

QUALITY OF LIFE OF DISABLED SWIMMERS

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Abstract

More and more researches concerning disabled people quality of life are conducted worldwide. Researchers are often focusing on how the level and type of disability is impacting the quality of life. Also studies aimed at determining factors which can influence quality of life and self-esteem are conducted. Research goal was to examine the impact of sport activity on disabled swimmers' quality of life. Studies were conducted during National Team Camp in Kudowa-Zdrój, in 2021. Research sample consisted of 19 swimmers, 12 men and 7 women. They were between 18 and 42 years old, with an average of $25,8 \pm 7,3$ years. Survey questionnaire was developed in order to assess the quality of life, taking into consideration different life aspects: Physical, psychological, social relations and life condition. Results were mapped out by statistical method. It was stated that the level of disability did not significantly impact on disabled swimmers' quality of life. What is more acceptance of one's own disability did not significantly impact on subjective feeling of life quality. Only sexual activity was an exception, which was reduced by lower acceptance of disability. Average high level of disabled swimmers' life quality in all of its aspects regardless of the level of disability can be explained by their high physical activity.

Keywords

Disabilit; swimmers; quality of life.

1 INTRODUCTION

There are many definitions of life quality. According to Farquar, one of them says that the quality of life can be divided into two groups. The first one consists of definitions created by scientists. We can distinguish scales: complex, specific, global and mixed. Colloquial terms are included in the second group.

Quality of life of people with disabilities is a more and more popular subject of scientific research nowadays.

This topic was covered e.g. Garbat and Paszkowicz, but also Brzezińska, Kaczan, Piotrowski and Rygielski. Studying their work, a conclusion can be made that external factors as architectural and technical (e.g. existence or lack of therapeutic equipment, wheelchair driveways, elevators, not adjusted door width, convenience of access to into public institutions, ability to use public transportation) are important elements, which impact the quality of life. Another factor which influences quality of life of people with

disabilities are devices which enables communication (e.g. mobile phone, laptop with internet access, tablet), financial assets are as well an important factor, especially for those who profit from medical and therapeutic treatment. Employment, family and friends, but also opportunities of personal growth are the following factors, which play an important role in improving quality of life.

More and more people with disabilities choose physical activity which consequently leads to undertaking professional sport paths by many of them. Sport for people with disabilities fulfills therapeutic and pro-health functions for many years. Integration with society is another significant factor. Nowadays, the level of sport competition for people with disabilities is rising significantly. Opportunities were created by matching training with disabilities and specialized equipment, thanks to that numerous people with disabilities can train in sport disciplines which were not available for them in the past.

Common is the definition of combining different forms of physical activity undertaken by people with disabilities, which is called adapted physical activity. It is described as an interdisciplinary knowledge which is focused on identification and solving psychomotor issues of a man during his lifetime. It is spreading new solutions and ideas, which are connected with physical activity, suggesting creation of full-featured programs and systems of support, reinforcement and empowerment of subjects.

Swimming is one of the possibilities, which enables people with disabilities to pursue their careers. Swimming is one of the most popular sport disciplines for people with different dysfunctions. It is divided into groups and classes for people with impairments of motor, vision organs as well as mental disabilities. Swimming styles are the same as during fully abled athletes' competition. Swimming for people with disabilities has been one of the Paralympic sports since 1960.

2 OBJECTIVE

Research goal was to examine the impact of pursuing sport activity by swimmers with disabilities on their quality of life. Supplementary research questions were created:

- Is the quality of life of disabled swimmers related to their level of disability?
- Is the quality of life related with the level of disability self-acceptance among the swimmers?
- Do sports activity have an impact on the quality of life of swimmers with disabilities?

3 METHODOLOGY

Study group consisted of 19 swimmers with disabilities (12 men, 7 women). Examined athletes' ages were between 18 and 42, with the average of $25,8 \pm 7,3$ years. Two first questions posed in the questionnaire were treated as independent variables whereas the others were considered as dependent variables. Among the research participants 42% acquired higher education, 37% secondary education and 16% primary education. Explicit majority of participants lived in the city (84%). Inborn impairments were the most common reason for disability among participants (68%).

