ANALYSIS OF SPORT PREFERENCES AMONG 13–21 YEAR OLD YOUTH WITH PHYSICAL DISABILITIES IN SLOVENIA

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The purpose of this study was to examine the sports preferences of physically disabled youth according to their attendance in physical education (P. E.) classes (twice a week) in schools, permanent exclusion, gender and usage of mobility aids. The sample consisted of 162 youngsters from Slovenia, 94 males and 68 females, from 13 to 21 years old with physical disabilities. Participants responded to the Sports Preferences List, SPL-86 (Vute, 1986) in individual and small group interviews. Data was gathered and completed during the period 2003–2006. Data were analyzed using ANOVA and Chi-square statistics to provide new information. The level of statistical significance was set at $p < 0.05$. The research findings make the picture of physically disabled youth more transparent and could improve the planning of sport activities in schools and community centres.

Keywords: Adolescents, mobility aids, sports events, physical education.

INTRODUCTION

Sport itself is a kind of adventure event. This characteristic puts sport in the position of being an attractive and exciting activity suitable for all. Active involvement in sport in many cases depends on the decisions that individuals made during their childhood and adolescence (Kasser, 1995). Regular sports participation definitely helps in building a person's identity. Sport participation as a lifestyle of an individual has noticeable benefits; better health and enhanced quality of life are probably the most obvious ones (Giacobbi, Stancil, Hardin, & Bryant, 2008). Encouraging children and youth for sport participation in places like schools, sport clubs, and community centers should be among society's priorities. Progressively, society is shifting from the perception of limitation to the individual potential that disabled people have to maximize their abilities (De Potter, 1994). The role of sport can be very important for the adolescent as a specific means for adjustment and acceptance, and as an expression of identity. A positive self concept or identity may be one of the most important motivators of behaviour (Davis, Kimmet, & Auty, 1993). The role of the Sports Special Olympics Program, for example, which provides opportunities for travel and increased social contacts was found to be especially beneficial for the development of the spiritual life of the mentally disabled (Válková, Nováčková, & Hansgut, 2003). The benefits of participation in physical activity – physical education, sports, and therapy – were found to include improved fitness, flexibility, strength, social interaction, and self concept (DePauw, 1992). Self esteem is probably the most frequently used indicator of mental well being, and sports and exercise may be important vehicles for its promotion (Fox, 1992). Athletes with disabilities, such as wheelchair users, people with cerebral palsy and blind people, were found to have the same perceptions, cognitive behaviours, and psychological profiles as able bodied athletes (DePauw & Gavron, 2005). Sport also has a motivational function by providing a source of positive information for building children's self concepts. As a result of higher activation, the risk of depression is lower (Tušak & Tušak, 1994). Adolescents who are involved in sport have better self assurance in their physical selves and they are more confident in evaluation of their self concepts. They also have better perception of their social selves (Goltnik Urnaut, 2007). The same level of self esteem was shown by children who practise sport with special needs as their peers without disability (Sherrill, Hinson, Gench, & Kennedy, 1990).

In order to increase the physical activity levels of children and youth, certain influences and determinants need to be understood. Strategies for development need to take into account activity preferences for different mobility and socio-demographic groups. Walking is one of the most common physical activities performed by individuals with mental retardation. The significant difference found in walking activity among participants with and without Down's syndrome is not surprising (Stanish, 2004). Young Canadian men and women (aged 25 years or younger) are more likely to report preferences for a variety of activities in terms of intensity, competitiveness, skills challenge, and team or individual orientation. Moreover, they are more likely to

state preferences for activities that allow friends only to participate together (Sport Monitor, 2007). One study which assessed physical activity interests among psychiatric patients, (the mean SD age was 42.6) showed that the most popular activity was walking, followed by structured exercises at a facility (Ussher, Stanbury, Cheeseman, & Faulkner, 2007).

The study explored the relationship between physical activity and quality of life for a sample of active wheelchair users (12 males, 14 females aged 18–54) while emphasizing the themes of psychological benefits, physical health benefits, social opportunities, social influences, and increased overall quality of life (Giacobbi, Stancil, Hardin, & Bryant, 2008). A study (Vute, 1994) carried out on a sample of 85 institutionalized physically disabled youth, with 66 males and 19 females, aged 12–21 from Slovenia indicated that the most popular sports in which they actively participated were (1) table tennis, (2) basketball and (3) wheelchair hockey. Wishes for sports participation were directed towards (1) swimming, (2) horseback riding and (3) motor sport. Cohesive elements such as accessibility, attractiveness and tradition were noticed. Hong Kong Chinese children with physical disability, visual impairment, hearing impairment and mild mental disability (in a sample of 237 children, with 143 males and 94 females, ages 9 to 19 years), were examined according to their sport preferences (Sit, Lindner, & Sherrill, 2002). Basketball, soccer, badminton, and swimming were the preferred sports according to gender, school level, and different disability groups while rhythmic activities (e.g. aerobic dance, dancing, and gymnastics) and combative sports such as boxing, wrestling, karate, taekwondo, and judo were the least favored. A successful sports programme in which youth are involved should, whenever possible, respect their wishes regarding the choice of sports.

THE MAIN AIM AND GOALS

The main aim of this research is to obtain information about the sport preferences of youth with physical disability. The paper analyses the responses of physically disabled youth in order to find out:

- the structure of sport preferences among physically disabled youth who attended P. E. classes in schools and those who were excused from them,
- the structure of sport preferences among physically disabled male and female youth;
- the structure of sport preferences among physically disabled youth who use mobility aids and among those who do not.

The findings about the sport preferences of physically disabled youth will help in the creation of free time sports programmes and give impetus to new ideas on how to enrich the physical education (P. E.) classes in the school curriculum. The findings should also contribute to a better general understanding of disability sport and widen the spectrum of sport opportunities for the disabled population, particularly for youth.

METHODS

Participants

The research sample consisted of 170 physically disabled youth (99 males, 71 females) aged 13 to 23 (M = 16.7, SD = 2.5) from Slovenia (121 students were from a specialized Educational Centre for Disabled Youth in Kamnik, 29 from secondary and 20 from elementary schools with an inclusion programme) who participated in a regular national educational programme. Each youth questioned had the status of a physically disabled person (cerebral palsy, spina bifida, spinal injuries, muscular dystrophy, and loss of limb) according to the National Document/Uradni list, ULRS no.54/2003. Participants had the expressed permission of their parents for taking part in the research. The data from 8 youth (5 males, 3 females) aged 22–23, were not included in the analyses of sport preferences due to the research plan which limited the age to 21. The data of 162 physically disabled youth (94 males, 68 females) was used in this study. The sample size was broken down according to the aims of the study: preferences of (a) 136 youth who attended P. E. classes in schools (78 males, 58 females), (b) 26 youth who were excused from P. E. classes in school (16 males, 10 females), (c) preferences of 94 male youth, (d) preferences of 68 female youth, (e) preferences of mobility aids users (73) and non users (63) who attended P. E. classes in schools, and (f) preferences of mobility aids users (16) and non users (10) who were excused from P. E. classes in schools. The surveyed participants had scheduled physical education classes in school twice a week, 45 minutes per class unit.

