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IMPACT OF HEALTH- RELATED PHYSICAL FITNESS PROGRAMMES ON ACADEMIC STRESSORS OF VARSITY STUDENTS

Dr. Sinku Kumar Singh[1], Dr. Sanjay R Choudhari[2]

Swami Ramanand Teerth Marathwada University, Nanded (MS) India[1]

Shri Binzani City College , Nagpur (MS) [2]

Abstract: The purpose of the study is to examine the effects of health- related physical fitness programmes (HRPFP) that on the Academic Stressors among students. Twenty five male students studying in different Departments of the Swami Ramanand Teerth Marathwada University Nanded, Maharashtra (India) had attended the study voluntarily. Exclusion criteria were the presence of chronic medical conditions such as asthma, heart disease or any other condition that would put the subjects at risk when performing the experimental tests. The subjects were free of smoking, alcohol and caffeine consumption, antioxidant supplementation and drugs during the programmes. Stress was taken in the laboratory of physical education department for academic year 2012-13 of the study. Academic stress of students measured by using Gadzella's Life Stress Inventory (B. M. Gadzella, 1991). The applied program was planned for six weeks, 5 days a week and 45 minutes a day, as the statistical techniques, Mean scores and standard deviation were taking and paired t-test was applied. There was significant effects of health- related physical fitness programmes on academic stressors (t=p<.05), frustrations (t=p<.05), and conflicts (t=p=<.05) were found in students Health- related physical fitness programmes decrease frustrations, conflicts and academic stressors of the.

Key words: Stressors , varsity , frustrations , pressure conflicts

INTRODUCTION

Academic stress is mental and emotional pressure, tension, or stress that occurs due to the demands of college life (DeDeyn,2008). health- related physical fitness is important components of a healthy lifestyle. There are many benefits of fitness: a better functioning of cardio vascular system and an improved sense of psychological well- being and decrease the stress. The physical fitness related benefits are especially important for people associated with psychological disorders which are at greater risk of coronary artery diseases, obesity, hypertension, hypotension and other health problems (Armstrong 1991, Maynard 1991). Various authors (Horton's Es 1998, Armstrong 1991 and Maynard1991) have reported that regular exercise has improved the cardio vascular system, decreased some of the risk factors leading to a cardiovascular disease, promoted fat loss, increased muscle mass, increased glucose intake by cells and enhanced well-being of the sedentary students. In other research (Jackson J et.al. 1968, Clausen J P 1997) Health related physical fitness was noted to improve psychological health and work capacity, The importance of health related physical fitness programmes(HRPFP) is linked to a higher quality of life as well as academic achievements. It is well- documented that regular physical activity in childhood and adolescence improve strength & endurance, health build, healthy bones & muscles, hips control weights, reduce anxiety and stress, increases self- esteem and may improve cardio reparatory function. Physical fitness is recognized as an important component of health (limb et.al 1998; Twisk et.al. 2002) and it may be important for the performance of functional activities and quality of life (Noreau and Shepherd 1995; Stewart et.al. 1994). Low physical fitness may result in high physical strain during the performance of activities (Bruining et. al. 2007). As a consequence, activity levels may decrease due to fatigue and discomfort, exacerbating low physical fitness.

MATERIALS AND METHODS

Subjects: Twenty five sedentary students from various department of Swami Ramanand Teerth Marathwada University Nanded, voluntary to participate in the health related physical fitness programmes. Exclusion criteria were the presence of chronic medical conditions such as asthma, heart disease or any other condition that would put the subjects at risk when performing the experimental tests. The subjects were free of smoking, alcohol and caffeine consumption, antioxidant supplementation and drugs during the programmes.. All 25 acted as experimental group for health- related physical fitness programmes with no control groups.

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APPLIED TRAINING PROGRAMME

A training programme was planned for 06 weeks, 5 days a week and 45 minutes a day. Exercise that use large muscles groups that can be maintained continuously and are aerobic in nature. These exercises include walking, running on treadmill, jogging, light weight exercise, . There was training programmes in the academic schedule of physical education department. The exercise session should consist of the following procedure:

Warm - up period will be approximately 10 min., this was combine callisthenic – type stretching, exercise and progressive aerobic activity. However, cool down period was 5 to 10 min.