In order to evaluate the quality of life of swimmers, a questionnaire was created to acknowledge the following factors: physical, psychological, social relations, life situation and subjective assessment of quality of life (the questionnaire is attached at the end of the article).

Findings of the questionnaire research constituted variables expressed in the nominal scale. Age of participants was the exception (variable with continuous distribution). Correlation of features was examined by using non-parametric test of independence Pearson's chi-square. Critical level $\alpha=0,05$ was established to examine the statistical relevance. Calculations were made using Dell's computer programme Statistica 13.1.

4 RESULTS AND DISCUSSION

The majority of participants accepted fully their disabilities (Figure 1). Cases of total lack of acceptance were not stated.

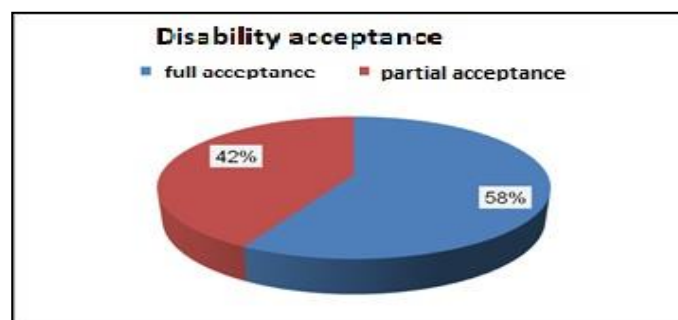


Figure 1 Disability acceptance in monitored swimmers

The extent of acceptance of one's own disability was not significantly dependent on the degree of disability (Table 1).

Table 1 Correlation of disability acceptance with level of disability in monitored swimmers

Disability acceptance	Level of disability			L
	Light	Moderate	Significant	
Fully accepted	3	5	3	0,138
Partially accepted	1	7	0	

Among the participants, men accepted their disability in higher percent in comparison to women (Figure 2).

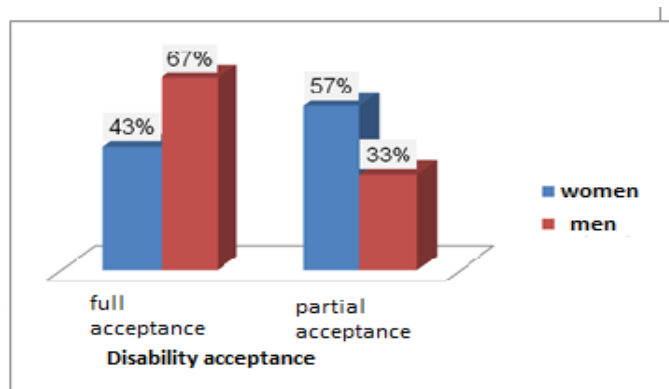


Figure 2 Disability acceptance in male and female monitored swimmers

Psychological aspect

Only 5% of researched swimmers declared

frequent feelings of despondence and resignation due to disability (Figure 3).

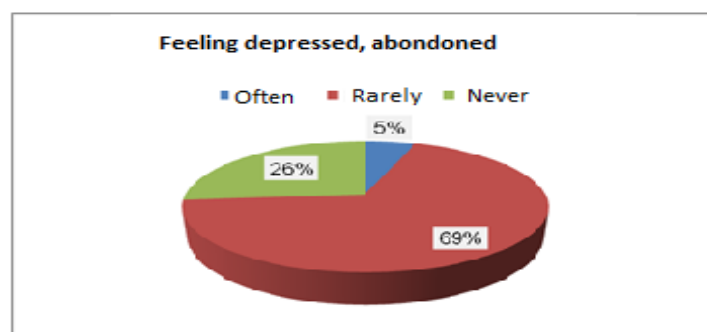


Figure 3 Frequency of despondence and resignation feelings due to disability

Feelings of despondence and resignation were not significantly dependent on the level of acceptance of one's own disability, they

