODUCTION: Yoga is an ancient Indian science and way of life that includes not only physical movements and postures but also regulates breathing and meditation. It appears that following Yoga practice, the participants were better able to focus their mental resources, process information quickly, more accurately and also learn, hold, and update pieces of information more effectively. The presence of Yoga in main stream in Indian culture has grown dramatically during past 15 years. Yoga is a mind – body practice that combines physical postures, breathing exercises, and meditative practices, with the goal of unifying the physical, mental, and emotional selves. Research has proven that regular practice of yoga helps in the development of the body, mind, and spirit, leading to healthier and more fulfilling life (Ray, et al, 2001). A part from the achieving physical health, yoga can maintain cognitive control, specifically in the area of attention and memory (Heriza, 2004; Oken et al, 2006). Studies have been conducted to analyze the effect of yoga practices on attention – concentration and memory.

Yoga has shown a positive impact on mental health and well-being, attention – concentration, memory and physical fitness. Yoga can increase student’s ability to concentrate, focus and improve memory (Galantino et al, 2008). Incorporating physical activity in to daily lives of students is essential to their health and well-being (Williams & Ellis, 2013). One form of physical activity entering schools is yoga. It increases academic performance and stimulates brain (Harr, Doneyko and Lee, 2012).

Banda and Kercood (2012) on 10-12 years children found that yoga exercises increases concentration of attention, quality of life, overall well-being and energy (Oken, 2006). Practicing yoga has been associated with numerous benefits. The number of empirical studies conducted on yoga has risen in the past 15 years, but the field of yoga research continues to advance slowly. Many of the published studies have been exploratory in nature, and have been limited by various methodological and statistical weaknesses. Additionally, although yoga is making its way into school and extracurricular

programs, there is very little research on the impact of yoga on adolescents, and much of this small body of research is limited by poor methodological quality (Birdee et al, 2009).

As indicated by the research cited, the effects of Yoga on memory and attention capacity are inconclusive at best. Many researchers combined traditional Yoga poses with meditation or other form of exercise. Some did not directly compare experimental group with control group; and in some instances, control group did not exist. Lastly, much of the existing Yoga research is centered geographically in a region known for its belief in the physical, mental and spiritual benefits of Yoga. This fact may introduce a bias on the part of the investigators or participants. Adolescent Development: Adolescence is characterized by dramatic biological, cognitive and social changes including changes in physical stature and appearance, improvements in cognition and executive function, increases in emotional activity and self – reflection, and changes in self-concept and identity. The adolescent years are a time of exploring new ways of thinking about one's self and one's interaction with surrounding



environments. Engaging adolescents to yoga – practice that emphasizes self-awareness and self-acceptance – may offer protection against declines in body – satisfaction.

REVIEW OF LITERATURE: Health is perceived as multidimensional process involving the well-being of the whole person in the context of the environment. Health confine to physic - psycho-socio- fields (dimensions) is incomplete and inadequate. Health is an integral concept which comprehends the totality of our being. True health must include not only physical fitness but also the psychological and spiritual well-being. In a broader perspective, the physical body of the human being is not important as emotional, intellectual and spiritual aspects. Mind draws its power from the spirit and transmits it to all the body organs and ensure their rhythmic and coordinated functions. Qualitative (spiritual) values of life like non-attachment, celibacy etc. do not possess health enduring capacity in eliminating symptoms of mental and physical stress and strain. Today depression, stress, anxiety and strain have become so much pervasive in every society that even the school children, adolescents, and college students not spared. In relation to high anxiety created due to

stress factors, the experts remark that the raised stress levels are typical in adolescents of general and final year school students. In the 21st century, importance of mental health is an essential pre-requisite for improving educational performance of the students and prevention of neuroticism and psychosis. In recent times, there is an increase in adjustment problems of adolescents, which psychologists emphasize, are due to poor mental health. Estimates of the prevalence of mild to severe depressive syndromes in adolescents typically range between 20 - 32% (U.S. Department of Health and Human Services, 1996). Mental health problems and related issues especially concerning adolescents have been a major preoccupation among medical specialist, social scientists and educationists. The influence of the mind on the body can also be proved on the strength of equally convincing evidence. The aspect of mind which most powerfully affects the body and especially the nervous and endocrine systems is its emotional side. In order to understand how we are affected by emotions, mild or violent, we have simply to know what emotions are and how they enter into our very being. Love, anger, greed, infatuation, elation, hatred, jealousy, envy,



