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Impact of a physical activity program on body posture in young elementary school students

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Abstract

This study investigates the impact of a structured physical activity program on the body posture of young elementary school students. Given the increasing prevalence of poor posture due to sedentary lifestyles and increased screen time, this research aims to assess whether regular, organized physical activity can improve postural alignment among children aged 6 to 10 years. Through a combination of quantitative posture assessments and qualitative feedback from physical education teachers, the study provides insights into the effectiveness of exercise programs in promoting healthier body mechanics in young children.

Keywords: Physical activity program, body posture, young elementary school students

Introduction

In recent years, concerns have risen about the physical health of children, particularly regarding body posture. Poor posture at a young age can lead to long-term health issues, including back pain and spinal dysfunction. The shift towards more sedentary activities, primarily due to increased engagement with technology, has contributed significantly to this issue. Physical activity programs in schools represent a potential countermeasure, offering structured opportunities for children to engage in activities that promote strength, flexibility, and proper body alignment.

This research focuses on evaluating the effect of a specifically designed physical activity program on improving the posture of elementary school students. By integrating exercises that strengthen the core and back muscles, the program aims to enhance postural awareness and alignment among participants.

Objective

The main objective of this study is to determine the effectiveness of a structured physical activity program in improving the body posture of young elementary school students.

Methodology

200 students aged 6-10 from three elementary schools participated in the study. Consent was obtained from parents and school administrations. The intervention group (100 students) participated in a 12-week physical activity program consisting of three 40-minute sessions per week. The control group (100 students) followed their usual physical education curriculum.

Postural Assessment: Pre and post-intervention posture were assessed using the New York Posture Rating Chart.

Questionnaires: Students, parents, and teachers completed questionnaires regarding perceptions of posture and activity enjoyment before and after the program.

Statistical Analysis: Changes in posture ratings were analyzed using paired t-tests and ANOVA to compare between groups over time.

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Results

Table 1: Improvement in Posture Ratings

Group	Pre-Intervention Mean Score	Post-Intervention Mean Score	Change in Score
Intervention	3.4	4.6	+1.2
Control	3.5	3.6	+0.1

Discussion

The results from Table 1 reveal a noteworthy improvement in posture scores for the intervention group, with an average increase from 3.4 to 4.6. This significant change contrasts sharply with the control group, which showed only a minimal improvement, increasing from 3.5 to 3.6. The intervention, consisting of specific exercises aimed at strengthening core and back muscles, appears to be directly responsible for these improvements. This indicates that targeted physical activity is crucial for correcting and enhancing postural alignment in young students, more so than standard physical education activities which might not focus as intensively on these areas.

The findings suggest that not only are structured exercise programs effective in improving posture among young children, but they also emphasize the importance of designing physical activities that specifically address the needs arising from today's increasingly sedentary lifestyles. This is particularly relevant given the context of rising screen time and its associated risks of poor posture and related health issues.

Furthermore, the qualitative feedback obtained from the questionnaires adds depth to these results. Both parents and teachers reported noticeable improvements in the children's postures and a reduction in complaints about back pain in the intervention group. This subjective data aligns with the objective measurements from the postural assessments, reinforcing the efficacy of the exercise program.

Overall, the data strongly supports the premise that dedicated physical activity programs have substantial benefits for physical health, beyond general activity or standard PE curricula. Such programs not only improve posture but also seem to engage students positively, which is crucial for maintaining consistent participation and interest in physical health during the formative years. This study, therefore, provides a compelling argument for the incorporation of specialized physical activity interventions in schools to foster better health outcomes and lay a foundation for healthier future generations.

Conclusion

The study conclusively demonstrates that a structured physical activity program specifically designed to enhance core and back strength significantly improves body posture among young elementary school students. The intervention group, which participated in the targeted 12-week exercise program, showed a notable improvement in posture scores compared to the control group that continued with regular physical education. This disparity underscores the effectiveness of specialized, focused physical activity interventions over standard curriculum activities for addressing specific physical development needs such as posture.

Furthermore, the positive feedback from students, parents, and teachers about the program's enjoyability and its visible effects on the children's posture enhances the argument for

its broader implementation. It is evident that incorporating such structured physical activities into school curricula can provide substantial benefits in combating the negative impacts of sedentary lifestyles prevalent among young children today, particularly those related to poor postural health.

References

- Balkó S, Balkó I, Valter L, Jelínek M. Influence of physical activities on the posture in 10-11 year old schoolchildren. *Journal of physical education and sport*. 2017 Feb 1;17:101.
- Calcaterra V, Marin L, Vandoni M, Rossi V, Pirazzi A, Grazi R, Patané P, Silvestro GS, Carnevale Pellino V, Albanese I, Fabiano V. Childhood obesity and incorrect body posture: impact on physical activity and the therapeutic role of exercise. *International journal of environmental research and public health*. 2022 Dec 13;19(24):16728.
- Dugan JE. Teaching the body: A systematic review of posture interventions in primary schools. *Educational Review*. 2018 Oct 20;70(5):643-61.
- Mandžáková M, Slovákova M. The Intervention Program effect on the Quality of Children's Body Posture at Elementary Education Level. *Sport Mont*. 2023 Oct 1;21(3):57-63.
- Kliziene I, Cizauskas G, Sipaviciene S, Aleksandraviciene R, Zaicenkoviene K. Effects of a physical education program on physical activity and emotional well-being among primary school children. *International journal of environmental research and public health*. 2021 Jul 15;18(14):7536.
- Elena BE, Barbora NO, Robert RO, Šárka TO, Alexandr FY, Ingrid PŠ. Analysis of physical activity status and functional posture in slovakia's young school-aged children with different body weight. *Zdravotnícke listy*. 2020 Apr 1;8(2).
- Andrieieva O, Kashuba V, Yarmak O, Cheverda A, Dobrodub E, Zakharina A. Efficiency of children's fitness training program with elements of sport dances in improving balance, strength and posture. *Journal of Physical Education and Sport*. 2021 Oct 1;21:2872-9.
- Geldhof E, Cardon G, De Bourdeaudhuij I, De Clercq D. Effects of a two-school-year multifactorial back education program in elementary schoolchildren. *Spine*. 2006 Aug 1;31(17):1965-73.
- Molina-Garcia P, Plaza-Florido A, Mora-Gonzalez J, Torres-Lopez LV, Vanrenterghem J, Ortega FB. Role of physical fitness and functional movement in the body posture of children with overweight/obesity. *Gait & Posture*. 2020 Jul 1;80:331-8.
- Miñana-Signes, Vicente, Manuel Monfort-Pañego, and Samuel Rosaleny-Maiques. "Improvement of knowledge and postural habits after an educational intervention program in school students." (2019).
- Habybabady RH, Moghaddam AA, Mirzaei R, Mohammadi M, Rakhshani M, Khammar A. Efficacy and impact of back care education on knowledge and behavior of elementary schoolchildren. *JPMA-Journal of the Pakistan Medical Association*. 2012 Jun 1;62(6):580.