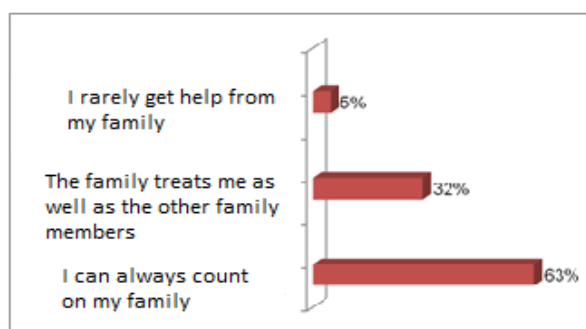
were also not dependent on the level of disability (Table 2).

Table 2 Correlation of despondence and resignation with level of acceptance range of disability in monitored swimmers

		Feeling of despondence and resignation			L
		Often	Rarely	Never	
Disability acceptance	Full	0	7	4	0,292
	Partial	1	6	1	
Level of disability	Light	0	4	0	0,613
	Moderate	1	7	4	
	Significant	0	2	1	

Lack of despondence and resignation feelings or rare presence of it was due to strong psychological support in the family (Figure 4).

Only one respondent stated that he experienced such kind of support in insufficient amounts.

**Figure 4 Psychological support of family**

Sexual activity has a significant impact on the psychological condition. Satisfying quality of sexual activity was declared by 63% of respondents. Acceptance of one's own disability had a considerable influence on

undertaking sexual activity. Respondents, who fully accepted their disability, more often undertake sexual activity. Whereas the level of disability was not substantial when undertaking sexual activity (Table 3).

Table 3 Level of disability and its acceptance in interplay with sexual activity

		Sexual activity		L
		YES	NO	
Disability acceptance	Full	9	2	0,048
	Partial	3	5	
Level of disability	Light	3	1	0,362
	Moderate	7	5	
	Significant	2	1	

Social relations

Disability of the swimmers did not restrict their

mobility. Overwhelming majority of the respondents (89%) leave their domicile every day (Figure 5).

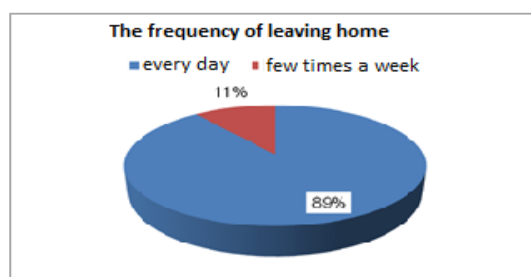


Figure 5 The frequency of leaving home in monitored swimmers

Social life was recognized by 74% of respondents as very good or good. Subjective recognition of respondents' social life was not

substantially connected with their level of disability and its acceptance (Figure 6, Table 4).

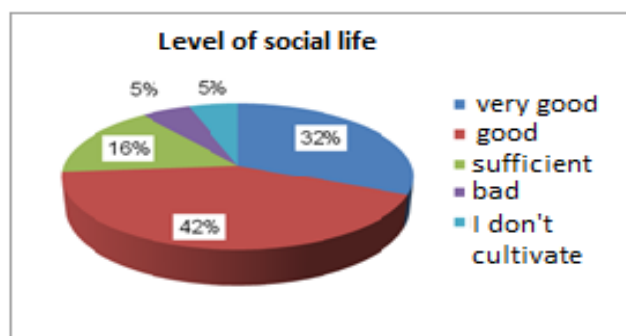


Figure 6 Level of social life in monitored swimmers

Table 4 Subjective recognition of respondents social life wit level and acceptance of theirs disability in monitored swimmers

