

ASPECTS OF LIFE QUALITY OF PERSONS WITH PHYSICAL DISABILITIES

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Abstract

The article presents the problems of the involvement of persons with disability into applied physical activity, indicators of physical activeness, life satisfaction and attitude towards one's disability. In the research the indicators of life quality of persons with physical disability who are involved in sports activities and who are not involved in sports activities have been compared. 111 persons with physical disability who have experienced traumas of spinal cord participated in the research.

The results of the questionnaire survey have shown that the respondents with physical disability who go in for sports feel bigger life satisfaction, assess their psychical health more favourably than those who are not involved in sports. The attitude towards one's disability among persons with disability who are involved in sports is much more favourable than among those who are not. Persons with disability who are involved in physical and sport activity tend to rely more on their strengths even when favourable conditions are not created for them. Meanwhile, the unadjusted environment more often hinders the respondents not involved in sports from feeling like an able person of full value. The indicators of life satisfaction and attitude towards one's disability among persons with disability who participate in sport activity are better than among those who do not participate.

Key words: *indicators of biosocial skills, physical capacity, sport for persons with disability, disability, person with disability, indicators of psychosocial health, socialization, and applied physical activity.*

Introduction

The system of social integration ensures equal possibilities for people with disabilities to participate in culture, sport and other areas of social life. It is already 30 years that social policy of the United Nations and the European Union has been promoting giving equal rights and possibilities to people with disabilities to participate in all areas of social life including sport activity and it denies inappropriate habitual and discriminating attitude that people with disability are patients and only medical specialists should regulate physical activity of people with disabilities.

The society members with disabilities have exceptional physical and psychological features and special needs that are revealed when people with disabilities strive for equal possibilities to participate in the areas of physical education, sport for people with disabilities, recreational and everyday physical activity. The variety of special needs is conditioned by

different kinds of disabilities (physical, visual, hearing, intellectual, etc) and the degree of the disorder of a function. Application of various means of physical, psychological and social rehabilitation and education meeting the needs for physical activity of people with disabilities is one of the tasks of applied physical activity encouraging the possibility for people with disabilities to participate in social life (social integration) and at the same time reducing the manifestations of their disability (Adomaitienė, 2003). According to Mikelkevičiūtė (2002) in improving life quality of persons with disabilities and their social integration especially much attention is paid to applied physical activity that can increase the potential of independence and positive self-evaluation of the aforementioned persons to the maximum. Therefore, it is not a coincidence that in many developed countries people with disabilities are involved to a greater and greater extent in various applied physical, sports and other recreational activities. According to Skučas (2003) applied physical activity is one of the factors of successful integration of people with disabilities in the society. The development of recreational and competitive sports of people with disabilities is an important factor of improving their life quality and physical, psychological and social welfare (Samsonienė et al., 2008; Campbell & Jones, 2002).

However, despite the promotion of the integration of people with disabilities and laws that regulate it, many people with disabilities are still segregated and have poor possibilities to participate in the society and its activity. The statistical data show that in Europe alone there are about 10 per cent of people with disabilities. These people with disabilities have the same rights as all the inhabitants. Sport and physical activity are especially important for emotional and social welfare of people with disabilities. Social problems and the problems of the integration of people with disabilities in the society, their causes and obstacles are analyzed by many world and also Lithuanian scientists (Adomaitienė, 2007; Gudonis, 2000; Ruškus, 2002; Skučas, 2006; Sherrill et al., 1998). Skučas (2003) investigated whether the exercises of applied physical and sports may physically improve the life quality of people with disabilities. However, the author treated physical activity as a means to improve biosocial skills without revealing the influence of sports on psychosocial functions. In the research on the socialization of people with disabilities in applied physical activity performed by Samsonienė et al (2008) the attempt has been made to identify the influence of the disorder of the functions of organism on the socialization of people with disabilities. The authors also oriented towards biosocial functions of people with disabilities.

Recently there have been many researches on the problems of the socialization of people with disabilities. However, there is a lack of works that deal with the influence of applied physical and sport activity on persons having movement disability in the aspect of psychosocial functions. In order to solve the problems of the socialization of persons with disabilities it is not enough to state the fact that people with disabilities are still a segregated part of the society. The problem under research is described by the essential question – *how sports activity influences the life quality of people with physical disability*. It is important to compare the indicators of life quality of persons having physical disability who are involved and who are not involved in sports, to identify what influence physical activity has on the aforementioned persons. Such research on the comparison of the indicators of life quality of persons having physical disability who are involved and who are not involved in sports would at least partially fill the lack of knowledge and information about physical activity of people with disabilities, their attitude towards disability, life satisfaction, etc., would allow revealing essential peculiarities of the influence of applied physical activity on life quality.

