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## Subjective and objective evaluation of one's physical fitness – the role of self-esteem, motivation, and the need for social approval

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**Key words:** physical fitness, student athletes, self-esteem, motivation, social approval

### Abstract

**Introduction and purpose of the work:** Physical fitness is an important aspect of human life that can have an impact on biological, social, and psychological functioning. The aim of the research was to compare students who were engaged and those who were not engaged in sport in terms of self-evaluation of own physical fitness and performance in the Functional Movement Screen<sup>TM</sup>. The analyses also included the role of motivation, self-esteem, and the need for social approval. **Material and method:** The participants of the study were students who do sports ( $n = 30$ ) and those who are not engaged in a sport activity ( $n = 30$ ) at one Polish university (aged 18-24 years,  $M_{age} = 21,23$ ;  $SD = 1,5$ ). The following instruments were used in the research: *Self-Esteem Scale (SES)*, *Social Approval Test (TAS-27)*, *Sport Motivation Scale-II (SMS-II)*, *Functional Movement Screen<sup>TM</sup> (FMS<sup>TM</sup>)*, *Survey about own physical fitness and sport related information*. **Results:** The results revealed that active and inactive students differed in the subjective scores in the FMS<sup>TM</sup> and evaluation of own physical fitness. However, in both groups similar scores in self-esteem and the need for social approval were present. Subjective evaluation (made by the subjects) of own performance in the FMS<sup>TM</sup> was rated lower than objective one (made by the

researchers) in both groups. The FMS<sup>TM</sup> scores (both objective and subjective) were related to different types of motivation. The lowest mean values were noted for external motivation and amotivation. **Conclusions:** The research has shown differences, in evaluation of physical fitness and FMS<sup>TM</sup> score - which can inform about the risk of potential injury - between the students who were engaged and those who were not engaged in sport. Motivation, need for social approval and self-esteem were mutually related. They can play an important role in shaping the belief about one's physical fitness and the effect of one's performance, although further investigations are needed as well as different types of statistical analyses to provide conformation for this assumption.

## INTRODUCTION

Sport plays a significant role in life [1] and supports holistic development [2]. It is important for physical, emotional, and social functioning. Physical fitness is associated with higher life satisfaction [3], which means that engagement in sport can be profitable for an individual. Nowadays, it becomes more and more common to get involved in various types of sporting activities, at a more or less advanced level. Sporting activity may be a form of leisure time, lifestyle, or profession [4]. In relation to the above arguments, the interesting issue seems to be the connection in which physical activity and mental functioning remain, and how our perception of ourselves (more or less accurate) can shape our assessment of, for example, physical fitness.

### *Motivation*

Generally, two types of motivation can be distinguished: external and internal [5]. External motivation is when a person engages in some activity because of its external consequences (e.g., to obtain gratification). Internal motivation is, however, a situation in which a person engages in some activity for itself due to the pleasure it brings, and continuation of such activity does not require an external reward.

One of the most popular theories of motivation is the Self-Determination Theory created by Edward L. Deci and Richard Ryan [6-8]. These authors assume that the basis for motivation is the innate ability of people to self-regulate. The motivation is based on three basic needs: autonomy, competence, and relevance. Autonomy is treated as freedom of choice where the person's behavior is experienced as volitional. Competence is present when a person feels capable of achieving the intended purpose and has the opportunity to manifest own abilities. The need called relevance is described as a strive to be in a relationship and can be seen as a sense of belonging. Mutual care and closeness are stressed when it comes to the presented need. Generally, people act in a way that can help them achieve their goals, and the society and environment have also an influence on our motivation.

