The Effect of Perceived Social Support of University Students Taking The Sports Aptitude Test on The Levels of Mental Toughness

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Abstract

This study aimed to determine the effect of perceived social support on the mental toughness levels of students who took the sports aptitude test at Aydın Adnan Menderes University. As a data collection tool, the "Mental Toughness Scale (MTS)," developed by Madrigal, Hamill, and Gill (2013) and adapted into Turkish by Erdoğan (2016), was used. For social support, the "Multidimensional Scale of Perceived Social Support," developed by Zimet et al. (1988) and adapted into Turkish by Eker et al. (2001), was used. A total of 901 participants, 243 women, and 658 men, were recruited for the study. As a result of the reliability analysis of the scales, the Cronbach's Alpha value of the Mental Toughness Scale was found to be 0.93, and the Cronbach's Alpha value of the Multidimensional Scale of Perceived Social Support was found to be 0.92. Path analysis was applied in the Structural equation model to determine the effect of the students' perceived social support who took the sports aptitude test on their mental toughness levels. Analysis showed that the family dimension had a statistically significant positive effect on mental toughness (β: 0.129, p<0.05). One unit increase in family support causes an increase of 0.129 in mental toughness. It is seen that the significant other dimension has a statistically significant and positive effect on mental toughness (β: 0.142, p<0.05). One unit increase in dimension of support from significant other results in an increase of 0.142 in mental toughness. It explains 4% of the change in mental toughness (R20.040).

Keywords: Social Support, Mental Toughness, Special AbilityExam

Özel Yetenek Sınavına Giren Üniversite Öğrencilerinin Algılanan Sosyal Desteklerinin Zihinsel Dayanıklılık Düzeylerine Etkisi

Öz

Bu araştırmada Aydın Adnan Menderes Üniversitesinde özel yetenek sınavına giren öğrencilerin algılanan sosyal desteklerinin zihinsel dayanıklılık düzeylerine etkisinin belirlenmesi amaçlanmıştır. Veri toplama aracı olarak, Madrigal, Hamill ve Gill (2013) tarafından geliştirilen, Erdoğan (2016) tarafından Türkçe uyarlama çalışması yapılan "Zihinsel Dayanıklılık Ölçeği (ZDÖ)" ve Zimet ve arkadaşları (1988) tarafından geliştirilen, Eker ve arkadaşları (2001) tarafından Türkçe uyarlama çalışması yapılan "Çok Boyutlu Algılanan Sosyal Destek Ölçeği" kullanılmıştır. Araştırmada 243'ü kadın 658'i erkek toplamda 901 katılımcıya ulaşılmışıtır. Ölçeklerin güvenirlik analizi sonucu Zihinsel Dayanıklılık Ölçeği Cronbach's Alpha değeri 0,93; Çok Boyutlu Algılanan Sosyal Destek Ölçeği Cronbach's Alpha değeri 0,92 olarak bulunmuştur. Özel yetenek sınavına giren öğrencilerinalgılanan sosyal desteklerinin zihinsel dayanıklılık düzeylerine etkisini belirlemek amacıyla Yapısal eşitlik modeli (path) analizi uygulanmış ve analiz aile boyutunun zihinsel dayanıklılık üzerinde istatistiksel olarak anlamlı ve pozitif yönde bir etkisi olduğu görülmektedir (β: 0.129, p<0.05). Aile desteğindeki 1 birimlik artış zihinsel dayanıklılık üzerinde 0.129'luk artışa neden olmaktadır. Özel insan boyutunun zihinsel dayanıklılık üzerinde istatistiksel olarak anlamlı ve pozitif yönde bir etkisi olduğu görülmektedir (β: 0.142, p<0.05). Özel insan desteğindeki 1 birimlik artış zihinsel dayanıklılık üzerinde 0.142'lik artışa neden olmaktadır. Zihinsel dayanıklılık üzerindeki değişimin %4'ünü açıklamaktadır ($R^2$0.040).

Anahtar kelimeler: Sosyal Destek, Zihinsel Dayanıklılık, Özel Yetenek Sınavı

Introduction

Social support is often thought of as the presence of people we can trust who are valuable to us. Based on scientific studies, social support is the process of an individual or individuals showing closeness and support to another individual (Bates and Toro, 1999), a resource exchange between at least two perceived service providers or buyers to increase the well-being of the recipient (Shumaker and Brownell, 1984), or physical and psychological assistance provided by family and friends to the individual (Leavy, 1983). Social support, in another definition, is expressed as the support that can be reached through an individual's attachment to other individuals, groups, and larger communities (House, 1981). An individual's belief that his immediate environment supports them is defined as perceived social support (Barrera, 1986). Social support is classified as emotional, instrumental, and cognitive support.

