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DIFFERENCES IN THE STRUCTURE OF MOTIVATION FOR PARTICIPATION IN SPORT ACTIVITIES AMONG SPORT STUDENTS IN THREE COUNTRIES

RAZLIKE V STRUKTURI MOTIVOV UDELEŽENCEV ŠPORTNIH AKTIVNOSTI ŠTUDENTOV ŠPORTA V TREH DRŽAVAH

ABSTRACT

The aims of this study were to compare the latent structure of the types of sports students' motives, separately for students from three countries. We also considered gender differences in motivation for all dimensions among those sports students. Using a sample of 390 sports students from Slovenia (Ljubljana), Croatia (Zagreb) and Germany (Cologne), we studied what motivates students for sports activity. The students completed the PMQ (Gill et al., 1983), a 30-item list of possible reasons students have to participate in sport. We found that the latent structure of the types of sports students' motives varied from three (Cologne) to six (Ljubljana) dimensions. However, it was only in two dimensions that we also found significant gender differences in motivation to participate in sport activities for all sports students from the three different countries: Relaxation and meeting friends (higher results for female students from Zagreb) and Excitement (higher results for male students from Ljubljana).

Key words: motives, cross-cultural, sport, student

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IZVLEČEK

Namen pričujoče študije je bila primerjava latentne strukture motivov za ukvarjanje s športom pri študentih športnih fakultet za vsako izmed držav posebej. Upoštevali smo tudi razliko po spolu v motivaciji za vse dimenzije študentov. Na vzorcu 390 študentov iz Slovenije (Ljubljana), Hrvaške (Zagreb) in Nemčije (Köln) smo ugotavljali, kaj študente motivira za športno aktivnost. Študentje so izpolnili vprašalnik PMQ (Gill idr., 1983), ki zajema seznam 30-ih možnih razlogov, zakaj bi se študentje naj ukvarjali s športom. Ugotovili smo, da se latentna struktura tipov motivacije pri študentih na športnih fakultetah razlikuje v treh (Köln) do šestih (Ljubljana) dimenzijah. Toda samo v dveh dimenzijah smo ugotovili tudi značilne razlike po spolu glede na motivacijo za ukvarjanje s športom pri študentih iz vseh treh različnih držav: sprostitve in druženje s prijatelji (višji rezultati za študentke v Zagrebu) in navdušenje (višji rezultati pri študentih v Ljubljani).

Ključne besede: motivi, medkulturnost, šport, študenti

INTRODUCTION

The reasons given for participating and dropping out of sport have received extensive attention over the past few years in terms of both recreation and as a competitive sport. From the social point of view, we can say that humans do not act in isolation as their behaviour is often strongly influenced by their associations with other people. By evaluating students on the basis of their own personal gains in sport, we can give everyone an opportunity to succeed. In fact, since less motivated students have the most room for improvement this procedure can even assist the very students who are usually at a disadvantage. Drawing on excellent reviews of the literature (Gould & Petlickhoff, 1988; Weiss & Petlickhoff, 1989; Scanlan, Carpenter, Schmidt, Simons, & Keeler, 1993; Yan & McCullagh, 2004; Tsorbatzoudis, Alexandris, Zahariadis, & Grouios, 2006; Zaharidis, Tsorbatzoudis, & Alexandris, 2006; Smith, Ullrich-French, Walker II, & Hurley, 2006), there are many different types of reasons sportspeople give for participating and dropping out (Whitehead, 1986). Weiss and Petlickhoff (1989), for example, categorised the biggest motives for participation into competence (e.g. to learn and improve skills), affiliation (e.g. to make friends, be part of a team), fitness (e.g. to be physically active, get in shape), and fun. The Canada Fitness Survey (1983) provides an insight into the motivations of Canadian youth to participate in physical activity and the results showed the main reasons for being active were fun, feeling better, weight control, flexibility and challenge. Some past research indicates that people have different achievement goals with regard to sports participation (Duda, 1987; Whitehead, 1986; Whitehead, 1990) and it is reasonable to suggest that their attainment is a constituent of enjoyment. Among the many reasons given for a decreased interest in and subsequent withdrawal from sport were: a lack of fun, issues with the coach, the time commitment, an absence of the required amount of playing time, an overemphasis on winning, and greater interest in other activities (Weiss & Ferrer-Caja, 2002). In terms of environmental influences, Yan and Thomas (1995) identified several culture-related characteristics (American and Chinese) in youth's physical activity patterns as well as cultural influences on gender differences in physical activity. An analysis of member states that joined the EU before 2004 as opposed to those joining later reveals a clear distinction when it comes to people's appraisal of their local sports facilities (www.europa.eu). The research by Škorić and Hodak (2011) in Croatia showed that the level of sport development (measured by the number of registered participants) depends on the country's level of economic development.

