

analysed due to their frequent occurrence. It was found that the anastomosis of type N is most frequent. The obtained results suggest that the long-term engagement in such sport like powerlifting may show us the range of adaptation abilities of human venous system.

ТИПИ ПОСДНАНЬ ПОВЕРХНЕВИХ СУДИН ПЕРЕДПІЛЧЧЯ НЕПОВНОСПРАВНИХ СПОРТСМЕНІВ, ЯКІ ЗАЙМАЮТЬСЯ ВАЖКОЮ АТЛЕТИКОЮ

В експериментальній групі неповносправних спортсменів-важкоатлетів найчастіше представлений тип Y поверхневих судин верхніх кінцівок (рук), як на правій, так і на лівій руках.

THE MOTIVATION OF THE BLINDS AND VISUALLY IMPAIRED TO DO SOME SPORTS TEAM GAMES (ROLLBALL, TORBALL AND GOAL BALL)

МОТИВАЦІЯ СЛІПИХ І СЛАБОЗОРИХ ДО ЗАНЯТЬ КОМАНДНИМИ ІГРАМИ

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Key words: disabled people sport, motivation of the blinds and visually impaired

Sport influences human's psyche in a specific manner, and – especially in the process of rehabilitation of the impaired – has to fulfill the three basic tasks: to soothe the psyche, to help in forming an accepting attitude towards the impairment, to create a habit of physical activity (Bolach 1986, 1994, 1999; Dziedzic 1960, 1973; Grzegorzewska 1972; Podle ny 1987).

Taking part in a competition, a desire to be stronger, faster and fit than others, influences positively the psyche. In condition of sports competition, e.g. when one is engaged in a team game, all the abilities of one's organism come out, all motor restraining factors and fears are forgotten, and in consequence one can do the actions, which not long ago seemed to him to be unworkable (Bolach 1994, 1999; Majewski 1973).

According to Bolach (1994, 1999) the indirect motives, which cause to do sports are: the need of physical activity, the contentment following from sports and social contacts, the possibility to demonstrate one's physical ability and, additionally, the aesthetic and hygienic aspects.

Objective of the paper

In the paper the main factors which motivate the blinds and the visually impaired to engage in sports team games are presented. The objective is to answer whether this motivation influences one's spatial orientation, facilitates the adaptation to new social situations and, in consequence, improves self-reliant social activity.

Material and Method

Two groups of the blinds and the visually impaired was the subject of investigation.. The first group involved team games players, the second, taken as a control group, consisted of people who had never been in contact with sport.

The investigation of team games players was carried out during two Poland Goal Ball championships tournaments. The first tournament had taken place in sports hall in Katowice from 3 till 5 March 2000, the second one had place in Suwa ki in 12 – 14 May 2000.

Competitors from different sports clubs were taken part in these championships, namely from Warsaw, Wroc aw, Olsztyn, Suwa ki, Lublin, Zielona Góra, Bytom and Bierutów .

The first (sports) group included 50 players 18 to 47 years of age, with mean age about 26 years. His group was divided into two subgroups: of 21 blind players aged 20 to 45 years with mean about 25 years and 29 players with impairment of eyesight aged 19 to 47 years with mean age equal 27 years.

The data concerning the control group were obtained in Educational Center for Blind Children in Wrocław. This group consisted of 20 persons aged from 19 to 28 years, with mean equal 22 years, and similarly involved subgroup of 8 blind persons (19-28 years of age, with mean value equal 22 years) and subgroup of 12 visually impaired persons aged from 19 to 27 years with mean age equal 21 years.

The educational level in group of blind people was somewhat higher in comparison with this group of people with impairment of vision (Fig. 1, Fig. 2).

