Comparison of training and competition opportunities in leisure time among people with intellectual disabilities in selected European countries

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**Abstract**

Leisure time activities are important for individuals with an intellectual disability (ID). Table tennis (TT) seems to be the most suitable and accessible activity in relation to motor skills and low financial requirements. The aim of the project was to investigate the opportunities for the TT training and competition among individuals with ID in the following European countries: Austria, the Czech Republic, England, and Hungary. Those countries regularly participate in international TT events organized by Inas. The coaches of the mentioned countries were questioned about the TT training process of persons with ID during their leisure time. The survey was completed by 4 coaches (3 male and 1 female), who work at various levels (from the lowest level in sports clubs to the top level in national teams) in each country. The research findings showed that all of the surveyed coaches practiced trainings frequency two times per week. In addition to national games, all the countries organize competitions at regional levels and participate in international events. The data reveal that training camps lasting from 5 to 14 days per year are organized in all the surveyed countries. The survey found certain training options, which correspond more to the standard of the recreational sport than to the standard of the top-level sport. A positive finding was the possibility of training with the intact population, which may be considered as an important phenomenon of social inclusion.

**Key words:** intellectual disability, table tennis, training process, competition, training camps.

**Introduction**

Physical activity as the instrument of positive intervention on persons with disabilities has been assessed and documented in several research studies. Various beneficial aspects have been declared: a) evolution aspect: loco-motor development, eyes-hand coordination, walking-running, keeping-catching, basic motor skills like swimming, cycling etc.; b) social development aspect: self-efficacy, self-awareness, communication, cooperation-competition; c) aspect of health related fitness: fitness, BMI and obesity regulation. Aquatic activities, especially swimming, have been recommended as a leisure time activity improving gross motor skills of people with cerebral palsy. Regular recreational activities practised two times per week were found as more important than the loading intensity of exercise in Dutch study of children between 7-13 years of age. The assessment of the aerobic and anaerobic capacity among children and adolescents with cerebral palsy (further CP) showed, beside positive influence on the anaerobic capacity, also several secondary outcomes, such as: improved agility, muscle strength, self-competence, social participation, and health-related quality of life. Similar findings have been documented in the literature regarding children and youngsters with intellectual disability.

The relationship between motor competence and physical inactivity among persons with intellectual disabilities (further ID) has been investigated. The results proved that deficiencies in motor competence might predispose individuals to engage themselves in lesser amount of physical activity. Persons with ID are typically less physically proficient than their standard developing peers. Similarly, physical inactivity among persons with ID may lead to potential health risks. Results indicated that individuals with ID experienced deficiencies in physical fitness. The significant physical inactivity among persons with ID predisposed them to greater health risks (related to overweight and obesity) in contrast with their peers. It is estimated that individuals with disabilities compared to their peers are less involved in appropriate physical activities and games. Children with ID were found to be engaged in significantly less physical activity than their peers from the intact population. It concerned the school, after school, and weekend activities. The research project concerning the assessment of various types of daily leisure activities of 266 residents in the Czech Republic documented that male adults (No 174) spent only 4% of total hours per week (7 days) by monitored physical exercises and sport, whereas female adults (No 92) only 3.5% in the same period. The age of participants was from 18 to 42 years. The leisure time was defined as the time devoted to relaxation and personal interests related to self-decision, thus, it did not involve sleeping, self-care, education and work. Several studies have shown that the improvement of skills and social competences among children with autistic spectrum disorders is
closely related to physical activities in leisure time and to kindergarten motor programs. The influence of leisure time activities on the self-awareness of adolescents with behaviour problems was confirmed14.

The participation in leisure activities is an important part of life for children with disabilities and their development. "Active engagement in meaningful activities of one’s own choosing is essential for promoting health and personal autonomy, skill development and productivity, community integration, and life satisfaction"17.

What are the special issues causing lack of participation in leisure time activities among individuals with ID? The question still awaits its full answer. Some recommendations, how to develop and improve movement skills of children of all abilities (including children with ID), have already been found18. Typically, they have to face the following issues: [1] the problem with selection of the activity due to the lack of decision-making. The decision-making has to be supported, motivated, and formatted. It is an exhausting and long-term process; [2] the involvement of accompanying persons like parents, care-givers and/or educators as the support on different levels (intermittent, limited, extensive or pervasive19) is needed; [3] parents are afraid of barriers and negative influence of potential injuries due to the lack of skills and problematic mobility and/or community rejection17.

