# Predictors of students' self-esteem: the importance of body self-perception and exercise<sup>1</sup>

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The goal of this study was to explore the predictive validity of physical self-efficacy, social physique anxiety, and physical activity in the self-esteem of students, as well as to investigate potential gender differences. The Rosenberg's Self-Esteem Scale (SES), Physical Self-Efficacy Scale (PSES), Social Physique Anxiety Scale (SPAS), and a short questionnaire about physical activity were administered to a sample of 232 university students. The overall results show that students are moderately physically active (on the average, 2.75 times per week), have moderately high selfesteem and physical self-efficacy and lower social physique anxiety. No gender differences were detected in self-esteem. In other variables, gender differences are significant and mostly in favour of males. The analyses showed that self-esteem correlated positively with physical self-efficacy and physical activity, and negatively with social physique anxiety. The regression analyses indicated that physical selfefficacy, social physique anxiety and female gender were significant predictors of self-esteem. Physical activity was not a significant predictor of self-esteem. Future studies should investigate the relations of body self-perceptions, physical exercise, and domain-specific self-esteem.

**Keywords:** self-esteem, physical self-efficacy, social physique anxiety, physical activity, university students.

<sup>1</sup> The research reported in this paper was funded by the Ministry of Education and Science of the Republic of Serbia - Projects No. 179018 and No. III47015

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#### Introduction

Self-esteem reflects the person's overall subjective evaluation of one's own worth, which can be related to a feeling of personal competence, success and pride, or to a feeling of despair and shame (Baumeister, Campbell, Krueger, & Vohs, 2003; Rosenberg, 1965). High self-esteem positively affects person's initiative and is related to success in different activities, like academic and professional achievement, and success in sports (Baumeister et al., 2003; Ciarrochi, Heaven, & Fiona, 2007; Fox, 2000, 2002a; Weinberg & Gold, 2007). Although research shows that self-esteem is related to achievement in different fields and activities, the results are not unanimous, especially those investigating the causal relationship between self-esteem and achievement (Baumeister et al., 2003; Ciarrochi et al., 2007). The literature suggests that high self-esteem is one of the most important indicators and predictors of psychological well-being, specifically the self-perception dimension (Fox, 2000; 2002a; Netz, 2007). In addition, self-esteem is highly important for mental health; it is considered as one of the important indicators of emotional states, general adaptability to life-challenges and resilience to stress during lifetime (Baumeister et al., 2003; Dishman, Hales, Pfeiffer, Felton, Saunders, Ward, & Pate, 2006; Fox, 1999; 2002a; 2002b).

Previous findings indicate that self-esteem is related to other important psychological variables, among which are those referring to self-perception and self-presentation related to the body, such as physical self-concept (Klomsten, Skaalvik, & Espnes, 2004; Netz, 2007), body image (Wade & Cooper, 1999), physical self-efficacy (McAuley & Gill, 1983; Ryckman, Robbins, Thornton, & Centrell, 1982), and social physique anxiety (Lazarević, Lazarević, & Radisavljević Janić, 2016).

#### Physical self-efficacy and self-esteem

Global self-esteem refers to the overall evaluation of the self, while selfefficacy is a more specific construct of the lower level of generality. Selfefficacy, as the central component of Bandura's socio-cognitive theory, can be described as one's own belief of having the skills and abilities allowing for a successful completion of the task in specific circumstances (Bandura, 1997; Netz, 2007). When it comes to one's own competencies to perform a specific physical activity, we are referring to physical self-efficacy. Physical self-efficacy is considered as a determinant of adherence to exercise and as an outcome of physical exercise (McAuley & Blissmer, 2000). A large body of empirical evidence demonstrates a positive relationship between physical self-efficacy and both exercise and self-esteem (Lazarević, Orlić, & Lazarević, 2014; Lazarević et al., 2016; McAuley & Blissmer, 2000; Martin, 2006; McAuley & Gill, 1983; Ryckman et al., 1982; Sonstroem & Morgan, 1989). It can be concluded that better physical competence, resulting from physical exercise, improves physical self-efficacy, which in turn influences positive self-esteem (Netz, 2007).

