

## IDENTIFICATION OF PSYCHOLOGICAL RESILIENCE AND SELF-EFFICACY LEVELS OF PHYSICAL EDUCATION-SPORT STUDENTS

Mehmet KOÇAK<sup>1</sup>

Azize ATLI ÖZBAŞ<sup>2</sup>

Nermin GÜRHAN<sup>3</sup>

### ABSTRACT

Psychological Resilience, and self-efficacy are important concepts for people to maintain their physical and mental health, is a condition needed to be achieved and maintained. This study aims at measuring psychological resilience and self-efficacy levels which might have a key role in coping with stress in athletes. Population of this descriptive study is comprised of 123 physical education and sport students who attended to Turkey University Sports College Sports Federation 1. league football competitions General Self Efficacy Scale and Psychological Resilience Scale were used for collection of data. The study found students have high self-efficacy yet medium level psychological Resilience. It is recommended that plan studies focused on improving psychological resilience of students.

**Keywords:** University students, physical education and sport students, Psychological resilience, self-sufficiency.

Received: 08.08.2016

Accepted: 17.08.2017

## BEDEN EGİTİMİ VE SPOR ÖĞRENCİLERİNİN PSİKOLOJİK SAĞLAMLIK VE ÖZ YETERLİK DÜZEYİNİN BELİRLENMESİ

### ÖZ

Kişilerin fiziksel ruhsal ve sağlığını sürdürebilmesi için önemli bir kavram olan psikolojik dayanıklılık ve öz yeterlik elde edilmesi ve sürdürülmesi istendik bir durumdur. Bu çalışma, sporcularda stresle baş etmede anahtar rol oynayabilecek psikolojik sağlamlık ve yeterlik düzeylerini ölçmeyi hedeflemiştir. Bu tanımlayıcı çalışmanın örneklemini, Türkiye Üniversite Sporları Federasyonu Futbol 1. Lig müsabakalarına katılan 123 spor öğrencisi oluşturmuş, veriler, Genel Öz yeterlik Ölçeği ve Psikolojik Dayanıklılık Ölçeği kullanılarak toplanmıştır. Çalışma sonucunda, öğrencilerin öz yeterlikleri yüksek ancak psikolojik sağlamlık düzeyleri orta düzeyde bulunmuştur. Öğrencilerin psikolojik sağlamlığını geliştirmeye odaklı çalışmaların planlanması önerilmiştir.

**Anahtar Kelimeler:** üniversite öğrencileri, beden eğitimi ve spor öğrencileri, psikolojik dayanıklılık, kendine yeterlilik

<sup>1</sup> Gazi University Sports Science Faculty

<sup>2</sup> Hacettepe University Nursing Faculty

<sup>3</sup> Gazi University Health Science Faculty

## INTRODUCTION

Psychological resilience is generally thought as the person's adaptation process<sup>2</sup>. When some kind of a source of stress such as threat, distress, trouble occurs in the environment in which the person lives, he/she is in need to deal with that stress source and regain the balance in life. This adaption process is referred to that person's "psychological resilience"<sup>21</sup>. Psychological resilience is an important concept for dealing with the problems thus to maintain physical and mental health.

Although people were focused on many factors in the studies which were made to understand psychological resilience; only three factors come forward. These factors can be lined up as; family cohesion and support, individual structural features such as physical strength, sociability, intelligence, communication skills, self-efficacy, ability and external support systems such as social environment, colleagues<sup>8,10,16,22</sup>.

Many studies were made about how to gain and maintain psychological resilience and many factors were seemed to be effective on psychological resilience<sup>4</sup>. One of these factors is "self-efficacy"<sup>22</sup>. Self-sufficiency is the faith of a person to initiate an action and continue it until he/she gets the desired results for dealing with problems. The major difference between people who have low self-sufficiency and high self-sufficiency is that the people with high self-sufficiency recover quickly in the face of failures and resist on their actions which means that do not give up<sup>3</sup>.

Although self-sufficiency is in a close relation with structures such as ego and self-esteem; it should be separated from these concepts. Ego and self-esteem are concepts related with evaluation format of yourself generally and on the other hand self-sufficiency is limited with the faith of a person to be able to realize the action<sup>3</sup>. Self-sufficiency is an important concept for individual to determine how to organize their behavior and thoughts. If self-

sufficiency is high which means he/she has faith in his/her ability, person could motivate himself to take action for overcoming difficulties when encounter with such difficulties<sup>17</sup>. In Psychology and education, self-sufficiency is thought to be a more effective indicator for achieving the desired result when compared with other motivational variables<sup>17,18</sup>.