MEASUREMENT OF ACADEMIC STRESS AND DATA ANALYSIS

The academic stress was measurement through the before and after health related physical fitness programme on twenty five sedentary students using with Students-life Stress Inventory. The data was checked for accuracy and completeness and was coded and put-up into the SPSS. Descriptive statistics for all studied variables, mean, standard deviation and t-ratio was considered statistically technique throughout the study and the level of significant was set-up at 0.05 level. For measure the academic stress, Gadzella's (1991) Students-life Stress Inventory was used. It was compose of 51 items to be divided into two major sections: types of stressors and reactions to stressors. The type of stressors section was including both personal and academic stressors and is divided into the following five categories: frustrations, conflicts, pressures, changes, and self-imposed. The researcher only analyses academic stressors and exclude reaction to stressors. Participants respond to a five-point scale using 1 = never, 2 = seldom, 3 = occasionally, 4 = often, and 5 = most of the time. The Statistical technique used for analyzing the collected data in the study was 't' value.

RESULTS AND DISCUSSION

The results and discussion have been presented in concise and comprehensive manner that is easy to comprehend.

Table-1

Mean Scores, Standard Deviation and t-ratio of the academic stressors between before and after HRPFP.

Dimension	***Programmes***	*Number*	*Mean*	*S.Ds.*	*t-ratio*
Frustration	Before HRPFP	25	16.41	4.67	2.95*
	After HRPFP	25	13.10	3.12	
Conflicts	Before HRPFP	25	12.98	2.18	4.50*
	After HRPFP	25	10.32	2.01	
Pressure	Before HRPFP	25	10.10	2.30	0.04
	After HRPFP	25	10.07	2.27	
Changes	Before HRPFP	25	09.34	1.87	0.21
	After HRPFP	25	9.45	1.89	
Self imposed	Before HRPFP	25	13.90	3.67	1.77
	After HRPFP	25	13.78	3.17	
Academic Stressors	Before HRPFP	25	64.56	14.54	2.15*
	After HRPFP	25	56.34	12.34	

Table-1 depicted Mean Scores, Standard Deviation and t-ratio of the academic stressors along with its five categories between before and after HRPFP. The result given in Table 1 reveals that significant effects of HRPFP on Academic stress was found between before and after health related physical fitness programme (HRPFP) on sedentary students (t=<.05). In order to find out the effects of five categories of academic stressors between before and after HRPFP; t-ratio was computed for each category separately. The result reveals that significant effects were found in academic stress with respect to Frustration (t=,<.05) and conflict (t=,<.05) between Before and after HRPFP . However, insignificant effects were found in Pressure (t=0.04.), changes and Self imposed (t=0.21.) between before and after HRPFP on academic stress.

