

# Examination of the Relationship Between Psychological Resilience and Prosociality Levels and Naturalistic Decision-Making Skills of Physical Education Sports Teachers

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## Abstract

The purpose of this research is to determine the relationship between psychological resilience, prosociality levels, and naturalistic decision-making skills of physical education and sports teachers working in institutions affiliated with the Ministry of National Education in Kayseri province, as well as to examine comparisons between independent variables. The research model was constructed using descriptive and correlational survey models, which are quantitative research methods. 416 individuals, selected through random sampling method from those working in Kayseri province and its districts, voluntarily participated in the study. The data collection tools in the research consisted of the 'Brief Resilience Scale the 'Prosociality Scale', adapted into Turkish, the 'Naturalistic Decision-Making Scale', and a socio-demographic information form. In the bivariate comparisons of scores obtained from the scales, independent T-test statistics were used, while one-way analysis of variance (LSD) test statistics were employed for comparisons with more than two variables. Pearson Correlation analysis ( $r$ ) was applied to reveal the relationship between the scores obtained from the scales. As a result of our study, it was determined that physical education and sports teachers exhibited high levels of psychological resilience, prosociality, and naturalistic decision-making skills. When examining the correlation results of our study, significant relationships were identified between the naturalistic decision-making scale and both the psychological resilience scale and the prosociality scale. Consequently, it can be stated that psychological resilience and prosociality concepts are factors that influence naturalistic decision-making skills.

**Keywords:** Physical Education and Sports Teacher, Psychological Resilience, Prosociality, Naturalistic Decision Making.

## Introduction

Studies on physical education and sports teachers' professional competencies, psychological resilience, and decision-making mechanisms reveal the essential qualifications required for teachers in this field. Physical education teachers are defined as expert educators who adhere to the fundamental principles of Turkish National Education, possess field knowledge and general cultural competence, and engage in both curricular and extracurricular activities (Özbek, 2008). The distinctive characteristic of physical education lies in its principle of "learning through movement and learning by movement" (Özmen, 1999; Tamer & Pulur, 2001). In this context, physical education teachers must possess physical competence, academic guidance skills, and psychological resilience in addition to general teaching qualifications (Nebioğlu, 2004; Yetim, 2005). To ensure a quality

educational process, it is crucial that teachers' psychological and social needs are met at an optimal level (Harichandan & Pandya, 2012). Teachers' psychological resilience plays a critical role in developing effective student relationships and creating a positive school climate (Hoşoğlu et al., 2018).

Psychological resilience is defined as the capacity to rapidly recover from adverse life conditions. This concept is considered a dynamic process encompassing an individual's ability to adapt and respond when faced with social, psychological, economic, or personal challenges. Individuals with high psychological resilience are characterized as internally controlled, possessing problem-solving abilities, strong social interaction skills, reliability, high self-esteem, and developed adaptability in the face of difficulties. Garmezy (1993) emphasizes that these individuals possess empathy and high levels of social skills. These

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characteristics are closely related to the concept of prosociality. Prosociality is defined as the tendency to help others without expecting anything in return and to display empathetic behaviors for the benefit of others. Behaviours such as sharing, forgiveness, sacrifice, helping, cooperation, and consolation are among the fundamental indicators of prosocial characteristics. The decision-making process is defined as the ability to choose among alternatives and reflects personal style preferences.

The naturalistic decision-making model represents an individual's ability to make optimal decisions based on their experiences under environmental conditions. This model includes the stages of situation assessment, expectation formation, and mental simulation. Physical education and sports teachers continuously assume an active role in accordance with educational activities and student expectations. This dynamic structure can lead to various problems. Factors such as physical contact during lessons and sports competitions, and winning-losing situations can create various challenges (Küçük & Söyler, 2023; Ünver et al., 2020). In this context, teachers' naturalistic decision-making competence, psychological resilience, and prosocial characteristics are critically important for effective problem-solving and decision-making processes. Upon reviewing the literature, while these values have been examined separately (Aykırı, 2019; Bekkers & De Graaf, 2005; Cormier & Hackney, 2015; Patrick et al., 2018; Shattuck & Miller, 2006), no studies have been found examining the relationships between naturalistic decision-making ability, psychological resilience, and prosociality. In this context, it is important to determine the relationship between physical education and sports teachers' psychological resilience and prosociality levels and their naturalistic decision-making skills, as well as to examine comparisons between independent variables. In light of the obtained information, it is believed that physical education and sports teachers' competencies in educational processes can be enhanced. Additionally, our study contributes to the literature. The purpose of our study is to examine the relationship between physical education and sports teachers' psychological resilience and prosociality levels and their naturalistic decision-making skills.