The motivation is a continuum from amotivation, through external motivation to internal motivation [9]. Amotivation consists of non-regulation and lack of intention to act [7]. Deci and Ryan [10] distinguished four types of extrinsic motivation: controlled, moderately controlled, moderately autonomous, and autonomous. Controlled motivation is a typical external motivation according to classical understanding. Moderately controlled motivation is when the individual internalizes certain rules, norms or external requirements, but they are not an integral part of one's self. Moderately autonomous motivation pertains to the situation in which a person internalized the norms and adopted them as his/her own, so that they partially became part of one's self. The last type of external motivation, autonomous, assumes a total internalization of external norms and requirements, and inclusion of them into own self. Internal motivation is to get satisfaction from participation in an activity by itself.

### ***Motivation in sport***

The Self-Determination Theory is often used as a theoretical basis in research on motivation of athletes [11-13]. Motivation in sport, from the perspective of Deci and Ryan's theory, is viewed as a collection of internal and external motives. In an external way, athletes can be motivated by, for instance, material rewards, medals, and approval from other people. Athletes can also have an internal motivation that is expressed in interest, curiosity, and a desire for mastery and improvement [14]. Self-regulation allows changing the way the motives are perceived, for example, those that might have been previously considered as external, can later be treated as internal.

Females in many countries often participate in various sports, but they have been traditionally more underrepresented than males [15]. Women have higher self-determination motivation profiles than men in various sport disciplines [16-17]. At the same time women practicing sport have a higher level of internal motivation, while men are more motivated externally [18, 13]. Women focus more on inner pleasure than on getting material gratification [13]. Chin et al. [13] indicated that amotivation is higher among male athletes than among females. Additionally, urban athletes reported significantly higher intrinsic motivation than rural athletes. The same researchers report that task orientation is related to intrinsic motivation, whereas ego orientation is related to extrinsic motivation among athletes. A study carried out by Pelletier, Forier, Vallerand, Bière [19] shows that autonomous motivation is associated with long-time commitment in sport.

### ***Self-esteem***

"Self-esteem is an individual's affective reaction on oneself" [20, p. 175]. A slightly different perspective is presented by Szewczuk [21] who perceives self-esteem as an attitude toward oneself, own potential, and valuable social traits. It can also be treated as a trait or state. Self-esteem as a trait is "a permanent tendency to evaluate oneself in a specific way" [22, p. 24]. Self-esteem as a state is "actually evaluating oneself at a specific moment, that evaluation is related to a situation in which a person is into" [22, p. 24]. Morris Rosenberg [23] in his theory assumes that people have a different attitude toward some objects, and self is one of these objects. Therefore, self-esteem is a positive or negative attitude toward self, kind of global self-esteem, which represents how people feel and think about themselves.

Studies confirm a significant correlation between the frequency of physical activity and self-esteem of own physical fitness [24-26]. Greater amount of sports successes is associated with a higher level of self-esteem [27]. Self-esteem of physical fitness is also connected with a sense of well-being [28]. A high level of physical fitness is associated with a higher level of life energy and motivation [26]. Experimental studies conducted by Griffin and Kirby [29] show that the effect of improving body image and self-esteem associated with physical activity is stronger for men than for women.

### ***The need for social approval***

The need for social approval is an issue that has been in researchers' center of attention for many years [30]. They noticed respondents' tendency to show themselves in a good way during study participation. It was identified as proclivity to lying and pretending someone better. The need for social approval was generally checked with the usage of different measures, for instance, with help of a lie scale, to see if a person wants to show oneself in a better light during a research. This construct can be also understood as a desire for social acceptance, which manifests in a socially approved behavior [31,30]. The more intense is the

need for social approval, the greater the tendency of an individual to present oneself as someone better and, when responding, to give positive information about oneself [30]. Based on the information provided about the need for social approval, it can be seen what a great influence on human behavior it has and how it can change people's reactions and their answers during, for example, an observation, an interview or a situation of being evaluated.

There are many theoretical approaches that describe the need for social approval [32], but we would like to shortly present the perspective of Delroy Paulhus [33], whose approach was used in our own research.

