Effect of yoga practices on educational achievement: A short summary of reviews

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Abstract

Educational achievement refers to a student's success in meeting short- or long-term goals in education. In the big picture, Academic achievement means completing high school or earning a college degree. Educational success has been considered as most important objective in the education. However, it is general observation that learners placed in an homogenous environment of academic situations vary in their educational achievement. Experimentally it has been proved that educational achievement is an outcome of a number of factors operating within individual students and his surroundings. Mainly the factors which control educational achievement can be categorized in to three types: intellectual, emotional and environmental. Emotional factors particularly the anxiety and environment factors like self concept and level of desire largely determine one's academic achievement. In present competitive world Yoga and meditation plays an important role in positive upliftment of human body and mind. Without knowing self we cannot know much about outer world. Yoga is the study of self knowledge and is practiced from ancient time by thinker’s philosophers, yogi. In present time yoga can play major role in reducing depression prevailing in students. The science of yoga is powerful stream of knowledge, which enables the practitioners to achieve radiant physical health, serene mind, continues spiritual uplift and creates the ability for harmonious social living.

Keywords: Yoga, educational achievement, mindfulness, stress management

1. Introduction

Education is as old as the human being. It is never ending process of inner growth and development. Education, in real sense, is to humanize humanity and to make life progressive cultured and civilized. It is very important for the progress of individual and society. It is through education that man develops his thinking and reasoning, problem solving and creativity, intelligence and aptitude, positive sentiments and skills, good values and attitudes. It is through education that he is transformed into human, social, moral and spiritual being. Man learns something every day and every moment. His entire life is education. Hence education is a continuous and dynamic process. Therefore quality of life will be decided based on the national policies on education. Education to be meaningful should not only aim at the physical and mental growth of the individual, but also take into account the needs and the aspirations of a developing society. Academic achievement of students is vital in this regard; Academic achievement refers to a student’s success in meeting short- or long-term goals in education. In the big picture, Academic achievement means completing high school or earning a college degree. It seems that our present education system has become more mechanical and is failed to nurture all round development of the personality of the student. The higher secondary students which are no longer a children nor adults is an important area to study. To study their emotions, anxiety and environmental factor influencing their educational achievements and how we can provide suitable methods to control them is our aim. Academic problems of students are related to difficulty in concentration, difficulty in remembering, unable to understand a particular subject or topic, unable to understand the language and examination anxieties. Sometime well prepared students cannot perform well in examination due to mental confusion. Examination fears and other types of fear of failures can greatly halt the students’ progress. In present technological age students are under high level of stress, depression, anxiety and frustration.
Its seems that our education system become like machines and fails to develop all round personality of the students. Therefore its necessary to overhaul our education system. Present research is an effort to investigate the yoga modules which can improve the overall development of Secondary Level Students. It is need of the hour to overhaul our education system, so that it fulfills the dreams of our Father of Nation Mahatma Gandhi”, who defines education-a system of an all round drawing out best in child and man – body, mind and soul. Yoga and meditation can play a very important role to achieve educational achievements. “Yoga which is defined as the way of life is characterized by balance health, harmony and bliss”. “Mediation, being part of yoga which is the seventh limb of Ashtanga yoga- a state of alert rest”. The science of yoga is powerful stream of knowledge, which enables the practitioners to achieve radiant physical health, serene mind, continues spiritual uplift and creates the ability for harmonious social living.

2. Review of Literature

National Curriculum Framework 2005: as per guideline given in NCF-2005. The curriculum area should adopts a holistic definition of health within which physical education and yoga contribute to the physical, social, emotional and mental development of a child. The more recent addition to the curriculum is yoga. The entire group must be taken together as a comprehensive health and physical education curriculum, replacing the fragmentary approach current in schools today. As a core part of the curriculum, time allocated for games and for yoga must not be reduced or taken away under any circumstances. Similarly, their appropriate syllabi and teacher training for transaction of yoga in schools need to be reviewed and reformulated. Yoga may be introduced from the primary level onwards in informal ways, but formal introduction of yogic exercises should begin only from Class VI onwards.

