STIMULATING THE MENTAL AND PSYCHO-PHYSICAL HEALTH OF CHILDREN IN PRE-SCHOOL AND EARLY SCHOOL AGE THROUGH TEACHING RECREATIONAL AQUATIC CHESS

Violeta Mironova

National Sports Academy "Vassil Levski", Sofia, Bulgaria
Department Master in "SPA", „Logopedia" and "Health management".

ABSTRACT

Teaching innovative children from pre-school and primary school age in swimming, using chess pieces will improve their mental and cognitive development. Through the rules of chess, they gain knowledge for socially acceptable behaviour based on understanding the needs of others, tolerance for differences and respect for hierarchical behaviour in society, overcome mental and logical difficulties. Swimming will be taught for proven good practices in risky situations in different water basins, for preventing water traumatism and drowning, and swimming skills also aid further sports activities.

Innovation is the combination of two completely differing sports - swimming (physically active) and chess (mentally active). Through the use of large plastic waterless chess pieces, children are trained in initial swimming skills. Parallel with this, they learn the game chess. The advantage of the innovative aqua-chess idea is that it is easy to use.

The aim of this study is to confirm scientific evident data that children aged 3-7 years old learning more easily and lastingly knowledge and skills through different game models.

The methodology includes the use of psycho-diagnostic tests and pedagogical observation to determine the effect of applying aquatic chess.

The obtained results will serve as a basis for introducing teaching in aquatic chess in pre-school into the compulsory education system in Bulgaria to prevent aggression and unhealthy lifestyles from earliest childhood.

Key words: recreation, aqua-chess, children, recreation

INTRODUCTION

The new UN agenda, entitled "Transforming Our World: Agenda 2030 for Sustainable Development", for the first time includes the personal well-being of every citizen on the planet as a common goal of society. With the 2030 strategy, the UN has launched a global and inclusive effort to take the world out of poverty and to achieve sustainable development with care for all living being on the planet, taking into account the environmental side of the issue. The Section 3 of Program 2030 is "Good Health".

The World Sustainable Development Goal is to provide healthy lifestyles and promote the well-being of all at all ages.

The insufficient level of health culture and healthy lifestyles, including for adults in the country, calls for an analysis of the problems of "modern" diets and "modern" diseases, incl. changing work and life style (e.g. sitting in front of a computer). This puts it at the forefront to promote the need to use sports

activities and share sports resources.

Sports are a set of specific physical activities or physical exercises that are performed for a specific purpose and in conditions other than everyday ones. Some specific sports are mental and others are physical engaged. Swimming and chess are representatives of these two groups. Swimming is the second most popular individual sport in the world. According to some experts, swimming will become the No. 1 sport on the planet in the near future. (Bankov, P, 2017). The ability to swim significantly helps people practice many other activities and sports. Swimming is used also for recreation and rehabilitation. This is the most harmoniously developing sport.

The word *chess* comes from Persian and means *emperor*, and the word *mat* means *dead*. Whoever kills the enemy emperor (king) wins the game. There are many legends, theories and perceptions about the origins of the game, from India, Persia and even

China being the most frequently cited for its homeland. An exact date cannot be determined, but the assumptions are from the 3rd to the 6th century of our era. Most likely is Indian origin, as a derivative of the game blackmail. With various properties (movements of the figures and their placement), the game reflected the composition and properties of the old Indian army, formed of four parts: elephants, battle towers, horses and infantry. It is accepted that chess is an occupation for smart people. The development of society necessitates a new approach to solving the problems of hipodynamic, resocialization, chronic fatigue, depression, etc. all diseases of the modern world.

The connection between the cerebellum, sensorimotor processing and cognitive abilities requires further investigation. There is a dearth of research comparing the effects of motor training in differing environments such as water on cognitive development. Children with automaticity and coordination in motor abilities may have a greater processing capacity available to learn more complex concepts such as symbolic representation (Berger, S.E., 2010) and the aquatic environment may enhance motor learning (Sato, D., Yamashiro, K., Onishi, H., Shimoyama, Y., Yoshida, T. and Maruyama, A, 2012).

INOVATION

Swimming training using chess pieces and chess training by swimming.

THE PRECONDITIONS OF THE STUDY

While playing games (chess) is a great leisure activity that people of all ages can enjoy, games can also be used for learning and educational experiences. Some games have been found to improve cognitive functions like memory and reasoning. Other games have the potential to reverse aging related brain function problems such as short term memory loss. For more than 10 years NSA Swimming Club has been working with people with various mental and physical disabilities. Excepting Madara (NSA) swimming pool, they have been working systematically on programs for Adapted Physical Activity and Sports every summer. Two weeks in Ravda - Nessebar, NSA is conducting intensive training in adapted water sports.

The educational-methodical and practical activities in the studied disciplines (swimming, aquatics, kayaking and sailing) were carried out in the en-

vironment of disabled people in partnership with AFAS Sports Club - NSA. VUSB - Nessebar. is also used for purposeful summer camps for sports activities with schools and sports clubs from Sofia and Bulgaria.

