

Evaluating the Quality of Life for People with Locomotor Disabilities by Practicing a Certain Sport

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Abstract: This present article describes the importance of practicing performance sport for people with disabilities, along with the benefits and changes in the quality life that the latter bring. The **purpose** of this paper has been to focus our attention on the way people with certain afflictions can overcome the bridge of disability by practicing a sport, taking into account relevant examples, such as participating in two European Handball Championships for athletes in wheelchairs for the Romanian National team. As a leading **method of research**, we have used a questionnaire which aims to understand the way in which disabled people cope with performance sports and how these activities influence their lives, generally, further analysing auxiliary aspects such as the quality of sleep, adopted diet and social life, to name a few. The questionnaire has been distributed to all players who participated in the two European Championships from 2018 to 2019, from 8 European Union countries, with a sample group of 59 disabled people. Based on this implemented method of action, we have examined the **results** and have had **discussions** regarding the significant role of performance sport in the life of people with disabilities, **concluding** that sport is not merely an isolated subject in their day to day routine, but a quintessential element in many aspects of their contemporaneous living. Sport represents a stable platform for shaping and sustaining certain healthy habits with **recommendations** that people with disabilities engage in such an endeavour thus managing their physical and mental health and also their social and community lives.

Keywords: *people with locomotor disabilities, sport, health, quality of life.*

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1. Introduction

Physical activity and exercise is the mainstay of chronic disease prevention and health maintenance for all people with and without a disability, and clear evidence exists of the benefits among various populations with neurologic disabilities. However, the potential benefits of organized sports for people with neurologic disabilities are not as well explored. In this narrative review, current evidence regarding the impact of organized sports on activity, participation, and quality of life in people with neurologic disabilities (Sandu & Damian, 2018) of all ages is summarized, and facilitators of and barriers to participation in sports for this population are discussed (Sahlin et al., 2015).

Health is a state of complete physical, mental and social well-being and comfort. What is more, it is the condition of the body that provides its optimum self-regulation as well as the balance between its functions and the environment (human homeostasis) (Martin et al., 2021).

Physical recreation and sports help to prevent disease, promote health and maintain functional independence, essential for people with and without disabilities (Tasiemski et al., 2021).

On 30th of June 2021, the total number of people with disabilities, communicated to the, National Authority for the Rights of Persons with Disabilities children and Adoptions within the Ministry of Labour and Social Protection, through general directions of social assistance and county children protection, respectively general local directions of the sectors of the municipality of Bucharest, has been 861.016 persons. Among these, 98,06% (844.278 people) are within the care of their families or/and live independently (non-institutionalized), while 1.94% (16.738 people) are in the care of public residential institutions of social assistance for adult people with disabilities (institutionalized) coordinated by the Ministry of Labour and Social Protection through the National Authority for the Rights of Persons with Disabilities, children and Adoptions (Ministry of Labour, 2021).

Disability is a multidimensional and complex social side. In a sports field, people with disabilities often face a multitude of obstacles in the way of playing a sport and achieving sports performance. While other marginalized people received attention in sports management, disability received very little or was used primarily as a context (Bendíková, 2014)

In particular, the literature emphasizes the limited interest of students with disabilities, because of traditional teaching approaches in the classroom (Hopkins et al., 2018). Therefore, teachers should focus on basic

science knowledge and understanding, and motivate students with ID or ASD to remain on task (Lemons et al., 2016, Mäehler et al., 2016).

Disability Rights United Kingdom, the United Kingdom's leading charitable organization for persons with disabilities, is funded by Sports England and runs a program called Get Yourself Active. This program enhances the general understanding of the benefits of physical activity for disabled persons and provides the environment and opportunities for people with disabilities to participate voluntarily (Disability Rights, UK, accessed 2021). Similarly, the Netherlands and Canada have improved the quality of life for people with disabilities by providing national support that independently promotes sports, recreation, and physical activity for these individuals (Hoekstra, F.; Roberts, L.; van Lindert, C.; Martin Ginis, K.A.; van der Woude, L.H.V.; McColl, M.A, 2019).

