

## Candidates for the First Year of Studies at the University Level Institution of Physical Education and Their Physical Activity

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A – Study Design  
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 D – Data Interpretation  
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**Key words:** *physical activity, university level institution of physical education, candidates*

### Abstract

**Background:** *The research aimed at determining whether the youth taking up studies at a university level institution of physical education are physically active and whether there is a connection with the place of permanent residence, the level of parents' education, economic situation and whether physical activity has anything to do with the choice of the field of studies.*

**Material/Methods:** *The research involved 1,900 students of full-time studies of the first year at the Academy of Physical Education and Sport in Gdańsk. A proprietary questionnaire including standardized multiple choice answers and open questions was used. The information achieved by means of the questionnaire concerned, among others, socio-demographic characteristics, economic situation, choice of studies and physical activity. The statistical analysis was conducted by means of Statistica 8.0 software (StatSoft Polska).*

**Results:** *The results indicate the relationship of physical activity before studies of youth taking up education at a university level institution of physical education with their choice of the field of studies as well as with socio-demographic and economic determinants.*

**Conclusions:** *On the basis of the analysis of research tests presented in this work it can be assumed that parents' education, place of residence, parents' economic situation are factors forming the environment in which a young person grows up and his/her need for physical activity is developed.*

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## Introduction

Physical activity belongs to the most important factors influencing health, well-being, the quality and length of life [1, 2, 3, 4, 5]. An observed low level of physical activity and its persistent downward trend in various age groups of our society induces one to engage in research explaining reasons for this situation [1, 2]. Under the European Association of Sport Sociology (EASS) works a team which deals with recognition of the “level of participation in physical culture” of all European societies in the project MEASURE.

Triggering physical activity and arousing a need for pro-health activity should happen at all levels of education and also include institutions educating teachers, local environment and family circles [6, 7, 8]. The Academy of Physical Education and Sport in Gdańsk – as a pedagogical university level institution – educates teachers of physical education, organizers of physical culture, trainers and specialists for the purpose of tourism and recreation. Considering the education curriculum of this university level institution, it may be assumed that the youth studying there as well as taking up education have already formed a need for physical activity at the moment of making the choice.

The research aimed at determining whether the choice of the profile of education by youth undertaking studies at university level institution of physical education has any relation with their physical activity – through declared participation in training various sport disciplines professionally or recreationally, and whether there is any relation with the place of their permanent residence, social background, level of their parents’ education and economic situation. By the research task formulated in this way, the author corresponds to the physical anthropology tradition of the “Warsaw school”, in which under supervision of J. Charzewski and contemporarily his followers, a research programme of similar exploration range is conducted [9]. The author is also interested whether the level of youth’s physical activity may be decisive in their choice of the field of studies.

## Material and Method

In the years 2005–2010 a study of 1,900 students of the first year, full-time, uniform graduate and full-time undergraduate studies at the Academy of Physical Education and Sport in Gdańsk was conducted (faculty: Physical Education (PE)), Tourism and Recreation (T&R) (Table 1). For the purposes of the assumed goal of the study, a proprietary questionnaire was used which included standardized multiple choice answers and open questions. The questions concerned the period before undertaking education at the university level institution of physical education. Questionnaires raising objections or being suspicious of lack of reliability were rejected. Questions insofar as physical activity were elaborated basing on the International Physical Activity Questionnaire – IPAQ [10, 11, 12, 13, 14]. Questions included in the questionnaire concerned, among others, socio-economic characteristics (place of permanent residence, parents’ education) economic situation, the choice of the field of studies or forms of physical activity realized by training competitive sport disciplines, amateur, recreationally in sport clubs at schools as well as outside. The statistical analysis was conducted by application of Statistica v.8.0 software (StatSoft Poland). The results were expressed in percentage, and interdependencies were assessed basing on the Chi<sup>2</sup> test assuming the level of significance at  $p \leq 0.05$ .

