ORIGINAL ARTICLE

Analysis of Psychological Skills of University Student Amateur Athletes

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ABSTRACT
The aim of the present study is to investigate the effects of sport education on psychological skills of university student amateur athletes. Independent t-test, one-way ANOVA and LSD tests were used in statistical analyses. Significant difference was found in the subscales of peaking under pressure and freedom from worry in terms of gender ($p<0.05$). Statistically significant difference was found between coping with total inventory scores in terms of the age category ($p<0.001$). Statistically significant difference was found in coping with adversity, concentration, confidence and achievement motivation, goal setting, peaking under pressure subscales and total inventory scores in terms of sport branches ($p<0.05$ and $p<0,001$). Conclusion: Psychological skills of university student amateur athletes were found to differ in terms of gender, age category, state of doing individual and team sport and the state of receiving sport education. It is recommended to give seminars on sports education to students who are not receiving sport education.
Keywords: Sport, Student, Psychology, Achievement, Amateur

INTRODUCTION
In addition to increasing motivation, psychological skills lead to the emergence of existing abilities in humans. Factors that maximize performance and increase motivation are called psychological skills.[1] Reaching high performance in sport activities requires mental training and skills. These skills can be listed as being motivated, concentrating, self-confidence, positive thinking, setting goals, control and similar psychological abilities. A systematic and programmed process is required to learn and develop these skills.[2] Sportive skill can be described as the athlete's working to place the practices he/she is insufficient at in his/her subconscious and to use these when necessary through experimental practices in addition to skills that will increase the athlete's performance. A high level of attention reduces the rate of mistakes to be made in training and competition. Keeping concentration at a high level also increases the efficiency of mental and physical training. For a good level of concentration, the athlete should directly focus on the level of attention and set specific goals.[3] Concentration is maintaining the ability to focus on what you do against internal and external stimuli that constantly affect you.[4] High levels of concentration in athletes before training and competition show that they also have high level of attention.[5,6] Commitment, goal setting and self-confidence skills come to the fore in mental skills category.[4]

Confidence and Achievement Motivation: It measures whether an athlete is self-confident and positively motivated during training and competition.[3] Self-confidence skills lead to the prominence of positive feelings. They also help to increase concentration, to ease goal setting, to enable the athlete to devote his/her efforts to his/her branch and to maintain the continuity of mental processes required for an athlete to develop himself/herself in the game.[5,7,8] Self-confidence, which means the individual's being aware of the skills and characteristics regarding belief in successful future performance, is among the determinants of high performance.[9] Goal setting and mental preparation: It measures whether an athlete sets certain performance goals and works accordingly. Goal setting is the determination of goals and objectives that provide motivation and guidance.[10] Goal setting is an equally important skill in terms of basic skills in sportive performance such as self-confidence skill. Goals are phenomena that guide the results inspiring the success of the individual. The positive effects of short term and long term goals on successful performance as motivational factors have been determined by a large number of studies.[11,12] Coping with Adversity: This subscale measures whether the athlete can be positive, enthusiastic, calm and controlled and can quickly get rid of mistakes, even when things are getting worse.[3] Coachability: It measures whether the athlete is open to learning and whether the athlete can accept constructive criticism without taking them personal and without being sad.[3] Concentration: This subscale measures whether the athlete gets distracted easily and whether the athlete can focus on his/her task, even in unexpected adverse situations, both during training and during the game. It can be expressed as the ability of the individual to direct and maintain attention according to his/her purpose.[13] Peaking under pressure: It measures whether an athlete shows better performance under pressure.[3] freedom from worry: It can be expressed as the individual's reducing psychological worries, tension and anxiety level.[14]

The aim of the present study is to investigate the changes in psychological skills of university student amateur athletes according to gender, age category, sport type and the state of receiving sport education. It has been investigated whether the psychological skills of amateur athletes, who are university students, vary according to their individual and team sports and their education. It contributes to the sports literature about the effect of sports education on psychological skill levels of amateur athletes who are university students. It is thought that education and seminars on sports education should be given to university students who do not have sports education.

MATERİALS AND METHODS

Participants: Athletic Coping Skills Inventory-28 answered by 225students from the Faculty of Sport Sciences and 157 students from the Faculty of Education were evaluated in the present study.195 of the participants were male, while 187 were female. All of the students were doing sports as an amateur. 183 of the participants were doing individual sports, while 199 were doing team sports. Students of the Faculty of Sport Sciences are students receiving sport education in addition to doing amateur sports. The participants filled in Athletic Coping Skills Inventory-28 on a voluntary basis.