2. Methodology

The questionnaire that stands at the foundation of this methodology research follows the comprehension on the way in which disabled people engage in performance sporting activities and the way in which the latter influence their lives, in general. The majority of questions applied to the study are open questions, to allow the respondents to gather as complex and, thus, as valuable information as possible, as well as to extend the degree of knowledge on the matter at hand. The main objectives have been the following:

- Acknowledging the context in which the disabled people have been in contact with the sport they are practicing presently;
- Acknowledging the motivation of disabled people in engaging in performance sporting activities and continuing practicing them on the long term;
- Acknowledging the place sport occupies in the life of disabled people;
- Determining the rational benefits and the emotional states of mind generated by practicing performance sport, in general and in certain specific moments, on the field or court, during a certain game or during a victory;
- Determining the quality of auxiliary aspects of life such as the quality of sleep, quality of diet, free time, social life, etc.

3. Results

The first step in highlighting the results represents the description of the studied sample group.

Respondents between the ages of 17 and 57 years old have participated in the investigation - Figure 1 (mostly people between 17 - 57 years old), the majority being male, 47 from the studied sample, while the other part being female, 17.

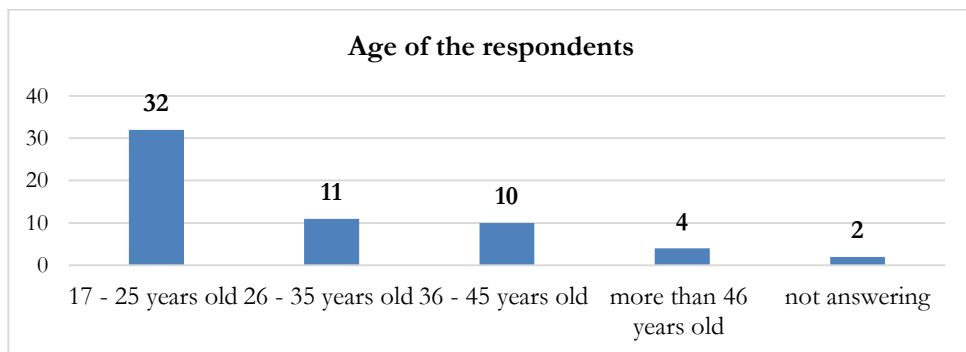


Figure 1. Age of the respondents

Source: Statistical inquiry made by the author

To what the marital status has been concerned, the majority of respondents were single (40 respondents). 12 of them were married or in a domestic partnership, while the rest of the respondents did not want to share this aspect. Regarding the professional aspect, the majority has been represented by students (256 respondents), a fact clearly demonstrated by their age -Table 1.

Among the study, there have also been professionals in the field of sport (8 respondents); the number of people housed under the category "Other occupations" being quite varied, among them being the following occupations: assistant pharmacists, engineers, programmers, accountants, translators, etc.

Table 1. The occupation of the respondents

	Absolute frequency
Student	26
Professional in the field of sport	8
Employee in the administrative department	6
Unemployed	2
Other occupations	13
Not answering	4
Total	59

Source: Statistical inquiry made by the author

The majority of respondents has been suffering from disabilities related to motility - the amputation of a limb (19 respondents), paraplegics (9 respondents), tetraplegics (5 respondents) - Table 2. Other disabilities have been related to strokes, polio, Down syndrome, etc.

Table 2. The nature of disability of the respondents

	Absolute frequency
Amputation	19
Paraplegics	9
Tetraplegics	5
Stroke	3
Other nature	10
Not answering	13
Total	59

Source: Statistical inquiry made by the author

There has been a uniform distribution of the age regarding each respondent's disability - among whom have shared this information, approximately half of them have encountered this event up until the age of 16 and the other half after the age of 16. The beginning of practicing sports dedicated to disabled people has been done in the first 5 years from the event, 25 respondents, while 11 respondents have started after a much bigger period of time.

First of all, an interesting aspect for the study has been identifying the sources of informing the respondents regarding the sport they were practicing at that moment. The answers for the open questions have been analysed, codified and centralized in relevant categories by maximizing the degree of similarity in answers and by keeping an optimal number of categories.

Among the information sources that have led to the decision of practicing a sport dedicated to disabled people, three main categories have arisen: (1) researching on one's own as a result of satisfying an interior need; (2) informal recommendations from close people and (3) specialized recommendations - Table 3.

The first category has been best represented within the study by: researching on one's own the options of engaging in more physical exercise and, quite closely, watching certain sporting shows/events on TV (7 respondents). Two other important variants coming from interior

motivation have been: previous experience with sports (in general) and passion/pleasure of practicing sports as a hobby (5 respondents).

The second category, of informal sources, has also been quite well represented by the option of recommendations coming from close people (friends, family, colleagues, teachers) - 19 respondents.