Self-sufficiency is especially important in sports field in which competition, contest and strain are in the foreground. Individuals with high self-sufficiency can stay calm in difficult tasks and activities, can take action to control the case. On the other hand, individuals with low self-sufficiency, detects the situation more difficultly than the reality and their belief for failing gives them more stress. And as the high stress levels cause a more limited viewpoint when approaching to problems, individual will not see the solution ways and success rate falls<sup>18</sup>. In a study that is conducted with physical education students, a positive relation was found between self-sufficiency perception of the students and problem-solving skills. In other words, we can say that as the self-sufficiency points of physical education teacher candidates, technical director and coach candidate's increases; their professional anxiety scores decrease and their problem-solving success increases.

Although athletes can evaluate the stress source differently due to their ages, experience levels, kind of sport and their supports; they can face with many stress sources in every area of their life and they have to cope with these stress sources<sup>1</sup>. These stress sources can be counted as; structure of the area that includes competition and aims more permanently, injuries, environment's expectations, unrealistic goals, concern about making mistakes, benchmarking itself with others<sup>1</sup>. It is a known fact that performance athletes, encounter many stressful conditions such as performance stress directly related with the environment's expectations, stress for the expectations of environment about the organization and besides these normal life stress sources<sup>15</sup>.

Psychological resilience and self-sufficiency are very important notions for an athlete to protect his/her physical and mental health while coping with a stressful condition<sup>13</sup>.

In the literature review of researchers, there wasn't any study that evaluates the psychological health and self-sufficiency

levels of athletes. The study sample is students who are in teams which represent their schools in university level. In this study, that is aimed to measure the levels of psychological resilience and self-sufficiency which may play a key role for coping with stress.

## MATERIAL VE METHOD

The population of this study that was planned as descriptive, is the students who attended to Turkey University Sports Federation 1. league football competitions between 10-14 March 2014. From the students who were in their university football team, 123 of them were included in the study as they agreed to participate in the study and fully filled data collection tools. For the collection of data; personal information form which was developed by researchers, General Self-Sufficiency Scale and the Psychological Resilience Scale for adults were used.

Statistical analysis of the research data was made with SPSS 16.0 package program. In the analysis of data; categorical variables were showed with number and percentage. Relations between numeric variables are evaluated with correlation and differences between independent groups are evaluated with t test.

**Personal Information Form:** The form is created by searching the literature by the researchers and it consists of questions that queries socio-demographic variables of the students.

**General Self-Sufficiency Scale (GSS):** The scale was developed by Sherer et al. and the validity and reliability study of Turkish version was made by Yildirim and Ilhan<sup>23</sup>. The scale evaluates general self-efficacy with "Beginning", "Not giving up" and "Resume Effort-Insist" aspects and Cronbach alfa=0,80 was found. In the

study of Yildirim and Ilhan<sup>23</sup>, it was decided to evaluate 17 items of the scale as a whole and work with a total point which is gathered from the whole scale instead of accepting each aspect as a sub-scale.

**Psychological Resilience Scale for Adults (PRSA):** The scale was developed by Friborg et al.,<sup>9</sup> and the validity and reliability study of Turkish version was made by Basim and Cetin<sup>4</sup>. In the study of Basim and Cetin, according to the original scale, six factor structure that includes; self-concept (1,7,13,19,28,31), future perception (2,8,14,20), structural style (3,9,15,21), social competence (4,10,16,22,25,29), family cohesion (5,11,17,23,26,32), and social resources (6,12,18,24,27,30,33) aspects is confirmed. Internal consistency coefficients of the sub-aspects of the scale are between 0,66 and 0,81. Test and re-test reliability is found to be between 0,68 and 0,81<sup>4</sup>.

Statistical analysis of study data was made in the SPSS 21.0 package program. Categorical variants were identified with figures and percentages in data analysis and Shapiro-Wilk is used for testing normality of the data. Since the data are not normally distributed, differences, between independent groups in terms of numeric variables were evaluated with Mann-Whitney U test independent samples or Kruskal-Wallis and the correlation of data evaluated with spearman correlation test.