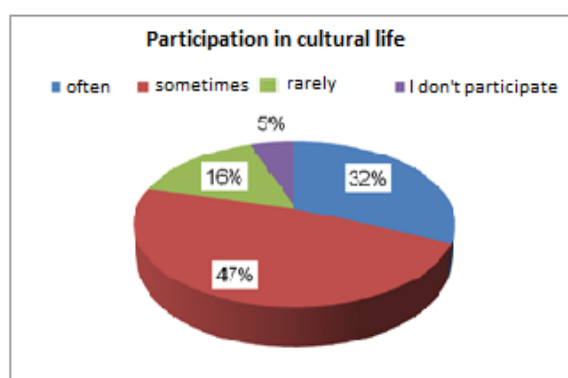
		Level of social life					L
		Very good	Good	Sufficient	Bad	Lack of social life	
Disability acceptance	Full	4	5	2	0	0	0,541
	Partial	2	3	1	1	1	
Level of disability	Light	0	3	1	0	0	0,523
	Moderate	4	5	1	1	1	
	Significant	2	0	1	0	0	

Among the participant, 32% of them took part in the cultural life, whereas 47% did it rarely (Figure 7). Influence of disability acceptance can be observed in this example - respondents who fully accepted their disability more often participated in cultural life than

those who accepted it partially. Level of disability has no or very limited impact, its correlation with cultural life was not statistically significant.

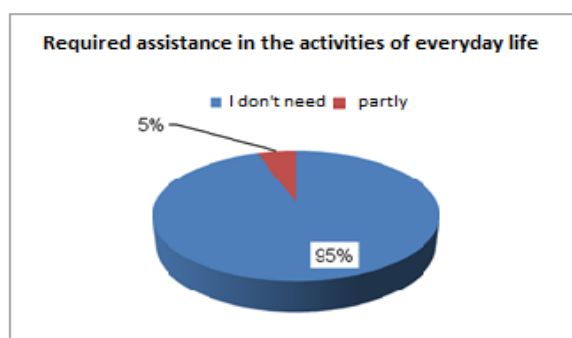
Table 5 Participation in cultural life and acceptance and level of disability in monitored swimmers

		Cultural life				L
		Often	Sometimes	Very rarely	Lack of participation	
Disability acceptance	Full	5	6	0	0	0,041
	Partial	1	3	3	1	
Level of disability	Light	0	4	0	0	0,081
	Moderate	3	5	3	1	
	Significant	3	0	0	0	

**Figure 7 Participation in cultural life in monitored swimmers****Physical aspect**

Researched swimmers were fully independent in their lives, only one respondent stated the

need of help in everyday life, which referred to moving up and down the stairs.

**Figure 8 Required assistance in the activities of everyday life in monitored swimmers**

Independence in most cases referred to lack of need of help from the others when it comes to therapeutic treatment (Figure 9). Respondents

did not profit from such kind of therapy or did it very rarely, about once a year.

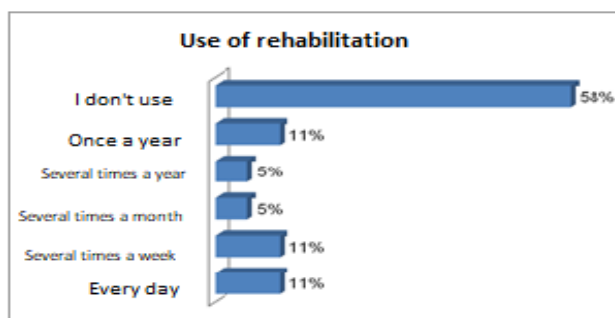


Figure 9 Use of rehabilitation in monitored swimmers

Life condition

Majority of respondents (79%) defined their financial condition as good (Figure 10).

Undertaking or not the professional activity was not significantly dependent on the level and acceptance of disability.