## Materials and Methods

### Research Model

This study was designed according to the quantitative research model, employing survey methodology and

correlational design. The quantitative research model aims to observe and measure existing conditions without intervening in the current situation and circumstances (Karasar, 2006). This research model consists of survey arrangements conducted on a group within a universe composed of multiple different elements to reach a general common judgment about that universe. In this study, which determines the relationship between psychological resilience, prosociality levels, and naturalistic decision-making skills of physical education and sports teachers, as well as comparisons between independent variables, survey and correlational models were utilized.

### Research Population and Sample

The population of the study consisted of 416 physical education and sports teachers selected randomly from male and female physical education and sports teachers actively working in public schools in the provincial and district centres of the Ministry of National Education for the 2023-2024 academic year.

### Data Collection Tools

**Table 1**

*Socio Demographic Characteristics of Participants*

	Values	N	%
<b>Gender</b>	Male	298	71.6
	Female	118	28.4
<b>Age</b>	22-28	50	12.0
	29-35	104	25.0
	36-42	145	34.9
	43-49	84	20.2
	50 age and above	33	7.9
<b>Professional Seniority (Year)</b>	1-5	50	12.0
	6-10	79	19.0
	11-15	142	34.1
	16-20	96	23.1
<b>Education Status</b>	21 year and above	49	11.8
	Licence	337	81.0
	Postgraduate	79	19.0
<b>Marital Status</b>	Married	297	71.4
	Single	119	28.6
<b>Active Athlete Status</b>	Yes	52	12.5
	No	364	87.5
<b>Sportive Branch</b>	Individual sports	17	32.7
	Team sports	35	67.3
<b>Place Of Duty</b>	City centre	361	86.8
	District	55	13.2

During the administration of the surveys to be administered to the research participants, the researchers provided the necessary explanations to each of the

candidates within a wide time frame, without haste. Teachers were sent links prepared through Google forms and their participation in the study was ensured. The data collection tools used in the study consist of 4 sections and 42 questions. In the first part, the socio-demographic information form (Table 1) prepared by the researcher, which includes the variables of gender, age, professional seniority, educational status, marital status, status of being an active athlete, branches of the athletes, and the place of duty, in the second part, the 'Brief Psychological Resilience Scale' and adapted into Turkish, the Prosociality Scale, in the third part, and the 'Natural Decision Making Scale' in the fourth and last part were used.

### Brief Resilience Scale

The "Brief Resilience Scale" was used to determine the psychological resilience levels of participating students. It is a self-report measurement tool consisting of 6 items on a 5-point Likert scale. The scoring ranges from "Not appropriate at all" (1) to "Completely appropriate" (5). Items 2, 4, and 6 are reverse-coded and must be converted in the scoring key before analysis. After this conversion, higher scores indicate higher levels of psychological resilience, while lower scores indicate lower levels of psychological resilience. The scale's internal consistency reliability coefficient ranges between .80 and .91, with test-retest reliability coefficients between .62 and .69.

### Prosociality Scale

The 'Prosociality Scale' was used to determine the prosociality levels of the teachers participating in the study. Developed for individuals between the ages of 14 and 56, the Prosociality Scale consists of 22 items and five dimensions: 'helping', 'charity', 'altruism (altruism)', 'forgiveness' and 'forgiveness'. The scale was developed as 7-point Likert type. Cronbach's alpha reliability coefficient was measured as .91 in the whole scale.

### Naturalistic Decision-Making Scale

The 'Naturalistic Decision-Making Scale' was used to

determine participants' naturalistic decision-making levels. The survey employs a 5-point Likert scale. Reliability analyses included internal consistency, test-retest, and parallel test analyses. The scale development process utilized exploratory factor analysis, criterion validity testing, item discrimination determination, parallel testing, and calculated a Cronbach's Alpha reliability value ( $\alpha=0.809$ ). These analyses resulted in the development of a six-item "Naturalistic Decision-Making Scale."