Instrument

Our instrument was the Sport Preferences List (SPL-86) questionnaire previously used in the study: Kinesiologic Activity of Physically Handicapped Youth in the SR of Slovenia (Vute, 1986). The instrument was in the Slovene language and contained 44 different sports including adapted ones, namely: archery, athletics, badminton, basketball, boccia, bowling, boxing, chess, cycling, dancing, darts, diving, fencing, fishing, gymnastics, handball, hockey, horseback riding, judo, karate, kayak & canoeing, luge, moto sport, Nordic skiing, orienteering, rhythmic gymnastics, roller skating, rowing, shooting, sitting soccer, sitting volleyball, skating, skiing, soccer, swimming, table tennis, tennis, trekking, volley-

TABLE 1
Sport preferences – attended and excused from P. E. classes

Sports	Attended P. E. classes N = 136						Excused from P. E. classes N = 26						Chi-square	
	Sport active		Wish to participate		No interest		Sport active		Wish to participate		No interest		Values	p
	F	%	f	%	f	%	f	%	f	%	f	%		
Archery	2	1.5	38	27.9	96	70.6	2	7.7	14	53.8	10	38.5	11.438	0.003
Athletics	6	4.4	39	28.7	91	66.9	0	0	6	23.1	20	76.9	1.713	0.425
Badminton	35	25.7	36	26.5	65	47.8	3	11.5	7	26.9	16	61.5	2.702	0.259
Basketball	35	25.7	56	41.2	45	33.1	4	15.4	8	30.8	14	53.8	4.152	0.125
Boccia	29	21.3	32	23.5	75	55.1	3	11.5	7	26.9	16	61.5	1.321	0.517
Bowling	13	9.6	36	26.5	87	64.0	4	15.4	8	30.8	14	53.8	1.213	0.545
Boxing	4	2.9	40	29.4	92	67.6	0	0	4	15.4	22	84.6	3.239	0.198
Chess	29	21.3	15	11.0	92	67.6	14	53.8	4	15.4	8	30.8	13.860	0.002
Cycling	40	29.4	50	36.8	46	33.8	9	34.6	10	38.5	7	26.9	0.530	0.767
Dancing	14	10.3	43	31.6	79	58.1	1	3.8	9	34.6	16	61.5	1.086	0.581
Darts	41	30.1	46	33.8	49	36.0	10	38.5	7	26.9	9	34.6	0.809	0.667
Diving	12	8.8	58	42.6	66	48.5	3	11.5	14	53.8	9	34.6	1.702	0.427
Fishing	15	11.0	34	25.0	87	64.0	6	23.1	8	30.8	12	46.2	3.858	0.145
Gymnastics	2	1.5	30	22.1	104	76.5	0	0	6	23.1	20	76.9	0.393	0.822
Handball	9	6.6	44	32.4	83	61.0	1	3.8	7	26.9	18	69.2	0.712	0.701
Hockey	14	10.3	46	33.8	76	55.9	1	3.8	5	19.2	20	76.9	4.087	0.130
Horseback riding	29	21.3	38	27.9	69	50.7	7	26.9	10	38.5	9	34.6	2.301	0.316
Judo	2	1.5	44	32.4	90	66.2	0	0	9	34.6	17	65.4	0.419	0.811
Karate	4	2.9	57	41.9	75	55.1	0	0	8	30.8	18	69.2	2.194	0.334
Kayak. canoeing	3	2.2	35	25.7	98	72.1	1	3.8	5	19.2	20	76.9	0.638	0.711
Luge	28	20.6	39	28.7	69	50.7	12	46.2	6	23.1	8	30.8	7.855	0.020
Motor sport	9	6.6	59	43.4	68	50.0	2	7.7	15	57.7	9	34.6	2.103	0.349
Orienteering	7	5.1	29	21.3	100	73.5	1	3.8	7	26.9	18	69.2	0.438	0.803
Rhythmic gymnastics	2	1.5	22	16.2	112	82.4	0	0	2	7.7	24	92.3	1.701	0.427
Roller skating	7	5.1	28	20.6	101	74.3	1	3.8	7	26.9	18	69.2	0.556	0.757
Rowing	7	5.1	34	25.0	95	69.9	0	0	8	30.8	18	69.2	1.620	0.445
Shooting	17	12.5	43	31.6	76	55.9	5	19.2	12	46.2	9	34.6	3.968	0.138
Sitting soccer	9	6.6	18	13.2	109	80.1	0	0	8	30.8	18	69.2	6.234	0.044
Sitting volleyball	28	20.6	27	19.9	81	59.6	1	3.8	8	30.8	17	65.4	4.744	0.093
Skiing	6	4.4	35	25.7	95	69.9	2	7.7	8	30.8	16	61.5	0.904	0.636
Soccer	18	13.2	41	30.1	77	56.6	2	7.7	6	23.1	18	69.2	1.511	0.470
Swimming	47	34.6	57	41.9	32	23.5	14	53.8	9	34.6	3	11.5	3.894	0.143
Table tennis	45	33.1	37	27.2	54	39.7	8	30.8	13	50.0	5	19.2	6.223	0.045
Tennis	12	8.9	54	40.0	69	51.1	3	11.5	8	30.8	15	57.7	0.828	0.661
Trekking	10	7.4	23	16.9	103	75.7	2	7.7	8	30.8	16	61.5	2.793	0.248
Volleyball	30	22.1	49	36.0	57	41.9	2	7.7	9	34.6	15	57.7	3.516	0.172
Weightlifting	29	21.3	38	27.9	69	50.7	3	11.5	7	26.9	16	61.5	1.552	0.460
Wheelchair basketball	9	6.6	30	22.1	97	71.3	1	3.8	6	23.1	19	73.1	0.291	0.865
Wheelchair hockey	22	16.2	24	17.6	90	66.2	3	11.5	5	19.2	18	69.2	0.365	0.833
Wrestling	2	1.5	27	19.9	107	78.7	0	0	4	15.4	22	84.6	0.707	0.702

ball, water polo, weightlifting, wheelchair basketball, wheelchair hockey and wrestling. Respondents were asked to mark each sport with one of three options: (1) I am active in this sport, (2) I wish to participate in this sport, and (3) I have no interest in participating in this sport. The reliability of the Sport Preference List was tested by the Crombach's Alpha coefficient (0.86).

