



SOFIA UNIVERSITY MARKING MOMENTUM FOR INNOVATION AND TECHNOLOGICAL TRANSFER



IMPROVING THE HEALTH STATUS OF CHILDREN WITH SEN THROUGH SWIMMING EDUCATION AND TRAINING

Research Group: SWIMMING EDUCATION FOR CHILDREN WITH SPECIAL

EDUCATIONAL NEEDS Research field: Swimming Head of the research group Assoc.Prof. Bilyana Rangelova Members of the group assistant Krasimira Desheva

Project Guidelines

It is necessary to test innovative programs to further develop the concept of health education as a purposeful pedagogical process for forming and developing the health culture of the individual and society. This will ensure a high physical and mental health level of children with SEN on an individual and social level. Health education is inextricably linked to healthy eating and sports. Based on data from a survey of the opinions of lecturers, teachers and students, we analyse opportunities for improving the health status of children with special educational needs through swimming training and practice. We established the attitudes of the surveyed specialists and students, with our goal being to find the most appropriate alternative options (verbal and non-verbal means of communication) for swimming instruction. We believe this motor activity, used as an additional activity, will contribute to a healthier lifestyle for children with SEN. We analysed the opportunities volunteering offers when working with this type of children. We summarised the opinions and expectations from optimising and adapting a swimming training program for individuals with special educational needs.

Introduction

Health education is designed to equip individuals with the skills necessary to create and maintain a healthy lifestyle and living conditions while encouraging the voluntary adoption of healthpromoting behaviors. In alignment with international guidelines and the European development pathway of our country, the preschool and school education act ensures that every Bulgarian citizen has the right to education. Inclusive education is an integral part of the right to education, which requires ensuring conditions for children and students with special educational needs (SEN) for the timely, active, and high-quality realisation of this right. Innovation in education is distinguished by several criteria that guarantee the quality of the educational process: breaking down the curriculum and making active connections between subjects; inspiring teachers who seek out the new, use modern teaching methods and share their experiences; considering the individuality of each child; stimulating creativity; expanding the learning environment beyond the classroom and, of course, involving parents and society. Numerous authors consider sports activities a successful means of improving academic and professional activity. Physical exercise is the sum of all movements a person performs over a certain period. When increased and implemented through various configurations of sports activity, it would help improve health and physical development, the psychological state, building and shaping self-esteem, ability to integrate, teamwork, and a sense of solidarity, and improving concentration in the learning process. Swimming is one of the most popular and accessible sports. Its practice guarantees social integration and positive change in public consciousness. From the point of view of developing the physical condition, it is complex for the entire body. The effect is due primarily to the nature and diversity of the movements and the specificity of the aquatic environment—physical exertion during swimming releases endorphins, hormones that are a prerequisite for feeling better. Improved blood circulation during swimming helps to increase memory and mental activity. The purpose of this article is to study the problem of the need to prepare an adapted swimming training program for individuals with special educational needs. The presentation here introduces some results from the survey among lecturers, teachers, and students. Based on the analysis of the respondents' attitudes and assessments regarding the need for an adapted swimming program for children and students with special educational needs, conclusions are drawn about optimising the learning process and seeking alternative options for more effective swimming instruction for these children. The study's theoretical foundations are oriented towards the idea that swimming is a sport practiced in an aquatic environment, which makes communication between coach and trainee difficult. In that sense, both verbal and nonverbal communication can be used. For example, in children with visual impairments, communication involves verbal commands and instructions that must be clear and understandable. Communication among children with hearing and/or speech impairments often relies on gestures and facial expressions, much like sign language. Additionally, swimming is a sport that requires specific physical movements of the body, along with unique techniques for breathing and exhaling in the water, which is a nonhuman environment. Due to this specificity, before contact with water, individuals with SEN must have theoretical preparation and an attitude that swimming will not be dangerous for them; on the contrary, they can discover a new world.

Methodology

This study aims to gather the opinions of lecturers, teachers, and students on the necessity of preparing an adapted swimming training program for individuals with special educational needs. A total of 202 lecturers, teachers and students participated in the study, 70 of whom are sports lecturers in various higher education institutions in the country, 102 are physical education and sports teachers from Sofia, Plovdiv, Pazardzhik, Gabrovo, Blagoevgrad and Sandanski, and 30 students majoring in Physical Education and Sports. The research methodology relies on the survey method for data collection. A questionnaire was developed to contain 21 questions (20 of them are closed-ended, with 6 of them allowing for more answers, and seven allowing for additional answers – indicating something else, in 1 question the participants must rank the answers in order of importance). The results of the survey were analysed and summarised.



Results

In the initial part of the study, responses from the participants showed that 49% based their choice of volunteering on their professional interests, 30% do it because they have loved ones with special needs, and 13% define volunteering as their duty. To the question, "Do you define your volunteer activity as one of the most important and active aspects of your social status?" Most participants (76%) were not confident and answered "partly", and 14% answered positively. 43% of the respondents noted that the most significant difficulty they encounter in their volunteer work is controlling their own emotions, 26% of them revealed challenges in their relationships with children with SEN, and 25% noted that they have no problems. 13% admitted to difficulties in their relationships with the children's parents, and 10% to a lack of motivation for work. Almost all participants in the survey (93%) expressed a desire to participate in some form of additional qualification to acquire new knowledge that would contribute to more fulfilling work with children and students with SEN.