Object of the research – characteristics of life quality of persons having physical disability who participate and do not participate in applied physical activity.

Aim of the research – to identify and assess the peculiarities of the influence of applied physical activity to improve life quality of persons having physical disability.

Methodology and methods of the research. Methodological basis of the present quantitative research is the theory of social integration of people with disabilities through applied physical activity. It has been referred to the precondition that the participation of persons with physical disability in applied sports or physical activity has positive influence not only on biosocial but also on psychosocial functions of the aforementioned persons.

To perform empirical research quantitative method of questionnaire survey has been chosen. The research questionnaire has been created referring to the methods of previous researches on the socialization of people with disabilities (Skučas, 2003) and adapting the questionnaire by Bagdonienė (2007).

The questionnaire consists of 84 questions, out of which 81 are of closed type and 3 of open type. The questionnaire is divided into 6 blocks (Table 1).

Table 1
Blocks of research instruments?

Diagnostic block	Diagnostic constructs
Demographical questions	The block consists of 10 questions: gender, age, family status, place of living, occupation, income and education
Physical activeness	The block consists of 6 questions: the purpose of this questionnaire block is to state the respondents' physical capacity (frequency of trainings, kinds of sports cultivated, duration of involvement into sports and sport achievements).
Life satisfaction	With the help of this block that consists of rank scales it has been attempted to examine psychoemotional state of the respondents and factors causing tension. The block consists of 18 questions.
Attitude towards one's disability	The aim of the block is to find out how the respondents perceive their disability. The block consists of 28 questions.
Social agents	With the help of this block it is attempted to examine who gave the most valuable information to the respondents about the forms and ways of the socialization. The block consists of 6 questions.
Sport in your life	The block consists of 16 questions that are meant to examine how much the respondents know about kinds of sport for people with disabilities, the reasons why they do not resolve to involve in sports and whether they are satisfied with the promotion of sports for people with disabilities in mass media.

A very important feature of the questionnaire is that the questions have been oriented not only towards the assessment of the present state but also towards the needs, in other words, the necessity and purposefulness of changes.

Šiauliai town sports club for people with disabilities "Entuziastas" (the instructor Mindaugas Jackevičius), the Lithuanian Paraplegic Association (the president Juozas Bernatavičius) helped to organize the questionnaire survey. The majority of the respondents were surveyed in the Centre of Landscape Therapy and Recreation under the Lithuanian Paraplegic Association in Monciškės, the part of the participants of the research were surveyed in the sports festival for people with disabilities of Šiauliai Region that took place in Šiauliai.

150 questionnaires have been distributed, 116 have returned, 111 have been selected as suitable for the objectives of the research; several questionnaires (5 in total) have been rejected because many unanswered questions in them have been encountered.

Statistical methods (analysis of percentage, means and frequencies, chi square, non-parametrical Mann-Whitney U test) have been applied for data processing. Empirical data have been processed and graphically formatted using SPSS (Statistical Packet for Social Sciences 11.0) and Microsoft Excel.

In order to find out the peculiarities of the impact of applied physical and sports activity to improve the life quality of persons having physical disability, the respondents have been divided into two groups:

1. The group of the respondents – *involved in sports* – consists of persons participating in applied sports activity of various level, from the elite sportspeople and organized sportspeople with disabilities who in organized manner and systematically train and participate in the club competitions, represent the club in national sport events for people with disabilities (Campbell & Jones, 2002) to those who are involved in sports inactively or with recreational goals, who are involved in sports irregularly, represent their sports club and are mostly involved in sports as recreation – a form of spending leisure time (Campbell & Jones, 2002).

2. The group of respondents – *not involved in sports* – consists of persons who do not participate at all in applied physical activity of any level.

Characteristics of the respondents

Out of all the respondents 60,4% participated in applied sport activity. A little less than a half of all the respondents (39,6%) stated that they were not involved in sports. Among the men there were 73,2% of those who are involved in sports and only 26,8% stated they are not involved in any applied sport or physical activity. The number of women involved in sports was much smaller, only 37% of all the women who participated in the research were involved in sports.