Human; It is an entity that shows the development of physical, mental and social organisms and is widely found in one dimension of it (Sural, et al., 2021). Emotions are an indispensable element of interpersonal relations as well as physical and mental health, which are very important in human life (Altınışık and Çelik, 2022). Emotional support covers the basic needs of the individual, such as love, liking, compassion, understanding, acceptance, and being valued (Cohen & Wills, 1985). This support provides individuals with the power to resist in the face of difficult situations. In addition, emotional support reduces or prevents stress by satisfying close relationship needs and strengthening positive affect (Kaner, 2003).

Instrumental support includes tangible aid such as financial aid, material resources, and equipment support (Cohen and Wills, 1985). Also called financial support, this type of support includes assistance with care and education. This type of support reduces stress by producing immediate solutions to the individual's financial problems or enabling family members to participate more in leisure activities (Kaner, 2003). For example, it is a type of support that includes concrete actions such as finding a job for a relative of an unemployed individual (Banaz, 1992).

Cognitive support is the type of support that will help an individual solve their problems. The feedback that leads to self-recognition of the individual and reveals their self-worth is defined as mental, that is, cognitive support. For example, the explanation of the exam by more experienced friends to an individual who will take the exam for the first time can be considered cognitive support (Ardahan, 2006).

In addition, social support, which has different dimensions, consists of three sources in the theoretical framework: family, friends, and significant others (relatives, neighbors, etc.) for the individual (Çeçen, 2008).

Numerous studies have shown that social support positively correlates with mental and physical health (Christenfeld et al., 1997, Cohen and Wills 1985, Kessler et al., 1985). As a result of community-based mental health care, experts have tended to benefit from the natural support provided by family, friends, and close circles. Studies stated that social support from family, friends, and significant others is related to depression, psychological problems, stress, and self-esteem and provides support against negativities arising from these situations (Doğan, 2008). For example, Murphy and Moriarty showed that children with family support are much more resilient in coping with stress (Sarason et al., 1983). Family is the first unit with which an individual establishes a relationship and receives social support (Özdemir and Topaloğlu, 2013). The family's social support significantly affects the individual's mental health (El-Dardiry, et al., 2012).

Another important element that constitutes the individual's social relations is friendship relations. These essential relationships make up social support and strengthen social bonds, facilitating social interaction and protecting against negative emotions (Vitaro et al., 2011).

Even if social support does not eliminate stressors for individuals, it reduces their anxiety levels and makes people more optimistic and self-controlled. In addition, social support makes individuals more willing to try new ways of coping with stress. Regardless of the content of the social support that individuals receive from their social environment, it reduces the sense of helplessness and increases their self-confidence in coping with stress (Taysi, 2000). It has been observed that a high level of social support resources also reduces the adverse effects of stress on the individual's mental health. In addition, social support positively impacts physical health and well-being in an individual's life. It is said that the absence of social support is a situation that can create negativity in the individual (Cohen and Wills, 1985).

The presence of support from a social network (such as family, relatives, friends, coaches, and teammates) can reduce the stress of daily difficulties and life events as well as the stress of participating in sports (Andersen and Williams, 1998).

Sport, which became institutionalized in the modern life of 20th century people, which started with urbanization, has penetrated deeply into the social system of our age and has become a phenomenon shaped according to the social structure (Şahin and İmamoğlu, 2011). Today, sports, as a great social dynamic, attracts the attention of many people and is becoming more and more organized (Öçücü et al., 2012). The way to understand and explain sports is to understand the ideological and cultural structures of the society in which sports are performed (Şahin et al., 2010). Sport, which has an influential role in socialization (Altınışık et al., 2020), gives the individual the feeling of being a group member by providing a social identity. Sport is a significant factor in forming an individual's personality (Shields and Bredemeier, 1995) and socialization (Hardin and

Greer, 2009). Based on this knowledge, the individual strengthens his emotional, psychological, and physical development by engaging in social relations. Participation in sports is physical activity and activities that involve the process of being compatible with the social environment (Marris and Ross, 1976).

Moreover, it is stated that parental support for physical activities or sports is essential for the individual's psychosocial development (Greenberg et al., 1983). Social support plays a vital role in coping with the effects of stressful situations in an individual's life. The individual's social support resources buffer against stress and anxiety and protect against their harmful effects. In addition, having social support resources is very important in maintaining the individual's physical and psychological well-being.

In this context, the support of families, friends, and significant others gains importance in helping individuals acquire the habit of doing sports (Hergüner, 1991) and overcoming the physical and mental difficulties they face.