### Data Analysis

Personal information about the candidates and total scores and factor scores of the inventory were given by determining frequency (f) and percentage (%) values. Kolmogorov Smirnov and Skewness Kurtosis values were analysed to determine the distribution of the scores obtained from the scales. The results obtained showed that the distribution of the data was within the range of +/-2. According to prior study, these values in the range of +/-2 as the absence of excessive deviations from normality. According to these results, parametric test statistics were used to compare the data obtained. While independent t test was used for pairwise comparison of the scores obtained from the scales, one-way analysis of variance was used for the comparison of three or more variables. In the sub-dimensions where significant differences were found as a result of one-way analysis of variance statistics, LSD test statistics, which is used in pairwise comparisons with homogeneous distribution and unequal group numbers, was used for pairwise comparison. Pearson Product Moment Correlation analysis (r) was applied to reveal the relationship between the scores obtained from the scales.

### Findings

When Table 2. was examined. it was found that the mean and standard deviations of physical education and sports teachers were psychological resilience total  $22.44\pm 5.13$ , prosociality total  $103.02\pm 20.16$ , natural decision-making total  $20.73\pm 4.37$ .

**Table 2**

*Descriptive Statistics of Teachers' Scores from Psychological Resilience, Prosociality and Natural Decision-Making Scales*

Scale	N	Min.	Max.	x±sd	Skewness	Kurtosis
<b>Psychological Resilience Total</b>	416	10.00	30.00	22.44±5.13	.343	-1.013
<b>Prosociality Total</b>	416	67.00	154.00	103.02±20.16	.916	.162
<b>Natural Decision-Making Total</b>	416	7.00	30.00	20.73±4.37	-.030	.400

When Table 3. is examined, no significant difference was found in total psychological resilience, total prosociality and total natural decision-making dimensions of physical education and sports teachers according to gender variable ( $p>0.05$ ). These findings demonstrate that physical

education and sport teachers do not show a gender-based differentiation in terms of the three variables analysed. Male and female teachers displayed similar levels of performance in all three scales.

**Table 3**

Comparison of Resilience, Prosociality and Natural Decision-Making Scale Scores According to Participants' Gender

Scale	Gender	N	x±sd	t	p
Psychological Resilience Total	Male	298	22.63±5.11	1.259	.209
	Female	118	21.93±5.17		
Prosociality Total	Male	298	100.32±20.18	-1.059	.291
	Female	118	102.70±20.90		
Natural Decision-Making Total	Male	298	20.61±4.26	-.866	.387
	Female	118	21.03±4.63		

\*p<0.05, \*\*p<0.001

When Table 4. is examined, while a significant difference was found in the total dimension of prosociality according to the age variable of physical education and sports teachers (p<0.05); no significant difference was found in the total dimensions of psychological resilience and natural decision

making (p>0.05). These results demonstrate that only the level of prosociality differs depending on age, especially the middle age group (36-42) has a higher level of prosociality. No significant age-related differences were observed in psychological resilience and natural decision-making skills.

**Table 4**

Comparison of Resilience, Prosociality and Natural Decision-Making Scale Scores According to Participants' Age

Scale	Age	N	x±sd	f	p	Difference (LSD)
Psychological Resilience Total	22-28 <sup>a</sup>	50	22.94±4.41	1.232	.297	-
	29-35 <sup>b</sup>	104	22.84±5.29			
	36-42 <sup>c</sup>	145	22.68±5.51			
	43-49 <sup>d</sup>	84	21.60±4.46			
	50 years and older <sup>e</sup>	33	21.45±5.40			
Prosociality Total	22-28 <sup>a</sup>	50	101.50±19.56	3.371	.010*	c>d c<e
	29-35 <sup>b</sup>	104	100.71±25.71			
	36-42 <sup>c</sup>	145	105.08±18.68			
	43-49 <sup>d</sup>	84	96.48±17.04			
	50 years and older <sup>e</sup>	33	94.67±13.56			
Natural Decision-Making Total	22-28 <sup>a</sup>	50	20.42±4.31	1.045	.384	-
	29-35 <sup>b</sup>	104	20.96±5.65			
	36-42 <sup>c</sup>	145	20.81±3.88			
	43-49 <sup>d</sup>	84	21.01±3.74			
	50 years and older <sup>e</sup>	33	19.36±3.10			

\*p<0.05, \*\*p<0.001

When Table 5. is examined, while a significant difference was found in the total dimensions of prosociality and natural decision-making according to the workplace variable of physical education and sports teachers (p<0.05);

no significant difference was found in the total dimension of psychological resilience (p>0.05). These findings demonstrate that workplace has a significant effect on prosociality and natural decision.