#### Social physique anxiety and self-esteem

When individuals are interested in leaving a certain impression on others, and if they are not sure they would achieve that, it can provoke social anxiety (Martin Ginis, Lindwall, & Prapavessis, 2007; Schlenker & Leary, 1982). One aspect of social anxiety related to self-perception and self-presentation of one's own body in front of the others is social physique anxiety (Leary, 1992). It is defined as the anxiety people experience when their body is subject to observation and evaluation by the others (Hart, Leary, & Rejeski, 1989). Social physique anxiety is an important segment of self-presentation, especially in adolescents. The anxiety about physical appearance is highly important for the perception of the personal value of adolescents (Gomes, Gonçalves, & Costa, 2015). Research shows gender differences in social physique anxiety, where males show lower levels of social physique anxiety (Frederick & Morrison, 1996; Rothberger, 2014; Martin Ginis et al., 2007). When it comes to the relationship between social physique anxiety and self-esteem, the studies indicate negative correlations (Gomes et al., 2015; Lazarević et al., 2014; Lazarević et al., 2016). In addition, previous results suggest a negative relationship between social physique anxiety and physical self-efficacy (Lazarević et al., 2014; Lazarević et al., 2016; Martin, 2006; Rothberger, 2014). It has been demonstrated that physical activity (exercise) can reduce social physique anxiety, and consequently lead to higher engagement in physical exercise (Altan Atalay & Gencöz, 2008; Craford & Eklund, 1994; Focht & Hausenblas, 2006; Fox, 2002b; Gomes et al., 2015; Landers & Arent, 2007; Leary, 1992; Lindwall & Lindgren, 2005, Martin, 2006; Mülazimoğlu-Balli, Koca, & Aşçi, 2010; Rothberger, 2014). Furthermore, studies show that the adolescents who exercise regularly have lower levels of social physique anxiety and higher self-esteem compared to the ones who exercise periodically (Gomes et al., 2015).

#### Physical activity and self-esteem

Studies demonstrated that self-esteem is positively related to physical activity, both the recreative and active participation in sport (Ekeland, Heina, & Hagen, 2005; Fox, 2000; 2002a, 2002b; Gomes et al., 2015; Sonstroem & Morgan, 1989; Weinberg & Gold, 2007). The scholars in the field of psychology of exercise stress the importance of physical activity for well-being (Fox, 1999; 2000). Physical exercise influences the psychological status and psychological characteristics, like self-esteem (Fox, 2002). Some studies show positive effects of physical exercise on self-esteem, while some other studies

have not confirmed this relationship (Ekeland et al., 2005; Netz, 2007). One may wonder whether physical activity directly predicts self-esteem, or this relationship is moderated by some other psychological variables which have been obtained in some studies, such as global physical self-concept, physical competence, physical acceptance or physical self-efficacy (Dishman et al., 2006; Sonstroem & Morgan, 1989).