The concept of the need for social approval presented by Paulhus [33] can be placed among two-component models of socially desirable responding. He distinguished two factors: Self-Deception and Impression Management. The first factor is treated as an unconscious distortion of one's own image, which may result from the desire to perceive oneself as someone better than one is. This may help an individual to avoid psychological distress. The second factor, in short, can be described as an aware falsification of provided answers. This action is taken to create an image of a person with socially desirable traits, for instance, reliable, friendly, and generous. To measure these two factors Paulhus has created the Balanced Inventory of Desirable Responding – BIDR, a research tool that consists of 40 items.

Based on further studies of Paulhus and associates, three aspects of the need of social approval were distinguished: Impression Management, Self-Deceptive Enhancement, and Self-Deceptive Denial [34]. The Self-Deceptive Enhancement characterizes the people who change own answers to present themselves in a good way through exaggerating their talents and skills. The Self-Deceptive Denial characterizes the people who deny unwanted traits (usually negative) and minimize their shortcomings [34].

## **METHOD**

### ***Aims of the study***

The general aim of the research was to compare students who were engaged and those who were not engaged in sport in terms of self-evaluation of own physical fitness and performance in the Functional Movement Screen™.

The performed study had also several aims:

- to compare subjective and objective evaluation of one's performance in the Functional Movement Screen™ (FMS™). The study participants made the subjective evaluation, and the researchers the objective one;
- to verify relations between the FMS™ performance evaluation and the self-assessment of one's physical fitness and sport motivation in the group of active students (engaged in sport);
- to determine whether the psychological variables, self-esteem and social approval, are significantly related to the self-assessment of one's physical fitness, evaluation of performance in the FMS™ test, and level of motivation for practicing sports;
- to analyze the sport motivation types and indicate which had the highest and the lowest level in a group of students engaged in sports.

### ***Participants***

The participants of the study were students of one Polish university (aged 18-24 years,  $M_{age} = 21,23$ ;  $SD = 1,5$ ). The total sample consisted of 60 participants, where two groups were formed. The first one,  $n = 30$ , included PE students (Active Group - AG) who, apart from participating in sports activities at the university, also actively practiced sports (e.g., volleyball, soccer, combat sports). In the second group,  $n = 30$ , were students who were

engaged in sport recreationally, occasionally or were physically inactive (Inactive Group - IG). Detailed data about the subjects are provided in the Table 1.

Table 1. Characteristics of study participants: active group (AG) and inactive group (IG)

	Total	Group 1 - AG	Group 2 - IG
<i>n</i>	60	30	30
Men (%)	28 (46,67)	16 (53,33)	18 (60,00)
Women (%)	32 (53,33)	14 (46,67)	12 (40,00)
Previous injuries	31	18	13
Years of sport practice, <i>M</i> ( <i>SD</i> )		6,75 (3,27)	

### ***Instruments***

In the study we used three types of measures: questionnaires, a survey, and a performance test. All of the measures are described below.

*Self-Esteem Scale (SES)*. The scale is univariate and consists of ten items to which the answers are given on a four-point Likert scale. The SES allows measuring the self-esteem treated as a relatively permanent property of the individual – not a temporary state. The original scale was developed by Rosenberg [35]. The Polish adaptation of the SES was prepared by Dzwonkowska, Lachowicz-Tabaczek, and Łaguna [36]. Cronbach's alpha varies between 0,81 and 0,83.

*Social Approval Test (TAS-27)*. The test is based on a two-component model of social approval by Paulhus [33]. The test is a combination of items from *The Balanced Inventory of Desirable Responding 40 (BIDR-40)*; [37] by Paulhus (Polish version by Izdebski, Kotyśko, Kupniewski, Suprynowicz, Waszczak, 2010, unpublished material), and items that have been developed by Izdebski and Kotyśko (2012, unpublished material). The TAS has 27 items and includes the measurement of two factors: Self-Deceptive Enhancement and Impression Management. Participants provide answers on a five-point Likert scale. Cronbach's alpha in the previous Polish study: Self-Deceptive Enhancement ( $\alpha = 0,72$ ) and Impression Management ( $\alpha = 0,87$ ).