Berlin Sarah (2008) \[2\], “The Effect of Yoga in the Classroom” Phd. thesis University of California, San Diego Education Studies July 18, 2008. Evaluated the effects of doing yoga in a regular education seventh grade classroom, during normal instruction hours, on stress levels and academic achievement. This month long study consisted of a total of two weeks of yoga instruction, due to block scheduling, and data collection. The three methods of data acquisition were pre and post student stress tests, student yoga surveys, and student assessments. The results indicate that yoga in the classroom was a positive addition to the classroom schedule. Students showed a decrease in stress levels, performed better on reading comprehension tests and quick writes, and perceived a benefit to doing yoga. These results suggest that yoga is a positive addition to the secondary classroom and can be an effective way to help students cope with stress and focus on schoolwork. This is only a month long research work. I will study the long term effect of yoga on educational achievements.

Waters, L. (2011) \[8\], Review school-based interventions that have been designed to foster student well-being and academic performance by following a positive psychology approach which seeks to cultivating positive emotions, resilience and positive character strengths. Following the calls of the twenty first century education movement for schools to incorporate student well-being as a focus of learning, the current paper outlines the positive psychology movement and reviews evidence from 12 school-based positive psychology interventions that have been systematically evaluated. The evidence shows that positive psychology programs are significantly related to student well-being, relationships and academic performance. The paper makes suggestions for the further development of PPT’S at school and explores the factors that can allow positive psychology to be extended, and more systematically embedded, into schools.

Mark T. Greenberg (2011) \[12\] in his article Nurturing Mindfulness in Children and Youth: Current State of Research provide a brief overview of emerging evidence from interventions in clinical populations as well as outcomes for prevention and health promotion applications in universal or whole populations. The Interventions that nurture mindfulness may be a feasible and effective method of building resilience in universal populations of children and youth and in the treatment of disorders in clinical populations. Enthusiasm for promoting such practices, however, outweighs the current evidence supporting them. These contemplative interventions represent an opportunity to cultivate positive habits of mind and body and to promote the health and well-being of children and youth in schools, but much more research is necessary to identify specific appropriate and effective practices. Previous research suggests that meditation and yoga are associated with beneficial outcomes for children and youth, but the generally limited quality of research has tempered the conclusions that can be drawn. In this article it is suggested that, well-designed and carefully reported experimental studies that are grounded in developmental theory and measure multiple indicators of change over time will greatly add to the field.

Khalsa Sat Bir S. et al. (2011) \[5\] demonstrated that inclusion of a semester-long regular yoga intervention is feasible in a high school setting within the school curriculum. Out of 136 potential participants in the study, only five declined to participate for religious reasons, whereas most all other non-participants dropouts were due to schedule/class elective changes. Among students randomly assigned to the yoga intervention, attendance was high and similar to the school’s typical physical education class attendance levels. This attendance and the generally positive qualitative feedback suggest that the yoga was perceived as an acceptable practice by both parents and students.

Dr. Shikha Banerjee (2014) \[11\] had done the study on sample of 40 student for two month. There were two groups (control group and experimental group) and 20 students were assigned to each group. The Pre and post scores on memory obtained for both the experimental and control groups were treated statistically to assess the effect of the practice .in the hypothesis it is considered that there is no significant difference in memory scores of students of experimental and control group at pre test and post test levels was rejected in favour of the finding that yogic practice helped in increasing of memory level from pre test to post test level among students of experimental group as compared to the control group .As the practice in school going students in yogenic practice was provided for a period of 2 months that is Surya namaskar, Pranayam, Omkar jap and Yoga nidra, it helped in increasing memory level.

In second hypothesis it is supposed that, there is no significant difference in the mean increased scores of memory between girls of experimental and control groups was rejected in favour of the finding that yogenic practices helped in increases of memory level among girls students of experimental group as compared to the control group. The society has lot of expectation from school going children, whether at home or school. This leads to possibility of development of anxiety, stress among students, as they are not able to perform as per expectation of the parents. Yogenic practice helped to increase

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memory among girls as it has been found in the study. In third hypothesis it is supposed that, there is no significant difference in the mean increased score of memory between boys of experimental and control groups was rejected in favour of the finding that yogic practices helped in increasing memory level among boys of experimental group as compare to the control group. The students are facing conflicting situation all the time what to do, what not to do which leads to increase in Retention power and Recall. Students face a life, full of stress in the fast, mechanized and competitive world of today. Yoga can play an important role in helping students to combat anxiety and stress and control one’s mental state. It leads to memory empowerment. Yogic practices were found to be effective in increasing the memory power among students of experimental group as compared to those of the control group who were not exposed to any training in yogic practices. In this study it is suggested that, The period of treatment could be essentially raised, because yoga being an eternal practice requires, substantial time for producing tremendous effect on memory and emotional state, although physical and the therapeutic effects can be seen in comparatively shorter time.