In relation to university sport, the experience of sport appears to be attractive to students for the following types of reasons: fun, enjoyment, improving skills, learning, being with friends, success, winning and health (e.g. Bandura, 1986; Deci & Ryan, 1985; Weiner, 1985). In an attempt to solve one of the problems of assessing achievement motivation, sport psychologists developed specific assessment instruments adapted to sport activity and different sport situations (Gill, Dziewaltowski, & Deeter, 1988; McAuley, Duncan, & Tammen, 1989; Gill, 2000; Spray, John Wang, Biddle, Chatzisarantis, & Warburton, 2006; Mallett, Kawabata, Newcombe, Otero-Forero, & Jackson, 2007; Lonsdale, Hodge, & Rose, 2008). Motivation greatly influences an individual's performance in situations where one is physically capable of performing the task but is uncertain about his/her abilities, which in many cases is a problem that sees people not beginning with a chosen sports activity. In general terms, motivation refers to the intensity and direction of behaviour. Ultimately, it always essentially means whether or not someone expects they will be successful when attempting a particular skill. In fact, the positive relationship between motivation, self-confidence and success is one of the most consistent findings in research about being involved in sports activities. But, like with any other activity of an individual, the motivation must come

from within – intrinsic motivation – to be effective and meaningful for someone (Tušak, 1997). Motivation is all-important for success in sport – in both recreational and competitive sport.

Studies around the world have shown that young people are not as physically active as they need and should be to enjoy the health benefits of physical activity (Duda, 1992; Goudas & Hassandra, 2006; Fang, 2007; Irkhin & Mikhaylova, 2007; Standage & Gillison, 2007; Lutz, Karoly, & Okun, 2008). It is clear that more developmental research is called for to understand variations in reasons for participating in and withdrawing from sport and physical activity. It can be assumed that sport, like basketball, soccer or table tennis, are identical across the world. The rules, playing field, number of players, objectives and skills required are always the same. However, different research studies across the world show some cultural differences in the psychological meaning of sport in different cultures (Guest, 2007). They were similar with regard to the relative educational and class status, but varied most clearly in their cultural context.

Sport students' motivation is influenced by various factors. If culture is one of those factors, then understanding the dynamics of the culture is important for those who are preparing educational plans and strategies might thus differ across cultural contexts. The difference in the cultural approach to sports motivation can be found in research from Guest (2007): "One theme which emerged was around the reason the players spend so much time on sport. *Competition* was the most frequent identified motivation for the US players, talking about pride and positive identity through internal satisfaction of accomplishment. The US players saw sport as a 'competitive proving ground'. On the other hand no Malawian players talked about competition, but identified *status* as motivating, and a chance to demonstrate their worth through *exhibition* – they saw playing sport as a 'demonstrating ground'. On the sport field these players could exhibit abilities regardless of competitive success".

Although ever more researchers around the world have become interested in cross-cultural studies, there have been relatively few studies in the context of sport (Kriska, 2000). Some findings of previous studies support results indicating that cultural effect is an important factor in explaining a certain pattern of people's behaviour. Accordingly, differences among three countries may influence the motives of table tennis course participants. From a historical perspective, Slovenia and Croatia have a different background to Germany regarding physical activity. Cultural influences of all three countries include beliefs, customs, values and generational status. Concerning Slovenia and Croatia, we may expect that the motives for individual sport might differ than in Germany. Although Croatia and Slovenia have developed under the impact of many different cultures – Greek, Roman, Celtic, Illyrian, Austrian, Hungarian, Byzantine, Islamic – those influences have left their own unique imprint on the history of both lands. In contrast, during late Antiquity and the Middle Ages, the biggest influences on Germany came from the Slavic peoples, medieval Greeks and the Byzantine Empire; a long period of domination by the Ottoman Empire; the Hungarians; and several other neighbouring peoples. Modern Roman culture emerged and developed with many other influences as well, partially that of Central and Western Europe. Cross-cultural communication is a key aspect of international relations and that is why we are looking for a closer analysis of this also in the context of sport.

The present study attempted to examine the possibility of differences in the motivation of sport students in three different countries in relation to the motivation structure to participate in sport activities. The aims of this study were: (1) to establish and compare the latent structure of the types of the sports students' motivations, separately for each sample of students in each country;

and (2) to identify any gender differences in the sports students' motivations, separately for each sample of students in each country (following a specific factor structure).

It was intended that the results would serve as a basis for further in-depth studies. However, we may expect a different factor structure in motivation to participate in sport activities among sport students compared with other samples of subjects in different cultures. It was hypothesised that the motivation to participate in sport activities in the three different countries could differ. We also hypothesised gender differences in the sport motivation of all students from the three countries.

METHODS

Participants

The subjects in our research were 135 students from the Faculty of Sport in Ljubljana (age 22.4 years [SD=2.10]), 138 from the Faculty of Kinesiology in Zagreb (age 21.86 years [SD=1.81]), and 117 from the German Sports School in Cologne (age 22.03 years [SD=2.01]) (Table 1). At the time the questionnaires were distributed these students had received basic lessons in table tennis. At all three institutions participants could choose one of the racquet sports in the sixth semester of their studies. The students were attending a table tennis course in the 6th semester of their course and respondents' average age was 22.10 years [SD=1.81].

