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THE IMPACT OF GYMNASTICS TRAINING ON STUDENTS' PSYCHOLOGICAL WELL-BEING

Mamatqodirov Ziynatulloh Nodirbek o'g'li
Kokand University, Andijan Branch
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Abstract: This article examines the impact of gymnastics training on students' psychological well-being, with particular attention to emotional stability, self-esteem, self-confidence, anxiety, and social activity. The study provides a theoretical and analytical review of the relationship between physical activity and students' psychological development based on relevant scientific literature, systematic reviews, and empirical studies focusing specifically on gymnastics. The analysis indicates that gymnastics training can contribute not only to the development of physical abilities but also to students' psychological well-being by strengthening self-confidence, improving social interaction, enhancing physical self-concept, and reducing negative emotional states. At the same time, the psychological effects of gymnastics depend on several factors, including the content and duration of training, workload intensity, the teacher's pedagogical approach, and students' individual psychological characteristics.

Keywords: gymnastics, students, psychological well-being, physical activity, self-esteem, anxiety, emotional stability, self-confidence, social skills, physical education.

INTRODUCTION

In contemporary education, alongside students' physical development, increasing attention is being paid to maintaining their psychological well-being, emotional stability, and social adaptability. Growing academic demands, prolonged sedentary behavior, increased use of digital devices, and changes in the social environment may affect students' psychological states. Therefore, the use of physical activity not only as a means of improving physical health but also as a pedagogical tool for supporting psychological development has become an increasingly important issue in the educational process.

The World Health Organization recommends that children and adolescents aged 7-17 engage in an average of at least 60 minutes of moderate - to vigorous-intensity physical activity per day throughout the week. These recommendations emphasize that regular physical activity is beneficial not only for physical health but also for cognitive and mental health. In particular, physical activity has been associated with reductions in depressive symptoms and improvements in cognitive functioning and academic performance [1].

Gymnastics occupies a distinctive position within the system of physical education. It involves the simultaneous development of movement accuracy, balance, coordination, flexibility, strength, agility, and spatial awareness. Performing gymnastics exercises also requires students to concentrate their attention, plan movements sequentially, remember instructions, and perform tasks independently. Thus, gymnastics training provides favorable conditions for integrating physical and psychological processes.

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Research focusing on the psychological dimensions of gymnastics also supports this perspective. For example, a study involving an eight-week gymnastics program for primary school children reported positive changes in participants' physical self-concept. The researchers found that gymnastics training was particularly beneficial for the development of movement competence and physical self-perception among younger children [2].

Similarly, a study examining the effects of an acrobatic gymnastics program on the social skills and self-esteem of 14-15-year-old students found statistically significant positive changes in both areas following participation in the program.

From this perspective, investigating gymnastics training as a means of supporting students' psychological well-being represents a relevant area of research within physical education methodology.

MATERIALS AND METHODS

The methodological framework of the study was based on scientific approaches developed in the fields of physical activity, sports psychology, educational psychology, and physical education methodology. The study employed theoretical methods, including systematic analysis, literature review, comparative analysis, synthesis, and theoretical interpretation [3].

The research materials included scientific studies investigating the relationship between physical activity and the psychological well-being of children and adolescents, empirical studies assessing the psychological and social effectiveness of gymnastics training, and relevant recommendations issued by international health organizations.

In this study, psychological well-being is considered as a multidimensional construct encompassing students' emotional stability, anxiety levels, self-esteem, self-confidence, social engagement, and overall psychological functioning [4].

The impact of gymnastics training was analyzed across the following psychological dimensions:

- emotional state and mood;
- anxiety and psychological stress;
- self-esteem;
- self-confidence;
- physical self-concept;
- social skills;
- attention and motor control;
- psychological resilience.

At the same time, the study avoids the assumption that gymnastics produces identical psychological outcomes for all students. Its effects may vary depending on the organization of training, workload intensity, students' age and individual characteristics, and the psychological climate established during the training process [5].

RESULTS

The analysis of scientific literature indicates that gymnastics training can influence students' psychological well-being in several interconnected ways.