Aim

The main aim of this study is to creating aquatic chess methodology for different groups of participants as a new kind of animation-recreational activity for young people. “

TASKS FOR OBSERVATION

1. To distinguish different types of chess pieces according to the size;
2. To differentiate chess pieces from standard swimming training figures;
3. To overcome the fear of water, through games in which children must remove chess pieces thrown into the water;
4. To train in swimming skills and consolidation of those with large chess pieces;
5. To small games with chess figures;
6. Relay swimming for discovering of a specific chess figure and an explanation of its meaning.
7. To provoke and confirm the need of swimming and chess activities together.

METHODS

The following methods can be applied:

1. The psychosocial test for determining the psychosocial status (pedagogical observation) of children. The rating scale with five grades (1-poor; 5-excellent) can be used.
2. Physical development of the children, by measuring anthropometric, morphological and motor skills (strength, agility, endurance, aerobic performance, speed).
3. Game-based learning a teaching method that allows learners to explore different parts of games as a form of learning. Games can be designed by teachers and other education specialists in a way that balances academic subjects such as history with the strategies, rules and social aspects of playing a game. Game-based learning can also be done as a collaboration between learners and educators. This type of game creation enhances the playing experience and can lead to a depth and

scope of game that are not available through other types of learning experiences.

The materials:

- ✓ Copies of the book "Let's Play Chess" (Josy, B., 2019).
- ✓ Brochures / booklets "Water Rescue" (Andonov, St., N.Izov, Vl.Todorov, I. Maznev, 2006).
- ✓ Aquatic chess (two size). At least two chess pieces are needed to evaluate and increase cognitive and associative thinking processes.

EXPECTED RESULTS

The main result is to strength visibly and to stabilise physically all participants (children). Also to create a positive development: communication, adaptation, body language, reactivity of a given tasks, verbal communication trough playing chess in aquatic conditions. Very important is to increase the threshold of tolerance in communications and actions also the attention, cognitive and associative thought processes of the participants. At least, to create the interest for the swimming elements combining with chess figures.

CONCLUSION

With the introduction of computer games and sedentary lifestyles, the practicing the swimming with chess activities, as a new type of animation activity to enhance the recreation and prevention of young people, has a marked future. In a changing global world, the promotion of different recreational activities is the future of healthcare. Combining the swimming with chess is part of this future of health promotion.

Our research can provide evidence that chess (cognitive activity) and swimming (motor activity) together can be useful in improving the motor, cognitive and time-estimation abilities in children aged between four and six attending standard kindergartens. This contributes to the understanding of the possibilities afforded by different motor training and the possible neural mechanisms that underpin the enhancement of these abilities. The advantages of an aquatic environment for children may further provide useful knowledge for physical-education teachers and could be utilized in the development of motor interventions for pre-school children. In addition, such interventions may help reduce ear-

ly motor difficulties, thereby preventing additional motor disorders which can lead to associated emotional, social and educational problems.

LIMITATIONS OF THE STUDY

There are several limitations to this study that should be acknowledged. First, what is to be a size of the sample. The small sample size limited the power of the study. Second, we are aware of the potential differences between the various types of non-aquatic motor and non-motor activities which were used in the study.

Future research must be directed to examine specificity of different elements of the aquatic training combining with playing chess.

REFERENCES

- Andonov S., Izov, N. (2003). *Water Rescue*. NSA-press.
- Andonov, St., N.Izov, Vl.Todorov, I. Maznev (2006). *Water Rescue*. TipTop Press, Sofia.
- Bankov P. (2007). *Leisure Sport Management*.
- Belan I. (1990). *Jogging*. Medicine and Physical Education.
- Berger, S.E. (2010) Locomotor Expertise Predicts Infants' Perseverative Errors. *Developmental Psychology*, 46, 326-336.
- Blogs, J. (2019). *Let's Play Chess! Includes Chessboard and Full Set of Chess Pieces Board book*.
- Boyanov V. (1996). *Encyclopaedia of Bodybuilding*. S.
- Davidov D. (2010). *Jogging*. Program. NSA.
- Dimitrova B. (2006). *Program: SPA Culture, Eastern and Aqua Practices* ". NSA.
- Karabiberov, Yul. (1997). *Optimizing Training Exercises*. C.
- Peeva P. (1996). *Sport for All*. NSA.
- Rachev, K. (1998). *Theory and Methods of Physical Education*. NSA
- Sato, D., Yamashiro, K., Onishi, H., Shimoyama, Y., Yoshida, T. and Maruyama, A. (2012) The Effect of Water Immersion on Short-Latency Somatosensory Evoked Potentials in Human. *BMC Neuroscience*, 13, 13-19.
- Yancheva T. (1997). *Psychological provision of sports training*. S.
- Zhelyazkov, Z., Dasheva D. (2011). *Fundamentals of sports training, Gera-Art*.