Table 1: Gender details of the subjects.

	<i>Faculty of Sport, Ljubljana</i>		<i>Faculty of Kinesiology, Zagreb</i>		<i>German Sports School, Cologne</i>	
	N	%	N	%	N	%
MALE	70	51.9	114	82.6	78	66.7
FEMALE	65	48.1	24	17.4	39	33.3
ALL	135	100.0	138	100.0	117	100.0

Legend: N – number of participants

Instruments

For this study we employed the Participation Motivation Questionnaire (PMQ; Gill, Gross & Huddleston, 1983) which has been widely used in several studies of motives to participate in youth sports and translated by an official translator in each country. The students completed the PMQ (Gill et al., 1983), namely a 30-item list of possible reasons students have to participate in sport. A five-point Likert scale was used. Respondents answered the stem "I participate in sport because ...", indicating their preferences from 1 ("not at all important") to 5 ("extremely important"). Results of a factor analysis of the PMQ revealed the factors of achievement/status, team atmosphere, fitness, energy release, skill development, friendship and fun as basic motives for involvement (Gill et al., 1983). It is also expected that gender discrepancies in motivation to participate in sports will be greater between cultures than within cultures.

Procedures

In this study, 390 questionnaires were distributed among students of the Faculty of Sport in Ljubljana, the Faculty of Kinesiology in Zagreb and the German Sports School in Cologne.

According to the instructions provided, all 390 students returned the questionnaires – 262 males (59.1%) and 128 (28.9%) females (more detailed information is presented in Table 1).

Data analysis

The data were processed with the IBM SPSS Statistics (19.0) software. The basic descriptive parameters were calculated (mean, standard deviation, frequencies). Univariate ANOVA was used to test for differences among the students at all three institutions for each questionnaire item. We then performed a factor analysis (hereinafter “factor analysis”; in fact it was the Principal Components method with a Varimax rotation) for the examined subjects, separately for each city (country): for Ljubljana the first, for Zagreb the second and for Cologne the third. Overall results for each dimension (components revealed in three separate factor analyses) were defined as simple linear combinations of the assessments of the items that define each dimension. By using a t-test for independent samples, we sought to gain an insight into gender differences (separately for each city) among students of the different institutions in the motivational structure of participating in a physical activity (sport).

RESULTS

The results discussed in this research largely demonstrate different trends regarding the subjects’ participation in sport generally, not just table tennis (Table 2).

Table 2: Comparison among students of all three institutions for items of the Participation Motivation Questionnaire.

<i>Items</i>	<i>Ljubljana</i>		<i>Zagreb</i>		<i>Cologne</i>		<i>F - sign.</i>
	<i>X</i>	<i>SD</i>	<i>X</i>	<i>SD</i>	<i>X</i>	<i>SD</i>	
I want to improve my skills	4.25	.76	4.52	.69	3.56	.97	P<.01
I want to be with my friends	3.71	.93	4.30	.90	3.96	1.09	P<.01
I like to win	3.57	1.16	4.43	.70	3.74	1.07	P<.01
I want to get rid of energy	4.24	.87	4.35	.68	3.91	.94	P<.01
I like to travel	3.82	1.10	4.08	1.05	3.16	1.27	P<.01
I want to stay in shape	4.60	.57	4.72	.52	4.13	1.03	P<.01
I like the excitement	3.90	.84	4.52	.62	3.66	1.04	P<.01
I like the teamwork	3.34	.99	4.14	.84	3.10	.85	P<.01
My parents or close friends want me to play	1.67	.90	3.05	1.25	2.38	1.32	P<.01
I want to learn new skills	4.22	.76	4.17	.97	3.96	.90	P<.05
I like to meet new friends	3.82	.90	4.35	.82	3.72	.94	P<.01
I like to do something I’m good at	4.41	.77	4.70	.51	3.95	1.00	P<.01
I want to release tension	4.02	.95	4.11	.91	3.28	1.51	P<.01
I like the rewards	2.99	1.25	4.12	1.10	2.72	1.11	P<.01
I like to get exercise	4.16	.95	4.57	.70	4.31	.99	P<.01
I like to have something to do	4.06	.98	4.33	.75	4.32	1.10	P<.05