The third category, the formal recommendations, coming from specialists, has been the least represented through the options: medical recovery/rehabilitation recommendation related to disabilities (6 respondents) and direct recruitment by the coach (5 respondents).

Table 3. Sources of information regarding sporting activities dedicated to disabled people

	Absolute frequency
Friends/family	19
Need for physical exercise	7
TV	7
Recruitment by coach	5
Previous experience with sport	5
Passion/pleasure	5
Medical recommendation	6
Don't know/not answering	5
Total	59

Source: Statistical inquiry made by the author

Furthermore, one has also investigated the main reasons for practicing performance sports among disabled people. The obtained results have been centralized in a series of relevant categories presented in Table 4.

The most similar answers have been related to a palette of positive emotions and states of mind that have been the basis of motivation when it comes to practicing sports on the long run (10 respondents); among these, the most mentioned states of mind have been: pleasure, passion, relaxation, wellbeing, self-trust, happiness and fulfilment.

Table 4. The reasons for practicing sporting activities for disabled people

	Absolute frequency
Positive emotions and states	10
Favourite sport	10
Social aspect	8
Physical exercise	6

Health	6
Normal life	5
Being active	5
Evolution	4
Don't know/not answering	5
Total	59

Source: Statistical inquiry made by the author

Another strong motivation has been lying in the fact that the sport practiced in the present has become the favourite sport (10 respondents). The social aspect has also occupied an important position - 8 respondents have mentioned that they feel motivated to meet new people, to become an integrant part of a homogenous group with common values and interests, to become part of a team. Another two mentioned reasons have been: the need of physical exercise and maintaining health (6 respondents). Sports has been considered a means through which respondents can have a normal life - 5 respondents ("I don't want to give up having a normal life, I wish to accomplish something with my life, even though I don't feel complete"). Other reasons have been related to the possibility of channelling the ambition in a right direction, of being active and evolving or becoming better.

The most important objectives of the study have been the significances of sport in the life of the respondents, among which one can mention physical and mental well-being (individual and collective) - Table 5.

Sports is exclusively associated with positive aspects of life (well-being and evolution) - 8 respondents. The next two options, in the respondents' perspectives, highlight the crucial importance of sports in the life of disabled people - 8 have mentioned that sports has changed their existence and significantly improved their lives. For other 6 respondents, sports represents everything in life.

For a certain part participating in the study, sport represents a pretext for feeling active and responsible, of being spontaneous and having an adrenaline rush - a "valve" that can compensate for the daily routine. Sports represent an opportunity to meet new people, to tie friendships and socialize and also to find common interests that can allow the people to share relevant experiences and knowledge for the group.

Table 5. The significance of practicing sports for disabled people

	Absolute frequency
Health	13
Happiness	8
Life	8

Everything	6
Bring active	5
Friends	4
Relaxation	4
Don't know/not answering	11
Total	59

Source: Statistical inquiry made by the author

In order to accentuate the role of sports in the lives of disabled people one has studied the effective influence of sports in the life of the respondents - Table 6. The results have shown that the participants perceive multiple benefits from the spheres of the social, the mental and the well-being. Sports bring happiness in the life of people (accompanied by joy, motivation, freedom, the feeling of being alive, a change for the better) - 18 respondents. The social aspect is influenced significantly by sport, 15 respondents mentioning that sport has brought new people and new friends in their lives and a team in which they can have fun into.

The physical and mental health has again been mentioned - sport influences life by: enhancing the will to live, being a daily help, giving the necessary exercise, being in a pleasant atmosphere ("a sound body, an open mind") - 13 respondents. Furthermore, the sporting organization on the field or on the court brings notable benefits with a high level of energy, activity, creativity, responsibility and ambition which all help the participants in achieving their sporting objectives and the competitive spirit, in the same time making them aware and accepting their own status.

Table 6. The influence of sports in the life of disable people

	Absolute frequency
Happiness	18
Friends	15
Health	13
High level of activity	9
Don't know/not answering	4
Total	59

Source: Statistical inquiry made by the author

The participants in the study practice team sports, thus, the nature of their relationship with their teammates is an integrant part of the general opinion about sport - Table 7. The vast majority of respondents consider

their teammates as a second family that offers them unconditional support (22 respondents), either as close friends or as partners in whom they trust (22 respondents). A part of the respondents sees them as people with whom they can share the satisfaction, joy, enthusiasm and energy of the game, with whom they can feel comfortable and with whom they can enjoy life. Colleagues also represent a moral support, people with whom the respondents can communicate without borders.