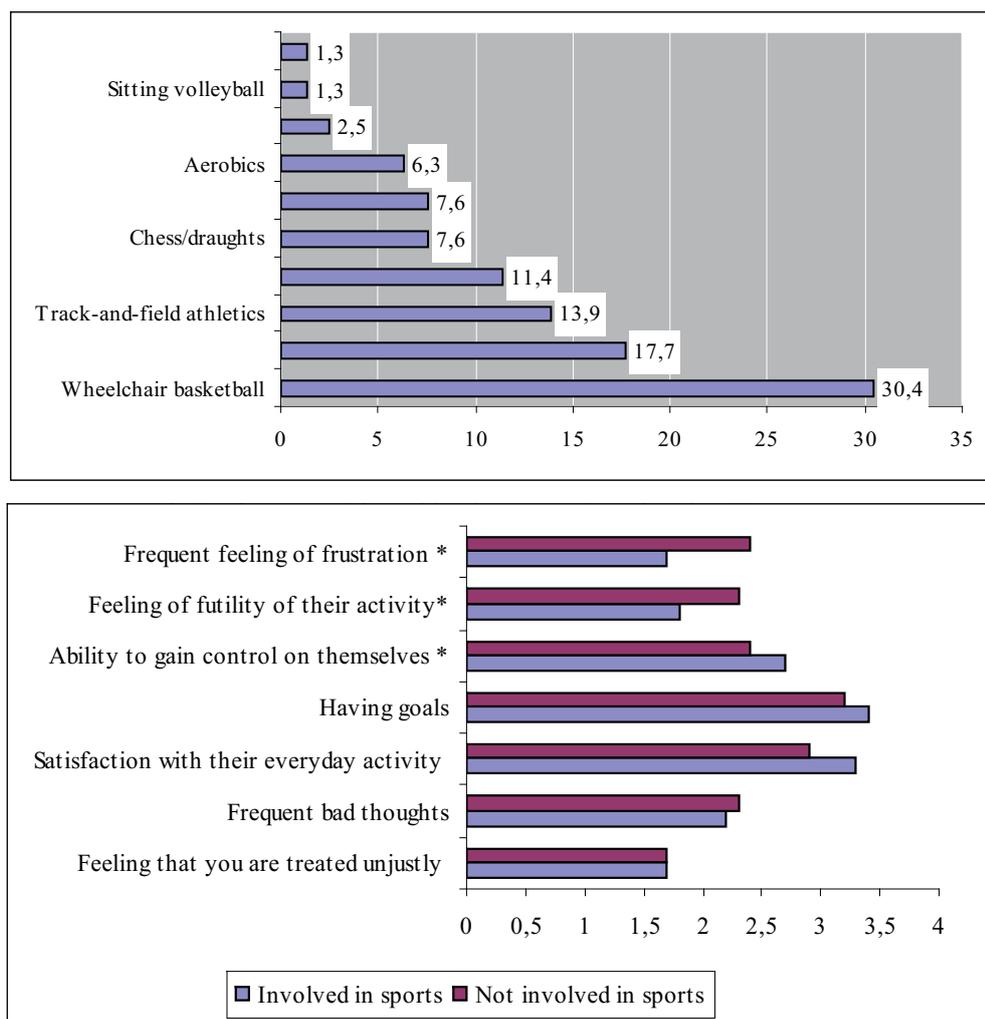
The respondents who participated in the research were from 14 to 77 years of age. The majority (N = 37) of them were in their midlife (25-35 years). There were only 9 senior persons among the respondents (58 and more years).

As it has been expected children and teenagers (14-24 years) were the most active in sports, even 91,3% of the respondents of this age are involved in sports. The number of the respondents involved in sports was also big (even 70%) in the age group of 36-46. It has been noticed that the respondents of senior (47-57 years) and elderly (58 and more years) age are rarely involved in sports. In the age group of 47-57 years 33,3% are involved in sports, in the group of elderly people only 22,2% are involved in sports. It is possible to make a presumption that applied physical and sports activity is not sufficiently applied in gerontology.

Out of all the respondents involved in sports (Figure 1) that participated in the research almost one third (30,4%) is basketball players. The number of the representatives of individual kinds of sport was a little smaller, for example: swimmers (17,7%), track-and-field athletes (13,9%) and weightlifters (11,4%). Although the influence of exercise on socialization is under the doubt, however, it is supposed that regular exercise may improve psychophysical state, therefore, the participation in kinesitherapy sessions (exercise) was also included into the answers to this question, consequently 7,6% of the respondents are regularly involved in it. The number of chess players and draughts players is also the same. The smallest part of people with disabilities involved in sports consisted of shooters (2,5%), Boccia players (1,3%) and volleyball players (1,3%).

