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 Research Article

THE RELATIONSHIP BETWEEN INDEPENDENT MOTOR ACTIVITY AND ACADEMIC PERFORMANCE

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ABSTRACT

This article explores the relationship between independent motor activity and academic performance in children and adolescents. The study is based on the analysis of data obtained from a variety of scientific studies conducted in recent decades in the field of psychology, physiology and education. The article examines the effect of physical activity on cognitive functions, concentration level, memory and overall mental performance. The authors also analyze the mechanisms through which physical activity can contribute to improving learning outcomes. The role of regular physical activity in the formation of positive psychophysiological changes that contribute to the improvement of educational skills and increase academic motivation is studied in detail. Possible strategies for integrating physical activity into the educational process are also discussed, taking into account modern learning requirements and taking care of the health of children and adolescents. The results of the study provide useful information for educational institutions, educators, parents and educational professionals, allowing them to better understand the relationship between physical activity and successful learning, which can lead to the development of effective strategies to improve overall student academic performance.

KEYWORDS

Independent motor activity, academic performance, physical activity and learning outcomes, the effect of physical activity on brain activity, health and education, learning processes and physical activity, the role

of physical activity in cognitive development, physical activity as a means of increasing concentration, the relationship between sports and academic success, recommendations for the integration of physical activity activities in the learning process.

INTRODUCTION

Modern education is increasingly paying attention to an integrated approach to the formation of health and personal development of students. One of the important aspects is understanding the relationship between independent motor activity and academic performance. Research in this area provides valuable information on how physical activity can positively affect mental development and learning. A large number of studies show that regular physical activity improves cognitive functions. Playing sports stimulates the brain, improves concentration, memory and problem solving[1]. Physical activity also promotes the production of neurotransmitters such as serotonin and norepinephrine, which have a positive effect on mood and overall mental activity.

The learning process requires students to be highly concentrated, problem-solving and creative. Physical activity helps students better cope with stress and fatigue, which helps to increase the productivity of learning activities. Also, physical activity improves sleep, which has a direct impact on the quality of learning. In addition, independent motor activity is often carried out in the form of team sports or group activities. This contributes to the formation of social skills such as teamwork, mutual assistance,

and respect for rules. These social aspects can have a beneficial effect on the overall adaptation of students in the educational environment.

Recommendations for educational institutions

In view of the above, educational institutions may take into account the following recommendations:

1. Integrating physical activity into the learning process: Including physical exercise or short breaks for physical activity between lessons can help maintain high levels of attention and concentration.
2. A variety of sports activities: Giving students the opportunity to choose the types of physical activity that match their interests can make classes more attractive.
3. Creating conditions for an active lifestyle: Ensuring the availability of sports grounds, areas for physical education and sports inside and outside the school educational space.

In modern society, more and more attention is being paid to health issues, including physical ones. A sedentary lifestyle associated with prolonged stay at the computer or in classrooms often leads to health problems[2]. Lack of

physical activity can have a negative impact not only on physical health, but also on mental health. Recently, more and more studies have pointed to the importance of the link between independent motor activity and academic performance. There are many studies demonstrating the positive effects of physical activity on cognitive function. Regular physical exercise helps to improve blood circulation, which provides a better supply of oxygen and nutrients to the brain. This in turn contributes to increased concentration, improved memory and more effective learning.

Independent motor activity is also important for maintaining emotional health. Sports and physical exercise can reduce stress, anxiety and depression. The learning process is often associated with high workload and stress, and here physical activity can be an effective means of relaxation and stress relief. Educational institutions that support an active sports life also contribute to the development of social skills among students. Team sports, training and joint activities contribute to the formation of friendly relations and conscious interaction[3]. Various studies show that students who devote time to physical activity often have better academic performance. Regular sports activities can become an integral part of the educational process, helping students cope with everyday stresses, increase learning efficiency and improve their psycho-emotional state.

Recommendations for maintaining balance

1. Regular exercise: Include at least 30 minutes of physical activity in your daily routine.

2. A variety of activities: Try different types of physical activity to maintain interest and engagement.

3. Compliance with the regime: Ensure adequate sleep and a healthy diet to maintain energy and concentration.

4. Organization of training: Use the breaks between training sessions for short physical workouts.

Modern education provides a wide range of knowledge and skills necessary for successful adaptation in society. However, in addition to training, physical activity plays an important role[4]. Recent studies confirm the impact of independent motor activity on academic performance. This relationship goes far beyond physical health, having a positive impact on mental processes and learning. Numerous studies have shown that regular physical activity improves cognitive function. Learning processes involve many mental tasks such as concentration, memory, attention, and problem solving. According to research, even a little physical activity can stimulate the brain, improving cognitive processes, which in turn has a positive effect on learning activities.