**Table 5**

Comparison of Psychological Resilience, Prosociality and Natural Decision-Making Scale Scores of Active Athlete Participants According to Place of Duty Variables

Scale	Place of Duty	N	x±sd	t	p
Psychological Resilience Total	City center	361	22.50±5.17	.675	.483
	District	55	22.00±4.87		
Prosociality Total	City center	361	101.74±20.78	1.914	.030*
	District	55	96.11±17.02		
Natural Decision-Making Total	City center	361	20.56±4.27	-1.867	.040*
	District	55	21.85±4.88		

\*p<0.05, \*\*p<0.001

-making skills, but does not significantly affect the level of psychological resilience.

When Table 6. is examined, no significant difference was

found in the total dimensions of psychological resilience,

prosociality total and natural decision-making total dimensions according to the professional seniority variable of physical education and sports teachers ( $p>0.05$ ). These findings demonstrate that there is no statistically significant effect of teachers' length of professional experience on the

**Table 6**

*Comparison of Psychological Resilience, Prosociality and Natural Decision-Making Scale Scores According to Participants' Professional Seniority (Years)*

Scale	Year	N	x±sd	f	p	Difference (LSD)
<b>Psychological Resilience Total</b>	1-5 <sup>a</sup>	50	21.12±3.79	2.347	.054	-
	6-10 <sup>b</sup>	79	23,56±5.43			
	11-15 <sup>c</sup>	142	22.70±5.51			
	16-20 <sup>d</sup>	96	22.29±4.87			
	21 years and above <sup>e</sup>	49	21.47±4.88			
<b>Prosociality Total</b>	1-5 <sup>a</sup>	50	99.66±15.96	.841	.500	-
	6-10 <sup>b</sup>	104	103.58±26.18			
	11-15 <sup>c</sup>	145	100.94±18.72			
	16-20 <sup>d</sup>	84	101.64±20.17			
	21 years and above <sup>e</sup>	33	97.10±18.89			
<b>Natural Decision-Making Total</b>	1-5 <sup>a</sup>	50	20.08±4.51	2.162	.073	-
	6-10 <sup>b</sup>	104	21.66±5.52			
	11-15 <sup>c</sup>	145	20.49±4.09			
	16-20 <sup>d</sup>	84	21.16±4.03			
	21 years and above <sup>e</sup>	33	19.73±3.17			

\* $p<0.05$ , \*\* $p<0.001$

When **Table 7** is examined, no significant difference was found in total psychological resilience, total prosociality and total natural decision-making dimensions according to the educational status of physical education and sports teachers ( $p>0.05$ ). These findings demonstrate that the educational level of the teachers (undergraduate or graduate) has no statistically significant effect on the three variables examined. Teachers at both education levels displayed similar levels of performance.

**Table 7**

*Comparison of Resilience, Prosociality and Natural Decision-Making Scale Scores of the Participants According to their Educational Background*

Scale	Education Status	N	x±sd	t	p
<b>Psychological Resilience Total</b>	License	337	22.50±5.25	.520	.603
	Postgraduate	79	22.16±4.60		
<b>Prosociality Total</b>	License	337	100.55±20.59	-	.357
	Postgraduate	79	102.90±19.52		
<b>Natural Decision-Making Total</b>	License	337	20.81±4.42	.852	.396
	Postgraduate	79	20.37±4.13		

\* $p<0.05$ , \*\* $p<0.001$

When **Table 8** is examined, no significant difference was found in total psychological resilience, total prosociality and

three variables examined (psychological resilience, prosociality and natural decision-making skills). In all three scales, different experience groups displayed similar levels of performance.

total natural decision-making dimensions of physical education and sports teachers according to marital status variable ( $p>0.05$ ). These findings demonstrate that the marital status of the teachers has no statistically significant effect on the three variables analysed. Married and single teachers displayed similar levels of performance in all scales.