fear, disgust, distress, regret, remorse, despondency, despair, confidence, hope, shame, pity, admiration, reverence, devotion, gratitude are all emotions. Emotions of high intensity that last only for a short time are called passions. Thus the emotion of anger when becomes violent, the affected person flies into the passion of rage. The emotion of disgust when intensified develops into the passion of horror. Most of us have moods. They are emotions and differ from person to person. When mood becomes so habitual that it becomes a characteristic of an individual, then it is called temperament. Although a few of us may be free from passions, every one of us has its own 3 temperament and moods. Thus, none of us is entirely free from emotions. These emotions are found to affect our body more or less profoundly according to the degree of their intensity. Thus, if the emotions are violent and sudden they may leads to death. When the emotions are not powerful, but are less violent, they may not lead to death, but they may affect the nervous system in such a way that can cause disease as a consequence. Naunyn states that after the bombardment of Strasburg in the year 1870, many cases of diabetes developed as a consequence of fear

and anxiety brought about by it. The effect of emotions on the adrenals glands cause to produce higher blood pressure, which favors the development of arteriosclerosis and other diseases of the circulatory system, etc. Unemployment, population explosion, industrialization, urbanization and modernization of life have been badly affecting the human beings both physiologically and psychologically. The emotional problems and other mental health problems like increased anxiety, depression, etc. among adolescents may lead to serious common problems as those of anxiety disorder, phobias, panic disorder, attention-deficit/hyperactivity disorder, conduct disorder, acrimony, and antisocial behavior, etc. When emotions are less violent, they do not immediately show any serious disturbances, but surely have injurious effect upon the different systems of the human organism. There are particular emotions like hope, confidence, joy, happiness which exercise a healthy influence upon the nervous system. Anxiety, stress, and mental health problems in young generation are a result of cut-throat competitions. These problems are affecting the present generation at a very high speed. Time to time educationists, psychologists and mental



health professionals are called by the government for finding out the remedy. At the present juncture, it looks that one has to confine oneself to pressing problems of students. Pressure of competitive life, insufficient knowledge of the academic courses, wrong choices and parental pressure, male/female relationship in school crises situations like new schools, new medium of instruction and failure in examination have their cascading effect. The teacher, his problems, the qualities of the teacher, the staff students relationship, causes of student indiscipline, changing pattern of the society and its impact on parent/child relationship, influence of mass media of communication and the aspect of cultural shock add to the already troubled child. Emotional and behavioural problems caused due to direct or severe forms of psychological treatment may manifest in the form of learning disorder in childhood (e.g. lying, depression, aggression) and psychological distress in adulthood. The concept of two brains, the analytic left hemisphere and the intuitive right hemisphere is established now. Many discoveries in every field involve an inspiration, which is a right brain activity. It is very plausible that alternate nostril

breathing, as practiced in Pranayama may stimulate through the olfactory nerve endings in the nose, right or left brain activity. This is of great significance in philosophical, spiritual and educational fields. The gravity of the problem has led the researchers to find out the most efficient ways of dealing with various mental health problems in different perspectives i.e. medical, psychotherapeutic and miteu. Medical Professionals has come forward to deal with the problems pharmaceutically, but anybody would disagree of the huge cost involved along with the side effects and difficulty in universal cure, because of varied nature of problems from individual to individual. Any therapy that is costless, with no side effects and of universal application, not only in terms of applications to variety of illness, but also to different individuals with numerous interlinked problems is sure to find place among due world's best healers. Psychologists have devised various psychotherapeutic strategies but with no permanent prognosis. Relapse mental problems are well established phenomena. Miteu therapists have emphasized the relevance and utility of socio - cultural environmental changes to correct individual's mental health problems. Miteu



approach is based on the principle that community is diseased not the individual. Mental health problems are reflections of problems and disharmonies in socio - cultural contexts, but practically it is highly difficult to apply the miteu approach in any case. Yoga now-a-days looked upon as a system of medicine. Yoga provides one of the best means of self-improvement and attaining one's full potential. In the advanced stages of yoga, super conscious states are attained which result in a feeling of bliss, deep peace and emergence of psychic powers. Yoga can be the most effective and economical therapeutic approach to deal with such problems. Yoga was developed and perfected over the centuries by philosophers and mystics in India. It is basically a method by which one increases the body's supply of energy and removes any interference to the transmission of energy throughout the body. Yoga is one of oldest forms of healing therapy which has been practicing for more than 5000 years.