In the second part, a large percentage of respondents (66%) highly assess the influence of a healthy lifestyle on the integration process of children with special educational needs, 21% of them believe that the influence is limited, and 20% express reservations about it. More than half (61%) think they have received knowledge about a healthy lifestyle in their education, and the rest are not satisfied with their education. Regarding knowledge about the modern model of a healthy lifestyle, only 4% of individuals responded that they were delighted with this knowledge, 75% of them answered "yes, to some extent", and 18% were not satisfied with the knowledge they had. In the field of sports training, 70% of the survey participants noted that they lacked knowledge about a healthy lifestyle, followed immediately by health education at 66%, followed by the fields of biology (13%) and chemistry (13%). A significant portion of the respondents, 75%, believe that leading a healthy lifestyle and participating in sports are fundamental aspects of inclusive education. In the third part, 83% of respondents believe that children with SEN have the greatest need for the sport of swimming to develop healthy lifestyle skills.

A high percentage (69.5%) of participants also identified physical exercises for general body strengthening as an essential skill. Flatfeet and spinal curvatures prophylactics account for 25%, while tourism constitutes 22%. Games involving a lot of movement make up 12%.

Results

Also, finds an essential place in developing this skill. It is noteworthy that none of the participants noted as an answer "they do not need to exercise, but rather receive information about hardening, body hygiene, clothing, and sleep." 77% of survey participants believe that swimming lessons for children with special educational needs (SEN) would help them overcome their fear of water and reduce the risk of drowning. 71% also indicated that swimming would motivate children to play sports, and 42% believed that this would lead to an increase in the quality of education. Seventy-seven percent of participants indicated that the challenges in teaching swimming and other sports to children with special educational needs (SEN) stem from these children not fully comprehending instructions given using standard methods. 38% also noted that "children do not have the opportunities required by standard methodologies", and 45% of them believed that "I do not have the necessary training as a sports educator". "Adapting standard methodologies according to the individual characteristics of each student" would help increase efficiency when working with children with SEN, according to 94% of respondents. 29% believe that efficiency would improve with "good knowledge of their individual qualities." The modern approach to teaching swimming to children with SEN is regarded as most effective by 93% of participants, emphasising the need for appropriate verbal and non-verbal communication methods. "Adapting the program to the individual characteristics of each student" is also essential, according to 54% of them. 55% of participants noted that the modern model should include "regular sports practice", and 21% also "an individual approach to each student". Respondents ranked components that would improve the quality of the swimming learning process in order of importance – 1st place "finding the most appropriate verbal and non-verbal means to increase the effectiveness of communication" (55%); 2nd place "adapting the program according to the individual characteristics of each student" (43%); 3rd place "individual approach to each student" (29.5%); 4th place "regular sports" (30%); Fifth place "lack of stressful situations" (39%); Sixth place "healthy nutrition" (40%); Seventh place "observance of a daily regimen - food, work, rest, sleep" (44%).

According to 61% of respondents, children with SEN must exercise 2-3 times a week, 21% of them believe that this should happen every other day, another 9% believe that once a week is quite enough, and only 6% are maximalists and think that this should be done every day. In our survey, 72% of the specialists believe that the ability to swim is essential. Meanwhile, 23% were unsure and responded with "I cannot judge," while only 1% did not consider this skill necessary. In the fourth part, the data show that motivation for working with children with special educational needs is 100% for 28% of respondents, 67% are hesitant in their answer and indicated "yes, to some extent", and 3% do not have this motivation.

Only 8% of individuals believe they have the complete knowledge and capacity to teach children with special educational needs to swim. 48% are not so convinced and answer "yes, to some extent," and 41% believe they do not have the necessary knowledge. 70% of the participants expressed a desire to acquire or increase their understanding of teaching children with special educational needs to swim with a categorical "yes", 25% answered "yes, to some extent" and 2% did not have such a desire. 68% of the individuals are professionally interested and, for this reason, would like to improve their qualifications in working with children with SEN; meetings with children with SEN stimulate another 20% of them, and the family and upbringing they received is the stimulus for the remaining participants.





Conclusion

- 1. Professional interests play a key role in selecting teachers and students for their participation in volunteering within educational institutions. Acquiring new knowledge and skills when working with children with special educational needs in physical education and sports would increase the quality of education.
- 2. The influence of a healthy lifestyle on the integration process of children with special educational needs finds its followers, who, even if they are not completely satisfied with their knowledge about this model, realise that it is one of the fundamental issues in inclusive education.
- 3. The well-documented benefits of swimming lessons for individuals with special educational needs (SEN) present challenges for sports educators to enhance their teaching methods. By optimising the learning process and exploring alternative strategies, we can create a more effective learning environment that will improve participants' health and physical abilities.
- 4. For students with SEN to have an equal chance of access to practicing the sport of swimming, there must be trained specialist teachers and students in physical education and sports with a swimming profile who possess the necessary knowledge, skills, and competencies to work with them. Mastering the correct terminology used in the sport of swimming, as well as signals, gestures, facial expressions, and other verbal and nonverbal means of communication specific to this field, will facilitate the work process and lead to faster and higher-quality results.
- 5. The development of an adapted swimming training program for individuals with special educational needs will prepare specialists in higher education and teachers for the acquisition of various professional qualifications.