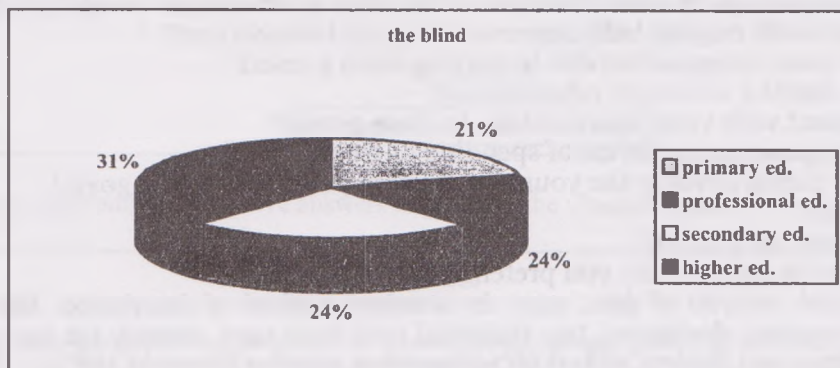


Fig. 1. Percentage distribution of education level in group of the blind (sports and control groups together, n=29)

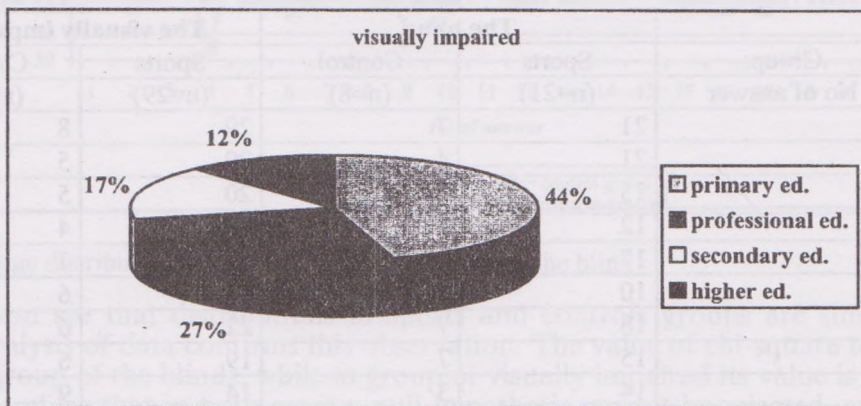


Fig. 2. Percentage distribution of education level in group of persons with impairment of vision (sports and control groups together, n=41)

Method of investigation

Specially designed questionnaire was used to evaluate the motivation to sports activity of players under consideration. This questionnaire was based on the “Questionnaire of Emotional Factors” (KECZ), precisely on its third part which refers to evaluation of social and interpersonal relations. Next the last is the Polish version of “Emotional Factors Inventory” (EFI) by Bauman (1968). The questionnaire was designed exclusively for getting answers on the questions stated in presented paper.

The first part of questionnaire has concerned personal data of each person under consideration. The questions had dealt with age, step of disability, family status of investigated person, as well as educational level and professional activity (employed or not).

The second part of the questionnaire was make up of 21 questions:

1. Taking part in sports competitions makes easier the interpersonal relations with newly met people or not?
2. Are you more tolerant due to playing sports team games?
3. Can you easier to express your own opinions in a team?
4. Is sport a subject of your talks with other people?
5. Does a good contact with other people facilitate in searching of work?

6. Does a time spent frequently in a team and personal contacts with competitors make easier to find your life partner?
7. Do you feel that your self-opinion is growing up?
8. Do you achieve your aims?
9. Do you feel more integrated with society due to playing team games?
10. Does a playing of team games develop concern for a group?
11. Do the games with ringing balls improve the localization of a sound which is useful in everyday life?
12. Do the journeys to other cities force you to move in a new unknown environment?
13. Do the games with ringing balls improve the spatial orientation?
14. Do you feel more independent due to playing team games?
15. Do you feel healthy and more rehabilitated?
16. Are you pleased with your figure thanks to team games?
17. Are the team games some forms of spending of free time?
18. Do the team games develop the your obstinacy in persuading your goals?
19. Do you smoke?
20. Do you overuse an alcohol?
21. Do you try to be active or do you prefer to be "in the shade"?

In statistical analysis of data, apart the standard method of description, like evaluating of mean values or standard deviations, two statistical tests were used, namely the chi-square Pearson test of independence and Student's t-test for independent samples (Sawicki 1982).

Results

Questions in questionnaire under study were formulated in such manner that answer YES had indicated respondent's belief that plying sports games has positive effect.