Athletic Coping Skills Inventory-28 (ACSI-28): The inventory (Appendix II.) is a self-evaluation instrument developed to evaluate the psychological skills of athletes. Its Turkish validity and reliability study was conducted by Erhan et al. (2015).[3] This instrument developed by athletes includes 28 items, 7 subscales and each subscale includes 4 items. The inventory is a 5-Likert type scale. The scoring is made between 0 and 3 according to the expressions 'Almost never', 'Sometimes', 'Often' and 'almost always'. Questions 3.7.10.12.19 and 23 are negative and they should be reversely coded. The score ranges between 0 and 12 for the subscales and higher score taken from the inventory shows that the athlete has good psychological skills.

Statistical Analysis: SPSS 25.0 program was used to analyse the data obtained. Normality test was conducted to find out whether the data were normally distributed and the results showed that the data were normally distributed. Parametric tests were performed in our study. Independent t test, one way ANOVA and LSD tests were used in the statistical analysis of data.

RESULTS

Table 1: Evaluation of psychological skills in terms of gender

	Gender	N	Mean	St. deviation	t
Coping with adversity	Male	195	6,58	2,05	0,24
	Female	187	6,53	1,64	
Coachability	Male	195	6,59	1,71	1,90
	Female	187	6,28	1,53	
Concentration	Male	195	6,85	2,49	1,06
	Female	187	6,63	1,52	
Confidence and achievement motivation	Male	195	7,16	2,20	0,05
	Female	187	7,16	1,72	
Goal setting	Male	195	6,64	2,12	-0,40
	Female	187	6,72	1,74	
Peaking under pressure	Male	195	6,86	1,86	2,11*
	Female	187	6,48	1,66	
Freedom from worry	Male	195	5,88	1,83	2,88*
	Female	187	5,36	1,67	
Total score	Male	195	46,60	9,32	1,84
	Female	187	45,14	5,61	

*p<0.05

According of gender Significant was found difference in the subscales of peaking under pressure and freedom from worry (p<0.05).

Table 2: Evaluation of psychological skills in terms of age category

	Age category	n	Mean	St. deviation	F/LSD
Coping with adversity	17-20 (1)	138	5,89	2,44	5,81*
	21-24 (2)	150	6,71	1,58	1<2,3
	25 and above (3)	94	6,70	1,85	
Coachability	17-20 (1)	138	6,41	1,61	2,11
	21-24 (2)	150	6,32	1,59	
	25 and above (3)	94	6,73	1,72	
Concentration	17-20 (1)	138	6,66	2,10	3,04*
	21-24 (2)	150	6,57	1,66	2<3
	25 and above (3)	94	7,19	2,74	
Confidence and achievement motivation	17-20 (1)	138	6,39	2,35	8,22**
	21-24 (2)	150	7,21	1,79	1<2,3
	25 and above (3)	94	7,62	1,95	
Goal setting	17-20 (1)	138	5,75	2,30	12,13**
	21-24 (2)	150	6,76	1,70	1<2,3
	25 and above (3)	94	7,18	1,95	
Peaking under pressure	17-20 (1)	138	6,14	2,02	4,09*
	21-24 (2)	150	6,76	1,70	1<2,3
	25 and above (3)	94	6,87	1,67	
Freedom from worry	17-20 (1)	138	5,94	1,95	4,04*
	21-24 (2)	150	5,41	1,63	2<1,3
	25 and above (3)	94	5,90	1,89	
Total Score	17-20 (1)	138	43,18	9,01	9,06**
	21-24 (2)	150	45,75	6,67	1<2,3
	25 and above (3)	94	48,24	8,41	2<3

*p<0.05 and **p<0.001

According of age category were found statistically significant differences in total inventory score (p<0.001).

Table- 3: Evaluation of psychological skills in terms of students' faculty

	Faculty	N	Mean	St. dev.	t-test
Coping with adversity	Sport Sciences	225	6,81	1,97	2,63*
	Education	157	6,31	1,71	
Coachability	Sport Sciences	225	6,73	1,73	3,56**
	Education	157	6,15	1,48	
Concentration	Sport Sciences	225	6,82	2,08	0,71
	Education	157	6,66	2,07	
Confidence and achievement motivation	Sport Sciences	225	7,41	2,05	2,47*
	Education	157	6,91	1,87	
Goal setting	Sport Sciences	225	6,96	2,12	2,87*
	Education	157	6,39	1,70	
Peaking under pressure	Sport Sciences	225	6,85	1,92	2,03*
	Education	157	6,49	1,59	
Freedom from worry	Sport Sciences	225	5,83	1,95	2,63*
	Education	157	5,42	1,55	
Total Score	Sport Sciences	225	47,43	8,88	3,98**
	Education	157	44,34	6,07	

*p<0.05 and **p<0.001

According of sport branches was found statistically significant difference in total inventory score (p<0,001).