#### Gender and self-esteem

Previous studies investigating the relationship between gender and selfesteem are not unanimous, but the majority indicate that males have higher self-esteem (Kling, Hyde, Showers, & Buswell, 1999; Radisavljević Janić, Jurak, Milanović, Lazarević, Kovač, & Novak, 2014; Robins, Trzesniewski, Tracy, Gosling, & Potter, 2002). To explain gender differences in self-esteem, age should be considered (Kling et al., 1999; Robins et al., 2002). A large cross-sectional study conducted on the sample of respondents aged from 9 to 90 from more than 100 countries (Robins et al., 2002) demonstrated stable trends in self-esteem in both genders during lifetime: self-esteem is highest in childhood, decreases in adolescence, slowly increases until the grown-up age, reaches a plateau at around 30 years of age, and decreases again in the older stages of life. When gender differences in specific ages are observed, the results show no significant gender differences in childhood, while in adolescence girls show lower levels of self-esteem compared to boys. These differences remain in adulthood, with slight fluctuations, and, in older age, the differences decrease. For this study, especially relevant are the findings indicating the changes in self-esteem that become visible during the transition from adolescence to early adulthood and stressing the gender differences in those ages. Higher self-esteem can be treated as a protective factor in the prevention and overcoming of difficulties in achieving the tasks and goals that young people set to themselves (Ekeland et al., 2017). To promote the development of self-esteem in the youth of both genders, it is important to investigate whether the sources of self-esteem differ in boys and girls (Kling et al., 1999). For example, some findings indicate that the relationship between self-esteem and body image differs in males and females. In females, appearance, attractiveness, body dissatisfaction and weight have higher importance in predicting self-esteem, while in males athletic abilities are a significant predictor (Furnham, Badmin, & Sneade, 2002; Gentile, Grabe, Dolan-Pascoe, Twenge, Wells, & Maitino, 2009; Klomsten et al., 2004; Polce-Lynch, Myers, Kilmartin, Forssmann-Falck, & Kliewer, 1998). These findings suggest that gender differences in self-esteem are worth investigating, whereas the domain-specific self-esteem should be investigated in addition to global self-esteem (Gentile et al., 2009).

#### Aim of the study

Previous studies investigating self-esteem and psychological characteristics in the domain of self-perception and self-presentation, such as physical self-efficacy and social physique anxiety on one side, and physical activity on the other, showed that there were significant relations between these characteristics, but the nature of these relationships was not fully explored. Furthermore, research studies investigating the changes in self-esteem through lifetime point to the importance of late adolescence and early adulthood in reaching the desired level of self-esteem as the construct which is especially important for the psychological well-being and success in relevant activities. The aim of this study is to explore the predictive validity of physical selfefficacy, social physique anxiety, and physical activity in the self-esteem of students. In addition, the goal is to explore potential gender differences in the predictive validity of the listed constructs in self-esteem.

#### Method

#### Sample and procedure

The study was conducted on the sample of 232 students (40% females), average age 20.8 years (SD=1.97). Respondents were students of four faculties of the Belgrade University. All applied questionnaires were paper-pencil. The testing lasted 35 minutes on the average. Data were collected during regular psychology or pedagogy classes, on smaller groups of students (20–25), at each of the faculties. Students gave informed consent but were informed they can withdraw it at any time. All data were collected anonymously.

#### Instruments

*Self-esteem* was assessed using Rosenberg's Self-Esteem Scale – SES (Rosenberg, 1965), translated to Serbian (Lazarević et al., 2014). It consists of 10 items with a joint 4-point Likert type scale (1 – completely disagree to 4 – completely agree), measuring the positive and negative feelings one has about the self. Sample items: "On the whole, I am satisfied with myself", "At times, I think I am no good at all". Higher total scores indicate higher self-esteem. Cronbach's alpha coefficient of reliability in this study was .83, indicating a satisfactory level of internal consistency.

*Physical self-efficacy* was assessed using the Physical Self-Efficacy Scale – PSES, (Ryckman et al., 1982), adapted to Serbian (Lazarević et al., 2014; Lazarević et al., 2016). The scale consists of 22 items with a joint 6-point Likert type scale (1 – strongly agree to 6 – strongly disagree). Items are grouped in two subscales: Perceptions of Physical Ability – PPA, 10 items, and Physical

Self-Presentation Confidence – PSPC, 12 items. A sample item from the PPA subscale: "I have excellent reflexes", a sample item from the PSPC subscale: "I am sometimes envious of those better looking than myself". The scale allows the calculation of the total score of physical self-efficacy and the scores on both subscales. In this study, we used the total PSES score, where a higher score indicates higher physical self-efficacy. Cronbach's alpha coefficient of reliability in this study was .79, indicating a satisfactory level of internal consistency.