*Sport Motivation Scale-II (SMS-II)*. The Sport Motivation Scale was developed by the Canadian researcher Luc Pelletier and colleagues [38]. In the original version, the tool consisted of 28 questions forming seven subscales. The theoretical basis of the scale is the theory of self-determination of Deci and Ryan [14] described in the *Introduction* section of this article. After more than 20 years, a revised version of the scale was released and named as the SMS-II. The scale consists of 18 items, which include a measurement in the range of six subscales: intrinsic, integrated, identified, introjected, external and amotivated [14]. All subscales met the 0,7 condition for Cronbach's *alpha* value in the study of Pelletier et al. [14].

*Functional Movement Screen™ (FMS™)*. Is a performance test consisted of 7 trials: deep squat, hurdle step, in-line lunge, shoulder mobility, active straight leg rise, trunk stability push-up, and rotary stability. The screen allows assessing the quality of movement patterns in order to detect any limitations or asymmetries in the movement of examined person. An inadequate movement pattern may result in an injury [39-40]. The tests are rated from 0 to 3 points. If pain occurs during movement, the subject does not receive a point – the score is zero. One point is given when the participant is not able to perform a movement pattern. Two points are given when the movement pattern is executed, but compensation elements appear. The highest number of points is obtained when the movement pattern is correctly reproduced [39-40]. In total, the examined person can be assessed on a maximum of 21 points. Previous studies, conducted with the use of FMS™, indicate that 14 points and less is the best differentiating point – with such a result the risk of injury increases several times [41-43].

*Survey about own physical fitness and sport related information.* The survey consisted of three parts. The first included questions about age, gender, sport discipline, years of sport practice, number of trainings during the week, level of competition in own sport discipline, and previous injuries. The second part gathered information about subjective evaluation of own physical fitness and its elements, such as speed, strength, endurance, and flexibility. Participants rated those elements on a 5-point Likert scale from very bad to very good. The last part of the survey was adapted to the tasks that the participant performed as part of the FMS™ test. During the FMS™ the researchers evaluated the participants, but after their own performance they rated their performance on a Likert scale: bad, good enough, good, very good. Those answers, after the evaluation, were transformed by the researchers into scores from 0 to 3 – the same point scale was used as in the FMS™. The transformation of the answers made it possible to compare the subjective and objective results with regard to the tests included in the FMS™.

### ***Procedure***

Participants from both groups AG and IG at first filled in the psychological questionnaires and the survey. The IG did not fill in the SMS-II scale and information in the survey about sport participation. After completing the part concerning the questionnaires, the next stage started, where the participants performed the FMS™ trials. Participants after each test had to assess how it went on a 4-point scale (described in the *Instruments* section). During the performance at least two researchers were present onsite – one had to score objectively the performance in the FMS™ and the second one assisted the participants in filling in the subjective evaluation of the performance. Each participant at the end was given information about objective evaluation of FMS™.

### ***Statistical analysis***

Verification of normal distribution was made with the usage of Shapiro-Wilk  $W$  test. Based on its results parametric and nonparametric analyzes were performed. To compare the groups we used the Mann-Whitney  $U$  test and the  $t$ -Student test. The variable comparison among each group was made with the  $t$ -Student test for dependent samples. Correlation analyzes were performed with two coefficients: Pearson's  $r$  and Spearman's  $R$ . ANOVA with repeated measures was used to compare six motivation aspects in a sport-active group.

## RESULTS

We compared both AG and IG in terms of their own perception of their physical fitness. Participants evaluated their overall fitness and its four components: speed, strength, endurance, and flexibility. The results of comparison are shown in the Table 2.