Ahuja Sona (2014) [11] investigated the effect of yoga and meditation on consciousness and mindfulness were examined comparing beginners, intermediate, advanced meditators and a group of non-meditators. The three experimental groups improved from pre-test to post-test compared to control group, highlighting the benefits of yoga and meditation on consciousness and mindfulness. Consciousness of advanced meditators was highest in comparison to other groups at pre-test. Consciousness and mindfulness of beginners increased at a faster rate over time. Further, the effect of intervention was examined on physical, emotional, cognitive, social, and spiritual and self-consciousness. There was significant increase in social and self-consciousness after 11 weeks of intervention whereas physical and emotional consciousness increased significantly post intervention which was for 20 weeks. Although there was increase in cognitive and spiritual consciousness but it was not significant. A longer duration of practice may prove helpful for betterment of these faculties.

Lea Petersen (2014) [14] investigated, the effects of participation in twice weekly yoga classes in 14 university students. Cohen’s Perceived Stress Scale, a measure of the perceived uncontrollability of individuals’ lives, was used to measure changes in reported perceived stress in the first, third and fifth weeks of yoga classes. 9 of the 14 students evaluated exhibited a decrease in perceived stress by the end of the summer session. On average, students perceived their stress to decrease by 1.8 points with a median decrease of 2 PSS points. Their research observed positive changes in perceived stress in university students participating in a five week yoga course. This study can be used as a starting point for future studies investigating the effectiveness of yoga participation on perceived stress when compared to a control population.

Tasha M. Felton (2014) [13] suggests that mindfulness training may foster students’ awareness of stress and increase skills and strategies that are associated with preventing burnout. As students expand their skills based in mindfulness practices, their confidence regarding how to deal with burnout may increase. This study supports a growing body of evidence that mindfulness training fosters mental health and is an important component in counselor training. Institutions and accreditation organizations can promote satisfaction and longevity in the field by prioritizing mindfulness training into curricula.

Karen Ager (2015) [15] used thematic analysis to understand and interpret 38 elementary school students’ mindfulness journals. Findings suggest that mindfulness enhances student wellbeing and helps children develop a greater awareness of their body, mind and emotions. Findings from the study suggest that students perceived that the 10 week program enhanced their awareness and knowledge of wellness concepts and enabled them to develop strategies to independently and positively influence their own wellbeing. For example, a number of children referred to using the “pause button” and breathing to self-regulate. This heightened state of awareness seemed to naturally extend beyond the “self” and expanded to caring and a deeper connection for the wellbeing of friends and family and their environment.

Tiwari Ram Kalap (2015) [16] examined the benefits of Yoga exercises on high school student’s concentration and memory. The study was conducted one month before of high school examination. 200 high school students (112 high stress students and 88 low stress students) were selected on the basis of scores obtained through stress scale. Students were divided into two groups- Experimental group and control group. Both groups were given pre test to examine their concentration of attention and memory. Yoga exercises consisting of Pranayama, prayer and value orientation programmers were administered on experimental groups for four weeks. The experimental and control groups were post-tested for their performance on concentration of attention and memory. Results showed that experimental group produced and exhibited higher concentration of attention and memory. It has been suggested on the basis of these observations that Yoga practices and exercises should be a regular part of the high school curriculum.