First, gymnastics provides significant opportunities for the development of self-esteem and physical self-concept. The gradual acquisition of gymnastics skills allows students to recognize their own physical capabilities through direct experience. Successfully performing a movement that was initially perceived as difficult may create a sense of competence and strengthen students' belief in

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their own abilities. This experience can contribute to the development of positive self-perception and self-esteem [6].

A study examining the effects of gymnastics on children's physical self-concept involved 113 primary school students. Following an eight-week intervention, positive changes in physical self-concept were reported among students participating in the gymnastics program.

Second, gymnastics may contribute to the development of social skills. Exercises performed in pairs or small groups require students to cooperate, understand their partners, wait for their turn, provide mutual support, and work toward a shared outcome. Research on an acrobatic gymnastics program involving 14-15-year-old students demonstrated statistically significant improvements in social skills and self-esteem following the intervention.

Third, gymnastics may support emotional regulation. During exercise, students' attention is directed toward performing specific movements and controlling their bodies. This process can provide a temporary psychological shift away from academic pressures and sedentary activities, thereby contributing to emotional balance.

Research on physical activity more broadly also suggests that regular exercise is associated with reduced depressive symptoms among children and adolescents. A 2025 systematic review and network meta-analysis of 27 randomized controlled trials found that exercise interventions were associated with reductions in depressive symptoms and improvements in self-esteem among children and adolescents. Positive trends were also observed in relation to anxiety, although the overall effect did not reach statistical significance.

This finding is methodologically important because it indicates that the psychological effects of physical activity may not be uniform across all psychological dimensions.

Fourth, gymnastics can contribute to the development of attention and self-regulation. Performing gymnastics exercises requires students to remember movement sequences, carefully observe the instructor's demonstrations, monitor body position, and identify and correct errors. These activities create favorable conditions for the development of voluntary attention and motor self-control.

Fifth, the psychological impact of gymnastics is significantly influenced by the pedagogical organization of training. Constantly comparing students with one another, publicly criticizing their mistakes, or imposing workloads that exceed their individual capabilities may, on the contrary, increase anxiety and reduce self-confidence. Therefore, individualized instruction, positive reinforcement, and gradual progression in exercise difficulty are essential components of psychologically supportive gymnastics training.

Research also demonstrates that the psychological effects of gymnastics should not necessarily be interpreted as exclusively positive. For example, a study involving 10-12-year-old female gymnasts found that competitive and recreational gymnastics groups did not differ consistently across all measures of self-esteem and anxiety. Some dimensions of social and academic self-perception were lower among participants involved in competitive gymnastics.

Thus, when evaluating the psychological effects of gymnastics, it is necessary to consider not only the physical activity itself but also the level of competition, training environment, teacher–student interaction, and individual characteristics of the student.

CONCLUSION

The findings of the study indicate that gymnastics training represents one of the physical and pedagogical means capable of exerting a multidimensional influence on students' psychological well-

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being. Regular participation in gymnastics can expand students' physical capabilities while simultaneously creating conditions conducive to the development of self-esteem, physical self-concept, self-confidence, and social skills.

Scientific literature demonstrates an association between physical activity and the psychological well-being of children and adolescents. In particular, physical activity has been linked to reductions in depressive symptoms and improvements in certain cognitive and psychological outcomes. Studies specifically examining gymnastics have also reported positive changes in physical self-concept, self-esteem, and social skills.

At the same time, it cannot be concluded that gymnastics automatically produces positive psychological outcomes in all circumstances. Excessive competitiveness, inappropriate workloads, constant comparison with peers, or failure to consider students' individual capabilities may contribute to negative psychological experiences.

Consequently, the organization of gymnastics training in general education settings should prioritize individualized instruction, progressive workload, positive pedagogical communication, safety, and reinforcement of students' personal achievements. Future research should examine the effects of gymnastics training on students' anxiety, stress, self-esteem, motivation, and psychological well-being using experimental and control groups and standardized psychodiagnostic instruments. Such research would make it possible to obtain more precise empirical evidence regarding the psychological effectiveness of gymnastics within the school physical education system.

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