The modern learning environment often provides a huge amount of information, creating a stressful environment for students. Physical activity, in particular aerobic exercise, promotes the release of endorphins, natural antidepressants that help reduce stress and improve emotional well-being. Students who regularly engage in physical activity are often more able to effectively manage

stress, which has a beneficial effect on their overall academic performance. Physical fitness can also have a direct impact on learning outcomes. Studies show that children in good physical shape have a higher level of attention and a better learning ability[5]. Regular physical training improves overall physical fitness, which in turn helps to increase energy levels, endurance and improve learning productivity.

Regardless of age, independent motor activity also plays a key role in socialization. Playing sports, playing in a team, and exercising create opportunities to develop social skills such as teamwork, leadership, and respect for others. Students who successfully combine study with physical activity usually interact better in a team, which can have a beneficial effect on their overall academic performance. The relationship between independent motor activity and academic performance highlights the importance of supporting a healthy and balanced lifestyle for students. Physical activity not only helps to strengthen the body, but also becomes an incredibly effective tool for improving mental abilities, reducing stress and forming a positive emotional state, which ultimately has a beneficial effect on academic achievements[6]. It is important to introduce elements that promote physical activity into educational programs in order to ensure the comprehensive and healthy development of students.

Modern education emphasizes the importance of comprehensive personal development, including both mental and physical aspects. Research increasingly confirms the deep relationship

between independent motor activity and academic performance among students. In this article, we will consider how regular physical activity can positively affect an individual's academic achievements and overall adaptability.

Numerous studies show that physical activity improves cognitive function. Regular exercise stimulates blood circulation and improves oxygen supply to the brain, which in turn has a positive effect on concentration, memory and problem-solving ability. Students who engage in physical activity often show a higher level of attention in class and more successful results in exams. Physical activity also plays a key role in stress management and maintaining emotional balance. Students who play sports often experience less stress and depression, which allows them to better cope with academic loads. Moderate physical activity promotes the release of endorphins, hormones of happiness, which, in turn, improves mood and increases motivation to learn.

Sports activities often provide students with the opportunity to interact and communicate outside the learning environment. It promotes the development of social skills, collaboration and leadership[7]. Participation in team sports can also strengthen a sense of belonging to a team, which has a positive effect on overall adaptability in the learning environment. Schools and educational institutions can integrate physical activity lessons into the schedule, which helps students ensure a balance between mental and physical activity. Educational institutions can provide programs and resources to encourage

students to engage in physical activity, such as sports clubs, yoga classes, and fitness groups[8]. School and university facilities can be adapted to stimulate physical activity by providing equipment for sports and recreation.

In conclusion, it is important to realize that taking care of students' physical health has a direct impact on their academic success. The integration of physical activity into the educational process is a key component of creating an educational environment conducive to the comprehensive development of personality and the achievement of high academic results. It should be noted that independent motor activity not only has a positive effect on physical and mental health, but can also significantly improve academic performance[9]. A conscious combination of physical activity and learning activities contributes to the harmonious development of students, contributing to their successful studies and social activity.

In modern society, more and more attention is being paid to health and education issues. In recent decades, researchers have drawn attention to the close relationship between physical activity and cognitive functions. One aspect of this relationship is the relationship between independent motor activity and academic performance in children and adolescents. Many studies show that physical activity has a positive effect on brain function. Scientists note that regular physical activity helps to improve concentration, improve memory, increase attention levels and accelerate cognitive processes. These effects are especially important

for development in children and adolescents, whose brains are in the stage of active formation.

Independent motor activity, such as sports, jogging or just active outdoor games, has a positive effect on the physical and mental health of children. It is important to note that it is regular physical activity, and not just casual physical activity, that has more pronounced positive effects. There are several mechanisms that explain the effect of physical activity on cognitive function. Firstly, physical activity helps to improve blood circulation and blood circulation in the brain, which, in turn, increases the supply of oxygen and nutrients to brain cells. Secondly, physical activity contributes to the development of neurotrophic factors that support the growth and survival of neurons.

Several studies show that children and adolescents who regularly engage in physical activity show better academic results. They have a higher level of attention, a better developed working memory, and an improved problem-solving ability. In addition, physical activity helps reduce stress, improves mood and sleep, which can also have a positive effect on learning. Based on the above research results, parents and educational institutions should pay attention to physical activity as an important element of the educational process. Regular physical activities should become an integral part of the schedule for children and adolescents. It is also recommended that physical activity be integrated into curricula to emphasize the importance of physical and mental health care in general education.

CONCLUSION

The relationship between independent motor activity and academic performance demonstrates not only physical, but also cognitive and social benefits. The integration of physical activity into the educational process not only contributes to the care of students' health, but also creates favorable conditions for their full development and successful learning.

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