Analysis of the results of research

The results of the research have shown that the indicators of the factors causing tension of the majority of people with disability involved in sports were smaller than of those who are not involved in sports (Figure 2). People with disability involved in sports are much more rarely ($p = 0,015$) dependent on others, they are much more rarely troubled by stresses ($p = 0,019$), they experienced fewer ailments ($p = 0,03$). The tension in personal relations was also statistically significantly different among those involved and not involved in sports ($p = 0,037$). The respondents not involved in sports more often stated that friends cause them tension ($p = 0,04$).



The level of tension is assessed by points from 1 to 4. * p – statistical significance of difference. Chosen threshold of statistical significance: $p < 0,05$.

Figure 2. Psychological health of people with disabilities involved and not involved in sports, in points

The investigation of peculiarities of life satisfaction of persons having physical disability has revealed that the respondents involved in sports assess their mental health more favourably than those who are not involved in sports (Table 2). Physically active respondents much more rarely experience the feeling of frustration ($p = 0,006$) or futility of activity ($p = 0,044$) also the aforementioned persons more often ($p = 0,047$) state being able to gain control on themselves than people with disabilities who are not involved in sports. Moreover, the indicators of factors causing tension among the respondents involved in sports were lower ($p < 0,05$) than among those who are not involved. Consequently, having generalized the obtained data it is possible to state that the respondents with physical disability who are involved in sports are more satisfied with their lives than those who are not involved in sports.

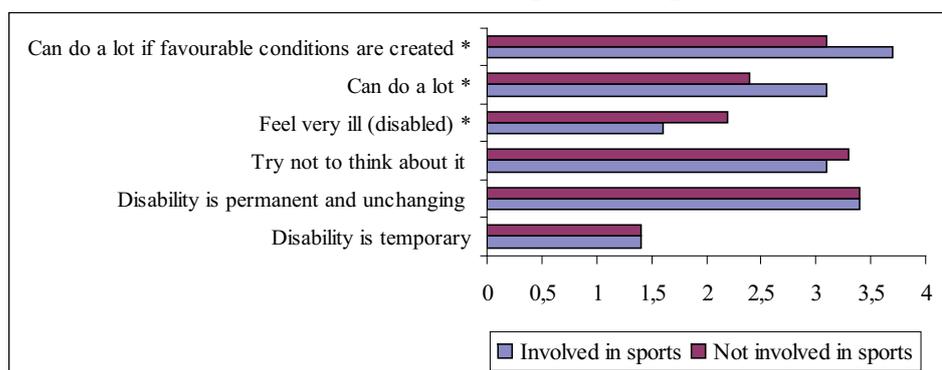
Table 2
Factors causing tension, in points

Factors causing tension	Not involved in sports	Involved in sports	<i>P</i> *
Life conditions	2,9	3,0	0,909
Financial problems	2,9	2,9	0,855
Negative attitude of the people round about	3,1	3,2	0,245
Adjustment of environment and accommodation	2,7	2,7	0,973
Family problems	3,1	3,3	0,109
Problems of personal relations	3,0	3,4	0,037
Friends	3,3	3,5	0,04
Ailments	2,7	3,1	0,03
Problems of occupation and employment	3,2	3	0,198
Stresses in general	2,8	3,1	0,019
Dependency on others	2,6	3,1	0,015

* *p* – statistical significance of difference. Chosen threshold of statistical significance: $p < 0,05$.

Much bigger number ($p = 0,005$) of people with disabilities not involved in sports than of those who are involved in sports stated that they feel actually ill (disabled) and that they would not be able to do anything even if all favourable conditions were created for them (Figure 3). In order to find out the peculiarities of the attitude of the respondents involved and not involved in sports the participants were asked what hinders them from feeling as an able person. Persons with disabilities both involved and not involved in sports pointed out unadjusted environment, not created possibility to use public transport and inaccessible work environment as the biggest obstacles. Inaccessible education was of least importance for the attitude towards their disability among people with disabilities involved and not involved in sports.