Material and Method

Research Model

Relational screening model was used in the research. This model; It is used with old-fashioned enthusiasts who are used by two or more people and who cause it (Karasar, 2017). The model that can be applied to the literature has been created on the basis of existing views. The tested model of the theoretical model has been tested. (Byrne, 2010).

Research Group

The research group consisted of students who took the special talent exam at Aydın Adnan Menderes University in the 2020-2021 academic year. The data were delivered to the participants via Google Forms, and their voluntary participation in the research was based. Nine hundred one participants, 243 women and 658 men, were recruited. Of the data, 25 forms were missing or incorrect and excluded. Therefore, the number of forms included in the analysis was 876.

Data Collection Tool

The first part of the study consisted of the Mental Toughness Scale (MTS), and the second part was the Multidimensional Scale of Perceived Social Support.

In determining the mental toughness levels of the participants, the Mental Toughness Scale (MTS) developed by Madrigal et al. (2013) and adapted into Turkish by Erdoğan (2016) was used. The mental toughness scale is a unidimensional 5-point Likert-type self-report scale consisting of

11 items. Scale items were evaluated between 1 (Strongly Disagree) and 5 (Strongly Agree). In the adaptation study of Erdoğan (2016), the total internal consistency coefficient of the scale was 0.87.

In our study, CFA was performed on 11 items and one-dimensional scale structure consisting of 11 items was determined. The values accepted for the fit indices are provided in the fit index calculations were presented in the Table 2. The model is being improved. While making the modifications, the variables that reduced the fit were determined first, and then a new covariance was created for those with high covariance among the residual values. The values accepted for the fit indices are provided in the later renewed fit index calculations were presented in Table 2. It is seen that GFI, AGFI, CFI and SRMR values have excellent fit, while χ^2/df value has an acceptable fit index. In this study, the Cronbach's Alpha value of the mental toughness scale was determined as 0.93.

The Multidimensional Scale of Perceived Social Support, developed by Zimet et al. (1988), and adapted into Turkish by Eker et al. (2001), was the other scale used in the study to determine the social support perceptions of the participants. The Multidimensional Scale of Perceived Social Support is a 7-point Likert-type scale. Each dimension consists of four items. The scale is a seven-point Likert type scale consisting of 12 items in total, including 3, 4, 8, 11 items for the family dimension, 6, 7, 9, 12 items for the friend dimension, and 1, 2, 5, and 10 items for the significant others dimension. Scoring the scale is based on the sum of the scores of each subgroup. A high score is an indication of increased social support. Eker et al. (2001) found the internal consistency coefficients of the total and sub-dimensions of the scale between 0.80 and 0.95 in their adaptation study. In this study, CFA was performed on 12 items, and 12 items and 3-dimensional scale structure was determined (Table 4). The values accepted for the fit index are provided in the fit index calculations are presented in the Table 2. It is seen that χ^2/df, GFI, AGFI, CFI and SRMR values have perfect fit. In this study, the Cronbach's Alpha value of the perception of social support scale was determined as 0.92.

Data Analysis

AMOS 21.0 and SPSS 25.0 package programs were used for statistical analyses. Structural equation model (path) analysis was applied in order to determine the effect of the perceived social support of the students who took the special talent exam on their mental resilience levels. The reliability of the scale was tested with the Cronbach's Alpha coefficient.

Result

Figure 1

Path Diagram of the Hypothesized Model for the Effect of Social Support Scale Dimensions on Mental Toughness
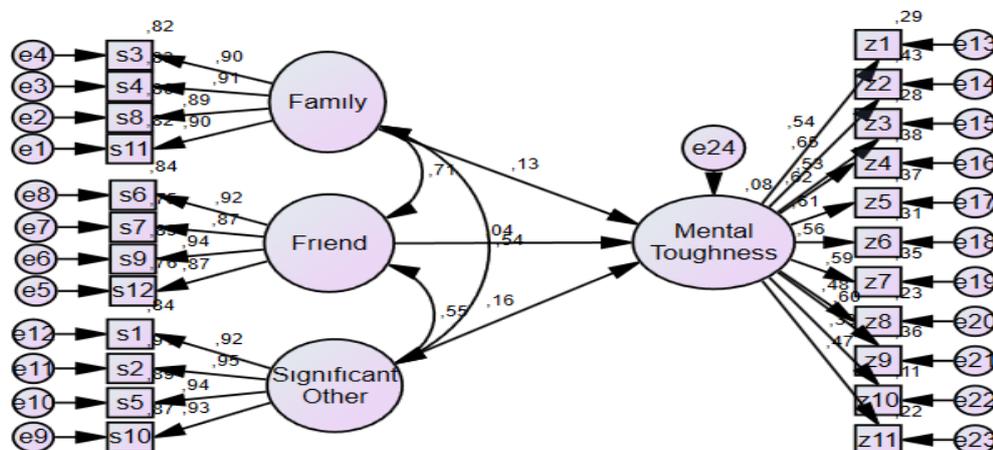