<i>Items</i>	<i>Ljubljana</i>		<i>Zagreb</i>		<i>Cologne</i>		<i>F - sign.</i>
	<i>X</i>	<i>SD</i>	<i>X</i>	<i>SD</i>	<i>X</i>	<i>SD</i>	
I like the action	3.99	.97	4.44	.73	4.30	1.06	P<.01
I like the team spirit	3.62	1.05	4.28	.90	3.94	1.09	P<.01
I like to get out of the house	4.21	.88	4.32	.75	3.75	.94	P<.01
I like to compete	3.64	1.10	4.32	.75	3.50	1.00	P<.01
I like to feel important	3.12	1.18	3.70	1.12	2.49	1.11	P<.01
I like being on a team	3.63	1.02	4.15	.89	3.80	1.02	P<.01
I want to go on to a higher level	4.44	.66	4.43	.73	4.12	1.03	P<.01
I want to be physically fit	4.81	.46	4.78	.46	4.27	1.06	P<.01
I want to be popular	2.77	1.12	3.55	1.10	2.42	1.07	P<.01
I like the challenge	3.82	.88	4.43	.72	3.85	.96	P<.01
I like the coaches or instructors	3.10	1.06	3.64	1.09	3.56	.95	P<.01
I want to gain status or recognition	3.37	1.13	4.02	.89	2.68	1.12	P<.01
I like to have fun	4.48	.68	4.60	.59	4.25	1.14	P<.01
I like to use the equipment or facilities	3.46	1.07	4.54	.72	3.49	1.10	P<.01

Legend: X – arithmetic mean; SD – standard deviation

As Table 3 shows, communalities after factor analyses of the Participation Motivation Questionnaire for students from all three countries (Principal Components, Varimax Rotation, in the first iteration) are very different: for the students from Ljubljana, communalities vary from 0.364 to 0.752; for the students from Zagreb, communalities vary from 0.379 to 0.677; while for the students from Cologne, communalities vary from 0.276 to 0.843.

Table 3: Communalities after factor analyses of the Participation Motivation Questionnaire for the students from all three countries (Principal Components, Varimax Rotation, in the first iteration).

<i>Items</i>	<i>Ljubljana</i>	<i>Zagreb</i>	<i>Cologne</i>
I want to improve my skills	.692	.591	.416
I want to be with my friends	.579	.506	.640
I like to win	.734	.416	.614
I want to get rid of energy	.603	.495	.467
I like to travel	.548	.412	.576
I want to stay in shape	.385	.548	.720
I like the excitement	.752	.565	.572
I like the teamwork	.573	.627	.523
My parents or close friends want me to play	.485	.515	.586
I want to learn new skills	.661	.521	.583
I like to meet new friends	.436	.723	.643
I like to do something I'm good at	.364	.449	.606

<i>Items</i>	<i>Ljubljana</i>	<i>Zagreb</i>	<i>Cologne</i>
I want to release tension	.525	.416	.616
I like the rewards	.653	.627	.571
I like to get exercise	.513	.379	.761
I like to have something to do	.609	.522	.833
I like the action	.638	.567	.843
I like the team spirit	.645	.677	.595
I like to get out of the house	.688	.528	.566
I like to compete	.676	.541	.607
I like to feel important	.684	.610	.592
I like being on a team	.706	.548	.662
I want to go on to a higher level	.661	.669	.777
I want to be physically fit	.404	.453	.736
I want to be popular	.687	.680	.745
I like the challenge	.667	.443	.530
I like the coaches or instructors	.588	.527	.428
I want to gain status or recognition	.693	.632	.588
I like to have fun	.390	.402	.726
I like to use the equipment or facilities	.379	.577	.276

For the students from Ljubljana (Table 4), the Keiser-Meyer-Olkin measure of sampling (KMO=0.778) and Bartlett's test of sphericity ($\chi^2 = 1797.278$; $P < 0.01$) showed that the matrix was suitable for factorisation. Six significant factors were extracted, which in total explain 62.69% of the entire space for the observed variables.

Table 4: Factor structure of the Participation Motivation Questionnaire for the students from Ljubljana (Principal Components, Varimax Rotation).

<i>Items</i>	<i>Component</i>					
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
VP25 I want to be popular	.801					
VP21 I like to feel important	.791					
VP3 I like to win	.789					
VP14 I like the rewards	.755					
VP20 I like to compete	.704					
VP28 I want to gain status or recognition	.674			.374		
VP9 My parents or close friends want me to play	.570					
VP10 I want to learn new skills		.798				
VP1 I want to improve my skills		.780				
VP23 I want to go on to a higher level	.353	.645				
VP24 I want to be physically fit		.594				

<i>Items</i>	<i>Component</i>					
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
VP6 I want to stay in shape		.559				
VP12 I like to do something I'm good at		.433				
VP4 I want to get rid of energy			.706			
VI13 I want to release tension			.704			
VP2 I want to be with my friends			.653			
VP11 I like to meet new friends			.450			
VP16 I like to have something to do				.708		
VP19 I like to get out of the house				.695	.411	
VP27 I like the coaches or instructors	.371			.597		
VP15 I like to get exercise		.418		.465		
VP30 I like to use the equipment or facilities		.376		.425		
VP7 I like the excitement					.859	
VP17 I like the action					.678	
VP29 I like to have fun					.504	
VP18 I like the team spirit						.731
VP22 I like being on a team	.397					.698
VP8 I like the teamwork			.394			.665
VP26 I like the challenge			-.431	.471		.473
Cronbach's alpha	.829	.752	.674	.715	.681	.714
Eigenvalues	4.56	3.21	2.52	2.41	2.85	2.27
Variance explained (%)	15.74	11.09	8.70	8.30	7.88	7.82

Legend: Components: 1 – Popularity and social status; 2 – Improvement and fitness; 3 – Relaxation and meeting friends; 4 – Being active; 5 – Excitement; 6 – Teamwork

For the students from Zagreb (Table 5), the Kaiser-Meyer-Olkin measure of sampling (KMO=0.875) and Bartlett's test of sphericity ($\chi^2= 2240.166$; $P<0.01$) revealed that the matrix was suitable for factorisation. Four significant factors were extracted, which in total explain 53.87% of the entire space for the observed variables.

