



## **Efficacy of yogic practices for the promotion of academic achievement, mental health and health related physical fitness of college level female students**

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### **Abstract**

**Background:** The goal of study was to evaluate mental health, academic achievement and health related physical fitness, of college level female students were randomly assigned to 8 weeks of yoga training. Students end-program self-report measures of mood, anxiety, perceived stress, resilience, and other mental health variables, academic achievement through assessment and their physical fitness. Independent evaluation outcome measures revealed that yoga participants showed statistically significant differences relative to controls on measures of anger control, emotions, memory power and fatigue/inertia, the yoga group over time were either minimal or showed improvements. Results suggest that implementation of yoga is acceptable, feasible for college level Female students, setting and has the potential of playing a protective or preventive role in maintaining mental health, academic achievement and health related physical fitness for developing the personality.

**Objectives:** The main objective of the study was to assess the efficacy of yogic Practice on mental health, academic achievement and Health related physical fitness of college level Female students.

**Materials and Methods:** The 60 college level female students were selected from Trivandrum city on the basis of their present health status in college education. Students were divided into two groups. One Experimental group and other Control group were given pre- test in three variables and Yoga training for 6 weeks for Experimental group. A yoga practice consisting of asana, pranayama, kriyas, etc. The Experimental and Control groups were again post-tested.

**Results:** The results show that college level Female students, who regularly practiced yoga performed better in academically with suitable improvement in health status and behavior. The study further shows that the students performed yoga, performed better than non-yogic group.

**Keywords:** academic achievement, mental health, college level female students, yogic practices

### **Introduction**

Yoga is the “Union of the individual self with the universal self” (Iyengar, 2001). Yoga, which originated in India more than 5,000 years ago, is a Hindu system of philosophy that encompasses the body, mind and spirit. Its aim is ultimate physical health and happiness, together with mental peace and tranquility.

Yoga is a practical aid, based on a harmonizing system of development for the body, mind, and spirit. Yoga derives its philosophy from Indian metaphysical beliefs. The word yoga comes from Sanskrit language ‘yuj’ and means union or merger. The aim of yoga is to strike a balance between mind and body and attain self-enlightenment. To achieve this, yoga uses movement, breath, posture, relaxation and meditation in order to establish a healthy, lively and balanced approach to life. Yoga is a method of learning that uses three main structures: Exercise, Breathing, and Meditation. The exercises of Yoga are designed to put pressure on the Glandular Systems of the body, thereby increasing its efficiency and total health. The Breathing Techniques are based on the concept that breath is the source of life in the body and a gentle increase in the breath control improves health and functions of both the body and the mind. These two systems prepare the body and mind for Meditation, making it easier psychologically to achieve a quiet mind and be free from everyday stress. Studies of yoga with adolescents and children have been rare, despite the increasing trend towards introducing yoga for children and

adolescents in schools and yoga studios (white, 2009). One of the major goals of normal development is a high standard of physical fitness and intellectual way improvement in academic achievement. Maintaining an appropriate level of mental health, Health related fitness allows a person to:

- Meet emergencies and Challenges in life
- Reduce the risk of disease and injury
- Work Efficiently with Positive Health.
- Participate and enjoy physical activity to improve personality (sports, recreation, leisure)
- Look one’s Physical best and Positive Image.

### **The concept of yogic practices**

Although the word ‘Yoga’ has many connotations, etymologically it means ‘Integration.’ The aim of Yoga itself is integration of personality in its all aspect. In order to help the development of such integration various techniques are employed. These techniques or practices enjoined in Yogic literature and handed down in different traditions also go under the name of Yoga.

According to Himalaya Yoga Peeth, (2014) ‘Yogic Practices’ is classified in *Asana, Pranayama, Bundhas, Mudras, Kriyas and Dhyana*, the meaning of the same is described below:

### **Asana (Gharote M. L., 2009 p. 20)**

These are certain patterns of postures that stabilize the body and mind. They aim at establishing proper rhythm in the

neuromuscular tonic impulses and improve the general tone of the muscles. 3

#### **Pranayama (Gharote M. L., 2009 p.21)**

These are the practices in the control of respiratory impulses which form one of the main channels of the flow of autonomic nerve currents. They are practiced for bringing control over the autonomic nervous system and dismissing the mental fluctuations.

#### **Bandhas and Mudras (Gharote M. L., 2009 p. 22)**

These consist of practices wherein one tries to consciously control certain semi-voluntary and in-voluntary muscles in the body. In these muscles there is an integration of central and autonomic nerve supply. By bringing these muscles under volition one could influence thereby the activity of the autonomic nervous system which functions as a whole. Bandhas and mudras help to tone up the internal organs, decongest them and stimulate their healthy functioning.

#### **Kriyas (Gharote M. L., 2009 p.17)**

These are purification processes; usually classified into six divisions and therefore they are often called Shatkarmas or Shatkriyas. Each one of these consists of many sub-sections. They not only purify the internal organs but also train the reflex mechanisms.