Table 2. Descriptive statistics of AG and IG in terms of own physical fitness evaluation; group comparison with the usage of Mann-Whitney *U* test

	AG <i>n</i> = 30		IG <i>n</i> = 30		<i>U</i>	<i>Z</i>	<i>p</i>
	M edian	Range	Me dian	Range			
Physical fitness - general	4, 00	3,00 - 5,00	4,0 0	2,00 - 5,00	2 91,00	2 ,34	0 ,019
Speed	4, 00	2,00 - 5,00	4,0 0	1,00 - 5,00	3 62,50	1 ,29	0 ,198
Strenght	4, 00	3,00 - 5,00	4,0 0	2,00 - 5,00	3 51,00	1 ,46	0 ,145
Endurance	4, 00	2,00 - 5,00	4,0 0	1,00 - 5,00	3 83,00	0 ,98	0 ,326
Flexibility	3, 00	2,00 - 5,00	3,0 0	1,00 - 5,00	4 13,00	- 0,54	0 ,589

The significant difference was noted between the groups in the physical fitness score. AG students evaluated themselves higher in comparison to IG.

Another comparison referred to the level of the need of social approval and global self-esteem. Both groups did not differed significantly (Table 3). In the study we wanted to check if AG differ, in the objective and subjective score in the FMS<sup>TM</sup>, from their inactive counterparts. Only a tendency ( $p = 0,060$ ) was present in the subjective evaluation of the FMS<sup>TM</sup> performance, where the AG scored higher than IG (Table 3). The results of both groups in the objective FMS<sup>TM</sup> were similar (insignificant difference between the means).

Table 3. Descriptive statistics of AG and IG in terms of two components of the need for social approval, global self-esteem and both objective and subjective scores in FMS<sup>TM</sup>, group comparison with the usage of *t*-Student test

	AG <i>n</i> = 30		IG <i>n</i> = 30		<i>t</i>	<i>d</i> <i>f</i>	<i>p</i>
	<i>M</i>	<i>S</i> <i>D</i>	<i>M</i>	<i>S</i> <i>D</i>			
Impression Management	30, 00	1 2,68	32, 70	1 0,22	- 0,91	5 8	0 ,368
Self-Deceptive Enhancement	20, 77	3, 54	19, 60	4 ,58	1, 10	5 8	0 ,274
Global self-esteem	31, 00	3, 27	31, 53	4 ,85	- 0,50	5 8	0 ,620
Subjective FMS score - total	13, 73	3, 67	11, 83	4 ,00	1, 92	5 8	0 ,060
Objective FMS score - total	15, 83	2, 45	15, 23	2 ,08	1, 02	5 8	0 ,311

Due to the similar scoring of the FMS<sup>TM</sup>, in the objective and subjective procedure, it was possible to treat results in both variables as data from dependent samples and compare with each other. We performed the comparison separately among AG and IG.

Results presented in the Table 4 indicate that generally the subjective evaluation of own performance in the FMS<sup>TM</sup> was rated lower than the objective evaluation made by the researchers. This tendency occurred in AG and IG.

Table 4. Comparison of subjective and objective scores in FMS with the usage of *t*-Student test for dependent samples

		<i>M</i>	<i>S</i> <i>D</i>	Differe nce in <i>M</i>	Differe nce in <i>SD</i>	<i>t</i>	<i>f</i>	<i>p</i>
AG <i>n</i> = 30	Subjective	1	3					
	FMS score – total	3,73	,67	-2,10	3,17	-	:	0,00
	Objective	1	2			3,63	9	1
	FMS score – total	5,83	,45					
IG <i>n</i> = 30	Subjective	11	4					
	FMS score – total	,83	,00	-3,40	3,33	-	:	<
	Objective	1	2			5,60	9	0,001
	FMS score – total	5,23	,08					

One of the aims of the study was to determine whether psychological variables, self-esteem and social approval, are significantly related to the self-assessment of one's physical fitness, the evaluation of performance in the FMS<sup>TM</sup> test, and the level of motivation for practicing sports (the last variable only among AG). To get the answer we used correlation analysis with the *R*-Spearman coefficient (because the self-evaluated physical fitness distribution was not consistent with the normal distribution). The results of correlation analysis performed in both groups are shown in the Table 5 and Table 6.