Table 5: Factor structure of the Participation Motivation Questionnaire for the students from Zagreb (Principal Components, Varimax Rotation).

<i>Items</i>	<i>Component</i>			
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
VP8 I like the teamwork	.735			
VP11 I like to meet new friends	.713			
VP18 I like the team spirit	.687			
VP5 I like to travel	.616			
VP9 My parents or close friends want me to play	.589			.363

<i>Items</i>	<i>Component</i>			
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
VP7 I like the excitement	.582		.434	
VP13 I want to release tension	.568			
VP2 I want to be with my friends	.566			
VP22 I like being on a team	.564			
VP15 I like to get exercise	.513			
VP21 I like to feel important		.699		
VP25 I want to be popular		.671		.473
VP17 I like the action		.654		
VP20 I like to compete		.613		
VP3 I like to win		.601		
VP16 I like to have something to do	.418	.588		
VP19 I like to get out of the house	.418	.578		
VP14 I like the rewards		.568		.400
VP26 I like the challenge		.560		
VP4 I want to get rid of energy		.458		
VP12 I like to do something I'm good at		.433	.411	
VP23 I want to go on to a higher level		.394	.678	
VP1 I want to improve my skills			.663	.350
VP6 I want to stay in shape			.651	
VP24 I want to be physically fit			.633	
VP10 I want to learn new skills			.511	.374
VP30 I like to use the equipment or facilities			.502	.426
VP29 I like to have fun			.445	
VP28 I want to gain status or recognition				.689
VP27 I like the coaches or instructors				.609
Cronbach's alpha	.880	.877	.807	.573
Eigenvalues	5.21	5.77	3.77	2.41
Variance explained (%)	17.38	15.89	12.55	8.05

Legend: Components: 1 – Relaxation and meeting friends; 2 – Popularity, social status and being active; 3 – Improvement and fitness; 4 – Focus

For the students from Cologne (Table 6), the Keiser-Meyer-Olkin measure of sampling (KMO=0.888) and Bartlett's test of sphericity ($\chi^2= 2204.317$; $P<0.01$) showed that the matrix was suitable for factorisation. Three significant factors were extracted, which in total explain 60.65% of the entire space for the observed variables.

Table 6: Factor structure of the Participation Motivation Questionnaire for the students from Cologne (Principal Components, Varimax Rotation).

<i>Items</i>	<i>Component</i>		
	1	2	3
VP17 I like the action	.870		
VP16 I like to have something to do	.860		
VP23 I want to go on to a higher level	.852		
VP15 I like to get exercise	.842		
VP24 I want to be physically fit	.807		
VP6 I want to stay in shape	.778		
VP29 I like to have fun	.758		
VP3 I like to win	.691		
VP26 I like the challenge	.688		
VP12 I like to do something I'm good at	.615	.457	
VP4 I want to get rid of energy	.604		
VP20 I like to compete	.586		.461
VP22 I like being on a team	.582	.520	
VP18 I like the team spirit	.545	.480	
VP8 I like the teamwork		.713	
VP11 I like to meet new friends	.426	.672	
VP2 I want to be with my friends	.435	.636	
VP1 I want to improve my skills		.599	
VP19 I like to get out of the house	.447	.595	
VP7 I like the excitement	.441	.543	
VP10 I want to learn new skills	.502	.518	
VP27 I like the coaches or instructors	.400	.426	
VP25 I want to be popular			.856
VP21 I like to feel important			.773
VP14 I like the rewards			.752
VP28 I want to gain status or recognition			.729
VP9 My parents or close friends want me to play	-.371	.351	.467
Cronbach's alpha	.941	.862	.782
Eigenvalues	8.82	4.25	3.30
Variance explained (%)	32.68	15.73	12.24

Legend: Components: 1 – Sport action with friends; 2 – Relaxation and meeting people; 3 – Popularity and social status

Table 7 provides an insight into gender differences in the dimensions of the Participation Motivation Questionnaire, separately for the students from Ljubljana, Zagreb and Cologne.

Table 7: Gender differences in the dimensions of the Participation Motivation Questionnaire, separately for the students from Ljubljana, Zagreb and Cologne (t-test).