Social physique<sup>3</sup> anxiety was measured using the Social Physique Anxiety Scale - SPAS, (Hart et al., 1989). In the present study, we used a revised version of the scale consisting of 7 items with a joint 5-point Likert-type scale (1 – not at all characteristic of me to 5 – extremely characteristic of me). The psychometric properties of this revised scale were explored on the samples of adolescents and young adults of both genders (Motl & Conroy, 2001; Scott, Burke, Joyner, & Brand, 2004). Good psychometric characteristics of the revised SPAS scales have been confirmed in recent studies on young athletes and non-athletes, adolescents and university students of both genders (Maïano, Morin, Eklund, Monthuy-Blanc, Garbarino, & Stephan, 2010; Mülazimoğlu-Balli et al., 2010; Yousefi, Hassani, & Shokri, 2009). For this study, we used the Serbian version of the revised SPA scale (Lazarević et al., 2014; Lazarević et al., 2016). Cronbach's alpha coefficient of reliability in this study was .84, indicating a satisfactory level of internal consistency. Sample items of the revised SPA scale: "I am comfortable with how fit my body appears to others"; "I wish I was not so up-tight about my physique or figure". A higher score indicates a higher level of social physique anxiety.

*Physical activity* of the students was assessed as a frequency of physical exercise with four levels of an activity specified: 1– Does not exercise; 2 – Exercises 1 to 2 times per week; 3 – Exercises 3 to 4 times per week; 4 – Exercises more than 4 times per week. In addition to physical activity, data on age and gender were collected.

#### Analytic strategy

Besides descriptive statistics, gender differences were explored using One-Way Analysis of Variance (ANOVA). The relationship between variables was explored using correlation analysis, while the predictive validity of target constructs (physical self-efficacy, social physique anxiety, physical activity, and gender) in self-esteem was investigated using multiple-regression analysis (enter method).

<sup>3</sup> Physique or figure refers to body's form and structure; specifically, body fat, muscular tone, and general body proportions (Hart et al., 1989)

#### Results

Descriptive statistics for the whole sample and for each gender are provided in Table 1. The results show that the respondents have an overall high self-esteem and moderately high physical self-efficacy, low social physique anxiety, and are moderately physically active.

		Whole sample ( <i>N</i> =232)			Males (N=93)		Females (N=139)	
	Min	Max	M	SD	M	SD	M	SD
Self-esteem (SES)	1.00	4.00	3.17	0.43	3.19	0.40	3.16	0.46
Physical self-efficacy (PSES)	2.45	5.82	4.39	0.60	4.63	0.47	4.22	0.62
Social physique anxiety (SPA)	1.00	5.00	1.97	0.76	1.78	0.71	2.10	0.78
Physical activity	1.00	4.00	2.75	1.06	3.46	0.68	2.27	1.01

Table 1. Descriptive statistics for self-esteem (SES), physical self-efficacy(PSES), social physique anxiety (SPA), and physical activity

Male students, on the average, have higher physical self-efficacy and lower social physique anxiety, and exercise more compared to females. The One-Way ANOVA showed significant differences in physical self-efficacy F(1,230)=29.72, p<.001), social physique anxiety F(1,229)=10.26, p<.05), and average physical activity per week F(1,230)=99.15, p<.001). There were no significant differences in self-esteem between genders.

The results of correlation analysis show significant correlations between all variables of interest (Table 2). Self-esteem correlates positively with physical self-efficacy. When it comes to the frequency of physical activity, self-esteem correlates positively with it, but the correlations are lower. Selfesteem and social physique anxiety are negatively correlated. Physical selfefficacy negatively correlates with social physique anxiety, and positively with the frequency of physical exercise. In addition, social physique anxiety is negatively correlated with the frequency of physical exercise.

Table 2. Pearson correlations between self-esteem (SES), physical self-efficacy(PSES), social physique anxiety (SPA) and physical exercise

1	2	3	4
1			
.61**	1		
61**	64**	1	
.21**	.56**	29**	1
	61**	61 <sup>**</sup> 64 <sup>**</sup>	61**64** 1

To explore the predictors of self-esteem, multiple regression analysis was conducted (the enter method) where the criterion variable was self-esteem (SES), and the predictors were physical self-efficacy (PSES), social physique anxiety (SPA), gender and frequency of physical activity. Results are provided in Table 3.