#### **Dhyana (Gharote M. L., 2009 p. 18)**

This is a continuum of mental practices involving from initial withdrawal of senses to the complete oblivion of the external environment. Literally, there are innumerable stages and practices which could be included under this head.

The nature of all Yogic practices is Psycho-physiological. Some practices which emphasize on the direct control of mental processes are more psychological.

#### **Concept of academic achievement**

Academic achievement is considered as a key criterion to judge one's total potentialities and capabilities. Therefore it is more pressing for the individuals/ students to have high academic achievement. The term achievement refers to the degree or the level of success attained in some specific school tasks especially scholastic performance, in this sense academic achievement means the attained ability to perform school tasks, which can be general or specific to a given subject matter. Academic achievement could be defined as self-perception and self-evaluation of one's objective academic successes. Academic achievement generally indicates the learning outcomes of pupil. Achievement of those learning outcomes requires a series of planned and organized experiences. Good (1973), has defined, academic achievement as knowledge attitude or skill developed in the school subject usually designed by test scores or by marks assigned by teacher or by both. Consequently, academic achievement could be defined as self-perception and self-evaluation of one's objective success (Srivastava, 2009).

Academic achievement performance is the outcome of education — the extent to which a student, teacher or institution has achieved their educational goals. Academic achievement is commonly measured by examinations or continuous assessment but there is no general agreement on how it is best tested or which aspects are most important procedural knowledge such as skills or declarative

knowledge such as facts (Ward, Stoker, & Murray-Ward, 1996). Academic achievement represents performance outcomes that indicate the extent to which a person has accomplished specific goals that were the focus of activities in instructional environments, specifically in school, college, and university. School systems mostly define cognitive goals that either apply across multiple subject areas (e.g., critical thinking) or include the acquisition of knowledge and understanding in a specific intellectual domain (e.g., numeracy, literacy, science, history). Therefore, academic achievement should be considered to be a multifaceted construct that comprises different domains of learning. Because the field of academic achievement is very wide-ranging and covers a broad variety of educational outcomes, the definition of academic achievement depends on the indicators used to measure it. Among the many criteria that indicate academic achievement, there are very general indicators such as procedural and declarative knowledge acquired in an educational system, more curricular-based criteria such as grades or performance on an educational achievement test, and cumulative indicators of academic achievement such as educational degrees and certificates. All criteria have in common that they represent intellectual endeavors and thus, more or less, mirror the intellectual capacity of a person (Ricarda Steinmayr, 2015). Academic achievement represents performance outcomes that indicate the extent to which a person has accomplished specific goals that were the focus of activities in instructional environments, specifically in school, college, and university. School systems mostly define cognitive goals that either apply across multiple subject areas (e.g., critical thinking) or include the acquisition of knowledge and understanding in a specific intellectual domain (e.g., numeracy, literacy, science, history). Therefore, academic achievement should be considered to be a multifaceted construct that comprises different domains of learning. Because the field of academic achievement is very wide-ranging and covers a broad variety of educational outcomes, the definition of academic achievement depends on the indicators used to measure it. Among the many criteria that indicate academic achievement, there are very general indicators such as procedural and declarative knowledge acquired in an educational system, more curricular-based criteria such as grades or performance on an educational achievement test, and cumulative indicators of academic achievement such as educational degrees and certificates. All criteria have in common that they represent intellectual endeavors and thus, more or less, mirror the intellectual capacity of a person (Ricarda Steinmayr, 2015).

#### **Concept of health related physical fitness**

Health-related physical fitness is defined as fitness related to some aspect of health. This type of physical fitness is primarily influenced by an individual's exercise habits; thus, it is a dynamic state and may change. Physical characteristics that constitute health-related physical fitness include strength and endurance of skeletal muscles, joint flexibility, body composition, and cardio respiratory endurance. All these attributes change in response to appropriate physical conditioning programs, and all are related to health (Hoeger, 2011).

According to (Kansal,1996) Health-related fitness is a physical state encompassing cardio respiratory endurance, muscular strength and endurance, muscular flexibility, and

body composition are defined respectively as:

### **Cardio respiratory Endurance**

The ability of the heart, lungs, and blood vessels to supply oxygen to the cells to meet the demands of prolonged physical activity (also referred to as aerobic exercise)

### **Muscular strength and Endurance**

The ability of the muscles to generate force

- **Muscular strength:** Ability to exert maximum force against resistance.
- **Muscular endurance:** Ability of a muscle to exert sub-maximal force repeatedly over a period of time.
- **Muscular flexibility:** the achievable range of motion at a joint
- **Body composition:** The amount of lean body mass and adipose tissue (fat mass) in the human body

### **Educational implications of adolescence and youth stage of female students**

The implications of how service-learning participation can enhance civic knowledge and engagement among young people is discussed at length in the existing literature. However, research that explores the utility of formalizing service-learning as a means of enriching civic education for underserved and minority youth is lacking, particularly within the context of secondary education. The purpose of this article is to contribute to the discourse around increasing the use of service-learning programs as a means of supplementing existing methods that facilitate well-rounded youth development (e.g. school curricula, afterschool programs, mentorship) and enhance well-being among underserved youth within a social justice framework. The aims of this article are met by first illuminating the risk factors facing minority and underserved youth. The social justice implications of service-learning participation for youth are then discussed. Finally, the feasibility of utilizing service-learning as a protective factor for marginalized youth is explored.