<i>Motivation</i>	<i>Sex</i>	<i>Mean</i>	<i>SD</i>	<i>t-test</i>	<i>Significance</i>	<i>City</i>	
1 – Popularity and social status	M	3.149	.802	1.867	P>.05	Ljubljana	
	F	2.873	.906				
2 – Improvement and fitness	M	4.430	.464	-0.600	P>.20		
	F	4.477	.442				
3 – Being active	M	3.739	.747	-1.906	P>.05		
	F	3.962	.600				
4 – Relaxation and meeting friends	M	3.829	.718	0.510	P>.10		
	F	3.769	.634				
5 – Excitement	M	4.242	.569	2.244	P<.05		
	F	3.990	.717				
6 – Teamwork	M	3.710	.667	1.843	P>.05		
	F	3.481	.767				
1 – Relaxation and meeting friends	M	4.159	.587	-2.358	P<.05	Zagreb	
	F	4.425	.481				
2 – Popularity, social status and being active	M	4.207	.562	-1.652	P>.10		
	F	4.402	.516				
3 – Improvement and fitness	M	4.509	.483	-1.937	P>.05		
	F	4.677	.356				
4 – Focus	M	3.814	.854	-0.423	P>.20		
	F	3.896	.860				
1 – Sport action with friends	M	4.046	.845	-0.608	P>.20		Cologne
	F	4.136	.703				
2 – Relaxation and meeting people	M	3.639	.683	-0.466	P>.20		
	F	3.704	.708				
3 – Popularity and social status	M	2.662	.772	1.061	P>.20		
	F	2.467	1.009				

Legend: M – male, F – female, Mean – arithmetic mean; SD – standard deviation

DISCUSSION

Sports psychology deals with manifold psychological characteristics of sports activities. It is perhaps motivation that represents the most important field within the discipline (Tušak, 1997). In order to understand motivation in sport, one must approach the problem with specific sports models which, on one hand, use scientific discoveries pertaining to general psychological

motivation and, on the other, combine them with the specifics of sport, the training process and competition. To better recognise how different cultures influence psychological meanings for sport it is useful to improve knowledge of meanings and motivations for global sport in diverse local contexts and particular countries. By using a cross-cultural approach, this study was designed to examine cultural influences on participatory motivation in physical activities among students in three different countries. In other research, Zaharidis et al. (2006) found six factors: skill development and competition motives (Cronbach's α reliability = 0.89), status/recognition (α = 0.85), energy release (α = 0.77), team atmosphere motives (α = 0.82), friendship and having fun through social interaction (α = 0.63) and, finally, motives for fitness (α = 0.83).

Having examined Table 2, one may conclude that for all questionnaire variables there are significant differences in the reasons the students at the three surveyed faculties want to participate in sports. We assumed that one reason that students of sports faculties enrol in such a faculty is that they wish to improve their motor abilities and satisfy their need for exercise. In other words, in view of the motivation to participate in sports, already at the very beginning they probably achieve above-average results relative to those of students from other faculties. However, we cannot use this fact to interpret the results we obtained because statistically significant differences are evident in the motivation to participate in physical activities, depending on the faculty (state/country) the students come from. We can only speculate whether the differences are shaped by the different faculty programmes, specific standpoints on practising sports, or wider cultural influences.

Since the interpretation of individual differences in the results for the students from the different faculties regarding the questionnaire items would be quite complex and probably also insufficiently unequivocal, we tried to compare the latent dimensions of the questionnaire separately for each city (country).

In order to better define the latent motivational structure of respondents from each sub-sample, Principal Components analysis with a Varimax Rotation was used in the following step. The percentage of explained variance in all three cases is very similar to the share (59.52%) mentioned by Zaharidis et al. (2006).

For the students from Ljubljana, the Keiser-Meyer-Olkin measure of sampling and Bartlett's test of sphericity showed that the matrix was suitable for factorisation. Six significant factors were extracted, which in total explain ~63% of the entire space for the observed variables. As Table 4 shows, only for the students from Ljubljana 16% of the total space of the questionnaire can be explained by the first factor, about 11% by the second factor, about 9% by the third factor, while the three other factors interpret the remaining explained variance. The reliability of the questionnaire only for the students from Ljubljana varies (for certain factors) from 0.674 to 0.829. Two factors are defined with just three items (the fifth) and four items (the third); therefore their lower reliability was not unexpected.

The main projections of the items from the questionnaire on the first factor are those related to popularity and social status. This encompasses motives such as: I want to be popular, I like the rewards, and I want to gain status or recognition. An exception is the item indirectly associated with the factor: My parents or close friends want me to play. Therefore, this factor was named *Popularity and social status*.

The second factor is defined by motives related to sport as a method for improvement and the need to be in good condition. This encompasses motives such as: I want to improve my skills, I want to go on to a higher level, and I want to be physically fit. Therefore, that factor was named *Improvement and fitness*.

The third factor, determined by intrinsic motives related to sport as a method for relaxation, is named *Relaxation and meeting friends*. This encompasses motives such as: I want to release tension, I want to get rid of energy, I want to be with my friends, and I like to meet new friends.