Table 5. Relations between psychological variables, physical fitness and FMS (IG, *n* = 30)

	Self- Deceptive Enhancement	Impression Management	Global self- esteem
Physical fitness - general	0,01	0,24	0,39*
Subjective FMS score - total	0,27	0,32	0,40*
Objective FMS score - total	0,10	0,32	0,37*

\* *p* < 0,05

Among IG the global self-esteem was significantly positively correlated with the general fitness score and both the subjective and objective scores of FMS<sup>TM</sup>.

Table 6. Relations between psychological variables, physical fitness, FMS and motivation (AG, *n* = 30)

	Self-Deceptive Enhancement	Impression Management	Global self- esteem
Physical fitness - general	0,16	0,18	0,25
Subjective FMS score - total	0,32	0,02	0,17
Objective FMS score - total	0,23	0,03	0,18
Intrinsic Motivation	0,29	0,27	0,30
Integrated Motivation	0,03	0,44*	0,26



Identified Motivation	0,33	0,28	0,45*
Introjected Motivation	0,19	0,35	0,26
External Motivation	-0,27	0,27	0,04
Amotivation	-0,46*	-0,20	-0,33

\*  $p < 0,05$

Psychological variables in AG (Table 6) were not significantly related to the physical fitness and the FMS<sup>TM</sup> scores. Global self-esteem was positively correlated with identified motivation. Impression management had a positive relation with integrated motivation. The last significant, but negative, correlation was observed between the Self-deceptive enhancement and amotivation.

Spearman's and Pearson's correlation analysis were used to verify the relations between the FMS<sup>TM</sup> scores, physical fitness, and motivation (the last variable analyzed only among AG). The results are placed in the Table 7 and Table 8.

Table 7. Results of Spearman's correlation analysis between physical fitness and FMS<sup>TM</sup> scores (IG,  $n = 30$ ; AG,  $n = 30$ )

	Physical fitness - general	
	AG	IG
Subjective FMS score - total	0,56*	0,54*
Objective FMS score - total	0,40*	0,50*

\*  $p < 0,05$

Subjective and objective scores in the FMS<sup>TM</sup> (in both groups) were related significantly to the general evaluation of own physical fitness.

Table 8. Results of Pearson's correlation analysis between subjective and objective FMS score and six types of motivation (Active students,  $n = 30$ )

Motivation types	Subjective FMS score - total	Objective FMS score - total
Intrinsic Motivation	0,22	0,35
	$p = 0,252$	$p = 0,061$
Integrated Motivation	0,20	0,31
	$p = 0,291$	$p = 0,094$
Identified Motivation	0,32	<b>0,49</b>
	$p = 0,082$	<b><math>p = 0,006</math></b>
Introjected Motivation	0,23	0,23
	$p = 0,228$	$p = 0,220$
External Motivation	<b>0,38</b>	0,36
	<b><math>p = 0,040</math></b>	$p = 0,051$
Amotivation	0,06	-0,21
	$p = 0,759$	$p = 0,263$

\* Significant correlation coefficients were presented in bold

Based on the data contained in the Table 8, it can be concluded that only two correlation coefficients were statistically significant. They concerned the relationship between the

external motivation and the subjective result in the FMS<sup>TM</sup> ( $r = 0,38, p = 0,04$ ) and between the identified motivation and the objective result in the FMS<sup>TM</sup> ( $r = 0,49, p = 0,006$ ). Both correlation coefficients have a medium effect size – based on the determinants proposed by Cohen (1992). It is worth pointing out, however, that in the case of several other relations, which were not defined as statistically significant (did not meet the condition:  $p < 0,05$ ), their p-significance value indicates a certain statistical tendency. It is present in the case of the relation: external motivation ( $r = 0,36, p = 0,051$ ) and intrinsic motivation ( $r = 0,35, p = 0,061$ ), and the objective result in the FMS<sup>TM</sup>.