Tab. 1. Characteristics of the group of respondents

	PE n=1081	T&R n=819	Total	Age (years)	
				average	SD
Women	32.09	50.79	40.16	19.05	3.45
Men	67.91	49.21	59.84	19.55	1.63

## Results

In the group of youth enrolling in studies at the Academy of Physical Education and Sport, the prevailing majority – 88.05%, including 89.97% men and 85.19% women, declared their physical activity before taking up studies (PABS – physically active before studies) participating in additional sport activities in sport clubs at schools (school clubs), outside school (extracurricular), i.e.

swimming schools, tennis activities, football etc., or individual – 41.72%, 23.73%, 34.55% respectively (Table 2, Table 4). The frequency of training sport was connected with professional or amateur training of a sport discipline. Training competitive sport meant spending five or more hours weekly on sport, and it was declared by 36.04% PABS youth. Amateur training, of 3–4 hours, was declared by 63.96% PABS youth. The statistical analysis indicated that PABS youth training sport disciplines in clubs enrolled in studies at Physical Education faculty 2.9 times more frequently than at Tourism and Recreation. PABS youth, training competitive sport disciplines, 4.7 times more frequently chose the Faculty of Physical Education than of Tourism and Recreation. PABS youth taking up education at the faculty of Tourism and Recreation, declaring amateur training of sport constitute 69.72% of the youth beginning education at this faculty. Training sport at the competition level was indicated by almost half of the youth choosing Physical Education faculty. Youth of low physical activity before studies (LPABS), not participating in sports training beside the compulsory education programme, or doing it occasionally in 0–2 hours weekly constituted 11.95% of the respondents (Table 2, Table 3). LPABS youth from two (for men 13.90%) to three (for women 20.91%) times more frequently chose faculty of Tourism and Recreation than their female and male peers taking up education at the faculty of Physical Education (respectively men – 7.9%, women – 7.49%). LPABS youth constituted 17.46% of all students in the first year of the faculty of Tourism and Recreation and 2.25 times less (7.77%) at the faculty of Physical Education (Table 3).

Tab. 2. Declared participation in sport activities of FABS youth depending on the field of studies

	Physical Education		Tourism and Recreation		Total (1673=100%)
	Women (321=100%)	Men (676=100%)	Women (329=100%)	Men (347=100%)	
School sport clubs	48.60	59.91	19.45	21.04	41.72
Outside school sport club	28.66	25.00	16.11	26.22	23.73
Individual sport training	22.74	15.09	64.44	52.74	34.55
Competitive training of sport discipline	38.94	55.18	13.37	17.58	36.04
Amateur training of sport discipline	61.06	44.82	86.63	82.42	63.96

Tab. 3. Forms of participation in sport disciplines declared by respondents in the context of selection of the field of studies [%]

	Gender	Competitive training of a sport discipline	Amateur training of a sport discipline	LPABS youth
Physical Education	Women n=347	36.02	56.48	7.49
	Men n=734	50.82	41.28	7.90
	Total	46.07	46.16	7.77
Tourism and Recreation	Women n=416	10.58	68.51	20.91
	Men n=403	15.14	70.97	13.90
	Total	12.82	69.72	17.46

An analysis of the socio-demographic information indicated that the place of permanent residence for the biggest group of youth (50.47%) are places with a population ranging 50,000–100,000, for 1/3 of the youth (33%) these are places below 50,000 inhabitants. 16.53% of youth come from towns with a population of more than 100,000 inhabitants. The respondents' parents have higher education (21.74% of mothers, 32.05% of fathers) and secondary one (50.79% of mothers, 37.79% of fathers). 30.16% of fathers and 27.47% of mothers have primary or vocational education (variation statistically significant at p=0.05). Information concerning the economic situation indicates that average income per 1 family member not exceeding PLN 500 per month is declared by 30.31% of youth, average income within limits of PLN 500–1,500 per person per month is declared by the largest group – 53.89%. The least numerous (15.79%) is the group which declares income exceeding PLN 1,500 per person per month (Table 4).