## RESULT

Median age of the students is 21.81 (Min18- Max 28), median time of dealing with sports is 10 (Min1-Max 20),

**Table 1: Socio Demographic Characteristics of The Students**

Socio Demographic Characteristics	n	%
Gender	Women	45.5
	Men	54.5
Family Types	Nuclear	74.8
	Extended	21.1
	Broken	4.1
The Location Feature in Which They Spent Most of Their Life	Rural	84.6
	Urban	15.4
Families' Income	Low	7.3
	Middle	89.4
	High	3.3
Employment Status	Employed	12.2
	Nonemployee	87.8
Social Security Status	Yes	83.7
	No	16.3
Total	123	100

In Table 1, socio demographic characteristics of the students in sample group were given. More than half of the students (54.5%) are male, and 74.8% of them have nuclear family. Most of the

students (84.6%) spent most of their life in cities. 89.4% of them have mid-level economic situation. 12.2% of the students are working and 83.7% of the group have social security.

**Table 2. The distribution of GSS and PRSA scores by socio demographic characteristics of the students**

	GSS			PRSA		
	Median	Min	Max	Median	Min	Max
Totally	48	30	78	97	33	126
SDC	Rank Sum	Sd	Statistic	Rank Sum	Sd	Statistic
Gender						
Men	63.48	11.56	Z=-0.84	67.27	10.32	Z=2.12
Women	58.12	9.88	p>0.05	53.62	16.75	p<0.05
Family types						
Nuclear	59.68	11.05	k <sup>2</sup> =2.01	59.51	12.48	k <sup>2</sup> =1.38
Extended	61.50	10.20	p>0.05	63.12	19.82	p>0.05
Broken	82.50	8.04		77.60	7.00	
The location feature in which they spent most of their life						
Rural	61.78	10.57	Z=-0.58	61.78	14.34	Z=-1.18
Urban	56.56	12.17	p>0.05	51.97	13.35	p>0.05
Families' Income						
Low	47.38	8.61	k <sup>2</sup> =1.29	41.31	21.72	k <sup>2</sup> =5.72
Middle	61.98	10.82	p>0.05	61.45	13.22	p>0.05
High	61.50	13.74		97.00	23.27	
Employment Status						
Employed	54.53	11.90	Z=0.76	67.77	12.24	Z=-0.80
Nonemployee	61.97	10.64	p>0.05	60.04	14.41	p>0.05
Social security Status						
Yes	60.44	10.82	Z=-0.28	61.38	14.27	Z=-1.21
No	59.95	10.88	p>0.05	58.89	13.64	p>0.05

\*Mann-Whitney U test and Kruskal-Wallis test are used

Table 2 demonstrates distribution of GSS and PRSA scores by socio demographic

characteristics of the students. The median of self-sufficiency point of the

students is found as 48 (Min-Max=30-78) and the median of psychological resilience point of the students is found 97 (Min-Max=33-126). There is not any difference between female and male students for self-sufficiency ( $Z=-0,84.67$ ;  $p>0.05$ ) but psychological resilience points ( $Z=2.12$ ;  $p<0.05$ ). Variables such as family types of the students (GSS:  $k^2=2.01$   $p>0.05$ , PRSA:  $k^2=1.38$   $p>0.05$ ), residential location feature in which they

spent most of their life (GSS:  $Z=-0.$ ;  $p>0.05$ , PRSA:  $Z=-1.18$   $p>0.05$ ), economical condition (GSS:  $k^2=1.29$ ;  $p>0.05$ , PRSA:  $k^2=5.72$ ;  $p>0.05$ ), working status (GSS:  $Z=0.76$ ;  $p>0.05$ , PRSA:  $Z=0.80$ ;  $p>0.05$ ), having social security or not (GSS:  $Z=-0.28$ ;  $p>0.05$ , PRSA:  $Z=1.21$ ;  $p>0.05$ ) were found to be not related with Self-Sufficiency and psychological resilience levels of the students.

**Table 3. The Relation Between the Ages, Duration of Sport Life and GSS and PRSA Scores of The Students**

	Age	Duration of Sport Life	GSS
GSS	$r= 0.01$ $p=0.90$	$r= 0.38$ $p=0.79$	1
PRSA	$r= 0.11$ $p=0.21$	$r= 0.03$ $p=0.69$	<b><math>r= 0.03</math></b> <b><math>p=0.69</math></b>
Self-Concept	$r= 0.10$ $p=0.25$	$r= 0.01$ $p=0.91$	$r= 0.08$ $p=0.38$
Future Perception	$r= 0.17$ $p=0.50$	$r= 0.08$ $p=0.35$	$r= 0.05$ $p=0.56$
Structural Style	$r= 0.28$ $p=0.76$	$r= 0.73$ $p=0.53$	$r= 1.25$ $p=0.17$
Social Competence	$r= 0.09$ $p=0.31$	$r= 0.09$ $p=0.28$	$r= 0.44$ $p=0.65$
Family Cohesion	$r= 0.09$ $p=0.32$	$r= 0.01$ $p=0.98$	$r= 0.16$ $p=0.07$
Social Resources	<b><math>r= 0.21^*</math></b> <b><math>p=0.02</math></b>	$r= 0.09$ $p=0.28$	<b><math>r= -0.26^{**}</math></b> <b><math>p=0.01</math></b>