People involved and not involved in sports activities differently assessed only one aspect hindering from feeling as a person of full value: possibilities to use transport are not created. Much more often ($p = 0,044$) people with disabilities not involved in sports stated that unadjusted public transport hinders them from feeling like a person of full value. It may be supposed that people with disabilities involved in sports more often drive their own car or they overcome obstacles more easily getting on and off public transport.



Note: The level of tension was assessed in points from 1 to 4. * *p* – statistical significance of difference. Chosen threshold of statistical significance: $p < 0,05$.

Figure 3. Indicators of the attitude towards their disability of people with disability involved and not involved in sports, in points

In order to reveal the respondents' attitude towards their disability they have been asked what reactions are typical to them when they face negative attitude towards a person with disability. It has been noticed that people with disability who are not involved in sports react a little more (p – statistically insignificant) aggressively to the glances of passers-by than those who are involved in sports. The latter respondents stated that most often they try not to pay any attention to it (Table 3).

Table 3
Reaction when facing the others' negative attitude towards a person with disability, in points

Reaction when facing the others' negative attitude	General mean of assessment	Not involved in sports	Involved in sports	P^*
Behave aggressively	1,7	1,9	1,6	0,314
Try not to pay attention to it	3,2	3,1	3,2	0,565
Try not to show anger	2,8	2,8	2,8	0,917

* p – statistical significance of difference. Chosen threshold of statistical significance: $p < 0,05$.

The results of the research have shown that persons with disability both involved and not involved in sports would prefer to communicate both with people without disability and people with disability (Table 4). The respondents would least prefer to socialize in a separate group of people with different disabilities. Much more often ($p = 0,049$) persons with disability involved in sports would like to socialize in a separate group of people with disabilities having the same disability as they do rather than persons with disability who are not involved in sports.

Table 4
Groups of people persons with physical disability would tend to communicate with, in points

Groups of people	General mean of assessment	Not involved in sports	Involved in sports	P^*
People with disabilities	3,5	3,3	3,5	0,225
People without disabilities	3,4	3,2	3,5	0,139
Group of people with disability together with people without disability	3,3	3,2	3,4	0,304
Separate group of people with disability where all the persons have the same disability	3,0	2,7	3,1	0,049
Separate group of people with disability where the persons have different disabilities	2,6	2,5	2,8	0,189

* p – statistical significance of difference. Chosen threshold of statistical significance: $p < 0,05$.

The data of the investigation of the factors conditioning the decision to get involved in sports (Figure 4) have shown that many (35,9%) respondents are involved in sports because they want to spend their leisure time with other friends with disabilities during trainings. 19,8% stated that they were encouraged by other friends with disabilities involved in sports. The wish to win (15,3%) was also important factor and motivating to get involved in sports. The example of famous sportspeople (7,6%) and teachers (9,2%) were indicated as least motivating factor by the respondents. Therefore, during the research it has become clear that appropriate motivation to get involved in sports at school is important for people during all their lives even after they experience the trauma of spinal cord. As the most important factor that conditioned the participation of the respondents in sports or physical activity the people with disability themselves pointed out the wish to spend leisure time with friends.

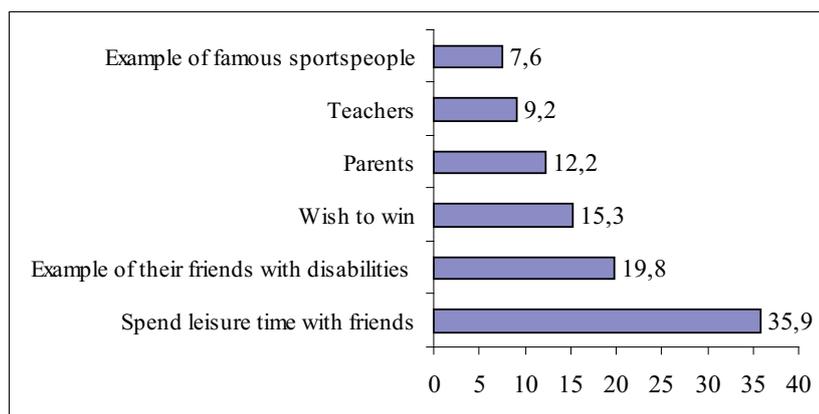


Figure 4. Factors that have encouraged people with disabilities to get involved in sports, per cent

The main obstacles hindering people with disability from participation in sports activity have been presented in Table 5. The results of the research have shown that almost all obstacles presented in the questionnaire have been evaluated differently by those involved and not involved in sports. To involve in applied sports or physical activity for people with disability not involved in sports was difficult mostly because of the lack of perception of usefulness of sports, insufficient financing of sportspeople, lack of information about sports for people with disabilities. People with disability not involved in sports indicated that one of the most important obstacles to successfully involve in sports is distrust in their strengths. The respondents involved in sports indicated insufficient financing of sportspeople with disabilities as the main obstacle hindering from continuing their sports career. It should be noted that people with disability involved in sports are not hindered by lack of self-motivation, lack of support from close people, they also perfectly perceive the usefulness obtained from sports.