The fourth factor, named *Being active*, is defined by items such as: I like to have something to do, I like to get out of the house, and I like to use the equipment or facilities. This factor is defined by motives related to sport as a method for the constructive spending of leisure time.

The fifth factor is mostly determined by sport as a method for different types of excitement, but also exciting events, and is named *Excitement*. This encompasses motives described in all three items that define this dimension: I like the excitement, I like the action, and I like to have fun.

Finally, the sixth factor is named *Teamwork* and is chiefly determined by sport as a method for different types of teamwork (items: I like the teamwork, I like the team spirit, I like being on a team, I like the challenge).

For the students from Zagreb, the Keiser-Meyer-Olkin measure of sampling and Bartlett's test of sphericity showed that the matrix was suitable for factorisation. Four significant factors were extracted, which in total explain ~54% of the entire space for the observed variables. As Table 5 shows, only for the students from Zagreb 17% of the total space of the questionnaire can be explained by the first factor, about 16% by the second factor, about 13 % by the third factor, while the last factor explained 8% of the total variance. The reliability of the questionnaire solely for the students from Zagreb varies (for certain factors) from 0.573 to 0.880. The last factor is defined with only two items; therefore its lower reliability was not unexpected.

The main projections of the statements offered in the questionnaire on the first factor are those related to action and friendship. This includes motives such as: I like the team spirit, I like being on a team, I like to get exercise, My parents or close friends want me to play. Therefore, this factor was named *Sport action with friends*.

The main projections on the second factor are those related to popularity and social status, as well as with the wish to be active. This encompasses motives such as: I want to be popular, I like the rewards, I want to gain status or recognition, I like the challenge, I like to do something I'm good at. Therefore, this factor was named *Popularity, social status and being active*.

The third factor is defined by motives related to sport as a method for improvement and the need to be in good condition. This includes motives such as: I want to improve my skills, I want to be physically fit, and I want to go on to a higher level. Two items are indirectly linked with this factor: I like to use the equipment or facilities, and I like to have fun. However, both items also describe prerequisites for improvement and fitness. Therefore, this factor was named *Improvement and fitness*.

The fourth factor, named *Focus*, is defined by just two items: I want to gain status or recognition, and I like the coaches or instructors. This factor is defined by motives related to sport as a precisely defined aim in an individual's life (sport as a probable method for gaining social status, but precisely directed and planned).

For the students from Cologne, the Keiser-Meyer-Olkin measure of sampling and Bartlett's test of sphericity revealed that the matrix was suitable for factorisation. Three significant factors were extracted, which in total explain 60.65% of the entire space for the observed variables. As Table 6 shows, only for the students from Cologne 33% of the total space for the questionnaire variables can be explained by the first factor, about 16% by the second factor, and about 12% by the third factor. The questionnaire's reliability in our research solely for the students from Cologne varies (for certain factors) from 0.782 to 0.941. In general, this sample of respondents has the highest reliability.

The least complex factor structure is found among the students from Cologne. The main projections of the items offered in the questionnaire on the first factor are those related to action and friendship. This encompasses motives such as: I like the action, I like to have something to do, I like to have fun, I like the team spirit, I like being on a team, I like the challenge, I like to get exercise, I like to compete. Therefore, this factor was named *Sport action with friends*. In fact, we can say that the first factor represents 'pure' sport motives (sport activity important to the individual per se): the individual wants to achieve his sport's aims directly, to be better at sport achievement.

The second factor, named *Relaxation and meeting people*, is defined by items such as: I like the teamwork, I like the coaches or instructors, I like to meet new friends, I want to be with my friends, I like to get out of the house, and I want to learn new skills). In other words, this factor represents sport as a recreation, it is a method for meeting people and friends, and to spend one's leisure time.

The third factor is defined by motives related to the popularity and importance that people achieve through sports, i.e. victory (I want to be popular, I like to feel important, I like the rewards, I want to gain status or recognition). Therefore, this factor was named *Popularity and social status*. Here sport is only a method for achieving social status.

By comparing the factor structures of all three questionnaires, we may conclude the following: the factor structure of being motivated to participate in sports activities with the students from Ljubljana is the most complex, while conversely the factor structure is the simplest with the students from Cologne. That is to say, we can assume that the Slovenian students have a much differentiated motivation for participating in sports activities with very different motives: Popularity and social status, Improvement and fitness, Relaxation and meeting friends, Being active, Excitement and Teamwork. Therefore, it varies in its importance from 'pure' sports recreation (Relaxation and meeting friends) to a sports activity as means of gaining popularity and social status (Popularity and social status) or as means of achieving typical 'sport' goals (Improvement and fitness). The remaining factors are variants of one of those three fundamentally different motives. The students from Cologne have their sports motivation precisely differentiated in three (according to the authors' assumptions) main areas: Sports action with friends (*sports motives*: wishes linked with sports aims, fulfilling directly through sports action); Relaxation and meeting people (*recreation motives*: social motives and a wish to relax); Popularity and social status (*sports career motives*: a wish for social affirmation through sports). The students from Zagreb have sports motives which are partially in line with the motives of the students from the two other cities. For the Zagreb students we can also clearly notice recreational motives (dimension: Relaxation and meeting friends), although their sports motives (wishes linked with sports aims, fulfilled directly through sports action) are mixed with *sports career* motives in the

dimension Popularity, social status and being active. The dimension Improvement and fitness describes sports more as means of good health and physical appearance, which is also linked to the motive of a general tendency of advancing in life, and learning new skills. Finally, the badly defined dimension Focus indicates only the orientation of an individual to practise the sport targeted, to achieve precisely defined aims.