Group: No of answer	The blind		The visually impaired	
	Sports (n=21)	Control (n=8)	Sports (n=29)	Control (n=12)
1.	21	7	29	8
2.	21	4	29	5
3.	15	6	20	5
4.	12	3	20	4
5.	17	8	23	7
6.	10	6	18	6
7.	18	7	22	6
8.	15	7	19	6
9.	14	3	14	9
10.	19	4	24	3
11.	21	7	25	8
12.	15	8	25	9
13.	21	5	25	9
14.	21	8	29	9
15.	21	7	29	10
16.	15	4	17	8
17.	21	4	28	5
18.	16	4	25	8
19.	12	7	18	9
20.	20	5	24	9
21.	21	7	29	9
Total	366	121	492	152

Table 2. Number of positive answers the particular questions as given in selected subgroups.

In Table 2 the total amount of answers YES to separate question in a questionnaire is presented for each subgroup under consideration. To make the comparison easier this numbers were then converted into percents. Percentage distributions are given on (Fig. 3 and 4).

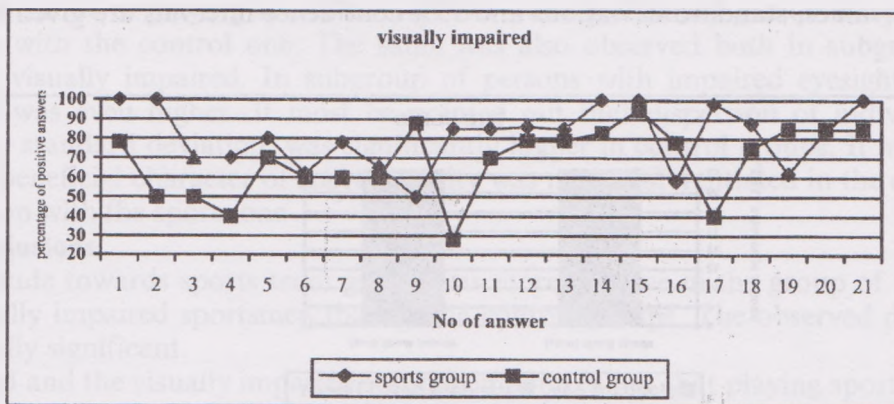


Fig. 3. Percentage distribution of positive answers in group of the visually impaired

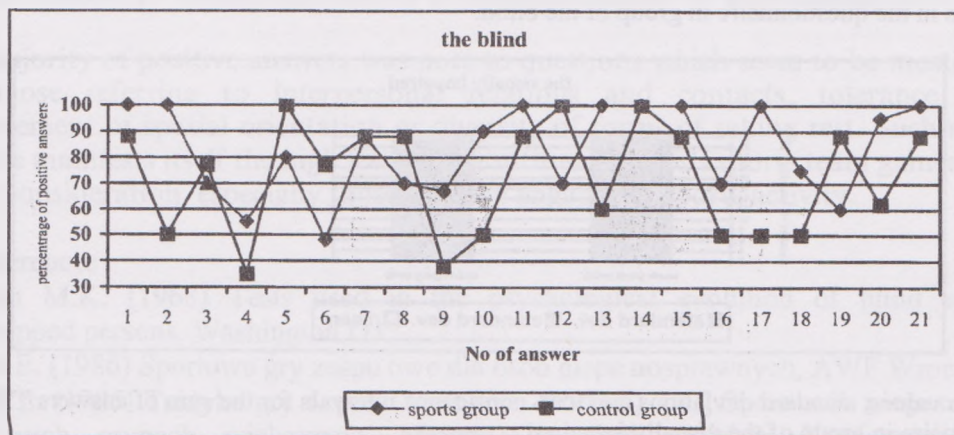


Fig. 4. Percentage distribution of positive answers in group of the blind

One can see that distributions in sports and controls groups are similar in general. Statistical analysis of data confirms this observation. The value of chi-square test equals 10,31 ($p=0,96$) in group of the blinds, while in group of visually impaired its value is 18,71 ($p=0,54$). It follows therefore that in both cases a null hypothesis cannot be rejected, and both groups must be taken as samples representing populations with the same distribution.

In such a situation, because of lack of significant differentiation between the distributions, the comparison of positive answers to all the questions by given respondent. The feature evaluated in such a manner may be taken as some kind of measure of a step of somebody's motivation to play team games.