Procedure

Data was gathered during the period from April 2003 to April 2006. Data collections were extended to optimize the number of participating youth with disabilities and to obtain the necessary statements of permission from their parents. All data in our study was collected by personal interview to ensure that all respondents understood the content and meaning of the questions in the survey. The ethical standards of the Slovenian Research Commission were followed.

Data analysis

The data has been processed by the SPSS 8.0 for Windows programme (Bryman & Cramer, 1999). The level of statistical significance was set up at $p < 0.05$. Frequency and Contingency tables have been generated with the help of the FREQUENCY and CROSSTABS subprogramme. The probability relations among the presented variables have been tested by the Chi-square. The results were divided into three sections: (a) structure of sport preferences among physically disabled youth who attended P. E. classes in schools and those who were excused from P. E. classes in schools (TABLE 1); (b) structure of sport preferences among physically disabled male and female youth (Fig. 1a–6a, 1b, 4b); and (c) structure of sport preferences among physically disabled youth who use mobility aids, and those who do not use them according to their P. E. participation or being excused from it (TABLE 2, 3).

RESULTS

Objective measurement, evaluation, analysis and interpretation of sport preferences are important for the creation of youngsters' free time sports programmes and attractive physical education in schools. The three main areas which characterise our study are attendance in P. E. classes, gender, and usage of mobility aids.

(a) Structure of sport preferences among physically disabled youth who attended P. E. classes in schools and those who were excused

The results have shown that physically disabled youth who have attended P. E. classes in schools are active particularly in swimming (35%) and table tennis (33%) while most practiced among adapted team sports

Fig. 1a
Male youth who attended P. E. lessons and their active sport participation

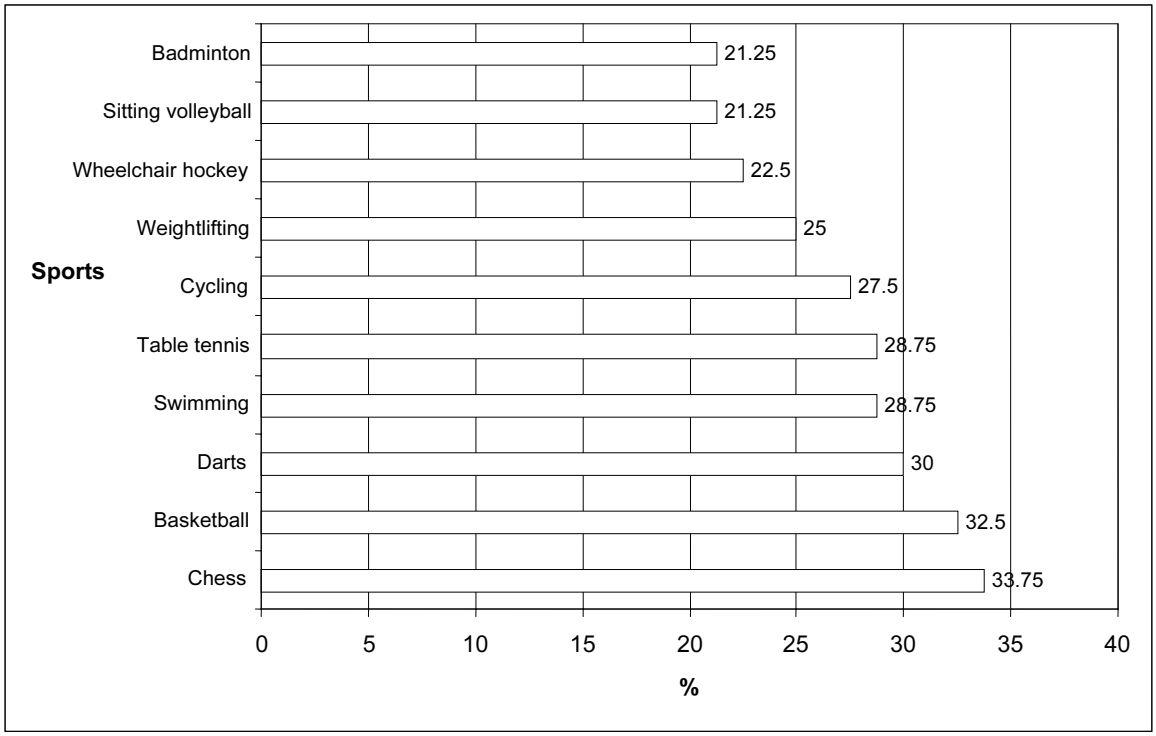


Fig. 1b
Male youth excused from P. E. lessons and their active sport participation

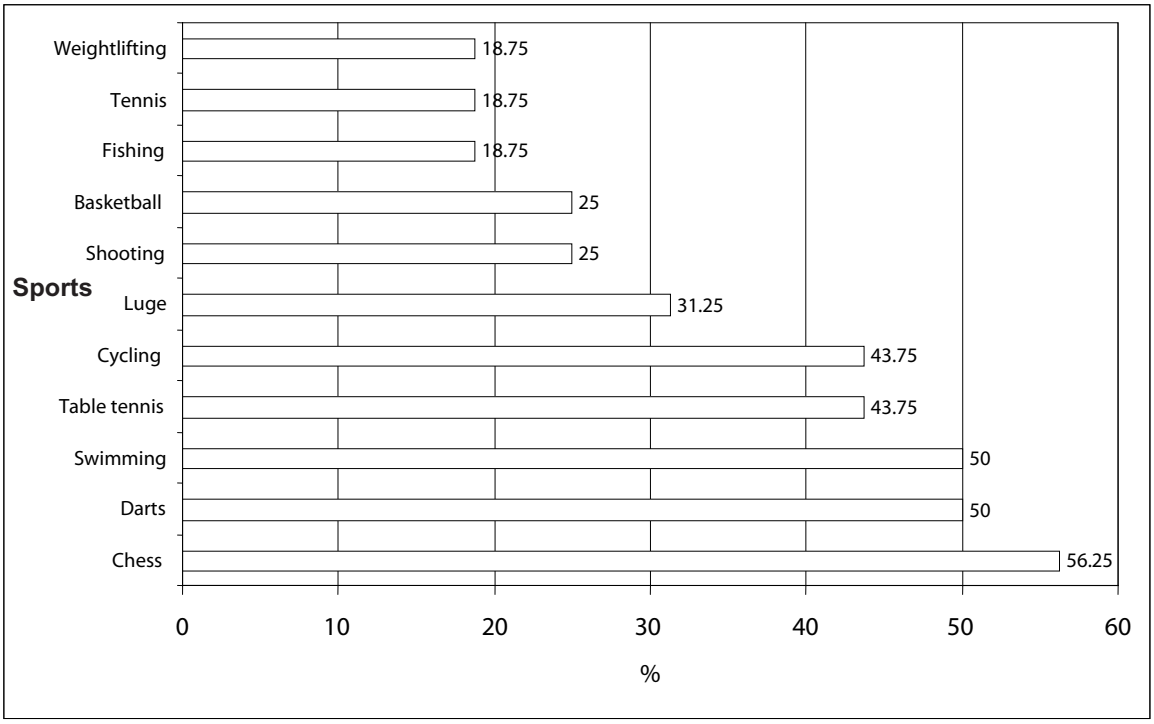


Fig. 2
Male youth who attend P. E. lessons and their wishes for sport participation