**Table 8**

*Comparison of Psychological Resilience, Prosociality and Natural Decision-Making Scale Scores According to the Marital Status of the Participants*

Scale	Marital Status	N	x±sd	t	p
<b>Psychological Resilience Total</b>	Married	297	22.64±5.34	.690	.490
	Single	101	22.23±4.66		
<b>Prosociality Total</b>	Married	297	101.83±20.74	1.742	.082
	Single	101	97.74±19.19		
<b>Natural Decision-Making Total</b>	Married	297	20.55±4.24	-1.745	.061
	Single	101	21.51±4.92		

\* $p<0.05$ , \*\* $p<0.001$

When **Table 9** is examined, while a significant difference was found in the total dimensions of psychological resilience and natural decision making according to the variable of physical education and sports teachers' being an active athlete ( $p<0.05$ ); no significant difference was found



in the total dimension of prosociality ( $p>0.05$ ). These findings demonstrate that being an active athlete has a significant effect on psychological resilience and natural decision-making skills, but it does not lead to a difference in the level of prosociality.

**Table 9**

*Comparison of Psychological Resilience, Prosociality and Natural Decision-Making Scale Scores According to Participants' Active Athlete Status*

Scale	Active Athlete Status		N	x±sd	t	p
	Yes	No				
Psychological Resilience Total	Yes	52	24.63±5.09	3.346	.001**	
	No	364	22.12±5.07			
Prosociality Total	Yes	297	95.92±23.45	-1.924	.052	
	No	101	101.72±19.85			
Natural Decision-Making Total	Yes	297	21.98±4.72	2.067	.027*	
	No	101	20.55±4.29			

\* $p<0.05$ , \*\* $p<0.001$

When Table 10 is examined, no significant difference was found in total psychological resilience, total prosociality and total natural decision-making dimensions of physical education and sports teachers who are active athletes according to the branch variable ( $p>0.05$ ). These findings demonstrate that the branches of teachers who are active athletes do not have a statistically significant effect on the three variables analysed. Teachers who were individual and team athletes displayed similar levels of performance in all scales.

**Table 10**

*Comparison of Psychological Resilience, Prosociality and Natural Decision-Making Scale Scores of Participants Who Are Active Athletes According to Their Branches*

Scale	Branch	N	x±sd	t	p
Psychological Resilience Total	Individual	17	26.35±4.86	1.730	.090
	sports	35	23.80±5.05		
Prosociality Total	Individual	178	9.76±26.29	-1.330	.190
	sports	35	98.91±21.71		
Natural Decision-Making Total	Individual	17	22.53±4.23	.580	.543
	sports	35	21.71±4.98		

\* $p<0.05$ , \*\* $p<0.001$

When Table 11 is examined, it is seen that there is a positive and low level significant relationship between natural decision making scale and psychological resilience

scale ( $r=.227$ ,  $p=.000$ ); a negative and low level significant relationship between natural decision making scale and prosociality scale ( $r=-.133$ ,  $p=.006$ ); and a negative and low level significant relationship between psychological resilience scale and prosociality scale ( $r=-.105$ ,  $p=.033$ ). All correlations were found to be statistically significant. The strongest relationship exists between psychological resilience and naturalistic decision-making. The weak-to-moderate strength of these relationships indicates that these variables are relatively independent constructs. The findings suggest that psychological resilience may play a significant role in decision-making processes.

**Table 11**

*Correlation Analysis of Resilience, Prosociality and Natural Decision-Making Scales*

		1	2	3
Psychological Resilience <sup>1</sup>	r	1		
	p			
	N	416		
Prosociality <sup>2</sup>	r	-.105*	1	
	p	.033		
	N	416	416	
Natural Decision Making <sup>3</sup>	r	.227**	-.133**	1
	p	.000	.006	
	N	416	416	416

\* $p<0.05$ , \*\* $p<0.001$

## Discussion

With this study, it was aimed to determine the psychological resilience, prosociality and natural decision-making skills of physical education and sports teachers, to reveal the relationship between them, and to determine whether these values differ according to gender, age, years of professional seniority, place of duty, educational status, marital status, being an active athlete and branch status. According to the results of the research conducted in line with the purpose of the study, it was determined that physical education and sports teachers have high psychological resilience, prosociality and natural decision-making skills; on the other hand, these values are in a relationship with each other. In the study conducted by Akman (2016), it was concluded that teachers' psychological resilience levels were at a high level, and in the study conducted by Ulukan (2020), it was concluded that teachers' psychological resilience levels were above average. On the other hand, in a study on prosociality, Van der Graaff et al. (2018) determined that individuals exhibit moderate prosocial behaviours.