The percent of answers YES to all the questions in the questionnaire in selected subgroups is presented in Fig. 5.

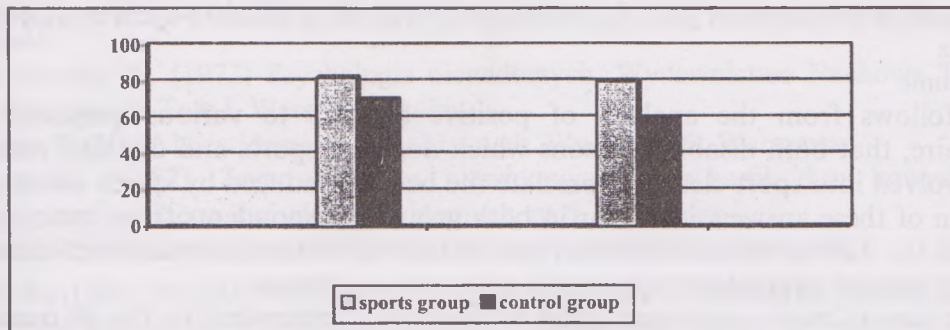


Fig. 5. Percentage of positive answers to all the questions together in selected subgroups

Mean values, standard deviations and 95% confidence intervals are given in Fig. 6 and Fig. 7 annex.

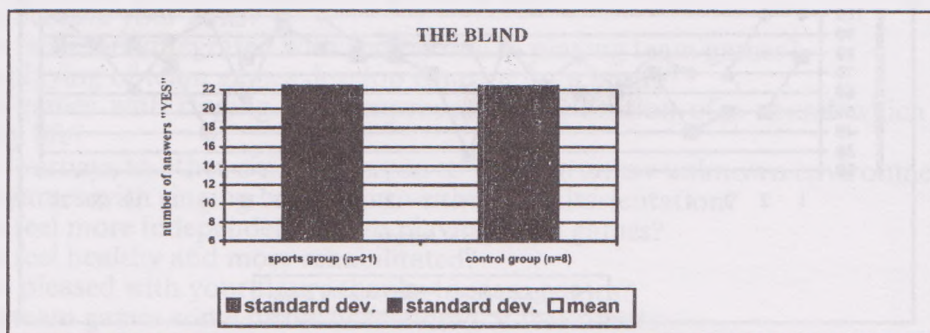


Fig. 6. Mean values, standard deviations and 95% confidence intervals for the sum of answers “YES” to all the questions in the questionnaire in group of the blind.

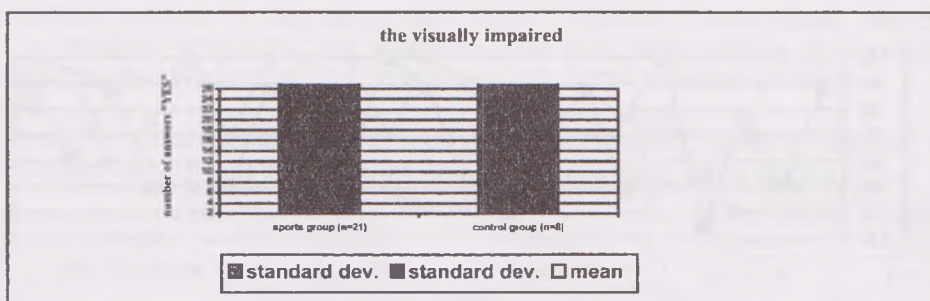


Fig. 7. Mean values, standard deviations and 95% confidence intervals for the sum of answers “YES” to all the questionnaire in group of the visually impaired.

Then the comparison between sports and control groups was done with help of Student t-test for independent samples. The Cochran-Cox modification of t-test was used due to the significant difference between variances in both groups (Ferguson, Takane 1997).

The results of comparison are presented in Table 1.

	Group				Student t-test	Significance level p
	Sports		Control			
	mean	Stand. dev.	Mean	Stand. Dev.		
The blind	17,3	1,6	14,6	3,1	2,38	0,04
The visually impaired	17,0	1,9	12,7	4,8	3,07	0,01

Table 1. Results of comparison of sports and control groups with use of Student t-test in modification by Cochran-Cox

Resume

It follows from the analysis of positive answers to various questions from the questionnaire, that both disabled persons which do some sports and disabled persons which are not involved into sport clearly appreciate the benefits induced by sports activity. Also the distribution of these answers is similar in both groups. Respondents from sports group have emphasized the distinct improvement in their spatial orientation, increased self-assurance, and consequently better adaptation to new environmental conditions.