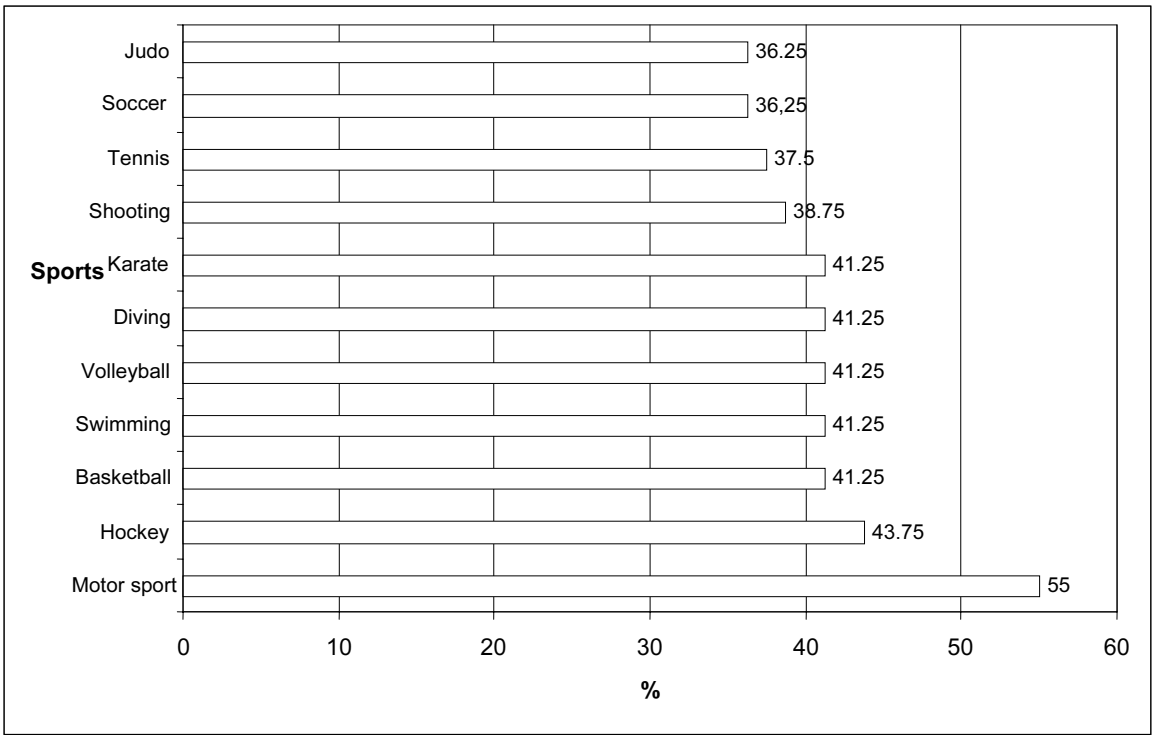
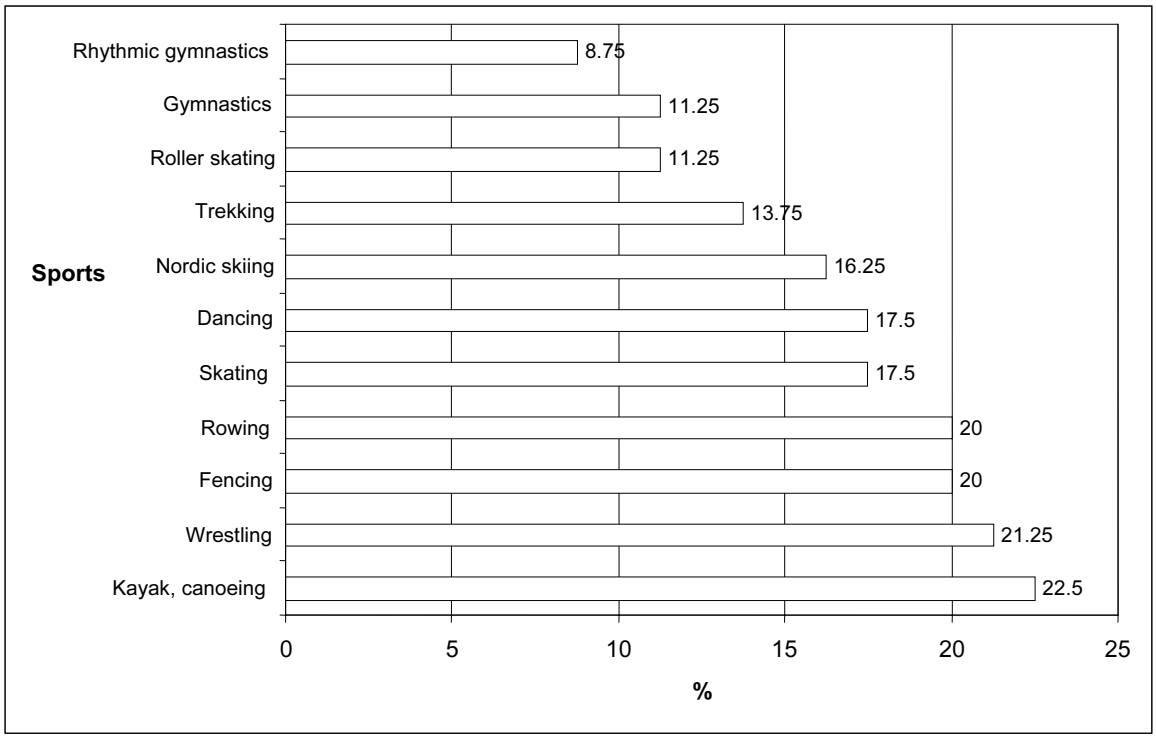


Fig. 3
Male youth who attend P. E. lessons and have no interest to participate in sports



is sitting volleyball (21%). At the top of the list of desirable sports were motor sport (43%) and diving (43%). No interest in participation was expressed for rhythmic gymnastics (82%) and sitting soccer (80%). The preferred sports among physically disabled adolescents who were excused from regular P. E. classes in schools were: chess (54%), swimming (54%) and luge (46%). The most desirable sports were: motor sport (58%), diving (54%) and archery (54%). No interest was shown in rhythmic gymnastics (92%), wrestling (85%) and boxing (85%). Statistically significant differences among the two studied groups exist in five (5) sports: for archery ($p < 0.003$), chess ($p < 0.002$), luge ($p < 0.020$), table tennis ($p < 0.045$), and sitting soccer ($p < 0.044$).