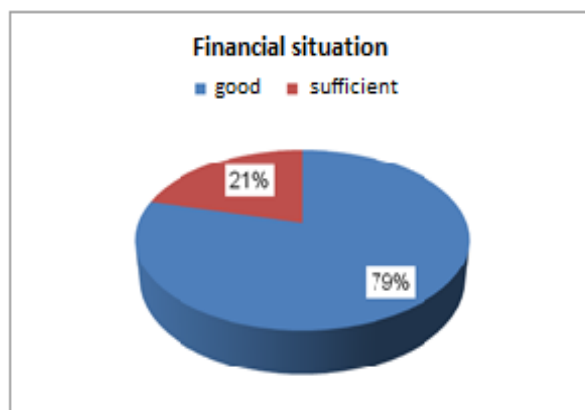


Figure 10 Financial situation of monitored swimmers

Table 6 Undertaking professional activity and acceptance of disability in monitored swimmers

		Undertaking of professional activity		L
		NO	YES	
Acceptance of disability	Full	4	7	0,960
	Partial	3	5	
Level of disability	Light	2	2	0,828
	Moderate	4	8	
	Significant	1	2	

Only one of the respondents described satisfaction from his professional activity as sufficient, whereas the others described it as good or very good (Table 6).

Subjective description of quality of life

Researched athletes described objectively the quality of their lives based on standardized scale of life satisfaction SWLS (Table 7).

Table 7 Structure of describing statements in SWLS

Statements	In most ways my life is close to my ideal	Conditions of my life are excellent	I am satisfied with my life	So far I have gotten the important things I want in life	If I could live my life over, I would change almost nothing
Strongly disagree	1	2	0	1	2
Disagree	4	1	0	1	2
Slightly disagree	0	1	2	1	0
Neither agree nor disagree	1	2	2	4	1
Slightly agree	5	6	7	4	7
Agree	8	2	6	5	3
Strongly agree	0	5	2	3	4

Adopting the grading scale based on Likert, in which 0 points means “strongly disagree” and 6 points relate to the statement “strongly agree”. Life satisfaction has the highest average score. Physical activity is an inherent part of life of every human being. It is responsible for many parts of our lives.

Sport activity affects our appearance, physical condition and psyche. In the case of people with disabilities, especially those who become disabled throughout their lives, their psyche may be harmed. Such a person may encounter many negative emotions e.g anger, fear or grief due to loss of “past” life. Becoming a disabled person can lead to lowering self-confidence and self-esteem. Care of both physiotherapist and psychologist is extremely important in order to accept one’s own situation.

According to the research, people with disabilities, who undertake physical activity, have higher self-esteem than people who do not undertake physical activity at all. People with disabilities who are active in sport have similar quality of life as fully able people.

Sport gives the opportunities for people with disabilities to acquire additional motivation to battle with adversities, and give a chance for better self-development. During sport activity, body is responding by creating hormones-endorphins. They are named as hormones which are responsible for happiness, that is why they have an impact on joy and life satisfaction, which can be transferred into

quality of life. However it is not their only function - they have also an anesthetic impact. During sport activity, the nervous system is also supported, which leads to increasing immunity of the body. Human body calms down and organs are better supplied with blood, which improves also brain’s supply with oxygen and blood. Łuczyńska (2011) proved that feeling of satisfaction based on physical activity, is an important factor which impact quality of life of disabled people. While Żurowska (2006) states that sport is necessary for people with disabilities to have a normal life in society.

Among all sport disciplines, swimming is considered not only as one of them but also as the best form of rehabilitation care. It is a multidirectional activity, which improves aerobic capacity and work functionally on human organs. Swimming is a very good method of stress reduction and off-loading of energy excess.

Conducted research aimed at evaluation of swimming impact on disabled swimmers quality of life. Obtained results demonstrate that the quality of life is highly connected with the level of disability acceptance, what can be observed through the process of acquiring questionnaire surveys among the participant. Swimmers willingly undertake sexual activity, which positively impacted their psychological condition. Quite high level of swimmers life quality in all aspects regardless of their

disability level can be explained by their physical activity. Similar research on bigger samples and with comparison to control samples (people with disability who had never undertaken sport activity), can lead to acquiring interesting results.

5 CONCLUSIONS

Levels of disability did not significantly impact disabled swimmers' quality of life.

Acceptance of one's own disability also did not significantly impact on subjective feeling life quality. Only sexual activity was an exception, which was reduced by lower acceptance of disability.

Average high level of disabled swimmers' life quality in all of its aspects regardless of the level of disability can be explained by their high physical activity.

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