The aforementioned most probably reflect cultural differences in our sample. The consideration of culture in terms of sport psychology is undoubtedly daunting given the number of perspectives to reconcile and the associated complexities of each within the perception in sport in each country. Yet the concept of cultural difference is not new to sport psychology. Yessis' (1987) acknowledgement of sport systems and sport practices reflecting diverse nationalities was known to sport literature during the 1980s (see Weinberg & Gould, 2003). Our question is: would the sport psychology practices employed by Europeans, for instance, suit a North American audience? New discussions are raising reflexive possibilities for research and practice at the levels of societies and, within each one, numerous cultures. Some of them are beginning to find that motivational techniques must be meaningful at the socio-cultural level in order to be potentially inspirational for their intended audience. Each country can potentially benefit from some techniques that span a region and population, some cultural twists of pre-existing protocols, and potentially some population-specific sport psychology techniques (Schinke, Michel, Danielson, Gauthier, & Pickard, 2005). Germany is a country far removed from its stereotype and nevertheless defies stereotypes with a broad cultural diversity. Croats share an overall sense of national culture; people often feel strongly about regional identities and local cultural variations, particularly food and language. Slovenians are extremely proud of the achievements of their compatriots, and the historical, cultural and natural heritage is a true source of inspiration.

Table 7 provides an insight into gender differences in the dimensions of the Participation Motivation Questionnaire, separately for the students from Ljubljana, Zagreb and Cologne. We only found gender differences in two dimensions: Excitement, concerning the students from Ljubljana, pointing to statistically significant higher result values for males, and Relaxation and meeting friends, pointing to higher results for females with regard to the students from Zagreb. Even though we cannot prove the theory beyond doubt, we may assume there is a specific set of values in Slovenia which intensifies the distinction between the collectivist culture of former socialist countries and the individualism of Western countries represented by Germany. That is to say, the fact that since 2004 Slovenia has been part of the European Union might affect the stronger need of Slovenians to be different from students of other socialist countries even in relation to motivation for physical activities. In that context, Slovenians could find physical activity (sport) important for their physical and personal development, but not as a means for socialising. In contrast, this is not the case in Zagreb where differences were found among male and female students in relation to deeper socialisation among the female students. Clearly, physical activity in terms of socialisation holds greater significance for the students from Zagreb than for those from Cologne and Ljubljana. One potential reason might also be found in physical activity being an extremely important form of an individual's affirmation in Croatia. Given that in the circumstances of a recession it is harder to find affirmation in other fields of work (which is potentially more pronounced in Croatia than in Germany or Slovenia), sport is an area where an individual, regardless of economic conditions, can accentuate his/her qualities.

Taking into consideration that, for the purpose of this research, students from sports faculties were surveyed, the assumption is that the reason for their inconsistency can be explained by

cultural differences (Yan & McCullagh, 2004). Maslow (1970) compared needs for being a member of something, love and other social needs, which include giving and accepting and are more dominant in Western society.

At the end, we must be aware that this paper has some limits, especially due to the methodology. In our case, the factor analysis of the motivational structure was applied to a relatively small sample. Therefore, the results obtained in this survey will above all serve research purposes. A recommendation and further part of this study project is that the results should be confirmed in a larger investigation of different faculties and among the student population at large (not only sports students).

CONCLUSION

To conclude, we can say that motivation for sport activities has become a very popular area of interest among sport psychologists. In our research we found the latent structure of sports students' types of motives as consisting of three to six factors (dimensions) in three different cities (countries). The most complex are the motivations of Slovenian students and the simplest and at the same time the most specifically oriented are the motivations of the students from Cologne. We only found two statistically significant gender differences in the dimensions of motivation to participate in sport activities: Excitement, concerning the students from Ljubljana, pointing to statistically significant higher values for males, and Relaxation and meeting friends, pointing to higher results for females concerning the students from Zagreb. This study also reinforces the importance of the pleasure to be gained from participating in sports. From a developmental view, this study may further test the notion that socio-cultural environments affect physical education and human motor development as well as influence gender differences in students' physical activity patterns. This means that understanding cultural differences in students' motives for participation may result in the better organisation of physical activity opportunities that offer students expected sport experiences and movement learning outcomes in a multicultural society.

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