National Council of Educational and Research Training 2015: The National Council of Educational Research and Training (NCERT) introduced the book entitled “Yoga: A Healthy Way of Living” meant for school children while celebrating International Yoga Day on 21 June. Yoga is an integral part of ‘Health and Physical Education’ which is a compulsory subject up to secondary stage. This curricular area adopts a holistic definition of health within which Physical Education and Yoga contribute to the physical, social, emotional and mental development of a child. Yoga has been considered to be introduced from Class VI onwards, though yogic activities may begin in an informal way from primary level onwards. Studied the effect of Yoga on mental health in children, Mental health in children control all activities such as having positive interactions with peers, being able to focus on studies, participation in various activities. Yoga practice also improves the performance of children in a spatial memory task. Yoga is a very old Indian way of life which comprise practicing certain postures, breathing techniques, and meditation. The benefits of yoga practice in children are evident from a study with a quasi-experimental design, in which thirty-one children (with ages between seven and twelve years) practiced yoga for seven weeks and the effects on their physical health were assessed. Each sixty minute yoga session included ten minutes of warm up and breathing exercises, forty minutes of yoga postures, and ten minutes of cool down exercises. There were significant improvements in their flexibility, muscle strength and cardiopulmonary fitness. Since physical fitness and mental wellbeing are closely related, these results suggest that these children may have also had mental health benefits though the study was not intended to examine them. This study included both breathing exercises and physical postures. This is indeed considered the
The body according to ancient yoga texts there are five levels of existence (The Taittreya Upanishad). These are (i) physical, (ii) a level of subtle energy (prana or chi), (iii) the instinctual mental level, (iv) The intellectual mental level, and (v) the fifth and ideal level, a state of optimal homeostasis and balance (Telles, 2010) [10]. Ideally a yoga practice session should include physical postures (asanas), breathing techniques (certain kriyas and pranayama practices), meditation, as well as knowledge of the philosophy of yoga. In children also, the ideal program should include all these practices. Observing the actual behavior of the children in a school setting using a structured observational method may be far more useful than attempting to answer these questionnaires through questionnaires even if they are proven to be reliable and valid for children of a particular age group. Hence a combination of research methods would be the best way to understand the impact of yoga on the physical, mental, emotional, and social health and behavior of children. Tiwari Anamika (2016) [7] concluded that emotional intelligence can be enhanced through regular yoga practices as well as it also promotes healthy life style habits. Their study results suggest following recommendations “Yoga training awareness workshops must be included in govt. and private firms training to motivate employees for regular yoga practice so that they can deal with workplace problems easily as well as enable them to develop healthy life style habits for healthy and happy life forever”. Yoga practice awareness programmes must be conducted by govt. through social welfare scheme to make every person aware of the yoga practices to make a happy and healthy society where everyone follows healthy lifestyle habits as well as capable to handle day to day stressful situation easily and contribute to make a healthy and developed nation.

Chou and Huang (2017) [13], investigated whether a yoga exercise intervention influenced the sustained attention and discrimination function in children with Attention deficit hyperactivity disorder (ADHD). Their findings suggest that alternative therapies such as yoga exercises can be complementary to behavioral interventions for children with attention and inhibition problems. Schools and parents of children with ADHD should consider alternatives for maximizing the opportunities that children with ADHD can engage in structured yoga exercises.

3. Objective of study
The main objective of this study is to review current research and will be to find out the “Effect of yoga practices on Educational Achievements for secondary level students”.

The aim of study will be therefore:
1. To find out whether Yoga practices would increase the concentration level among students.
2. To find out both Yoga practices will help in increasing the retention and memory power among the students.
3. To find out either Yoga practices will increase problem solving skill (insight) among students.

4. Directions for Further Research and Development
In future study will start with selection of 500 secondary level students in different schools. Students will be divided in two group’s namely experimental group and controlled group.

5. Tools and Techniques
Yoga modules consisting of yogasan, pranayam, meditation and value orientation program will be used as interventional treatment for the experimental group for half an hour daily in the morning. Academic performance test which include question related to memory level, problem solving skill level and perception power level will be used as pre-test and post-test for the experimental as well as control group. all the statistical analysis will be done with SPSS software. We will use the ANOVA on the gain score of academic performance.

6. Conclusion
From above review we can conclude that, yoga intervention plays a very important role in the intellectual as well as emotional development of a child. Yoga helps students to assist their attention in a variety of tasks. Stress can be controlled by certain yogic techniques. Yoga reduces stress and brings self-control. Regular yoga practices develop healthy life style habits for healthy and happy life forever. Yoga practices also improve performance of children in special memory task. It also help to increase in memory level. Finding suggests that yoga practices helps children to develop a greater awareness of their body mind and emotions.

7. References
DOI: 10.1111/j.1750-8606.2011.00215.x