The final analysis was prepared to check which type of motivation is represented by the highest scores in the group of physically active students. A comparison was made using the ANOVA with repeated measures to determine if the means for individual types of motivation differ significantly from one another in the group of AG. The use of this analysis was possible due to the fact that there are as many questions for each type of motivation, and the scale of answers is the same for all items in the SMS-II.

The general result of ANOVA showed that among all types of motivation a significant difference occurs in the means ( $F = 46,16, p < 0,001$ ). To analyze the differences a post hoc test the Tukey's HSD was used. Results of the test are presented in the Table 9. The types of motivation that stand out from the others are the External motivation and Amotivation, and their mean values were the lowest. No significant differences were noted between intrinsic, integrated, identified, and introjected type of motivation.

Table 9. Results of Tukey's HSD post hoc test for six types of motivation to sport (Active students,  $n = 30$ )

	(1) $M = 14,63$	(2) $M = 13,73$	(3) $M = 15,07$	(4) $M = 13,90$	(5) $M = 7,87$	(6) $M = 6,07$
Intrinsic Motivation	-					
Integrated Motivation	0,875	-				
Identified Motivation	0,995	0,564	-			
Introjected Motivation	0,944	1,000	0,699	-		
External Motivation	<0,00 1	<0,00 1	<0,00 1	<0,00 1	-	
Amotivation	<0,00 1	<0,00 1	<0,00 1	<0,00 1	0,22 4	-

Comment: in the table the  $p$ -values for comparisons between each pair of variables are shown

## DISCUSSION

The results of our study showed that evaluation of one's physical fitness is higher in the group of AG than IG. This is in line with the results of other studies [45]. We noted a significant difference between AG and IG in terms of subjective evaluation of the FMS<sup>TM</sup>. AG evaluated themselves better than inactive counterparts. Similar findings are presented in other studies [24-26].

There was a significant positive correlation of the subjective general fitness score and both subjective and objective scores of the FMS<sup>TM</sup> among AG and IG. The Bowker's study [46] reveals that the physical self-esteem is a mediator between the general self-esteem and participation in sport. The Dienstbier's research shows that growth of self-perception can be linked with physical activity [47]. The results of the study performed by Baj-Korpak and

colleagues [48] indicated that general evaluation of own physical fitness of active students is similar to their objective physical capacities. This result can only partially explain the correlation present in our study in AG and IG. Other variable, like self-consciousness, may be an additional explanation for the obtained result among IG.

The presented own research results show that active and inactive students did not differ in terms of self-esteem. However, other study shows that the level of sporting activity is related to self-esteem [49-50]. There may be other variables that mediate the relationship between the physical activity and self-esteem.

In both groups the generally subjective evaluation of own performance in the FMS<sup>TM</sup> was rated lower than the objective evaluation made by the researchers. It can be linked with that people have tendency to make a worse evaluation of themselves. This may have resulted from the desire to present oneself as a modest person who does not overestimate one's abilities. The IG who rarely had the opportunity to test their skills, may have feared that their physical fitness is low.

In AG there was a significant correlation between the identified motivation and the global self-esteem. In this group the identified motivation was also related to the objective results of the FMS<sup>TM</sup>. The AG showed a higher level of integrated motivation as the impression management increased. In addition, amotivation was negatively correlated with impression management in this group. This may be related to the level of sport identity [51-52]. It can also involve a sense of belonging to a team or to a unique social group, such as athletes.

## CONCLUSIONS

The subjective scores of FMS<sup>TM</sup> differed from the objective scores of FMS<sup>TM</sup> in the group of active and inactive students. The subjective scores were lower than objective in both groups. The psychological variables (self-esteem and motivation) included in the research, turned out to be significantly related to the subjective and objective scores of FMS<sup>TM</sup>. The presented article is an attempt to show how active and inactive students function in terms of physical fitness, but also psychological characteristics. To get to know in which aspects both groups are different, and also, what are the similarities, further research are needed.

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