The lack of opportunities in community programs appears on both the recreational level and the level of a regular systematic program. Therefore, it is recommended to municipalities or sport organizations to provide programs in the following three approaches20: [1] adapted program: a modified program of movement activities that maximizes the potential of children with disabilities using an individualized intervention or education program; [2] remedial program: specific exercises and activities for correcting errors in body mechanics and perceptual motor functioning; [3] developmental program: an individualized program of movement activities based on personal needs and designed to enhance movement, fitness, physical activity, and social/emotional skills.

Organisations offering activities for people with ID, for instance the Special Olympics and the International Federation for Persons with Intellectual Disability (Inas) have begun to offer sports not only within the intact population, but also among individuals with disabilities15.

The basic question of the presented pilot project was: “Are there opportunities for involvement of persons with ID as far as physical activities are concerned”? Unfortunately, persons with ID may engage themselves in recreational and competitive sport levels only within the range of leisure time activities.1 Table tennis (further TT) seems to be the most appropriate and accessible activity considering the limited skills and abilities of persons with ID and low financial and spatial requirements. TT is a frequent activity in all age groups on both recreational and competitive levels in many countries all over Europe. The aim of the project was to investigate the possibilities for the TT training and competition of individuals with ID in selected European countries, to compare findings and to formulate basic recommendations.

Methods

Participants

Four countries willing to participate in our questionnaire were researched within the study. We were dealing with TT coaches - specialists in training students or graduates from special schools for children with ID. Their training lessons are designed for children aged 10 years or more, national team members are usually between 20 and 35 years old. In many cases the participants of trainings are older than 35. As the groups are often of mixed age, the survey has not been limited by the age.

The European countries regularly participating in international championships organized by the Inas (International Federation for Sport for Para-athletes with an Intellectual Disability) become involved in the comparative study. Head coaches and representatives of TT from Great Britain, Hungary, Austria, France, Portugal, and Spain had been addressed. Nevertheless, France, Spain and Portugal remained silent and did not answer. Thus, the study was performed in four countries (Table 1), which had agreed to participate. In order to acquire more accurate image of the situation, the sex and years of practice have been included in the (Table 1).

Data acquisition methods

The questionnaire, especially created for the purposes of the study, is an inseparable part of the dissertation of Francová (2012). Each question in the questionnaire is aimed at the identification of sport opportunities. First two questions reflect general status of sport among people with ID in the given country, the questions 3 – 6 deal with specific training and competitive opportunities, and the last question inquire about the possibilities of special sport activities. The questionnaires were sent via the e-mail. The following questions were included: [1] how many athletes are registered in your local association? What is the number of registered athletes out of the total number of people with ID in each country?; [2] how many table tennis clubs offer training for athletes with intellectual disabilities?; [3] do your athletes have the opportunity to train regularly?; [4] does your organization organize national games?; [5] how many players participated in the national games in the past?; [6] does your organization organize any other competitions?; and [7] does your organization organize any sports or training camps? How often and to what extent?

Organization of research

The aim of the study was to inquire about the given area. The whole project was divided into two stages. In the first stage
the representatives or head coaches of TT were addressed. Simultaneously, the questionnaire was created and sent to the representatives willing to participate in the study. Following data collection, comparison of results and data evaluation was performed in the second stage.

**Data analysis**

Obtained data from the questionnaires were processed and individual countries compared; the results were processed into the Table 2.

The main interpretation and evaluation of the results was based on an analysis of available materials, in accordance with the information obtained from the questionnaires.

**Limitations**

This survey was conducted on a limited sample of TT co-

aches of athletes with ID. Organized sport under the auspices of Inas has its own rules, and from practice, we have learnt that not all sections or individuals are interested to join this structure, even when engaged in sports regularly, either on the local level or top competitive level.

**Discussion**

This paragraph is divided into subsections according to the level sports concept. Being the participant in a TT organization in the Czech Republic and having participated in international events in a position of a national coach, we obtained the data.