Finding ways of improving students' reasoning is of great interest to educators, policy makers, and state legislators, among others; all have a vested interest in having adults be able to make informed decisions in their personal lives, in the workplace, and in their communities...[However, this research suggests] that many college-educated adults do not fully acknowledge uncertainty as the start of the knowing process, and thus may look to authorities for firm, unqualified answers" (King & Kitchener, 2002, p. 54). For additional work by authors who have identified institutional strategies that can be used to promote the development of epistemic cognition, see King, 1992; King & Baxter Magolda, 1996; Kitchener & King, 1990; Davison, King, & Kitchener, 1990; King & Wood, 1999; Kitchener, Lynch, Fischer, & Wood, 1993; Kroll, 1992a,b; Kronholm, 1993; Lynch, 1996; Lynch, Kitchener, & King, 1994; Thompson, 1995; and Wood & Lynch, 1998. King and Kitchener (2002, p. 19) provided the following list of common suggestions in the projects listed above:

- Show respect for students' assumptions, regardless of the developmental stage(s) they exhibit. Their assumptions are genuine, sincere reflections of their ways of making meaning, and are steps in a developmental progression. If students perceive disrespect or lack of emotional support, they may be less willing to engage in

challenging discussions or to take the intellectual and personal risks required for development.

- Discuss controversial, ill-structured issues with students throughout their educational activities, and make available resources that show the factual basis and lines of reasoning for several perspectives.
- Create many opportunities for students to analyze others' points of view for their evidentiary adequacy and to develop and defend their own points of view about controversial issues.
- Teach students strategies for systematically gathering data, assessing the relevance of the data, evaluating data sources, and making interpretive judgments based on the available data.
- Give students frequent feedback, and provide both cognitive and emotional support for their efforts.
- Help students explicitly address issues of uncertainty in judgment-making and to examine their assumptions about knowledge and how it is gained.
- Encourage students to practice their reasoning skills in many settings, from their other classes to their practicum sites, student organizations, residence hall councils, and elsewhere, to gain practice and confidence applying their thinking skills.

Adolescence derives its name from 'adulcesce' meaning 'grow to maturity'. The transitional period between childhood and adolescence is called puberty (from Pubertas meaning 'age of manhood') which transforms a child into an adult. Beginning with puberty and gradually submerging into adulthood, adolescence covers a period of 6 to 8 years extremely crucial in an individual's life. Ordinarily adolescence commences at 12 and ends with 19 year with variations in individual growth due to genetic or environmental factors causing children to be either early or late matures. In India, girls begin to mature by 10-11 years and hereditary factors play important role in the onset of adolescent growth-spurt.

While pre-adolescence (puberty) is referred to as a period of "predictabilities and unpredictability's" adolescence is rightly labeled as an age of "great stress and strain, and storm and strife" (Stanley Hall). As the child crosses the thrash hold of puberty, he suddenly finds himself caught in biological upheaval, psychological chaos and emotional disequilibrium. Like a boat sans rudder and sails, he is left tossing on the high tides of the stormy sea of growth. Far reaching changes occur in his physiology and body – chemistry significantly influencing his behavior, psychological make-up and adjustment in society. The child is virtually unable to understand what is happening to him. He struggles hard to get out of the state of confusion and chaos with all his might, thereby determining the direction of his personality.

### **Conclusion**

The present experiment, within limitations warrants the following conclusion:

Yogic Practices were useful in Improving Academic Achievement. Improvement has been recorded in College level Academic test exam of the college level youth students significantly.

Yogic Practices were useful in developing Mental Health. Improvement has been recorded in Ego Strength, Philosophy of Life, Self-Acceptance and Total Mental

Health of the college level female students significantly. Yogic Practices were useful in developing Health Related Physical fitness variables. Improvement has been recorded in Muscular Strength, Muscular Endurance, Cardiovascular Endurance, and Flexibility and in Body Composition of the college level Female students significantly.

### Recommendations

After considering all pros and cons of the present study following recommendations regarding its implications and suggestions for further studies are made:

- Regular Yogic Practice should further be extended to lower age group of the school students and also for College level Girls student.
- It can also be extended to those who are suffering from Psycho-Physiological problems.
- To tackle the Health Related Physical Fitness and Psychological problems of the growing age students as suggested may be immense helpful.
- This study can also be conducted on adolescent Girls students & College level Girls student.
- Along with Psychological Variable, Study can also be conducted on Physiological Problems, & Biochemical problems, etc.

### Contribution to the knowledge

The present investigation evolved a new knowledge about Yogic practices for Health Related Physical Fitness, Mental Health and Academic Achievements of college Level Female Students. The module of Yogic practices is the valuable contribution of this study. Thus, without doubt, the result of this investigation has added quantum of knowledge to the literature of Yoga, Physical education and sports.

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