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A Study on the Importance of Aerobics Exercise and It's Effect on Academic Performance

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ABSTRACT:
Physical activity and fitness play a vital role in developing the brain. An aerobic activity faster and with greater accuracy to a variety of cognitive tasks after participating in moderate aerobic activity is found to increase cardiovascular endurance and body co-ordination concomitants associated with the allocation of attention to a cognitive task. In some experimental study, students participated in 30 minutes of Aerobic activity outperformed those students who watched television for the same amount of time. Aerobic programs have demonstrated the ability to improve cardiovascular endurance and physical fitness has been shown to mediate improvements in academic performance as well as the allocation of neural resources underlying performance on a working memory task.

Keywords: Aerobic activity, Fitness cognitive function, Academic student achievement

INTRODUCTION:

Aerobics, often referred to as aerobic exercise, is a form of physical activity that uses large muscle groups in a rhythmic and repetitive manner, increasing heart rate and oxygen intake. It is a corner stone of endurance training, improving cardiovascular health and overall fitness. Aerobics can be performed individually or in a group setting, often to music, and is designed to enhance various aspects of fitness, including flexibility, muscular strength and cardiovascular strength.

Aerobic exercises effects when incorporated into a student's routine, can positively impact academic performance. Studies show that regular physical activity improves cognitive function, memory and focus, which can enhance problem solving skills and academic outcomes. Aerobic fitness can also improve executive functions like working memory and inhibitory control, further supporting academic success.

Here's a more detailed look at the benefits of students' academic performance:

Improved Cognitive Function:

- **Enhanced concentration and memory:**
  Aerobic exercise increases blood flow to the brain, improving concentration, memory, and cognitive function.
- **Better Focus:**
  Regular physical activity promotes better focus and concentration, which are crucial for academic success.
- **Problem-Solving Skills:**
  Aerobic exercise can enhance problem-solving skills, making it easier for students to tackle challenging academic tasks.

Improved Executive Functions:

- **Working Memory:**
  Aerobic exercise has been shown to improve working memory, the ability to hold information in mind while performing tasks, which is essential for learning and memory.
- **Inhibitory Control:**
  Studies indicate that aerobic exercise enhances inhibitory control, The ability to resist impulses and distractions, which is important for focus and attention.
- **Long Term Benefits:**
- The long-term benefits of aerobic exercise highlight the importance of sustained interventions, suggesting the regular exercise can lead to move significant improvements in academic performance.
- **Improved Sleep Quality:**
  Aerobic exercise can improve sleep quality, which is also crucial for cognitive function and academic performance.
- **Mental Health Benefits:**
  Aerobic exercise can improve mental health and reduce stress and anxiety, leading to better mood and academic engagement.
  In corporation these activities into a student's routine can contribute to improved academic performance and over well-being.

OBJECTIVES OF THE STUDY:

Type of research: It is a descriptive study in nature.

Sample size: 200 respondents.

Types of data: Primary data has been collected using well designed questionnaire, direct personal interview and observation methods secondary data has been collected by referring to articles and research papers published in various national and international journals, magazines, etc.

Analysis: Such collected data was tested using SPSS Software, analysis and variance was performed to understand the co-relationship between the dependent and independent variables.

Finding of the Study:

- Aerobic activity has a positive impact on cognitive skills such as concentration and attention and it also enhances classroom attitudes and behavior all of which are important components of improved academic performance.
- A study also found positive associations between aerobic activity, physical activity fitness, cognitive function and academic achievement.
- Research proves that students need adequate amounts of physical activity through out the college day not only does it prevent obesity and obesity- related issues, but students also perform better academically.
- Aerobic exercise directly impacts the fitness and development of the brain. "It's likely that the effects of physical aerobic activity on cognition would be particularly important in the developing brains of Youth". According to 2010 essay by Charles Basch of Columbia University.

SUGGESTIONS:

- Quality physical aerobic activity has strong support from physical education teachers, coaches, physical directors and who are involved students in this activity.
- P.U colleges are being underutilized in the ways in which they provide opportunities for aerobic physical activity for P.U college students is needed.
- Under such an approach, all of a P.U college components and resources operative in a coordinated and dynamic manner to provide access encouragement and programs that enable all students to engage in vigorous or moderate intensity aerobic activity 15 to 30 minutes each day.

CONCLUSION:

Aerobic exercises can significantly benefit academic performance, particularly when interventions are sustained. Studies show that regular aerobic exercise enhances executive functions like inhibitory control and working memory, which are crucial for learning and academic success. Moreover, sustained aerobic exercise interventions, lasting over 50 weeks, have been found to have a significant positive impact on students' academic performance.