

The Positive Impact of Physical Activity Programs on Overall Child Health and Wellbeing

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Abstract

Background

One of the most remarkable and significant topics of interest in the field of pediatric medicine is the positive impact of physical activity programs on overall child health and wellbeing. This review article aims to highlight the physical, mental and social aspects of physical activity programs and explore how movement programs can contribute to a healthier next generation by highlighting their benefits for children's health.

Materials and Methods

In the search for scientific literature for this review, data from the US National Library of Medicine (PubMed), PsycINFO, MEDLINE, and SportDiscus were used, and the terms “movement programs”, “overall health”, “physical activity programs”, and “children’s psychological health” were used. The relevant literature has also taken its source from the research of relevant articles from reference lists derived from data searches.

Results

In today's modern world, where children are becoming increasingly sedentary and spending more time indoors in front of screens, it is becoming increasingly clear how physical activity programs play a vital role in improving children's health. Therefore, physical activity programs appear to have an extremely important health impact on children's physical, socioemotional, and psychological health by providing them with opportunities to participate in structured physical activities such as sports, games, and exercise.

Conclusion

It is recommended that movement programs be introduced in early childhood to help children develop a habit of physical activity. These physical activity programs should be designed in a way that encourages children to engage in physical activity in a playful and non-competitive manner. It is also important to recognize that movement programs can contribute to the physical and psychological health of children, while also fostering their social development.

Key words: physical activity programs; overall health; children’s psychological health; movement programs

Introduction

Obesity is defined as a major public health problem worldwide and is becoming increasingly common among children all over the world. According to the World Health Organization (WHO, 2020), an estimated 340 million children and adolescents aged 5-19 were overweight or obese in 2019, emphasizing that childhood obesity can lead to various health problems in both the short and long terms.

Studies show that obese children have an increased risk of various health problems due to excess weight. Obesity is caused by the interaction of genetic and epigenetic factors and leads to health problems and decreased quality of life with energy homeostasis and cognitive-emotional problems and obesity treatment should be planned with multicomponent approaches (Lister, et al.,2023). Many metabolic problems are observed associated with childhood obesity, and one of the most important health

problems is known as type 2 diabetes. Kelsey et al. (2019) stated that obese children were more likely to develop type 2 diabetes than non-obese children and exercise can improve insulin sensitivity, an important physiological mechanism in preventing type 2 diabetes in children. While Daniels et al. (2012) underline that obese child, who develop type 2 diabetes have a high risk of complications such as kidney disease, cardiovascular disease and retinopathy.

In addition to type 2 diabetes being one of the important health problems in obese and overweight children, these children also have a high risk of developing cardiovascular disease. Freedman et al. (2019) found that obese children had higher triglyceride, LDL cholesterol and blood pressure levels than non-obese children, and pointed out that these negative factors for children's overall health may increase the risk of developing cardiovascular disease in adulthood. In addition to these metabolic problems, it is stated that excess weight and obesity also cause musculoskeletal system problems. A study by Stovitz et al. (2008) found that obese children were more likely to experience joint pain and musculoskeletal disorders than non-obese children. And, it has also been emphasized that obese children and adolescents may experience musculoskeletal pain, especially in the knee and hip joints, and that this pain may be related to overweight and obesity problems. Therefore, it may be useful to recommend a physical activity program targeting successful weight control in order to reduce musculoskeletal pain. (de Sá Pinto, et., al 2006).

Many researches show that exercise can have a positive effect on children's weight management, and underlines that physical activity is a very effective method in the prevention and treatment of obesity. A study by Gutin & Owens (1999) stated that exercise is one of the promising interventions in improving body fat distribution and weight control for children, considering that exercise programs can lead to a decrease in body fat percentage in children. Similarly, White et al. (2019) stated in a research study that a physical activity program can improve the cardiovascular health of overweight or obese children by contributing to children's weight management and also, in many studies similar to this study, it has been emphasized that regular physical activity programs have positive therapeutic effects on cardiovascular health in both children and adults (Brand, et al., 2023; Cesa, et al., 2022; Szabo-Reed, et al., 2019).