\* $p<0.05$ , \*\*  $p<0.01$   
Spearman correlation test is used

Table 3 shows the relation between the ages, duration of sport life and self-efficacy, psychological resilience points of the students. There is a positive relation between general self-efficacy points and psychological resilience points of the students ( $r=0.20^*$ ;  $p=0.02$ ). General self-efficacy point related psychological resilience aspects are; social competence

( $r=0.22^*$ ;  $p=0.01$ ), family cohesion ( $r=0.32^{**}$ ;  $p=0.00$ ) and social resources ( $r= -0.18^*$ ;  $p=0.04$ ). But it should be taken in to account that social resources aspect is in a weak negative relation with self-efficacy. Besides there is a positive relation between student age and social resources aspect of psychological resilience scale.

## DISCUSSION AND CONCLUSION

According to the findings of our study, average self-efficacy points of the students ( $\bar{x}=60.35$ ;  $Sd=10.78$ ) and average psychological resilience points are found to be in a moderate level ( $\bar{x}=94.82$ ;  $Sd=14.16$ ). In Sari et al. study in which self-efficiency levels are

measured in physical education students; self-efficacy point of the students was found as  $\bar{x}=62.48$ ;  $Sd=12.22^{14}$ . This result points out a similar value with our study. But it is a remarkable case that students who have high performance for representing their schools in national level did not have relative higher self-efficacy point levels.

According to our study findings, the psychological resilience points of male students are higher than the psychological resilience points of female students. There isn't any relation between other socio-demographic variables and self-efficacy and psychological resilience. In literature there are many conflicting results about this issue in many studies that are conducted with physical education students. Miçooğulları et al.<sup>12</sup> found that gender influence the exercise self-efficacy and females felt more confident than males. In a study of Senel<sup>19</sup> in which physical education students are used, there wasn't any difference between female and male self-efficacy points. On the other hand, in Senel<sup>19</sup> and Dönmez<sup>7</sup> studies; self-efficacy points of the male were found to be higher than that of female. In Türk's<sup>20</sup> studies, self-efficacy level of the female was higher. As to Bingol and Bayansalduz<sup>5</sup>, found that there is no significant difference in dependence level and psychological resilience in terms of gender.

Dönmez<sup>7</sup>, stated that there isn't any relation between the self-efficacy level and socio-economic level of the students. In the systematic literature review of Sarkar and Fletcher<sup>15</sup> and Fletcher and Sarkar<sup>8</sup> they explained the factors which can affect the psychological resilience of athletes. As these factors are notions like personality characteristics, optimistic explanatory style, social support, motivation, self-confidence and coping style instead of sociodemographic characteristics; these results are also in parallel with our study.

Similarly, there are studies in the literature which indicates different results about the relation between ages of

physical education students and their self-efficacy points. In the study of Dönmez<sup>7</sup>, there was a positive relation between age and self-efficacy. On the other hand, in Cengiz et al.<sup>6</sup> and Sari<sup>14</sup>'s studies there wasn't any relation between age and self-efficacy. Our study results are also could not show any relation between age and self-efficacy. This can be explained with similar aged sample groups.

According to our study findings, self-efficacy points of the students are in a positive relation with general psychological resilience point and social competence and family harmony aspects of psychological resilience. On the other hand, self-efficacy points of the students have a negative relation with social resources aspect of psychological resilience. This can be thought as student will have less need for social resources when their self-efficacy increases. In Olson et al.,<sup>22</sup> study and Kishore<sup>11</sup>; they showed self-efficacy as one of the ways for gathering psychological resilience. From this point of view, it is an expected situation to find out a relation between self-efficacy and psychological resilience.

In conclusion self-efficacy of the students is found to be at a level which can be highly regarded but their psychological resilience levels are found to be moderate. Psychological resilience is an aspect that can be inherited from birth and can be developed with skills that can be acquired. The authors of the study recommend planning systematic studies focused to develop the psychological resilience. Besides, it is thought that more comprehensive studies in which the relation between psychological resilience and self-sufficiency levels of athletes is examined in-depth, will give contribute to this field.



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