(b) The structure of the sport preferences of physically disabled male and female youth

When male and female youth with disabilities were asked whether they were active in sport, and if they wished to participate or had no interest in it, the responses were calculated according to their participation or being excused from the P. E. lessons in school. Results are illustrated in the following graphs.

Active participation indicates that males' top preferences lean towards chess (34%). basketball (33%), and darts (30%) of those who attended P. E. classes (Fig. 1a) and chess (55%), darts (50%), and swimming (50%) for those who were excused from P. E. classes (Fig. 1b)

Male youth (Fig. 2a) expressed as most desirable motor sport (55%), hockey (44%), and a variety of sports including basketball, swimming, volleyball, diving, and karate (41%). Youth excused from P. E. classes rated archery, diving, and motor sport (63%) as most desirable.

The sports in which male youth show a low interest to be involved are: kayak – canoeing (23%), wrestling (21%), fencing and rowing (20%) among P. E. attendants (Fig. 3a) while from P. E. excused youth such sports are rhythmic gymnastics (100%), gymnastics, skating, and athletics (88%).

Female youth (Fig. 4a) indicated their top preferences for swimming (42%), table tennis (39%), and horseback riding (33%). Luge (78%), swimming (67%), chess and horseback riding (56%) were the favorite sports among those who were excused from P. E. classes (Fig. 4b).

Female youth (Fig. 5a) expressed their wishes to participate in dancing (51%), roller skating (49%), and diving (46%). From P. E. classes excused females wish to participate most in cycling, table tennis, and roller skating (67%).

The sports where female youth (Fig. 6a) show a low interest for participation are sitting soccer (88%), chess (86%), and wheelchair basketball (82%). Among P. E. excused female youth the most unpopular sports are wrestling, boxing, and karate (89%).

Fig. 4a
Female youth who attend P. E. lessons and their active sport participation

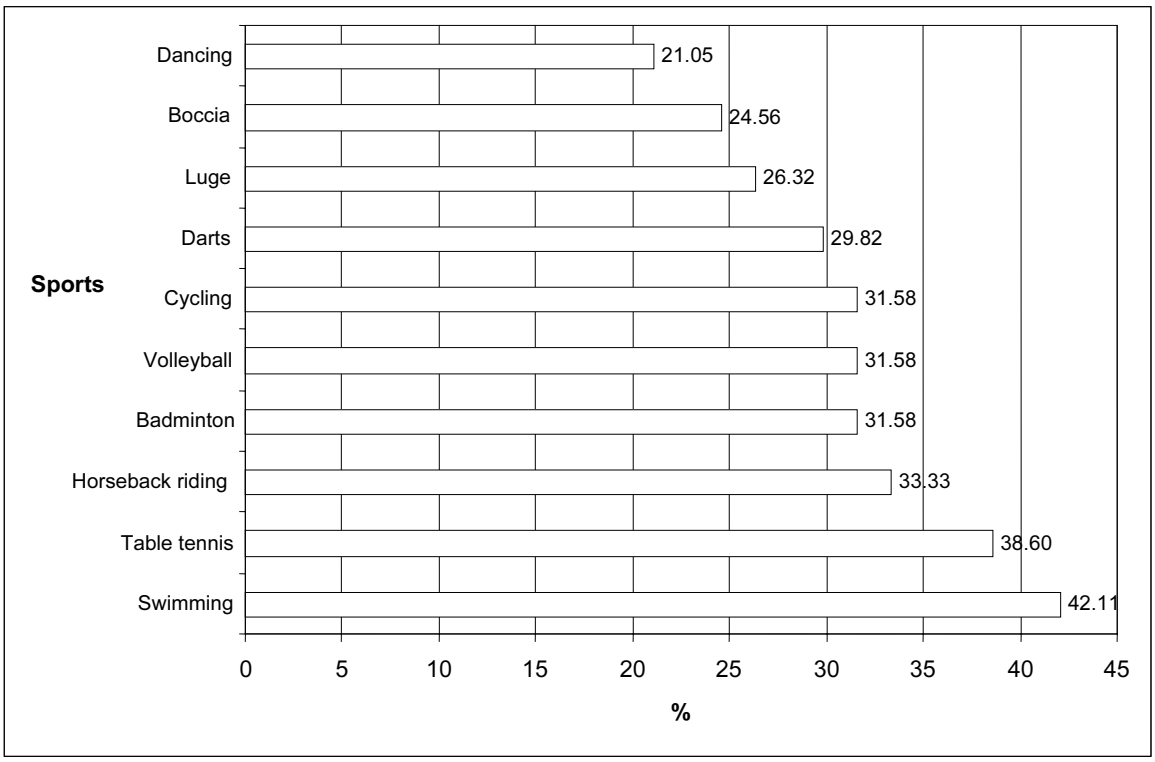


Fig. 4b
Female youth excused from P. E. lessons and their active sport participation