In contrast to our study, Sánchez et al. (2009) conducted a

study with basketball players and [Craig and Watson \(2011\)](#) conducted a study with rugby players using different measurement methods and found that athletes had low levels of decision-making competence. In our study, it is thought that the reason why physical education and sports teachers' psychological resilience levels are high is because sports activities develop the ability to control and manage emotions; the reason why their prosociality levels are at a medium level is because the sports environment is competitive by nature and as a result, it can sometimes limit prosocial behaviours; the reason why their natural decision-making skills are high is that physical education classes take place in an ever-changing and dynamic environment and teachers gain the ability to intervene quickly in situations they may encounter. In our study, it was determined that there was no significant difference between the gender of the teachers and their psychological resilience, prosociality and natural decision-making skills. It was determined that the psychological resilience levels of male teachers were higher than those of female teachers, while the prosociality and natural decision-making levels of female teachers were higher than those of male teachers. In parallel with our study, [Aydm and Egemberdiyeva \(2018\)](#) and [Varicler \(2019\)](#) found that there was no significant difference between psychological resilience and gender variable. There are also results contrary to our study ([Ernas, 2017](#); [Kaçar, 2022](#)). On the other hand, in parallel with our study in terms of prosociality, prior literature determined that the prosocial behaviors of prospective teachers did not differ according to gender. According to the results of the analysis conducted in terms of age variable in our research, while there was a significant difference between teachers' prosocial behaviour and their age, there was no significant difference between psychological resilience and natural decision-making skills. When the differentiation on prosociality was examined, it was found that teachers in the 36-42 age range exhibited the highest level of prosocial behaviour, while individuals in the 50 and over age group had the lowest level.

On the other hand, although there was no significant differentiation, it was determined that the psychological resilience levels of individuals decreased with increasing age, while individuals in the 43-49 age range were found to have the highest natural decision-making skills. In parallel with the results of our study, [Brownell \(2013\)](#), and [Malti and Dys \(2018\)](#) stated that people have higher levels of prosocial behaviour in the second half of their lives, in other words, in middle and older ages. In the literature review in terms of psychological resilience, in parallel with our study, in the study conducted by [Ulukan \(2020\)](#), it was concluded that the psychological resilience levels of teachers did not differ

significantly in terms of age variable, while the study conducted by [Uçar \(2014\)](#) stated that there was a significant difference between age and psychological resilience, contrary to our study. On the other hand, [MacMahon et al. \(2014\)](#) found that older referees were more effective and dynamic in decision-making in their study on referees in terms of decision-making.

In our study, the reason for the decrease in psychological resilience with increasing age is thought to be due to various problems such as restriction of physical activity, narrowing of social environment, and increase in economic problems with age. While a significant relationship was found between prosociality and natural decision-making skills in terms of the teachers' workplace variable, it was determined that there was no significant difference in terms of psychological resilience values. It was determined that the significant difference was in favour of the individuals working in the city centre in terms of prosociality and in favour of the individuals working in the district in terms of natural decision making. On the other hand, it was observed that the mean psychological resilience of teachers working in the city centre was higher than those working in the district. In terms of prosociality, it was found that individuals living in rural areas showed more cooperation and solidarity than those living in urban areas, which contradicts the findings of our study.

In the literature review on psychological resilience, [Fergus and Zimmerman \(2005\)](#) stated that individuals living in more social areas are more psychologically resilient. However, contrary to our study, prior literature concluded that the stress factors of urban life weaken the psychological resilience of individuals. In our study, it is thought that the reason why the natural decision-making skills of the teachers working in the districts were significantly higher is that the problems encountered in the districts generally require dealing with practical and concrete problems, and this situation increases the analytical thinking and natural decision-making skills of individuals while improving their problem-solving skills. In our study, it was determined that there was no significant difference between the psychological resilience, prosociality and natural decision-making skills of teachers in terms of their educational status. In the in-group evaluation, it was found that the psychological resilience and natural decision-making skills of teachers with bachelor's degree were higher than individuals with postgraduate education, and the prosociality values of individuals with postgraduate education were higher than individuals with bachelor's degree. When the literature is examined, there are studies in parallel with our study in terms of psychological resilience.