Table 7. The opinion regarding the team the respondents belong to

	Absolute frequency
Family	22
Friends	22
Joy/Enthusiasm	6
Moral support	4
Don't know/not answering	5
Total	59

Source: Statistical inquiry made by the author

Going besides the influence of sport, in general, one has also researched punctual aspects of practicing sports - a first aspect is being represented by the specific states of mind the athletes find themselves in while on the field or court, during the games - Table 8.

Table 8. The description of the specific states while on the court, during the games

	Absolute frequency
Happiness	21
Nervousness	7
Energy	6
Strength	6
Integration	5
Motivation and concentration	5
Being unstoppable	5
Mental help	1
Don't know/not answering	3
Total	59

Source: Statistical inquiry made by the author

The feeling one has on the court, during the games, is intense - the best category is represented here by happiness - 21 respondents ("I only need a ball to be happy", "I feel better during the game, because I feel

depressed when I am not on the court”). However, the stakes of the game induce a state of nervousness for the participants - “In the beginning of the game, I feel agitated, but along the way I overcome the moment and I feel a lot of energy and a lot of pride in doing something so important for myself”, “My heart explodes while I am on the court”.

Another state of mind observed within the study has been the energy on the court (the feeling of being alive, enthusiastic - “ I feel free, I feel like the world is mine”, “It is a new chapter every time I am on the court”, “I feel as if I am in my own world”). Athletes feel strong and important when they are appreciated and when they are successful in sports - “I feel important and appreciated for what I do”, “I feel like the strongest human being, I feel fulfilled on the court”.

Since we are talking about a team sport, the athletes have, on the court, a feeling of integration within the team, of involvement in obtaining a common victory and a feeling of belonging to a group - “I feel I am part of something that matters to me and my team mates”. Other feelings are related to the motivation of undergoing a considerable effort and feeling concentrated - “I feel focused, and if the stands are full, I am very enthusiastic and the motivation of giving my best becomes 200%”.

Another specific moment in the field of sport is represented by the way respondents relate to victory - Table 9. Most of the times, a victory has as an effect of happiness, joy both individually and collectively, for the entire team - 14 respondents. Moreover, one manifests the satisfaction of accomplishing and reaching pre-established objectives - 14 respondents. Other opinions include: the reward for the effort (6 respondents). Victory in sports offers pride and trust, which also stimulates motivation (5 respondents). Victory also represents a result of sustained practice and involvement (5 respondents), validation, and for some, even everything - the final purpose of all efforts.

Table 9. The description of the states and emotions in the moment of victory during games

	Absolute frequency
Happiness, joy	14
Satisfaction	14
Reward for effort	6
Success	6
Trust	5
Result of practice	5
Everything	4
Validation	2

Don't know/not answering	3
Total	59

Source: Statistical inquiry made by the author

Another dimension investigated has been the motivation of giving the necessary effort in practicing sports on the long term - Table 10. First of all, the respondents mention courage and determination, ambition and energy in respecting the commitment - 16 respondents. The passion for sport (in general, but also in particular, for the sport practiced presently) is found in the options of many participants (11 respondents) and is closely tied to the benefits it brings: victory, improvement and success (8 respondents). Family is one of the few external factors that motivate the respondents to carry on practicing their sports. Other mentioned reasons with equal weight are: mental health (for fighting depression), happiness, physical health and the feeling of belonging to a team.

Table 10. The motivation for doing the necessary efforts for practicing sports

	Absolute frequency
Courage, determination	16
Passion for sport	11
Victory	8
Family	4
Mental health	4
Happiness, joy	4
Mental health	4
Team	4
Don't know/not answering	4
Total	59

Source: Statistical inquiry made by the author

The future plans of respondents reflect the role that sports actually play in their life, for sports are best represented in the future activities (occupying the first three positions in the created chart) - Table 11. On the first position is the actual present practice of sports (24 respondents) - the latter wanting to activate on the long term (here we can mention the importance of victory, team and the feelings of fulfilment and evolution). Some of them have quite high objectives, planning to participate in the Paralympics and the world championships - 10 respondents. 7 others plan building a career in sports, trying to become referees in the sports they are practicing presently. Other options refer to: a comfortable, happy, healthy

life, a life near the family. The last options are related to the lack of concrete plans, the will of living in the present, and having new experiences.