This survey provides some current information about sport opportunities for individuals with disabilities. As a part of this study we described and compared various levels of preparation of athletes who practise and compete in the selected European countries: Austria, the Czech Republic, England, and Hungary. The target group were individuals with ID. This comparison could be enlightening for educators and trainers who work with individuals with ID.

The lowest level of an imaginary pyramid is presented by athletes practising in sports clubs, thus creating the broadest base of people who are interested in sports activities in their leisure time. Therefore, this recreational level symbolizes a very important position. It is followed by a regional or national level. The highest levels are occupied by the national team events.

The individual subsections illustrate different approaches to the preparation of athletes with ID. The total number of athletes within each national association indicates the current status of development of organized sports for individuals with ID. The number of athletes supports the statement that people with ID were found to be engaged in any physical activity less than the intact population. It should be noted that we are talking only about registered athletes within an organization. The total number of registered and nonregistered athletes is hard to estimate. This number along with the size of the country can be used to estimate the limited chance of discovering a talent that could achieve success at the national or supranational level. The

| TABLE 2 | QUESTIONNAIRE FOR IDENTIFICATION OF TRAINING OPPORTUNITIES OF TRAINING OPPORTUNITIES FOR TABLE TENNIS PLAYERS |
|-----------------|-----------------|-----------------|-----------------|
| Questions asked in the questionnaire | Austria | Czech | England | Hungary |
| 1. How many athletes are registered in your national TT association for athletes with ID? | 900 ath. | 3000 ath. | 500 ath. | 5000 ath. |
| - the number of registered athletes out of the total number of people with ID? (in %) | 1.6 | 4.3 | 0.1 | 7.6 |
| 2. How many TT clubs offer training for athletes with ID? (in %) | 6 | 75 | 100 | 12 |
| 3. Do your athletes with ID have the opportunity to train regularly? | Yes | Yes | Yes | Yes |
| - how often per week | 2 | 2 | 2 | 5 |
| 4. Is any national game presented by your organization? | Yes | Yes | Yes | Yes |
| 5. How many TT players with ID participated in national games in the past? | 22 | 70-80 | 100 | 80 |
| 6. Does your organization organize any other competitions? | Yes | Yes | Yes | Yes |
| 7. Does your organization have any sports camps? | Yes | Yes | Yes | Yes |
| - how many days (summary)? | 5 | 10 | 14 | 14 |
| - how often per year? | 1 | 3 | 6 | 1-2 |

Legend: ath – athletes
situation in the participating countries showed some similarities as well as significant differences.

1. General situation

The number of people with ID is based on the epidemiological studies, this paper suggests that “the overall prevalence of severe intellectual disabilities (approximating to IQ<50) is between 3 and 4 people of all ages per 1000 total population, implying that in the 15 countries of the European Union (total population 380 million) between 1.1 and 1.5 million people have severe intellectual disabilities. The equivalent figure for mild intellectual disabilities (approximating to IQ 50-70) is 2.3 to 2.7 million people, but many of these individuals will not need special help in adult life19”.

2. Training opportunities in sports clubs

Sections are organized by schools or homes for persons with ID. The aim is to provide regular training sessions for athletes with ID in cooperation with the intact population and to create a range of activities in leisure time for all the children. We agree with the statement that participation in leisure activities is an important part of life of children with disabilities and their development7. At present, the situation has been changing significantly due to the fact that more and more athletes have the opportunity to participate in training clubs with the intact population. The recommended training activities on recreational level are one to three times per week, along with participating in occasional tournaments.

The study results showed maximum responsiveness from the public in England, where the athletes have the opportunity to train in all the clubs of the intact population. Training activities in regular sports clubs create a situation which enables a wider range of athletes with disabilities to do regular physical activities. Austria and Hungary show less integrated training opportunities. The trainings in those countries are focused on a specific group and not on the broader spectrum of athletes. In this case only successful athletes are in the centre of attention.

Training is an essential part of the training process leading to the desirable physical fitness20. The research shows that a long-term and systematic training has an effect on operating performance changes. At the same time, it is also a directing factor of irregular and sudden changes in motor performance. This is particularly the reason why the sport of individuals with ID is very important.