Tab. 4. Physical activity, socio-demographic and economic situation of youth enrolling in studies in the first year of full time studies at a university level institution of physical education with division into gender [%]

Gender	Physical activity before studies (FABS)		Place of permanent residence			Mother's education		Father's education		Economic situation				
	physically active (FABS)	non-active physically (LAPS)	village and town <50,000	town 50,000-100,000	town >100,000	primary and vocational	secondary	higher	primary and vocational	secondary	higher	bad and very bad income <500 PLN/per/mth	average income 500-1,500 PLN/per/mth	good and very good income >1,500 PLN/per/mth
W n=763	85.19	14.81	31.85	50.72	17.43	34.73	51.24	14.02	24.77	35.00	40.23	29.49	52.69	17.82
M n=1137	89.97	10.03	33.77	50.31	15.92	22.6	50.48	26.91	33.77	39.67	26.56	30.87	54.7	14.42
Total n=1900	88.05	11.95	33.00	50.47	16.53	27.47	50.79	21.74	30.16	37.79	30.16	30.31	53.89	15.79

Tab. 5. Parents' education, economic situation and selection of the field of studies depending on physical activity of youth before studies [%]

Physically active before study	Education of mother or father			Economic situation			Field of studies	
	primary and vocational	average	higher	bad and very bad income <500 PLN/per/mth	average income 500-1,500zł/per/mth	good and very good income >1,500 PLN/per/mth	PE	T&R
Women n=763	22.23	48.15	29.61	25.70	56.46	17.84	49.38	50.61
non-active physically	73.00	14.17	12.83	51.30	31.00	17.70	23.00	77.00
Men n=1137	25.76	46.72	27.52	29.42	55.52	15.05	66.08	33.92
non-active physically	50.00	30.26	19.74	43.86	47.37	8.77	50.88	49.12
Total n=1900	24.00	47.43	28.56	27.97	55.89	16.14	59.59	40.41
non-active physically n=227	61.52	22.17	16.30	47.58	39.21	13.21	37.00	63.00

Youth declaring physical activity before starting studies 1.5 times more frequently chose Physical Education (PE) than Tourism and Recreation as the field of studies (PE – 59.59%, T&R – 40.41%). On the other hand, non-active physically before studies 1.7 times more frequently chose Tourism and Recreation than PE (63% and 37% respectively) and over 3 times more girls chose this field of studies than PE (77% and 23% respectively) (Table 5).

As results from the study, students declaring physical activity before studies are inhabitants first of all of places of a medium number of inhabitants ranging 50,000–100,000. This group of students constitutes 54.03% PABS. Students from small places with <50,000 inhabitants constitute the second FABS group as far as population is concerned (28.81%) and from big ones 1.7 times smaller – 17.15%. Non-active physically before taking up studies youth (LPABS) are first of all inhabitants of small places – 63.88%. 24.23% LPABS youth live in places of an average size and twice fewer in big cities (11.89%) (Table 6).

An analysis of the FABS respondents' parents' education level indicated that the most numerous group comprises parents who have secondary education, both women and men (48.15% and 46.72% respectively). Parents of both sexes with higher education constitute the second numerous group – 29.61% women and 27.52% men, respectively. Parents with primary education amount to 22.23% in the case of women and 25.76% in the case of men, representing the least numerous group. In group of LPABS youth the most numerous group comprises parents (either father or mother) with primary education with 1.46 times higher advantage in the case of women than in the case of men (73% and 50% respectively). The group of parents with secondary education constituted the second numerous one with more than double advantage in the case of men (14.17% and 30.26% respectively). Parents with higher education in the group of LPABS youth constituted the least numerous group, with 1.54 times higher advantage in men – 19.74% (in women 12.83%) (Table 5).

In the group of physically active before studies persons more than half women and men, 56.46% and 55.52% respectively, declared average income in the family with 500–1,500 PLN/person/month (Table 5). In this group of respondents 60.85% constituted inhabitants of medium-size places, 2.3 times more than inhabitants of small towns (26.1%), while 13.05% lived in big cities (Table 7). Almost half fewer respondents indicated income below 500 PLN/person/month (women 25.7%, men 29.42% respectively) (Table 5), where 52.14% of them lived in places of medium size, 39.1% in small ones and 8.76% in big ones (Table 7).

Good and very good economic situation in FABS group concerned 16.14% of the respondents (Table 5) and they were inhabitants of big and average towns (45.92%, 33.7 respectively) (Table 7).

However, the LPABS group economic situation in 47.58% cases was described as bad and very bad, and as average in 39.21% cases (Table 6), constituting a group of bad and very bad economic status (83.33%, Table 7). 50% fewer respondents of small and medium towns declared average income (44.94%, 40.45% Table 7). However, 50% of LPABS respondents declaring their situation as at least good lived in small towns, while those coming from medium-sized and big towns constituted groups of 20% and 30% respectively (Table 7).