Exercise and Physical Activity:Exercise and physical activity has been associated with positive changes in cognition and psychological well-being. Some studies suggest that there is positive relationship

between fitness level and concentration of attention and memory among children. Budde et al (2010) found that yoga exercise influenced concentration of attention of young children. Concentration of Attention:

When a person fixates his attention for some time on particular object it is a process of concentration of attention. Attention can be thought of as the mental process of concentrating effort on a stimulus or a mental event. It is a limited mental energy or resource that powers the mental system (Ascraft, 2006). Memory is the mental process of acquiring and retaining information for later retrieval and the mental storage system that enables these processes. Asana, Pranayam and prayer are one of the best poses to increase the memory and concentration power. It is the yoga exercise in which we take deep breath.

Various research studies concluded that yoga exercises influenced concentration positively and improved memory. The investigation made by various researches proved that a yoga exercise improves memory and attention of school children. However, the scientific and empirical evidence that support above claims is limited. Little work has been done to



examine the effect of regular yoga practice on senior secondary school students and on various aspects of memory and concentration. This study has been designed to examine the effect of yoga practices and exercises on various aspects of memory and concentration of senior secondary school students Adolescents.

Mental Health Benefits of Yoga for senior secondary school students:

Adolescents are confronted with a variety of life stressors from both school and home. Unmanaged stress is now believed to be a contributing and/or causal factor in the development of mental health and behavioral problems that are prevalent in adolescents, including anxiety, depression, and behavioral problems. A recent survey study indicated that 7.5% of adolescents meet the Diagnostic and Statistical Manual for Mental Disorders, criteria for one or more mental health conditions. The authors concluded that life stressors were the most consistent predictive factor across disorders. Furthermore, personal resources such as mastery were consistently associated with enhanced resilience to the onset of mental health disorder episodes. Reinforcing the rationale for addressing adolescent mental

health needs, it is estimated that one half of the adult population will experience at least one mental health disorder. The age of onset of most of these disorders, including the most seriously impairing conditions, occurs in childhood and adolescence. It has therefore been suggested that greater attention and effort should be devoted to interventions for the treatment of the mild and currently largely untreated child–adolescent disorders. This would address the significant adolescent mental health burden and also possibly prevent the high severity and prevalence of adult primary and comorbid mental health disorders. Accordingly, there has been some development and evaluation of a variety of school-based stress management and wellness programs in the hope of providing adequate coping strategies, enhanced resilience, and self-efficacy. Elements of these programs include cognitive restructuring, social skills, problem solving training, emotional self-control techniques, modeling, role play, and relaxation skills training. However, few programs have incorporated mind–body skills approaches such as yoga and meditation, which are known to be effective self-regulatory and stress management skills.



Yoga is a holistic system of multiple mind body practices for mental and physical health that include physical postures and exercises, breathing techniques, deep relaxation practices, cultivation of awareness/mindfulness, and meditation. Yoga and meditation techniques have been shown to reduce perceived stress and improve mood. Research documenting the therapeutic benefits of yoga has grown steadily for the past three decades and now includes controlled clinical trials on a variety of mental health conditions such as depression and anxiety. A bibliometric analysis of published research studies on yoga as a therapeutic intervention has revealed almost 50 published studies up to 2003 evaluating yoga for mental health conditions, all of which reported some positive benefits. Furthermore, yoga has been recommended and used clinically for both children and adolescents. Two recent systematic reviews of yoga research in pediatric populations concluded that there is credible preliminary evidence for the efficacy of yoga for a variety of mental and physical health outcomes.

STRESS: The duration of these stages may be influenced by determinants of personality

and socio-cultural aspects. How early the individual reaches this stage and whether he adopts an effective coping strategy is to a large extent determined by the cognitive and personality factors. Selye indicate that the individual's reactions to stress are significant. The individual differences in coping with stress are differing. In fact "stress is a normal counterpart of living how we react to it is important". Psychological Stress Reactions Stress as a result of an individual perception that they do not have the resources to cope with a perceived situation from the past, present and future. Khan (1964) was one of the earliest to indicate that the amount of stress experienced by an individual is a function of his or her personality. Reddy and Ramamurthi (1991) examined how different factors collectively contributed our physiological stress reactions are automatic and predictable, built-in responses over which we normally have no conscious control. But it's not so in our psychological reactions. Our psychological stress reactions are heavily dependent on our perceptions and inter-pretations and of our capacity for dealing with it. They include behavioural, emotional, and cognitive aspects. Behavioral aspects: The behaviour of a person under



stress depends in part on the level of stress experienced. Mild stress activates and intensifies biologically significant behaviors such as eating, aggression, and sexual behaviour. Mild stress makes an organism more alert: energies are focused and performance may improve. Moderate stress typically disrupts behaviour, especially complex behaviour requiring skilled coordination. Overeating is a typical behavioural response to moderate levels of stress. Aggressive behaviour can also occur, especially in response to frustration. Moderate stress may also produce repetitive, stereotyped actions, such as pacing in circles or rocking back and forth. These repetitive responses have mixed effects. They are adaptive by reducing a high level of stressor stimulation and lessening and individual's sensitivity to the environment. At same time, they are non-adaptive by being rigid and inflexible, and in persisting even when environmental situations makes other responses more appropriate. Severe stress inhibits and suppresses behaviour and may lead to total immobility.