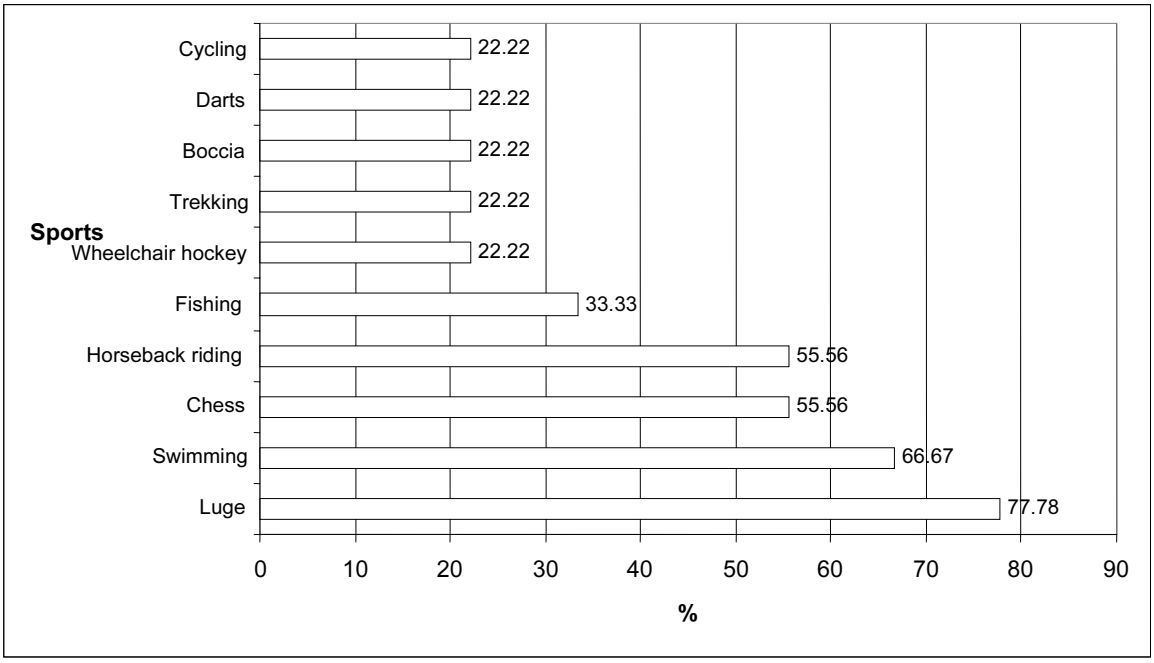


Fig. 5
Female youth who attend P. E. lessons and their wishes for sport participation

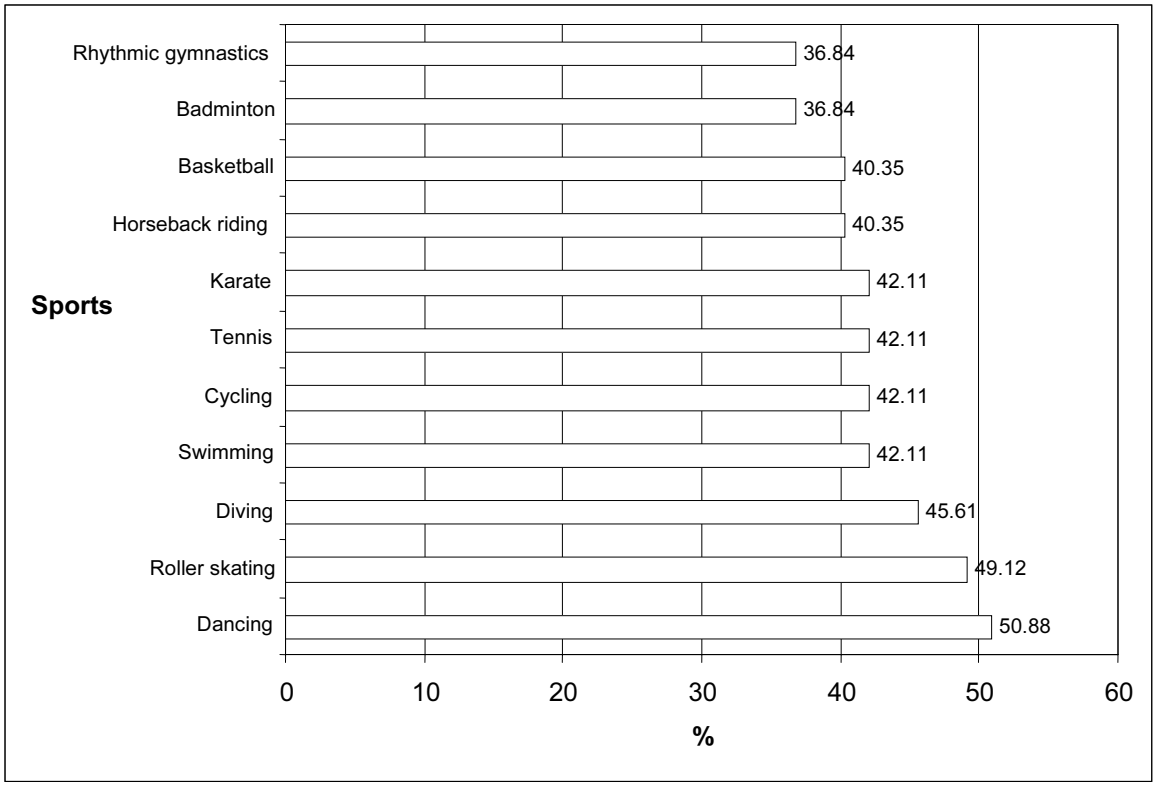
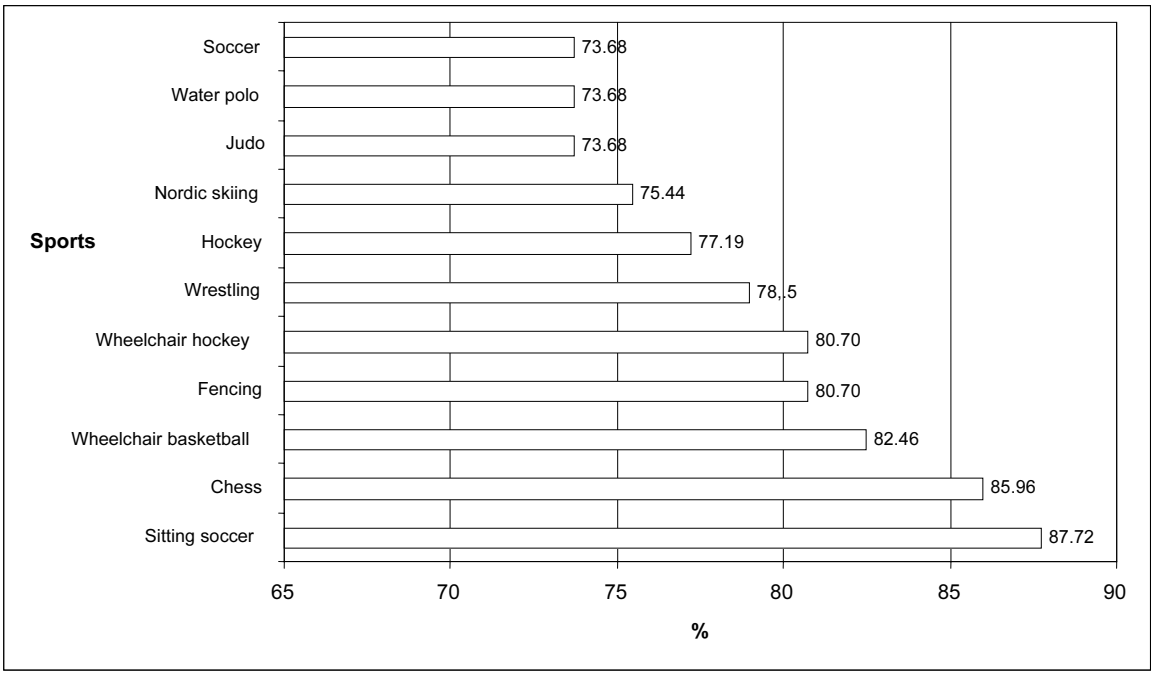


Fig. 6
Female youth who attend P. E. lessons and have no interest to participate in the above named sports



(c) Structure of sport preferences among physically disabled youth who use mobility aids and among those who do not use them

Sport preferences of youth who regularly attended P. E. classes in schools display statistically significant differences according to their usage of mobility aids in four sports: boccia, wheelchair basketball, wheelchair hockey and tennis (TABLE 2).