Model	β	t	р
Physical self-efficacy (PSES)	.48	6.14	.00
Social physique anxiety (SPA)	36	-5.73	.00
Gender	.15	2.62	.01
Physical activity	08	-1.20	.23
Note. Gender: 1 = male, 2 = female			

 Table 3. Results of multiple regression analysis (N=232)

The regression function was significant, R=.70,  $R^2=.49$ , F(4, 226) = 54.32, p<.001, where significant predictors were physical self-efficacy, social physique anxiety and gender. The frequency of physical activity was not a significant predictor. These results show that physical self-efficacy, social physique anxiety, and gender explore 49% of the variance in self-esteem.

To test the possible moderating effects of gender on the relationship between physical self-efficacy and social physique anxiety on one side and self-esteem on the other, we tested the possible interaction effects. Specifically, we applied hierarchical multiple regression analyses. The already mentioned predictors were used as predictors in the first block, while in the second block the interaction effects between gender and other predictors were introduced. In this step of the analysis, we used the *stepwise* algorithm so that only the interaction effects that had incremental validity in the prediction of criterion variable were detected. Our results showed that adding interaction effects to the equation did not add to the explained variance since none of the interaction effects were significant. Moreover, we tested the moderating effects of physical activity on the relationship between other predictors and self-esteem applying the same procedure. Again, interaction effects were not significant.

#### Discussion

The main goal of the study was to explore the predictive validity of physical self-efficacy, social physique anxiety, physical activity, and gender in self-esteem since self-esteem represents one of the crucial variables for wellbeing. Our findings show that physical self-efficacy, social physique anxiety and female gender explain almost 50% of the variance in self-esteem, while physical exercise was not a significant predictor. This means that if males and females were equal in physical self-efficacy and social physique anxiety, females would have higher self-esteem. Previous findings show that females with higher physical self-efficacy and low social physique anxiety have higher self-esteem (Lazarević et al. 2014; McAuley & Gill, 1983; Rothberger, 2014; Ryckman et al., 1982; Sonstroem & Morgan, 1989). When discussing the role of gender in the prediction of self-esteem, we can rely on the findings of the studies showing that self-esteem has different sources in males and females. Namely, studies show that, for females, attractiveness and appearance of the body are highly significant sources of self-esteem (Furnham et al., 2002; Gentile et al., 2009; Polce-Lynch et al., 1998; Wade & Cooper, 1999).

Although physical exercise is positively related to self-esteem, when placed in a regression model, it loses its predictive power. It can be assumed that being involved in physical exercise does not influence self-esteem directly, but mediates the relationship between physical self-efficacy and social physique anxiety on the one hand, and self-esteem on the other. A review paper by McAuley and Blissmer (2000) showed that self-efficacy can be observed as a determinant and a consequence of physical activity. In addition, research on effects of intervention programs on social physique anxiety and physical selfefficacy in female students demonstrated that after the intervention program had been applied, improvement in both psychological characteristics was registered (Martin, 2006). Some findings suggest that social physique anxiety can be reduced with adequate physical activity (Lindwall & Lindgren, 2005). Authors thus propose creating broader long-term exercise intervention programs that would include both exercise and discussions regarding a healthy lifestyle. These programs should be structured more on psychological factors, such as improving self-control, pride about one's own body or the feeling of competence, than on physiological parameters like the intensity of exercise (Lindwall & Lindgren, 2005). The studies also stress the need for understanding motivational processes related to exercise so that social physique anxiety could be reduced (Sicilia, Sáenz-Alvarez, González-Cutre, & Ferriz, 2014). Furthermore, some studies highlight the importance of physical conditions in which exercise takes place so that the reduction of the social physique anxiety would have better effects (Focht & Hausenblas, 2006).