Emotional Aspects: The stress response includes a variety of emotional reactions ranging from exhilaration, in the cases

where the stressor is seen as an exciting, manageable challenge, the far more common negative emotions of irritation, anger, anxiety, discouragement, and depression. Most stress is acutely uncomfortable, producing only negative emotions and efforts to lessen the discomfort in direct or indirect ways. Stressful life changes involving the loss or separation from loved ones are frequent forerunners of depression. Being left behind when important others die or move likely to result in depression than a similar separation caused by one's own. Experiencing a cluster of stress events is another predictor of emotional depression. The emotional pain can result in an increase of various symptoms, such as sleep problems, guilt about surviving, difficulty in concentrating, and an exaggerated startle response. Adolescent stresses come from biological cause-as well as from the various social causes in which adolescents operate: the achievement stress, academic stress, physical stress, institutional school stress and family stress. Achievement stress: Achievement-related stress and self-consciousness' seen the most likely as psychological risks factors for the high school transition process. Personality variables like habits, curiosity and creativity



to have effect on the academic achievement of adolescents.

Academic stress: Academic pressure mount during school, can be quit stressful, it may be the most academically capable students who feel the greatest pressure, as they find themselves competing for scarce, high-prestige for college spots. Pressure of studies and to perform well in a cut throat competitive environment can stress out a child, he may lose appetite, find it difficult to sleep and even turn aggressive or morbid in the wake of criticism for his poor performance in the exams due to being compared. Pressure from parents, teachers and the peer group add to their woes. When stress is received negatively or becomes excessive, it can affect both health and academic performance.

Physical stress – The physical changes in adolescence occur most rapidly. In addition to, or perhaps because of, their body's rapid changes, adolescents tend to be extremely self-conscious and typically assume that everyone is always staring at them. Every pimple, every unwanted curves or lack of curves, can be a sources of misery of stress, particularly for those who do not fit our culture's narrow ideal of beauty. This

transition generally involves a change to a much larger and more anonymous school that is farther from home than the neighborhood elementary school.

Family stress - The well-adjusted adolescents face a major source of stress in their relationships with their parents. That is because every adolescent must work through the age-old struggle between the need to belong and to be taken care of, and the need for independence and freedom. Family changes are often considered to be stressful events at any point in the life course. The family has long been assumed to have a major influence on the development of children and adolescents. However, the family has changed significantly in recent decades; previously joint family concept was persist but now a day's couple's want to stay alone even divorce rates have increased, increasing the likelihood that adolescents will grow up either with a single parent or with a 'reconstituted' family including stepparent and perhaps stepsiblings. In addition large numbers of women have entered in jobs, especially when children become adolescents. The well-adjusted adolescents face a major source of stress in their relationships with their parents. That is



because every adolescent must work through the age-old struggle between the need to belong and to be taken care of, and the need for independence and freedom. Hoffman, found that parents play an important role in moral development of children. As family is the first social institution, thus, it occupies foremost place where the foundation stone regarding the character of the child is laid down. Walker and Taylor, states that parents influence the children's behavior more than anybody else in the changing society and changing pattern of family living. (1989), acknowledges that effective experiences within the family relationships make important contribution in children's moral understanding. In this investigation the stress of adolescents is taken in terms of frustration, conflict, pressure and anxiety.

CONCLUSION:The present study was completed just before the examination in this time students has heavy burden of their course preparation. This is a one important reason of different types of study of the present. It may be concluded from this trend of findings of the study that due to exercise of yoga memory and concentration of attention improved and it reduced the stress level of senior secondary school students.

Increasing evidence supports the view that yoga is a practice which addresses multiple mental, emotional, and physical facets of the individual. The exercises down regulate stress systems. These are believed to improve the control of attention and stress perception. The positive outcomes in this study are generally consistent with those of the few previously studies of yoga in school setting. Therefore, it is suggested that yoga exercise should become a regular feature of the school curriculum. In today's world all young man lives their life with stress, heard work, tension, fear of life & service safety, depression etc. In these circumstances we cannot give our time for physical exercises and stress less entertainment thus, the ideality of real life is far from the human. That's why the human wants love, to live peaceful and calm life, stress less work etc.

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