Table 1

Study Results

Effect	Estimate (β)	SE	t	p	Results
Friend → Mental Toughness	0.129	,011	,784	,433	Accept
Family → Mental Toughness	-0.061	,010	2,235	,025	Rejected
Significant Other → Mental Toughness	0.142	,006	3,775	***	Accept

*p<0.05

A structural equation model was hypothesized to examine the effect of social support on mental toughness. As a result of the analysis, it is seen that the family dimension has a statistically significant and positive impact on mental toughness (β: 0.129, p<0.05). A 1-unit increase in family support results in a 0.129 increase in mental toughness. Significant other dimension has a statistically significant and positive effect on mental toughness (β: 0.142, p<0.05). A 1-unit increase in significant other support results in a 0.142 increase in mental toughness. It explains 0.8% of the change in mental toughness (R^2 0.081).

Table 2

Goodness-of-Fit Results of the Research Model

	Structural Equation Model Values	Recommended Values	Excellent fit index	References
χ^2/df	3,164	≤ 5	$0 \leq \chi^2 \leq 3$	Meydan ve Şeşen, 2015:37
RMSEA	,043	≤ 0.08	$0 \leq RMSEA \leq ,05$	Simon et al. 2010: 234-243.
GFI	,93	≥ 0.80	≥ 0.90	Simon et al. 2010: 234-243.
AGFI	,92	≥ 0.80	$0.95 \leq AGFI \leq 1,00$	Shevlin et al. 2000: 181-185.
CFI	,89	≥ 0.80	$0.90 \leq CFI \leq 1,00$	Dehon et al. 2005: 799-810.
SRMR	,096	≤ 0.10	$0 \leq SRMR \leq 0,05$	Schermelleh-Engel et al. 2003:23-74

Discussion and Conclusion

It is seen that the model established in this study, which examines the effect of perceived social support levels of students who took the Aydın Adnan Menderes University special talent exam on their mental toughness levels, is significant at the $p < 0.000$ level. As a result of the analysis, it is seen that the family dimension has a statistically significant and positive impact on mental toughness (β: 0.129, $p < 0.05$). A 1-unit increase in family support results in a 0.129 increase in mental toughness. Significant other dimension has a statistically significant and positive effect on mental toughness (β: 0.142, $p < 0.05$). A 1-unit increase in significant other support results in a 0.142 increase in mental toughness. It explains 0.8% of the change in mental toughness (R^2 0.081).

When the literature is examined, it is seen that there are studies in parallel with our study. For example, Çoruh (2020) concluded in his research with combat athletes that perceived social support has a significant and positive relationship with self-confidence and toughness. Sural at al., (2021) It has been determined that there is a positive and significant relationship between the mental training levels of elite boxers and their mental toughness levels. Similarly, Doğan (2019) concluded in his study on immigrants that the increase in perceived social support causes a positive increase in self-confidence. Furthermore, in the survey conducted by Şahinler and Ersoy (2015), the relationship between the mental toughness of the athletes regarding the duration of doing sports was examined, and it was determined that there were significant differences. When the literature is examined, there are studies in parallel with our results (Bonanno et al., 2006; Bonanno and Mancin, 2008; Guinn et al., 2009; Tekin, 2011; Selçuklu, 2013; Bildirici, 2014; Gökmen, 2014; Bektaş and Özben, 2016; Orman, 2016). As it can be understood from these results, it can be said that when family, friends, and significant others support them, their mental toughness and self-confidence levels increase in general. As a result, their psychological resilience levels increase positively. In

addition, positive effects such as focus, increase in performance, strategy formation, and the ability to solve complex events can be observed with the return of self-confidence.

Unlike our study, there are also studies in the literature that do not have a statistically significant relationship between perceived social support and psychological toughness (Terzi, 2008; Güngörmüş et al., 2015; Başar and Öz, 2016; Ceyhun, 2018). This may be because the sample group in which the study was conducted was different, the age group difference, and the fact that this study group will take a special talent exam. This exam may have a critical turning point in their lives.

Suggestions

- The study framework can be expanded by including the departments to which the students participating in the study applied and adding demographic information.
- Social factors such as family and friends can be informed by introducing sports aptitude tests and the departments to which the application is made.
- The sample group of our study can be increased to include regional differences and can be done on a broader framework.

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