However, in contrast to our study, prior literature examined the effects of individuals' education level on psychological resilience and stated that individuals with higher education levels generally have better stress coping skills and this increases their psychological resilience. In terms of prosociality, in parallel with our study, [Zlatev and Miller \(2016\)](#) found that individuals with higher levels of education are more sensitive to social problems and exhibit more prosocial behaviour. In the analysis conducted in terms of marital status of teachers, it was determined that there was no significant difference between psychological resilience, prosociality and natural decision-making skills. It was determined that married individuals had higher levels of psychological resilience and prosocial behaviours, while single individuals had higher levels of natural decision-making skills than married individuals. When the literature is examined, it is clear that single individuals have higher levels of psychological resilience.

On the other hand, in parallel with our study, prior literature stated that marriage increases prosocial behaviour. In our study, while a significant difference was found between psychological resilience and natural decision-making skills of teachers according to their status as active athletes, no significant difference was found between prosociality. When the results were examined, it was determined that the significant difference on psychological resilience and natural decision-making skills was in favour of teachers who continued their active sports life. On the other hand, it was observed that individuals who were not active athletes had higher levels of prosocial behaviour. In parallel with our study, [Sarkar and Fletcher \(2014\)](#) stated in their study that sport has a very important role in increasing psychological resilience. At the same time, [Gupta and McCarthy \(2022\)](#) stated that the psychological well-being of individuals who regularly engage in sports increases and this has positive effects on psychological resilience. In the literature review in terms of natural decision-making, [Vickers \(2007\)](#) found that sports are effective in individuals making fast and effective decisions.

In our study, the results obtained in terms of the variable of being an active athlete are thought to be due to the fact that sports improve the mood of individuals, increase the self-confidence of individuals, improve their ability to manage their emotions, and strengthen their fast, effective decision-making and problem-solving skills. In the analysis of our last variable, active athletes according to the branch variable, no significant difference was found between psychological resilience, prosociality and natural decision making. When the correlation results of our study were examined, a positive low-level significant relationship was found between the natural decision-making scale and

the psychological resilience scale, and a negative low-level significant relationship was found between the natural decision-making scale and the prosociality scale. In other words, while the increase in teachers' psychological resilience increases their natural decision-making skills, the increase in their prosocial behaviours causes their natural decision-making skills to be negatively affected. In the literature, [Patterson \(2001\)](#) found that psychologically resilient individuals make more effective and logical decisions. It is thought that the reason for such a result in our study is that individuals with psychological resilience have high stress coping skills, can manage emotional processes well in a situation they face and can make more effective and faster decisions by evaluating their past experiences; on the other hand, prioritizing the needs of others may neglect their own interests, which may negatively affect logical and effective decision making.

## Conclusion

As a result of our study, it was determined that physical education and sports teachers demonstrated high levels of psychological resilience, prosociality, and naturalistic decision-making skills. These attributes showed significant variations across various variables and were found to be interrelated. The study revealed that physical education and sports teachers possess high levels of psychological resilience, indicating their strong capacity to cope with stressful situations and adapt to challenges. Their prosocial behavioural tendencies were found to be elevated, demonstrating their predisposition toward positive social behaviours such as helpfulness, empathy, and social responsibility. Additionally, their well-developed naturalistic decision-making skills reflect their ability to make quick and effective decisions in professional experiences and practical processes.

## Recommendations

Regular seminars and workshops can be organized to strengthen the psychological resilience of physical education and sports teachers. In addition, a school climate that fosters prosocial behaviors should be established to support positive interactions and attitudes among staff and students. Professional experience-sharing platforms can also be developed to enhance teachers' decision-making skills by enabling them to learn from one another's experiences. While this research focuses specifically on physical education teachers, comparative studies involving teachers from different disciplines could provide broader insights. Furthermore, conducting longitudinal studies would allow for an examination of how these variables



change over time. To enrich the findings, mixed-method research approaches could be employed, combining quantitative data with qualitative insights for a more comprehensive understanding.

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