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# The influence of boccia on self-esteem and increasing the functional capabilities of disabled people

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**Key words:** boccia, people with disabilities, sport

# **Abstract**

Sport is an important supplement to the rehabilitation process and opens the way to improving the comfort and quality of life of people with disabilities. Sport not only accelerates regenerative, adaptive and compensatory processes, but also enables the creation of new social contacts, improves self-esteem and physical performance. The precursor to the dynamic development of disabled sports was Sir Ludwig Guttmann, who changed the perception of the sport of disabled people and placed it on a par with the sport of non-disabled people. Boccia is one of the paralympic disciplines that do not have their equivalent in the Olympic program. In 1992, during the Paralympics in Barcelona, boccia became a permanent Paralympic discipline and gave the opportunity to people with the greatest disabilities of the musculoskeletal system to participate in sports competitions. Boccia got to Poland in the early 90s thanks to a group of Swedish athletes from Malmo and at that time the first boccia trainings under the supervision of Witold Maciejewski, organized by Romuald Schmidt, started in Poland.

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#### **INTRODUCTION**

Sport is an important supplement to the rehabilitation process and opens the way to improving the comfort and quality of life of people with disabilities. Sport not only accelerates regenerative, adaptive and compensatory processes, but also enables the creation of new social contacts, improves self-esteem and physical performance. The precursor to the dynamic development of disabled sports was Sir Ludwig Guttmann, who changed the perception of the sport of disabled people and placed it on a par with the sport of non-disabled people.

Boccia is one of the paralympic disciplines that do not have their equivalent in the Olympic program. In 1992, during the Paralympics in Barcelona, boccia became a permanent Paralympic discipline and gave the opportunity to people with the greatest disabilities of the musculoskeletal system to participate in sports competitions. Boccia got to Poland in the early 90s thanks to a group of Swedish athletes from Malmo and at that time the first boccia trainings under the supervision of Witold Maciejewski, organized by Romuald Schmidt, started in Poland.

Boccia is a sport designed for people with the most severe problems of the musculoskeletal system. People with disabilities besides of competing with each other on a global level can integrate during tournaments. Sport outside shaping physical fitness gives people with disabilities the opportunity to liquidation of social exclusion, integrating people with disabilities, both with other people with disabilities and non-disabled humans. Boccia engages not only the body, but also the mind. It requires the player to achieve a state of high concentration.

This system is based on medical classification. The following classes are distinguished in individual competitions: BC1, BC2, BC3, BC4 and BC5, in matches in BC3 and BC4 pairs, in team competitions: BC1 or BC2. BC1 player can use the help of the Sports Assistant, which should be behind the throw field. His task is to set and stabilize the trolley, rolling and giving the player a ball. A player from the group BC2 can't use the help of Sports Assistant. A disabled person qualified for the BC3 class is a player with major diseases of the body motion system. During the game, he uses the help of specialist equipment such as gutter and with the help of the Sports Assistant, who remains in the player's box, is returned back to the playing field and does not follow the game. A BC4 player can not use the Sports Assistant.

The aim of the study was to assess opportunities for playing boccia in Poland and an analysis of the factors contributing to the development of psychomotor disabled people. Research questions are:

- How does silhouette of boccia players look like (age, sex, degree of dysfunction, functional classification)?
- Does boccia training improve self-esteem and the ability to deal with everyday problems of players?
- What importance, according to the respondents, do boccia in the process of rehabilitation?

# **DATA AND METHODS:**

The study was attended by 30 trainees which are boccia players. The survey consisted 27 questions (25 closed questions, 2 open questions). The form was sent electronically on the forum associating people who are training boccia. In two questions was used a seven-point modified Likert scale. The study was developed using software Statistica12.

## **RESULTS:**

In the survey took part 30 respondents aged 16 to 45 years (x = 30.33, SD = 10.4) (Tab 1). 26.7% of respondents live in the countryside, 13.3% live in the city up to 10,000. inhabitants, 6.7% in the city up to 50,000 residents, 13.3% in the city up to 100,000. inhabitants, the largest number of respondents (40%) live in the city up to 500,000. inhabitants.

**Table 1.** The age of the competitors

N important	min	max	average	median	Standard deviation
30	16	45	30,33	31	10,4

Female players account 53.3%, 46.7% male players.

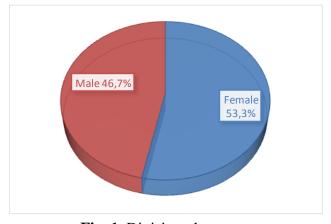


Fig. 1. Division players on sex.

The most common type of disability was the congenital type (80%), in 20% of the respondents the type of disability was defined as acquired.