A training process on a professional basis is a daily and biphasic issue21. Even individuals with ID are able to compose a national team. The process of preparing high-quality training for players with disabilities is very complicated and difficult. The biggest problem is the lack of professional coaches and professional training methods. There are very often volunteers working in clubs. Enlisting or hiring of qualified coaches is complicated due to economic costs of the training process. The survey data show that individuals in most countries practice twice a week, which is more consistent with the recreational sport. The best possibilities of training processes are available to athletes from Hungary; they can practice five days a week.

3. Competitive opportunities

Local competitions offer a chance to participate to the widest range of athletes. The competition involves athletes of various levels and even players on a lower-level have a chance to play with the best ones. In this case it can be a good motivational factor. Another important point is that these contests create space for the talent search. All the surveyed countries organize competitions at local levels. The Czech Republic organizes local competitions of eight counties from which the best players nominate to the country's top national competition.

The national championship is an opportunity for athletes to present their year-long training efforts and to measure their strength with the corresponding performance athletes from different clubs. It should be the top level in each country. The success of players influences the creation of each national team.

Our data show that the organization of national games or championships is a part of every sports concept in all the surveyed countries. The number of participants at the highest national level connected with the number of athletes of each association may indicate how tough the nomination system is. In the Czech Republic, Hungary and Austria, there are about 1-3 % of athletes who have a chance to be nominated to the national games. This is different to England, where the opportunity to compete with players at the highest level exists for 20 % of all players. This result indicates that the selection is different and in the case of the three mentioned countries also very selective.

4. Special opportunities in national team

The best players in each country create a national team that participates in the international events. This team may participate in:

a) Sports camps

Sports camps prepare athletes for international events17. The sports camps are becoming also popular for athletes with lower performance or even as active sports holiday. According to the frequency, quality and intensity of sports camps, individuals can determine the success of individual players in competitions and tournaments. In the case of athletes with ID, their performances are often unstable, but regular and high quality training and camps have significant impact on the overall level of their motor skills. The sports camps should be included, similarly to the intact population, within the overall framework of the preparation of athletes. Unfortunately, a frequent problem with financing occurs in the category of individuals with disabilities. Sponsors, grants and in some countries (such as England) athletes themselves or their families are often involved in the organization of such events. As mentioned in the chapter on training sessions, the economic situation is a significant problem in the overall preparations of athletes.

The obtained data show that the surveyed countries organize camps from 5 to 14 days per year. The frequency of organizing camps in all countries during the year is comparable, but England and Hungary organize longer sports camps (approximately 14 days), the Czech Republic and Austria have camps of a lesser extent (up to 10 days).

The sports camps in the Czech Republic are conceived as a 3-6 day stays and they are focused on the overall condition of maximum development (of all physical abilities) and game skills. The frequency of one-week camp is two to three-phase training. The main goal of the training is to improve individual strokes and game combination. An important part of the training is a friendly match with a sparring partner.

b) Friendly international matches / sports tournaments

These are the competitions, which can be organized by individual clubs of a specific country in agreement with other countries. In the past, mutual friendly matches took place
between the Czech Republic, Hungary and Poland. Another example is the international tournament held in the Czech Republic with the participation of France, Austria and England. These competitions can have several goals: [1] preparation of athletes for competition officially organized by Inas; [2] creation of opportunities for mutual matches between athletes from different countries; [3] creation of opportunities for athletes with lower performance; [4] creation of possibilities for sport’s self-fulfilment of athletes with ID; [5] chance for interesting meetings, new adventures and experiences; [6] support of development of sports among individuals with ID.

Currently this opportunity is available also to players who were excluded from the official national teams because of very strict conditions. These players used to be registered, but they are in the border IQ zone and they cannot participate in official competitions organized by Inas, but they do not have a chance to participate in competitions along with the intact population.

c) Championship organized by Inas

Based on the success of national games, camps and friendly matches, a national team is formed. It represents the country at the official competitions organized by Inas.

The European Championship is held every two years. The World Cup is held alternately with European Championships, also every two years. Every four years Inas organises Global Games – 10 days celebration of sport for elite athletes with ID that include World Championships in 7 sports. The Paralympics, similarly to the Olympics, are held every four years. Last year’s Paralympics in London 2012 restored again categories for athletes with ID. The athletes registered in the Inas have been continually tested and based on actual results and achievements they were nominated for the start in the Paralympics 2012 in London.