Table 11. Opinions regarding the plans of athletes with activity over 5 years

	Absolute frequency
Sport	24
Paralympics, world championships	10
Referee	7
Happy, healthy life	5
Family	3
Living in the present	3
New places and experiences	2
Don't know/not answering	5
Total	59

Source: Statistical inquiry made by the author

The last section of the research refers to the auxiliary aspects of the sporting life, aspects that have a great impact on what performance is all about. Within the study, one has approached the following themes: the quality of sleep, diet, spending free time and the quality of social life.

Regarding the quality of sleep, most respondents (46) consider they have a good sleep - they sleep more than 7-8 hours a night and don't have any other disturbances; only 9 of the respondents mention they sleep less than 6 hours a night - Figure 2.

The perception of sleep quality



Figure 2. The perception of sleep quality

Source: Statistical inquiry made by the author

To what diet is concerned, most respondents consider they have a balanced, varied diet that contains 3 meals every day, (23 respondents), while 18 of them consider their diet as a healthy one - Figure 3. Only 6 respondents have a diet based on the recommendations of a nutritionist. The rest have in their diet either natural, fresh products (4 respondents), or they do not pay too much attention to it (5 respondents). One notices that 2 respondents claim that they have unhealthy habits (consuming unhealthy foods, without a constant meal program).

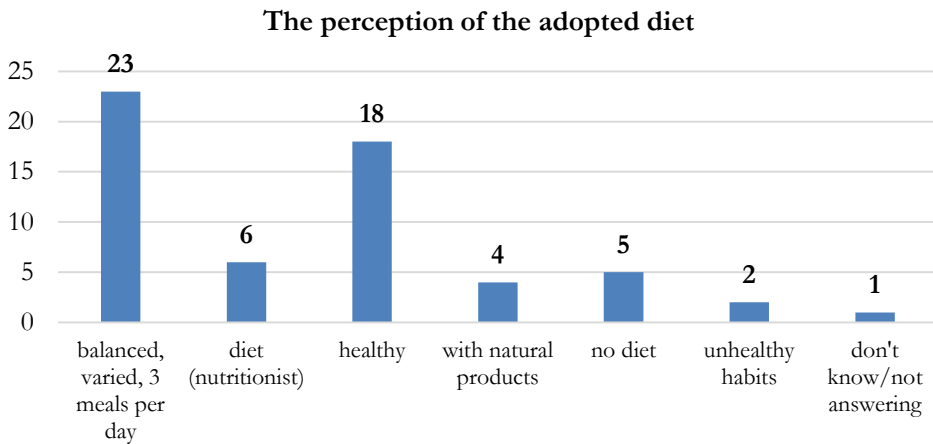


Figure 3. The perception of the adopted diet

Source: Statistical inquiry made by the author

The results show that the free time activities have, in most part, an active side, 18 respondents practicing sports (football, boxing, handball, fitness, swimming) or trainings. On the second position comes the time spent with the family or friends (13 respondents), followed by walking (sometimes in nature), reading, relaxing (or rehabilitating/resting). Options less well represented are: computer games, running, horse riding.

Table 12. Spending free time

	Absolute frequency
Sport	18
Friends, family	13
Walking	10
Reading	6
Relaxing	5
Computer games	2
Running	2

Horse riding	2
Don't know/not answering	1
Total	59

Source: Statistical inquiry made by the author

The respondents describe their social life as being relatively rich, most of them mentioning having a lot of friends (49 respondents) - a part of them detail the fact that they have friends both from the sporting life and outside of it with whom they like to socialize with and take walks together for “they do not make any differences whatsoever” - Figure 4. A part less represented (9 respondents) mentions that their social life is not that active, referring to sports and walking as “their best friends”.

Consideration regarding social life

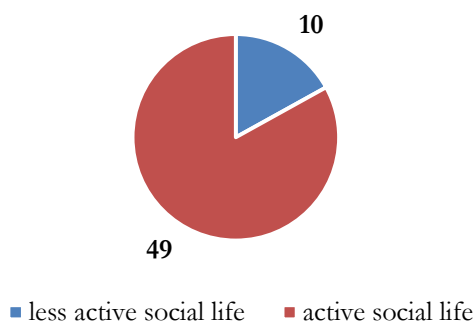


Figure 4. Consideration regarding social life

Source: Statistical inquiry made by the author

4. Conclusions and recommendations

After the analysis, one can notice the extremely important role performance sport has in the life of disabled people. First of all, sport does not represent a secluded matter in the life of athletes. The results show that the respondents practice sport also in their free time and that sport helps them in other domains of their everyday lives. Furthermore, the analysis shows that in the studied auxiliary fields of expertise (quality of sleep, diet, social life, etc.) there are mostly positive answers, which place sports as a stable platform for shaping and sustaining healthy habits.