The sum of positive answers given by particular respondent to the all questions from the questionnaire was taken as the measure of one’s motivation to play team games. This measure was also compared in both sports and control groups.

The attitude to playing sports team games was significantly greater in sports group in comparison with the control one. The same was also observed both in subgroup of blind people and visually impaired. In subgroup of persons with impaired eyesight the level of significance was even higher. It must be pointed out that dispersion of individual results, measured by standard deviation, was significantly higher in control groups. It means that the opinion on beneficial character of sports activity was more differentiated in the control group in comparison with the sports one

Conclusions

1. The attitude towards sports team games was more positive in the group of the blind and the visually impaired sportsmen than in the control groups. The observed difference was statistically significant.
2. The blind and the visually impaired sportsmen pointed out that playing sports team games benefits them by increasing their self-assurance, better spatial orientation as well as spatial localization of a source of sound.
3. The motivation to engaging in sports is definitely higher in sports group than in control ones.
4. The majority of positive answers was note to questions which seem to be mostly essential, like those referring to interpersonal relations and contacts, tolerance of others, improvement of spatial orientation or diversity of forms of taking rest. Such structure of answers manifests itself the high level of the attitude towards sports team games in samples under consideration, especially those who are engaged in sports activity.

References

1. Bauman M.K. (1968) Tests used in the psychological evolution of blind and visually handicapped persons. Washington D.C.
2. Bolach E. (1986) Sportowe gry zespo owe dla osób niepe nosprawnych, AWF Wroc aw.
3. Bolach E. (1985) Taktyka gry w pi k bramkow (torball). [w:] Sport osób niepe nosprawnych w ró nych grupach wiekowych. Materia y z Ogólnopolskiej Konferencji Naukowo-Dydaktycznej. Kraków 17-18 XI 1983 Red. Orzech J., Sobieska J., Zdrowie i Kultura Fizyczna, Warszawa.
4. Bolach E. (1994) Analiza koordynacji s uchowo-ruchowej u niewidomych i niedowidz cych zawodników na przyk adzie pi ki bramkowej (goall ball), Fizjoterapia, nr 1, Wroca w.
5. Bolach E. (1999) Analiza taktyki gry w pi k bramkow (goall ball), Fizjoterapia, Wroc aw.
6. Bolach E. (1994) Zespo owe gry sportowe jako sposób doskonalenia systemu kompensacyjnego inwalidów narz du wzroku. Wyd. AWF, Wroc aw.
7. Bolach E. (1999) Sportowe gry zespo owe w usprawnianiu osób niewidomych i niedowidz cych. Wyd. AWF Wroc aw.
8. Dziedzic J. (1960) Wychowanie fizyczne niewidomych. Wyd. PZWS, Warszawa.
9. Dziedzic J. (1973) Wychowanie fizyczne w szko ach dzieci niewidomych. Monografie, Podr czniki, Skrypty. Monografia nr 16. Wyd. AWF, Pozna .
10. Ferguson G, Takane Y. (1997) Analiza statystyczna w psychologii i pedagogice. Wyd. PWN, Warszawa.
11. Grzegorzewska M. (1972) Psychologia niewidomych. Wydawnictwo Naukowe Towarzystwa Rehabilitacyjnego. Tom I, Warszawa-Lwów.
12. Majewski T. (1973) Niewidomi w ród widz cych. Wyd. PZWS, Warszawa.
13. Podle ny S. (1987) Zespo owe gry niewidomych z pi kami d wi kowymi. Zeszyty Tyflogiczne Polskiego Zwi zku Niewidomych, nr 6, Warszawa.
14. Sawicki F. (1982) Elementy statystyki dla lekarzy. Wyd. PZWL, Warszawa.

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В статті подані результати анкетування, проведеного з метою визначення мотивації сліпих і слабозорих спортсменів до занять спотивними іграми з м'ячем.