Our results suggest that exercise does not predict self-esteem. However, before concluding that physical exercise is not related to self-esteem, it would be necessary to explore and assess physical exercise more precisely, using a larger number of indicators, e.g. the type of exercise, duration, whether training is individual or group, etc. Sonstroem and Morgan (1989) proposed a model for examining the mechanisms of self-esteem change through exercise. Specifically, introducing exercise intervention programs influences physical self-efficacy, which leads to higher physical competence. Higher physical competence, in turn, leads to higher physical acceptance and higher self-esteem, while physical acceptance leads to higher self-esteem. The results on the mutual relatedness of predictor variables and exercise can serve as a guideline in creating exercise intervention programs, with an aim to improve self-esteem.

Overall, the results show that students from our sample have positive selfesteem, relatively high physical self-efficacy, lower social physique anxiety,

and a moderate level of physical activity. Higher levels of self-esteem in student population are in line with previous findings showing that early adulthood is characterized by relatively high levels of self-esteem (Kling et al., 1999; Robins et al., 2002). When gender differences in self-esteem were explored, no differences were detected. Although previous studies regarding gender differences in self-esteem were not unanimous, most of those results showed that males had higher self-esteem (Kling et al., 1999; Robins et al., 2002), and this is not in line with our results. A meta-analysis by Gentile and colleagues (2009) showed that investigating domain-specific self-esteem, and not only global self-esteem, enables a better understanding of gender differences in self-esteem. Namely, this meta-analytic study investigated 10 specific domains of self-esteem and showed that males scored higher than females in domains such as physical appearance, athletic, personal self and self-satisfaction self-esteem. Females scored higher on behavioural conduct and moral-ethical self-esteem. In academic, social acceptance, family, and affect self-esteem there were no gender differences. Since our study was conducted on the university-students sample, where academic orientation is probably the most dominant, it can be assumed that it caused differences in overall self-esteem not to appear. Our results show that male students have higher physical self-efficacy, lower social physique anxiety, and exercise more than females. To the best of our knowledge, previous studies did not explore gender differences in physical self-efficacy. However, the studies investigating gender differences in the concepts related to physical self-efficacy, such as physical self-concept, usually show that males score higher than females (see Klomsten et al., 2004).

The obtained results on the lower level of social physique anxiety in males are in line with previous findings (Frederick & Morrison,1996; Motl & Conroy, 2001; Mülazimoğlu-Balli et al., 2010, Rothberger, 2014). Some scholars argue that this could be a consequence of a modern cultural trend and societal pressures for thinness targeting females (Motl & Conroy, 2001). Body dissatisfaction can lead to more pronounced social physique anxiety (Rothberger, 2014). The results of the present study showing that, compared to females, males exercise more are also in line with previous findings (Gomeset et al., 2015; Radisavljević Janić, Milanović, & Lazarević, 2012; Trost, Pate, Sallis, Freedson, Taylor, Dowda, et al., 2002), and can be of importance in future explorations of the predictors of self-esteem.

The result that self-esteem is positively related to physical self-efficacy is in line with previous findings (Lazarević et al., 2016; Ryckman et al., 1982; Sonstroem & Morgan, 1989). In addition, the finding that social physique anxiety is negatively related to self-esteem is also in accordance with previous studies (Lazarević et al., 2014; Lazarević et al., 2016). Between self-esteem and the frequency of physical activity, there was a low positive correlation. Numerous findings indicated that self-esteem is related to physical activity - both the recreation and active participation in sport (Fox, 2000; 2002a, 2002b; Gomez et al., 2015; Netz, 2007; Weinberg & Gold, 2007). However, some of the findings did not show direct links between physical exercise and self-esteem, and some stressed the need for additional studies that would explore the effects of physical activity on self-esteem (Dishman et al., 2006; Ekeland et al., 2005; Sonstroem & Morgan, 1989).