Kostecka et al. (2017) found that children who participated in regular physical activity were more likely to engage in healthy behaviors, such as eating fruits and vegetables, and less likely to engage in unhealthy behaviors, such as smoking and drinking alcohol. These findings highlight that physical activity may also help children develop healthy habits that can prevent overweight and obesity in the long term (Lazzeri, et al., 2013).

Obese children may also experience social and psychological problems such as low self-esteem, depression, and social isolation. Carter et al. (2021) found that exercise was associated with improved cognitive functions in children, especially in the areas of attention and memory. In addition to this study, many studies have shown that movement programs have a positive effect on mental health (Biddle, & Asare, 2011; Deng, et al., 2023)

Discussion

Studies have shown that exercise programs can provide positive effects in the prevention and treatment of obesity in children. Ekelund et al. (2019), in a research study, showed that the body mass index (BMI) of children who participated in an exercise program was lower than those who did not participate, similarly, Warburton et al. (2019) underlined that children participating in exercise programs improve the functions of the cardiovascular system and improve the cardiovascular health of children (Wu, et al., 2019).

Additionally, Tremblay et al. (2019) found that exercise programs can

reduce the risk of developing type 2 diabetes in children. Since overweight and obesity are important risk factors for type 2 diabetes in children, it is especially important that movement programs contribute in this regard. Trost & Loprinzi (2008) stated in their study that exercise programs can also help children develop healthy habits that can prevent obesity in the long term. This research study found that children who participated in an exercise program were more likely to participate in physical activity outside of the program (Carson, et al., 2016).

While a study by Fox (1999) emphasized that regular physical activity can improve mood and reduce symptoms of anxiety and depression in children, and Loprinzi et al. (2015) showed that physical activity can increase cognitive function and academic performance by supporting memory development in children. All these findings suggest that exercise may be an effective intervention in improving children's psychological health. In light of these studies, it should be considered appropriate for parents to encourage their children to participate in regular physical activity to help reduce symptoms of anxiety and depression, improve cognitive functions, and increase self-confidence (Lin, & Gao, 2023).

Conclusion

Since data from the World Health Organization (WHO) shows that childhood obesity is a growing problem that has the potential to affect metabolic balances, it is imperative to take urgent measures to combat this metabolic problem. The World Health Organization emphasizes that the problem of childhood obesity not only has long-term consequences in adulthood, but also that overweight children may face a wide range of difficulties with metabolic and psychological effects. Certain metabolic and psychological problems of overweight children include breathing difficulties, inadequate bone development, hypertension, insulin resistance and lack of self-confidence.

Since it is observed that impaired nutritional balance and lack of physical activity, especially in early childhood, can cause weight balance problems and overweight, it is becoming increasingly clear that developing healthy eating and physical activity habits can play an important role in preventing and treating overweight problems and supporting the healthy growth and development of children.

Although there are many medical methods to combat these metabolic problems and the risk of obesity that these problems may cause, there is a clear consensus worldwide on the importance of natural, healthy nutrition and regular exercise habits for children to live a healthy life, grow up and develop healthy.

Since it is observed that children are the group at the highest risk of obesity, it is important to prevent the possible negative effects of child obesity on the process of healthy growth and development. In clinical studies on the effect of healthy eating and physical activity habits on children's health, it has been observed that the problem of excess weight can also have an impact on children's psychological well-being. It is therefore important to encourage children to develop healthy physical activity habits during this period, as this can help them gain a sense of self-confidence, express themselves, and thus gain a healthy psychological structure.

It is recommended that movement programs that are also worth noting which play an active role in preventing overweight and obesity, should be initiated in early childhood to help children develop a habit of physical activity. These physical activity programs should include enjoyable movement programs in a game-like setting, away from competitive sports. It is also important to recognize that while these programs contribute to the physical and psychological health of children, they can also help their social development.

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