Tab. 6. Physical activity of youth before studies (PABS) depending on the place of inhabitation [%]

Physical activity of youth before studies		Place of permanent residence		
		village and town <50,000	town 50,000-100,000	town >100,000
Total n=1,900	physically active n=1,673	28.81	54.03	17.15
	non physically active n=227	63.88	24.23	11.89

Tab. 7. Physical activity and place of residence of respondents depending on economic situation [%]

PABS				Economic situation	LPABS			
village and town <50,000	town 50,000-100,000	town >100,000	N=1,673		N=227	village and town <50,000	town 50,000-100,000	town >100,000
39.10	52.14	8.76	468	bad and very bad income <500 PLN/p/month	108	83.33	12.03	4.63
26.10	60.85	13.05	935	average income 500-1500 PLN/p/month	89	44.94	40.45	14.61
20.37	33.70	45.92	270	good and v. good income >1,500 PLN/p/month	30	50	20	30

## Discussion

Wojtyczek [6] and Kielbasiewicz-Drozdowska [15], dealing with issues of physical activity in the context of the style of life of the academic youth or youth studying at university level school of physical education, achieve results certifying that the youth undertaking studies at university level school of this profile belong to the physically active (they train either competitive, amateur or recreational sport), which distinguishes them from the rest of academic community as well as from the general Polish society [16, 17]. Wojtyczek [6] shows that about 61% of respondents – first-year students at the faculty of Physical Education train competitive sport and 27% recreationally. The research presented in this work, including almost the whole population of youth undertaking studies at the first year at the university level institution of physical education at the Physical Education (PE) faculty and Tourism and Recreation (T&R) in the years 2005–2010 showed a lower percentage of youth engaged in competitive sport in the range from about 13% for T&R to about 46% for PE. Amateur training of sport is indicated by almost 46% of respondents of PE and 70% of T&R. Such a layout of engagement in training sport disciplines can be explained by the field of studies as well as by the selection of population. Independently of the value of numbers of the achieved results, youth undertaking education at the university level institution of Physical Education are more physically active than their peers studying at university level institutions of other profiles [15, 18, 19].

The analysis presented in this work comprising socio-demographic variables indicated a relationship between the degree of urbanisation of the place of residence, economic situation, the level of parents' education and the degree of physical activity of youth starting education at the university level institution of physical education. Wojtyczek [6] and Kaiser [7] present information similarly indicating that the youth live in towns of population 50,000–100,000 and below 50,000.

The economic situation may constitute one of the elements forming the environment of our life and, as Miązek [17] states, to a slight degree it influences the participation in physical activity. In the research on sport activity of the Polish society Charzewski [9] points out the relationship between parents' education, the level of urbanisation and the level of sport organisation – training organised sport. Parents' higher education is connected with a decrease in the interest in participation in organised sport activities in favour of other forms of training sport disciplines. In the presented research the population of youth undertaking education at university level institution of physical education, that is FABS, mainly come from medium-sized and small places (about 54% and about 29% respectively) having an average or bad economic situation (55.89% and 27.97% respectively) and with parents having secondary education (almost 47.5%). High percentage of those training sport disciplines in organised forms (about 42%) can be linked with the level of parents' education, as it was observed by Charzewski [9].

## Conclusions

1. The youth that enrol in studies at a university level institution of Physical Education are characterised by a high level of physical activity accomplished by participation in various sports either competitively or as amateurs. Youth presenting a low physical activity level before

studies constitute a slight percentage, and their physical activity is mainly connected with participation in compulsory physical education classes covered by the secondary school curriculum.

2. Physical Education faculty is more frequently chosen by the youth playing competitive or amateur sport, whereas Tourism and Recreation is popular with youth playing sport for pleasure first of all.
3. Parents' higher and secondary education indicates a relationship between their children's physical activity – they are physically active; however, primary and vocational education is connected with limiting physical activity mainly to participation in compulsory classes of physical education.
4. The obtained results indicate the relationship between the place of residence, economic situation and physical activity of youth taking up studies at a university level institution of Physical Education.
5. On the basis of the analysis of research tests presented in this work it can be assumed that parents' education, place of residence, parents' economic situation are factors forming the environment in which a young person grows up and his/her need for physical activity is developed.

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