The negative correlation between physical self-efficacy and social physique anxiety is in accordance with previous findings (Lazarević et al., 2014; Lazarević et al., 2016; Martin, 2006; McAuley & Burman,1993; Rothberger, 2014). This result can be viewed as a favourable basis for the development of self-esteem, since persons who show higher levels of physical self-efficacy have lower levels of social physique anxiety. A moderately high positive correlation between physical self-efficacy and physical exercise is concordant with previous results (Lazarević et al., 2016; McAuley & Blissmer, 2000). Some authors argue that the relation between physical exercise and physical self-efficacy is reciprocal (McAuley & Blissmer, 2000). It is considered that the relationship between these variables is more complex than it seems at a first glance and that it highly depends on the domain of self-efficacy, type of exercise intervention program, characteristics of the context, etc. (Martin Ginis et al., 2007; McAuley & Blissmer, 2000).

The finding that social physique anxiety is negatively related to physical exercise is in accordance with previous findings (Kowalski, Crocker, & Kowalski, 2001). Previous results also indicated that social physique anxiety can be related to physical exercise in different ways; it is possible that physical exercise leads to a reduction of social physical anxiety, and it could be that persons with higher social physique anxiety are less willing to get involved actively in exercise (Altan Atalay & Gençöz, 2008; Crawford & Eklund 1994; Focht & Hausenblas, 2006; Gomeset et al., 2015; Kowalski et al., 2001; Landers & Arent, 2007; Leary, 1992; Lindwall & Lindgren, 2005; Martin, 2006; Martin Ginis et al., 2007; Mülazimoğlu-Balli et al., 2010). Therefore, it would be beneficial if future studies investigated what would be adequate intervention programs of exercise for the engagement of persons with high social physique anxiety.

#### Conclusion

High self-esteem can serve as a protective factor in the prevention and overcoming of the difficulties related to the tasks and goals young individuals pose to themselves (Ekeland et al., 2005). Based on the results of this study, it can be assumed that including students in adequate exercise intervention programs targeted at achieving higher physical self-efficacy and lower social physique anxiety would lead towards more positive self-esteem. In addition, future studies should focus more on the inclusion of females in exercise intervention programs aimed at supporting the development of physical self-efficacy and decreasing social physique anxiety so that self-esteem could develop. Furthermore, it would be of interest to scholars and practitioners to investigate the relations of physical self-efficacy and social physique anxiety and the domains of self-esteem related to the physique. Finally, next steps would be to conduct cross-sectional studies where the validity of the explored variables in the prediction of self-esteem in different age groups would be investigated.

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DATUM PRIJEMA RADA: 23.08.2017.

## Prediktori samopoštovanja studenata: značaj percepcije sopstvenog tela i vežbanja

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Cilj istraživanja je da se ispita validnost fizičke samoefikasnosti, socijalne anksioznosti zbog izgleda i fizičkog vežbanja u predikciji samopoštovanja, kao i da se ispitaju polne razlike. Uzorku od 232 studenta zadati su Rozenbergova skala samopoštovanja (SES), Skala fizičke samoefikasnosti (PSES), Skala socijalne anksioznosti zbog izgleda (PSA), kao i kratak upitnik o fizičkom vežbanju. Prosečno ispitanici vežbaju 2.75 puta nedeljno, imaju umereno visoko samopoštovanje i fizičku samoefikasnost i nisku socijalnu anksioznost zbog izgleda. Nisu dobijene polne razlike u samopoštovanju, dok su na drugim ispitivanim varijablama polne razlike značajne i to uglavnom u korist muškaraca. Analize pokazuju da samopoštovanje korelira pozitivno sa fizičkom samoefikasnošću i fizičkim vežbanjem i negativno sa socijalnom anksioznošću zbog izgleda. Regresiona analiza ukazuje da fizička samoefikasnost, socijalna anksioznost zbog izgleda i pol (ženski) značajno predviđaju samopoštovanje, dok fizičko vežbanje nije značajan prediktor. Naredne studije bi trebalo da istraže relacije samopercepcije vezane za telo, fizičkog vežbanja i domenospecifičnog samopoštovanja.

Ključne reči: samopoštovanje, fizička samoefikasnost, socijalna anksioznost zbog izgleda, fizičko vežbanje, studenti.