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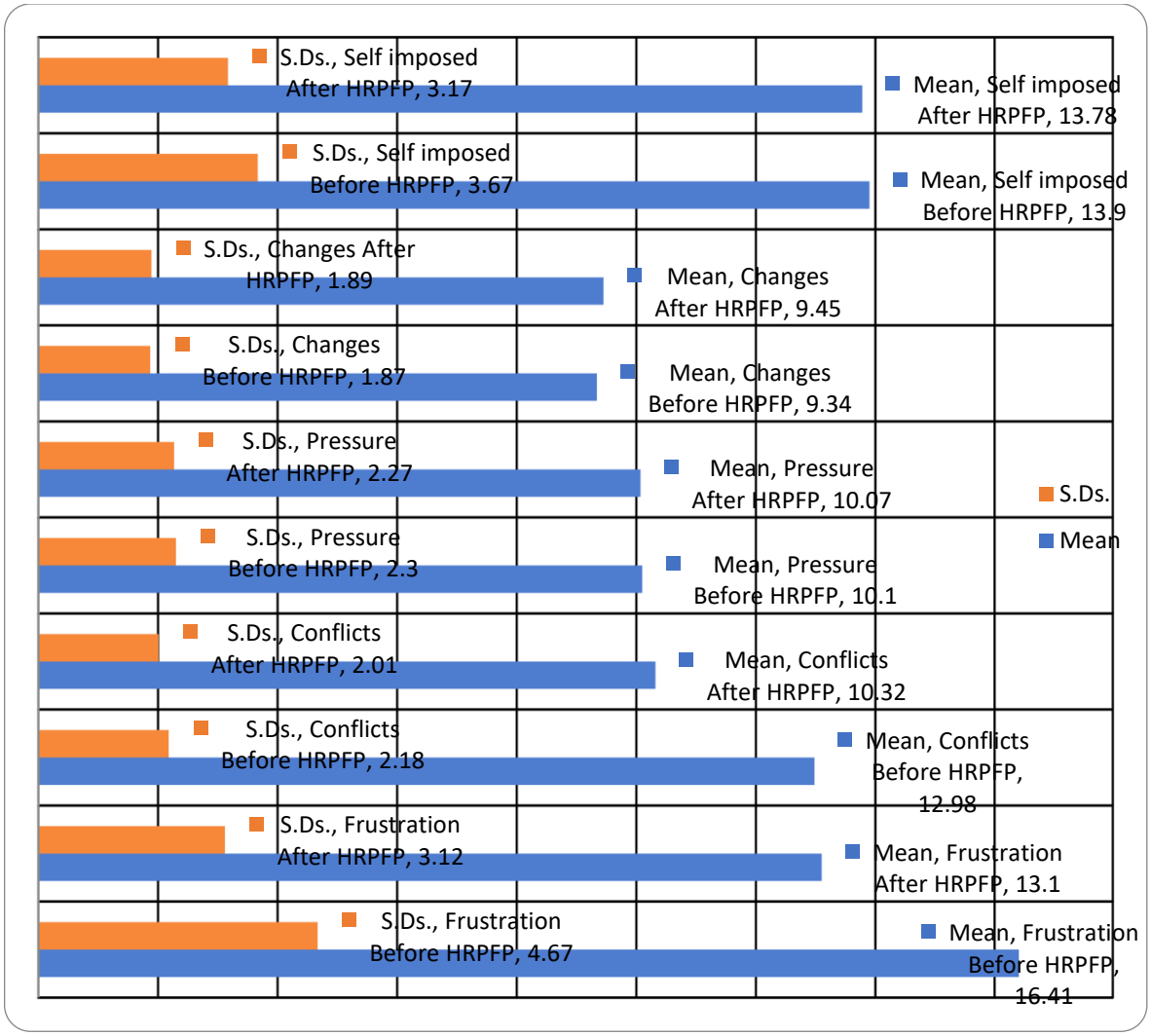
Figure -1 illustrates the Mean Scores, Standard Deviation five categories of academic stressors between before and after HRPFP



DISCUSSION

The findings of the study indicate the health related physical fitness programme significantly decrease academic stressors, frustration and conflicts. Academic stressors include the student's perception of the extensive knowledge base required and the perception of inadequate time to develop it (Carveth, Geese, & Moss, 1996). Regular physical fitness programme may overcome the stress hormones (Cortisol) and strengthens the nervous system while also stimulating the lymphatic system, which removes toxins from the body. The regular practice of yoga stimulate the secretion of Norepinephrine, serotonin and dopamine in brain and contribute to sound sleep, which is attributed for wellness; sleep is one of the most important factors in healing and maintaining a psychological health Preliminary evidence suggests that physically active people have lower rates of stress and anxiety. Economos, Hildebrant, & Hyatt, (2008), Shangare(2014) investigated that Engaging in more physical activity improves psychological health and decreases stress. The several researches have also shown that physical activity is an effective means of reducing anxiety and various indices of stress among adults (Bhui, 2002; Dunn, Trivedi, & O'Neal, 2001). Finally, health- related fitness programme has an important role for sedentary students to feel themselves better and achieve their academic performance.Participation to physical activities is rapidly decreased specially in the college and university education due to computerization , and urbanization . Academic education in the universities focuses on the specialization in preferred fields. Physical fitness has an important role in the education of new generation in the frame of physical and mental health and now a days it is treated as a piece of education in the developed societies and education programmes. According to the result, I conclude that health- related physical fitness programme (HRPFP) is beneficial to decrease the Academic stress and to improve mental health of students improve learning, academic performance, and mental health.

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LIMITATIONS

Results of this study are limited by a relatively small preliminary survey of self-reported academic stress rather than a study of actual behavior, which would be very difficult to achieve. As such, participants may have answered questions in a socially desirable manner to avoid the stigma associated with admitting personal inadequacies. To keep the student data-collection time within reasonable limits, information on Academic stress self-reported and no special psychometric instruments were used to measure it. Future research is warranted on estimating the level of stress by psychometric instruments.

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