The benefits indicated out of this investigation are both part of the rational emotional. One of the main advantages is introducing certain positive interior states of mind (happiness, fulfilment, satisfaction, etc.). The

sporting discipline brings a new “order” in the actual reality of disabled people - both in the relation with oneself (acceptance, self-trust) but also in the relation with the others. Thus, sport becomes a beneficial way of building a strong community, sustained not only by athletes, but also by auxiliary personnel (coaches, doctors, etc.).

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The tables and figures presented are a unique creation of the authors based on the analysis of the sample group.

References

- Bendíková, E. (2014). Lifestyle, physical and sports education and health benefits of physical activity, *European Researcher*, 69(2-2), 343.
http://www.erjournal.ru/journals_n/1393749142.pdf
- Disability Rights, UK. Increasing Participation in Physical Activity and Sport. Available online: <https://www.disabilityrightsuk.org/policy-campaigns/briefings-reports-responses> (accessed on 1 June 2021).
- Hansen, N.S., Forchheimer, M., Tate, D.G., Luera, G. (1998). Relationships among community reintegration, coping strategies, and life satisfaction in a sample of persons with spinal cord injury, *Topics in Spinal Cord Injury Rehabilitation*, 4 (1998), 56-72. <http://dx.doi.org/10.1310/GYWA-96BR-4LAJ-9K18>
- Hoekstra, F., Roberts, L., van Lindert, C., Martin Ginis, K.A., van der Woude, L.H.V., McColl, M.A. (2019). National approaches to promote sports and physical activity in adults with disabilities: Examples from the Netherlands and Canada. *Disabil. Rehabil*, 41, 1217-1226.
<https://doi.org/10.1080/09638288.2017.1423402>
- Hopkins, S.L., Round, P.N., Barley, K.D. (2018). Preparing beginning teachers for inclusion: Designing and assessing supplementary fieldwork experiences, *Teach. Teach.*, 24(3), 1-16.
<http://dx.doi.org/10.1080/13540602.2018.1495624>
- Lemons, C.J., Allor, J.H., Al Otaiba, S., LeJeune, L.M. (2016). 10 research-based tips for enhancing literacy instruction for students with intellectual disability. *Teach. Except. Child*, 49, 18-30. [EJ1118428.pdf \(ed.gov\)](http://www.ed.gov/EJ1118428.pdf)
- Mäehler, C., Schuchardt, K. (2016). The importance of working memory for school achievement in primary school children with intellectual or learning disabilities. *Res. Dev. Disabil*, 58, 1-8.
<https://doi.org/10.1016/j.ridd.2016.08.007>

- Martin Ginis, A.K., Jørgensen, S., Stapleton, J. (2021). Exercise and sport for persons with spinal cord injury. *Disease and disability*, 4(11), 894-900.
<https://doi.org/10.1016/j.pmri.2012.08.006>
- OHCHR, Office of the High Commissioner for Human Rights Retrieved: Geneva, Switzerland, *Status of Ratification Interactive Dashboard*, 2021;
<https://indicators.ohchr.org/>
- Sahlin, K.B., Lexell, J. (2015). Impact of organized sports on activity, participation, and quality of life in people with neurologic disabilities. *PM&R*, 7(10), 1081-1088 <https://doi.org/10.1016/j.pmri.2015.03.019>
- Sandu, A., & Damian, S.-I. (2018). Perceived quality of life and responsibility for own health condition. Micro-research. *Arhiv Euromedica*, 8(2), 18-23.
http://journal-archiveuromedica.eu/archiv-euromedica_02_2018/PAGES_archiv_euromedica_02_2018_maket_27_1_2_2018-18_23.pdf
- Spooner, F., Knight, V., Browder, D., Jimenez, B., DiBiase, W. (2011). Evaluating evidence-based practice in teaching science content to students with severe developmental disabilities. *Res. Pract. Pers. Sev. Disabil.* 36, 62-75.
<https://doi.org/10.2511%2Frpsd.36.1-2.62>
- Tasiemski, T., Kennedy, P., Gardner, B.P., Taylor, N. (2005). The association of sports and physical recreation with life satisfaction in a community sample of people with spinal cord injuries, *Neuro Rehabilitation*, 20(4), 253-265.
<https://pubmed.ncbi.nlm.nih.gov/16403994/>