Physically disabled youth who were excused from P. E. classes show statistically important differences according to their usage of mobility aids in five sports: basketball, wheelchair basketball, shooting, table tennis and darts (TABLE 3).

DISCUSSION

The purpose of this study was to examine the sport preferences of youth with physical disabilities attending the regular school programme in Slovenia. Discussion focuses on sport preference patterns according to youth who attended or were excused from P. E. classes in schools, the gender of those questioned, and the usage or non usage of mobility aids. Physical education classes were predominately carried out in a way where boys and girls practised activities together, in the same class.

Attended and excused from P. E. classes

Physically disabled youth who attended P. E. classes in schools placed swimming as the most practiced physical activity. Since swimming enjoys an excellent reputation as an activity for all, our school curriculum includes swimming courses for all 8 year old children. Many movement problems, dominant in physically disabled youth, can be reduced through swimming and water activities. The attractiveness of table tennis is due to the wide variety of disabilities that can be accommodated, and to different levels of participation. Sitting volleyball remains the most practised team sport in P. E. classes. This adapted game is a popular, successful and

TABLE 2
Sport preferences: mobility aids users and nonusers who attended P. E. classes

Sports	Frequencies of choices – attended P. E.						Chi-square	
	Users N = 73			Nonusers N = 63				
	Sport active	Wish to participate	No interest	Sport active	Wish to participate	No interest	Value	p
Boccia	26	16	31	3	16	44	19.867	0.000
Wheelchair basketball	8	22	43	1	8	54	12.558	0.002
Wheelchair hockey	18	17	38	4	7	52	14.597	0.001
Tennis	3	27	43	9	27	26	6.334	0.042

TABLE 3
Sport preferences: mobility aids users and nonusers who were excused from P. E. classes

Sports	Frequencies of choices – excused from P. E.						Chi-square	
	Users N = 16			Nonusers N = 10				
	Sport active	Wish to participate	No interest	Sport active	Wish to participate	No interest	Value	p
Basketball	0	5	11	4	3	3	8.119	0.017
Shooting	1	7	8	4	5	1	6.542	0.038
Table tennis	2	9	5	6	4	0	7.963	0.019
Wheelchair basketball	1	6	9	0	0	10	5.987	0.050
Darts	3	6	7	7	1	2	6.934	0.031

well organised sport on the national level. Vute (1994), investigated the active participation of institutionalized physically disabled youth (12–21 years, 66 male, 19 female) from Slovenia and indicated table tennis (23%). basketball (15%) and wheelchair hockey (14%) as their first participation choice, while basketball (20%). soccer (17%). and table tennis (14%) were the second choice. The five most popular sports among Chinese children in Hong Kong (9–19 years, 143 male, 94 female) with physical disabilities reported by Sit, Lindner and Sherrill (2002), were: basketball (38%), soccer (31%), badminton (27%), swimming (26%), and table tennis (26%). The most desirable sports for youth were motor sport and diving. Motor sport seems to be interesting not only because of its dynamics and adventurous nature, but also as a symbol of independent movement. However, learning to drive is the first important step towards activities related to motor sport. Rally driving, for example, is such an option. Diving is oriented towards nature and is an exciting sport opportunity with strong promotion in general. For physically disabled youth, active participation in diving could be provided with the assistance of specialised clubs and instructors with knowledge about disability specifics. Rhythmic gymnastics, a complex sport with a high level of artistic expression is the sport which is not favoured by youth who attended P. E. classes. There is also no interest in "archaic" sitting soccer, the adapted version where players use hands to "kick" the ball. The game was rather popular in the eighties. Combat sports like wrestling, fencing, and boxing are not popular sports among those who attended P. E. classes. Sit, Lindner and Sherrill (2002), mentioned combative sports such as boxing, wrestling, karate, taekwondo, and judo as the least favoured among physically disabled children in their Hong Kong study.

Physically disabled youth who were excused from P. E. classes placed swimming as the most practiced physical activity as well. Swimming confirmed its excellent reputation as an activity for all. Chess attracts many youth and is a typical representative of a sedentary mind game, with a reputation of respect in society. Chess with its symbolic involvement of physical movements excludes injury risk factors which need to be taken into account in sport activities, particularly when a disabled population is involved. Luge as a social and recreational event reflects the local habits, access to the terrain, equipment and seasonal amount of natural snow fall. Youth excused from P. E. classes have their sport participation wishes in motor sport and diving, which is identical to the other studied group. Both sports are highly selective even on the recreational level, but for their wishes there are no limits. Archery is a good example of an inclusive sport option. In the study (Vute, 1994), physically disabled adolescents expressed their wishes for sport participation in swimming, motor sport, and horseback riding. Motor sport has remained a desirable event over the years, while the wish to swim has progressed into the more sophisticated water event, diving. Unpopular sports were rhythmic gymnastics, wrestling and boxing. Expressive, feminine, gracious rhythmic gymnastics has no chance yet to become popular among the surveyed. Combat sports by their destructive nature, like wrestling and especially boxing, remain unacceptable for the active involvement of physically disabled youth.

According to participation in sport activities among the mentioned study groups, we found statistically significant differences in five (5) sports. For archery there are significantly more of those who show no interest in it among the youth who attended P. E. classes in schools. Perhaps those who attended P. E. classes feel no need for an extra sports option while youth from the other group do not know this sport enough. In table tennis those who were excused from P. E. classes expressed their wishes for participating in this sport which could be the result of missed opportunities. Preferences for luge again show us that excused youth need more attention when we offer opportunities for being active. Sport in a natural habitat has extra value these days. Chess as a mental activity attracts more youth who are excused from P. E. as the social game could be recommended as a supplement to physical activities. Sitting soccer seems to be an old fashioned game which attracts just a few youth, but among those who were excused from P. E. classes, there were individuals who wished to experience this sitting game.