Table 4: Evaluation of psychological skills in terms of students' sport branch

	Sport branch	**N**	**Mean**	**St. deviation**	**t-test**
Coping with adversity	Individual sport	183	6,33	1,76	-2,33*
	Team sport	199	6,77	1,93	
Coachability	Individual sport	183	6,31	1,79	-1,54
	Team sport	199	6,56	1,46	
Concentration	Individual sport	183	6,49	1,84	-2,27*
	Team sport	199	6,97	2,24	
Confidence and achievement motivation	Individual sport	183	6,85	1,95	-2,95*
	Team sport	199	7,44	1,96	
Goal setting	Individual sport	183	6,35	1,94	-3,18*
	Team sport	199	6,97	1,90	
Peaking under pressure	Individual sport	183	6,37	1,75	-3,19*
	Team sport	199	6,94	1,75	
Freedom from worry	Individual sport	183	5,77	1,73	1,45
	Team sport	199	5,50	1,81	
Total score	Individual sport	183	44,48	7,86	3,54**
	Team sport	199	47,18	7,45	

*p<0.05 and **p<0.001

According of the type of faculty was found statistically significant difference in total inventory score (p<0.001).

DISCUSSION

In their study, Yıldız et al.[15] did not find significant differences in psychological skills assessment scale in terms of the variable of gender. In their study, Miçooğulları et al.[16] did not find significant differences between the self-confidence, goal setting and determinedness skills of athletes in terms of gender and the sport branch. Erim et al.[3] (2015) found that male athletes had statistically significantly higher levels of mean psychological skill use than female athletes in terms of gender variability. In their study, Ayrancı et al.[17] (2019) did not find any significant differences between the coachability, confidence and achievement motivation, freedom from worry and total score of the athletes in terms of their gender. In the present study, significant difference was found in the subscales of peaking under pressure and freedom from worry in terms of gender (p<0.05). No statistically significant difference was found in coping with adversity, coachability, concentration, confidence and achievement motivation, goal setting and total scale scores (p>0,05).

In their study, Sivrikaya and Ozan[18] found significant difference in the subscales of coping with adversity, freedom from worry, goal setting and mental preparation, confidence and achievement motivation, coachability and concentration subscales; while they did not find any significant difference in peaking under pressure subscale in terms of age groups of football players. In the present study, statistically significant differences were found in the subscales of coping with adversity, concentration, confidence and achievement motivation, goal setting, peaking under pressure and freedom from worry and the total inventory score in terms of age category (p<0.05 and

p<0.001). Statistically significant difference was not found only in the coach ability subscale (p>0.05). In general, scores taken were found to increase as age category increased. Yıldız et al.[15] (2019) found statistically significant difference between the mean scores of athletes doing individual sports or team sports in terms of their levels of using psychological skills. In their study, Ayrancı et al.[17] (2019) did not find any significant difference in goal setting and mental preparation, peaking under pressure and freedom from worry subscales in terms of the sport branches the athletes were doing, while they found a significant difference in favour of team sports athletes in the subscales of coping with adversity, coachability, concentration, confidence and achievement motivation and total score. In the present study, statistically significant difference was found in the subscales of coping with adversity, concentration, confidence and achievement motivation, goal setting, peaking under pressure and total inventory score in terms of sport branches (p<0.05, p<0,001). On the other hand, no statistically significant difference was found in the subscales of coachability and freedom from worry (p>0.05). Athletes who did team sports were found to have higher scores than the athletes who did individual sports. Athletes doing team sports always have people who they hope will support them. During competitions, they can direct their psychological skills better than individuals doing individual sports by feeling the presence of these people. For this reason, they can have higher confidence and achievement motivation. They can cope more easily with adversity. Similar studies conducted also support these results.[19] Studies conducted state that participation in sports develops the individual' psychological and social aspects, and individuals who do team or individual sports are individuals who can communicate well with people and who have will and self-confidence.[20]

In the presents study, statistically significant difference was found in the subscales of coping with adversity, coachability, confidence and achievement motivation, goal setting, peaking under pressure, freedom from worry and total inventory score in terms of the type of faculty (p<0.05 and p<0.001). No statistically significant difference was found only in the concentration subscale (p>0.05). It was found that when compared with individuals not doing sport, those who were doing sports were livelier, more extraverted, more hardworking, more patient, and more ready to build social relationships and they adapted better to a new situation and they were more balanced in terms of emotions. The fact that university students studying at the Faculty of Sport Sciences were more extrovert, open to change, easy-going and self-disciplined is a result in parallel with the literature.[20] Sports education and exercise can provide plus changes in personality traits, stress levels, optimal performance, feelings and attitudes, and the quality of life of university students.[21-24]

CONCLUSİON

It was found that psychological skills of university student amateur athletes differed in terms of gender, age category, state of doing individual or team sports and the stated of receiving sport education. Sport education was found to have a positive effect on the psychological skill levels of university student amateur athletes. It can be recommended to organize trainings and seminars about sport education in students who are not receiving sport education.

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