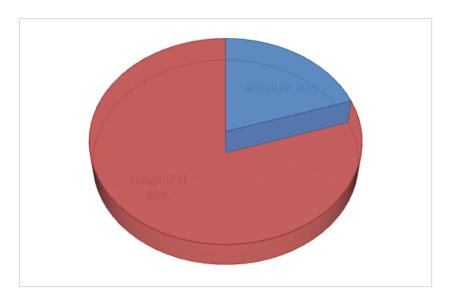


Fig.2. The division of respondents due to the type of disability

73.3% of respondents declared the occurrence of dysfunctions within the torso, 20% dysfunctions in the lower limbs, 6.7% dysfunctions in the upper limbs.

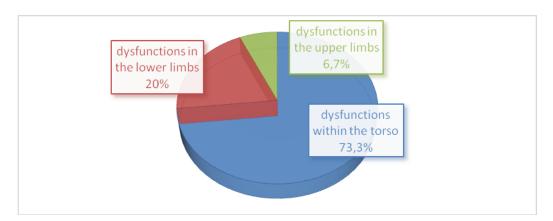


Fig.3. Areas of dysfunction.

An increase in self-esteem was observed in 93.3% of responders since the beginning of boccia training, and 6.7% of respondents did not feel that their self-esteem has improved.

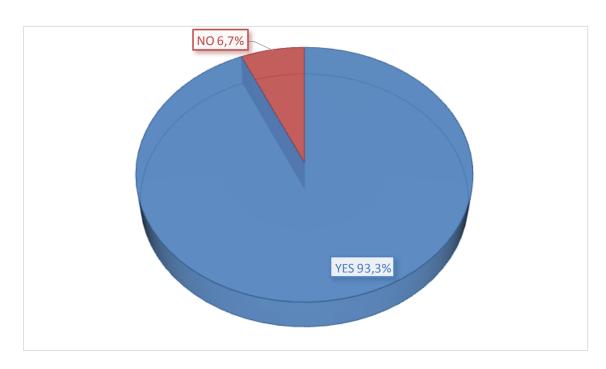


Fig. 4. The impact of boccia training on the self-esteem of the players.

For 100% of respondents, sport has become a stepping stone from the problems of everyday life. Also 100% of respondents gave a positive answer to the question: Do you think sport is a good supplement to rehabilitation? According to 73.4% of people sport can not replace rehabilitation.

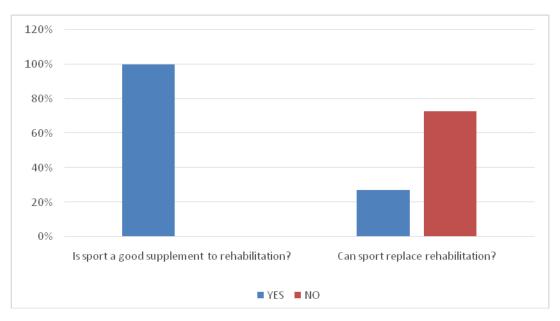


Fig.5. Evaluation of the role of sport in the rehabilitation process

## **DISCUSSION**

Boccia offers opportunities for people with the most physical disabilities to win Olympic medals. In Poland this sport is becoming more and more popular. There is an increasing involvement of competitors into training (Łosień 2017; Furmanik et al. 2007).

Boccia is an exceptionally young and dynamically developing discipline. During this physical activity people with disabilities have the opportunity to improve their functionality, to integrate with people with similar life problems. For athletes sport is a therapy, raises the value of self-esteem and gives the opportunity to practice sport skills. Except of emotions of the player there are also important emotions of family members who support the player mentally and actively participate in sports competitions. 86.7% of respondents declare commitment of family in training (Molik et al. 2010; Wiliński 2010).

Many Polish and foreign authors emphasize that the sport of disabled people is an excellent therapeutic and preventive measure, playing an important role in the process of recovery (Kopera, Tasiemski 2013; Molik 2010).

In Poland every year increase number of people training boccia. A large majority of clubs and sports associations (93.3%) organize free sports camps for their pupils. Funds for covering the costs of the sport camps are largely financed by private sponsors, foundations, the Ministry of Sport and PFRON. 73.3% of the respondents use the help of foundations and other public benefit organizations. 100% of respondents take part in boccia competition organized at the national and European level.

#### **CONCLUSIONS:**

- 1. Boccia players are diverse in terms of age, sex and degree of dysfunction. Due to their functional status, they are assigned to groups by a specially qualified classifier.
- 2. The possibility of boccia training has a positive impact on the increase of self-esteem of the players and the ability to deal with problems.
- 3. Rehabilitation and sport are an inseparable part of the life of boccia players. The majority of respondents positively assess the impact of rehabilitation combined with practicing sports, rather than rehabilitation itself.

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