Male and female sport preferences

Male preferences for active sport participation pointed to the following activities: chess, darts, basketball, and swimming. Chess and darts at the top of the participation list suggested that physically disabled youth' preferences were oriented towards activities which required minimal physical effort and just a person or two to play the game. Chess is an activity which many do not recognise as a sporting event, but definitely has fans among physically disabled male youth. Basketball and swimming represent traditional sport activities and indicate their popularity among the surveyed. A previous study of physically disabled adolescents in Slovenia (Vute, 1994) confirmed that basketball was among the top choices at that time along with table tennis, wheelchair hockey and soccer. Sit, Lindner and Sherrill (2002), find soccer to be the most popular sport for boys, while basketball and swimming were also popular among young Chinese in Hong Kong. We should know that many youth with disabilities practise their sports outside schools, on public playgrounds, parks and at home. Desirable sports share the characteristics of dynamic, attractive and so called adrenaline events. Motor sport, hockey,

and diving are typical representatives. Disability is no longer an ultimate barrier that might prohibit potential candidates from fulfilling such wishes. Adaptations play an important role in making "crazy" sports accessible to people with disabilities. Specifically rhythmic activities (rhythmic gymnastics, gymnastics), combative sports (wrestling, fencing), along with balance challenging sports (rowing kayak – canoeing) were not favoured sports for male youth. Similar studies (Vute, 1994; Sit, Lindner, & Sherrill, 2002) confirm an aversion towards the above mentioned sports.

Female youth with physical disabilities give priority to active participation in swimming, and then to table tennis, horseback riding, luge, and chess. The national policy to include basic swimming courses (20 hours) in the elementary school curriculum and thereby give the opportunity to learn swimming to all children seems to have positive effects on physically disabled youth. The Association of Swimming Therapy (1994) stresses that for people with disabilities, swimming is both remedial and recreational, but it can also be social. The obvious satisfaction of meeting others with like interests is a tremendous benefit for those who may often be lonely in their own homes. Girls who are active in various sports all favour individual sporting events. In the survey (Vute, 1994), female adolescents put a noticeable emphasis on activities which gave them more opportunities for relaxation and enjoyment rather than on competition (boccia, table tennis, volleyball, and nature trips). Among the most desirable activities expressed by female youth, excluding team sports, were dancing, roller skating, diving, cycling, and table tennis. Social and trendy activities occupied the girls' wishes for participation. Chosen activities are usually practiced outside of a controlled school environment. A decade and a half ago, girls from the same cultural environment wished to participate most in swimming, horseback riding, nature trips, and table tennis (Vute, 1994). A list of the most unpopular sports among female youth was rounded up with activities played on the floor or in a wheelchair (sitting soccer, wheelchair basketball), combative events (wrestling, boxing, and karate), and mind games (chess). Rhythmic activities were not among the least favoured, which was the case with the questioned male youth, while combative sports share unpopularity with male adolescents. In the eyes of the questioned girls with physical disabilities, chess, although a phenomenon in youth preferences, shows up as an unattractive, sedentary, boring game.

Mobility aids, users and nonusers

Aids to mobility include wheelchairs, crutches, walking frames and special boots. The battery powered wheelchair increases mobility, and therefore independence for those who cannot physically manage a manual chair. An early investigation (Vute, 1986) showed that physically disabled adolescents who are mobility aids users express more positive attitudes towards sport participation than their schoolmates who are not. Longmuir and Bar-Or (2000), reported that type of disability was the most consistent indicator of physical activity for youth, aged 6 to 20 years. They concluded that gender and age influences on activity levels are not consistent and may be limited by the influence of the specific condition. The authors found that youth with cerebral palsy, muscular dystrophy, and visual impairment had the most sedentary life style.

The sport preferences of youth who regularly attended P. E. classes in schools display statistically significant differences according to their mobility aids usage in four (4) sports: boccia, wheelchair basketball, wheelchair hockey and tennis. Wheelchair sports were lined up and were obviously reserved for mobility aids users. Boccia, wheelchair basketball, and wheelchair hockey are generally open for all categories of disability while tennis needs to be adjusted to the wheelchair users. The fact is that those youth who do not use mobility aids are not in favour of playing wheelchair sports, even if there is an opportunity.

Physically disabled youth who were excused from P. E. classes in schools show statistically significant differences according to their usage of mobility aids in five (5) sports: basketball, wheelchair basketball, shooting, table tennis and darts. Wheelchair basketball remains an unattractive sport for those who can run and jump. Basketball, shooting, table tennis and darts are those sports which mobility aids users practise very little or not at all. To be excused from P. E. classes in schools means fewer opportunities to learn and practise different sports. With an adapted sport philosophy, every child and youth with disability could be included in P. E. classes in schools and benefit from its positive effects of experiencing different sport skills.

CONCLUSION

Attendance at P. E. classes, followed by gender and mobility aids usage, were the most significant variables in our study of physically disabled youth sport participation patterns. Despite the limitations of the study that participants were not studied according to their specific disability type, individual school level, the socio-economical level of their families, and a broader age range, the interpreted results reflect the sport preferences of physically disabled youth in Slovenia. The most prevalent preferences were: swimming, chess and table tennis among practiced activities, dancing, diving, motor sport, and cycling among desired sports, while rhythmic gymnastics, kayak – canoeing and combative sports remain unpopular sports. Researchers and practitioners should

therefore more easily determine youth sporting needs, with an emphasis on adolescents' inclusion in sport programmes and the opportunities dependent on the level of mobility. This will help maximize youth sport participation, which aims at developing and encouraging healthier and more active lifestyles. Accessibility and financial feasibility for participation also play an important role when choosing a suitable sport. Dynamic sports like dancing, diving and motor sport traditionally attract adolescents. The obtained information suggests that the popularity of swimming can be used in various intervention programmes. Strategies that address the needs of youths with disabilities which limit their mobility are of particular importance. Research findings could contribute to the creation of free time sports programmes and the implementation of new ideas on how to enrich physical education programmes in the school curriculum.

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ANALÝZA OBLIBY SPORTŮ MEZI TĚLESNĚ POSTIŽENOU MLÁDEŽÍ VE VĚKU 13–21 LET VE SLOVINSKU

(Souhrn anglického textu)

Cílem této studie byla analýza obliby jednotlivých sportů mezi tělesně postiženou mládeží dle docházky v hodinách tělesné výchovy (dvakrát týdně) na školách, trvalého osvobození, pohlaví a používání pomůcek ke zvýšení mobility. Vzorek sestával ze 162 jedinců s tělesným postižením ze Slovinska, 94 chlapců a 68 dívek,

ve věku od 13 do 21 let. Účastníci vyplňovali Seznam preferencí ve sportu, SPL-86 (Vute, 1986), a to v rámci pohovorů s jednotlivci i v malých skupinách. Údaje byly shromažďovány a kompletovány v letech 2003–2006. K jejich analýze a získávání nových informací byly použity statistické postupy ANOVA a chí-kvadrát. Úroveň statistické významnosti byla nastavena na $p < 0,05$. Díky závěrům výzkumu je obrázek tělesně postižené mládeže transparentnější a může napomoci ke zlepšení plánování sportovních aktivit ve školách a společenských centrech.

Klíčová slova: adolescenti, pomůcky ke zvýšení mobility, sportovní akce, tělesná výchova.

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