The condition for participation in international events is not only the success in national competitions and other events currently organized, but equally important is the handling of international registration. For this registration, all the athletes must be tested by psychological tests and evaluated at a sociable level and adaptability. Based on these tests and meeting of all conditions of registration they may represent their country.

The obtained data show that all the surveyed countries participate in international events.

**Conclusion**

We found out that the countries participating in the survey all have certain opportunities for organization of the training program for persons with ID. Nevertheless, the possibilities for leisure time activities are lower than the possibilities of the intact population. The success of the training program depends on many circumstances and frequency of practising. The success of the concept of individual countries can be assessed according to achievements of athletes on the international scene.

Athletes from the Czech Republic, Austria and England are in all categories in the middle range of international rankings. Following the results of national team members we can assess a high success rate of players from Hungary, who at the time of the research were among the world’s best players in this category. The leisure time activities are oriented on the top TT players training and these players have also the best possibilities for training (in comparison 80 players of the national games with 5,000 registered players).

A significant progress has recently been seen among the players from England, who have the greatest opportunities to train with the intact population and may attend the highest frequency of training camps.

When comparing with the general public, the leisure time opportunities for athletes with ID were relevant to the training process, on the other hand the participation in different competitions was quite limited. The competitions for this category are organized less frequently than for the intact population. The involvement of athletes with ID in the same competition with the intact population has appeared on more regular basis, however, the chance of a success for athletes with ID is very limited. This is further connected with the motivation for another activity.

Two issues can be recommended for practise in leisure time: [1] in spite of the fact that the outdoor or swimming activities are mostly recommended for individuals with ID, table tennis has been confirmed as an available sport for both the recreational level and for the international competitive level; [2] to create more training and competition opportunities from the local to international level. The authors emphasize the need for continuous management of physical activities, because the positive effect of training and opportunity to compete is confirmed by the studies. The individuals with ID are not able to continue independently in the activity or exercise, they need regular leadership. Another very important help would be the government’s support and bigger public understanding.

**References**

UPOREĐIVANJE MOGUĆNOSTI TRENIRANJA I TAKMIČENJA U TOKU SLOBODNOG VREMENA KOD LJUDI SA INTELEKTUALnim SMETNJAMA U ODREĐENIM EVROPSKIM ZEMLJAMA

S A Ž E T A K

Aktivnosti koje se izvode u toku slobodnog vremena važne su za individualce sa intelektualnom invaliditetom (ID). Stoni tenis (TT) izgleda kao najprikladnija i najpristupačnija aktivnost u odnosu na motorne sposobnosti i niske finansijske zahtjeve. Cilj ovog projekta bio je da se ispituju mogućnosti treniranja i takmičenja u stonom tenisu kod individualaca sa intelektualnim invaliditetom u sljedećim evropskim zemljama: Austrija, Češka Republika, Engleska i Mađarska. Ove zemlje redovno učestvuju u međunarodnim događajima stonog tenisa koje organizuje Inas. Treneri iz pomenutih zemalja ispitivani su o procesu treniranja stonog tenisa tokom slobodnog vremena kod osoba sa intelektualnim invaliditetom. Istraživanje je završeno sa četiri trenera (3 muškarca i jedna žena), koji rade na različitim nivoima (od najnižeg nivoa u sportskim klubovima do najvišeg nivoa u nacionalnim timovima) u svakoj od zemalja. Istraživanje je pokazalo da su svi od ispitivanih trenera održavali treninge dva puta nedjeljno. Uz nacionalne igre, svaka od navedenih zemalja organizuje takmičenja na regionalnom nivou i učestvuje u međunarodnim događajima. Podaci pokazuju da su kampovi za obuku, koji traju od 5 do 14 dana u toku godine, organizovani u svim zemljama koje su učestvovalo u istraživanju. Istraživanje je pokazalo određene mogućnosti obuke, koje više odgovaraju standardu rekreativnog sporta nego standardu vrhunskog sportskog. Pozitivno otvoriće predstavljala je mogućnost treniranja sa zdravom populacijom, što se može smatrati bitnim fenomenom socijalne inkluzije.

Ključne riječi: intelektualni invaliditet, stoni tenis, proces treniranja, takmičenje, kampovi za obuku.