Table 5

Obstacles hindering people with disabilities from starting or continuing sports activity, in points

Obstacles	Not involved in sports	Involved in sports	P*
Unadjusted sports basis.	2,8	2,4	0,001
Lack of sports equipment.	3,5	2,6	0,000
Lack of support from close people.	3,3	1,7	0,000
Lack of self-motivation.	2,8	1,4	0,000
Distrust in their strengths.	3,8	2,9	0,000
Not perceiving the usefulness of sports.	3,9	2,3	0,000
Lack of financial support.	3,8	3,8	0,753
Lack of information about sports for people with disabilities.	3,8	3,3	0,096

* p – statistical significance of difference. Chosen threshold of statistical significance: $p < 0,05$ The level of the significance of obstacles has been assessed by points: 1 – insignificant obstacle, 5 – very significant obstacle.

The research has revealed that people with disabilities rather rarely have possibility to participate in sports together with people without disability (Figure 5). Only 13,4% of all the respondents with disability involved in sports have possibility to participate in sports together with people without disability and only 22,4% of the respondents stated that they have such a

possibility quite often. The majority of the respondents (40,3%) participate in sports together with people without disability only sometimes, and the part (23,9%) of people with disability stated that they never participate in sports together with people without disability. The previous research (Skučas, 2003) has shown that people with disability would like people without disability to also involve in their sports (especially of recreational level).

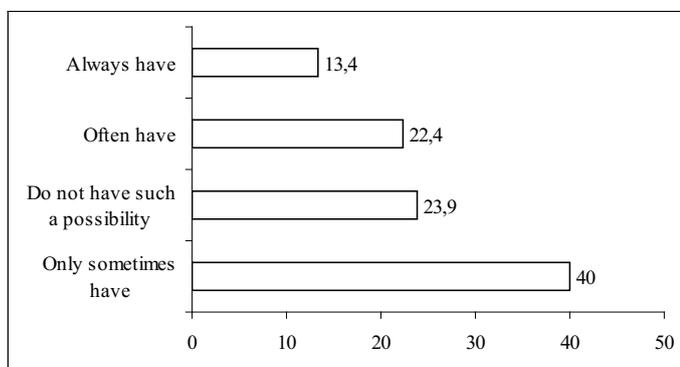


Figure 5. Possibility of sportspeople having physical disability to participate in sports together with sportspeople without disability, per cent

Although the usefulness of applied physical activity for biosocial functions of persons having physical disability is often accentuated, it is evident that aforementioned activity have positive influence on psychosocial functions of people with disability, too.

Conclusions

1. The results of the research have revealed that the number of people with disability involved in sports is larger by one-third than of those who are not involved. The most popular kind of sports among people with disabilities is basketball. This kind of sports is chosen by about 30 % of the respondents involved in sports.
2. The respondents with physical disability involved in sports are more satisfied with their lives than those who are not involved. Physically active respondents assess their mental health more favourably, moreover, the respondents involved in sports have lower indicators of factors causing stress than those who are not involved.
3. The attitude towards their disability of people with disabilities that are involved in sports is much more favourable than of those who are not involved. People with disabilities participating in physical activity tend to rely on their strengths to a greater extent, even when favourable conditions are not created for them. Meanwhile, in case of the respondents not involved in sports unadjusted environment more often hinders from feeling like an able person of full value.
4. Both groups of the respondents pointed out another person with disability as the most important agent of socialization. However, people with disabilities both involved and not involved in sports differently assessed the institutions that helped them to socialize. The respondents involved in sports favourably evaluated the information given by many institutions, meanwhile those not involved in sports restricted themselves with the information received in treatment institution or active rehabilitation centre.
5. People with disabilities themselves pointed out the wish to spend leisure time with friends as the most important factor that conditioned the respondents' participation in sports or physical activity. As the main reason of not involving into applied physical activity people with disability indicated lack of perception of the usefulness of sports.

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