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The Precursor of Loneliness in Sports Sciences Students: Psychological Resilience

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Abstract

A total of 375 sports sciences students, 95 of whom are women, 280 of whom are men, selected by convenience sampling method. The study was designed with the correlational survey model. Research data were collected using the "Personal Information Form", "UCLA Loneliness Scale (ULS-8)" and "Brief Psychological Resilience Scale". The data were analyzed using Pearson correlation analysis in the SPSS program and path analysis technique within the framework of structural equation modelling in the AMOS program. A moderate negative relationship was found between loneliness and psychological resilience. In addition, it was found that psychological resilience significantly predicted loneliness. These results indicate that while aiming to reduce the loneliness levels of sports science students, their psychological resilience should also be taken into account.

Introduction:

Loneliness is becoming an increasing concern in modern societies (Vasileiou *et al.*, 2019). Expressed as the inconsistency between actual and desired social relationships (Peplau & Perlman, 1982), loneliness may also negatively affect the sense of well-being (Hawkey & Cacioppo, 2010; Holt-Lunstad *et al.*, 2015) by reducing self-regulation (Cacioppo *et al.*, 2011; Cacioppo & Patrcik, 2008; Pieters, 2013). Affecting many behaviors, loneliness affects the neural pathways that control social cognition and executive functions, and regulate the individual's attention, cognition, emotion, and behavior to better understand the standards and goals of the individual that social life has brought (Cacioppo *et al.*, 2011). There are risk factors for loneliness. These appear socially and clinically. As risk factors; coping strategies (Perlman & Peplau, 1981), socio-economic status (Wee *et al.*, 2019), psychological illness (Mushtaq *et al.*, 2014), low sleep quality (Matthews *et al.*, 2017), depressive disorder (Singh & Misra, 2009), increased mortality (Luo & Waite, 2014), anxiety disorders (Anderson & Harvey, 1988), depressive disorders (Green *et al.*, 1992; Prince *et al.*, 1997; Cacioppo *et al.*, 2010; Teo *et al.*, 2013) and eventually suicide (Stravynski & Boyer, 2001) have been associated with loneliness. While explaining loneliness, 2 causal models are generally emphasized. The first of these examines external factors that are not found in the social network as the root of loneliness; the second

refers to internal factors such as personality and psychological factors (Singh & Misra, 2009). This study focused on psychological resilience, which is one of the internal factors.

Psychological resilience, which is an important part of positive psychology (Huang *et al.*, 2020), has become a concept that arouses significant scientific interest in the last three decades (Van Der Meulen *et al.*, 2019). Resilience is the concept that reveals the interaction between internal and external protection and risk processes (Rutter, 1985, 2002), which includes the state of being free from negative experiences (Garmezy, 1991; Norris *et al.*, 2009). Psychological resilience has aroused curiosity in higher education environments because of its protective role against stress and improved academic performance (Allan *et al.*, 2014; Howell & Miller-Graff, 2014). Besides, many studies in the literature revealed that psychological resilience is related to many psychological factors such as self-esteem, emotional flexibility, positive and negative emotion, emotion regulation, inhibitory control, and others (Burns *et al.*, 2011; Curtis & Cicchetti, 2007; Liu *et al.*, 2012; Yu & Zhang, 2007). In addition to these, it provides an important contribution to the development of psychological resilience, happiness, and life satisfaction (Gable & Haidt, 2005; Hu *et al.*, 2015). Psychological resilience, which directly affects many psychological and internal factors, may contribute to a decrease in the feeling

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of loneliness in the individual. The feeling of loneliness, which is positively related to negative emotions and is a risk factor, may tend to decrease with the introduction of psychological resilience, which is an important protective factor. As a matter of fact, it has been revealed in the related literature that individuals with high psychological resilience express themselves less alone and hopeless (Rew *et al.*, 2001). In the context of the studies examined in the literature and the information given above, it was investigated in this study whether psychological resilience predicts loneliness or not.

Materials and Methods:

The research has been designed by using the "correlational survey model" in terms of the purpose and scope of the research. The correlational survey model is a "research model aiming to determine the existence and/or degree of change between two or more variables" (Karasar, 2018).

The research group consists of 375 students, 95 of whom are women, 280 of whom are men, selected by convenience sampling method enrolled in the undergraduate program of the Faculty of Sport Sciences of Sakarya Applied Sciences University in the fall semester of the 2019-2020 academic year. The average age of the research group is 21.53 ± 2.91 .

The data of the study were collected personally from students who wanted to participate voluntarily in the fall semester of the 2019-2020 academic year, after the researchers gave verbal and written explanations to the students in the classroom environment between December 2 and December 20, 2019.

"Personal Information Form", "UCLA Loneliness Scale (ULS-8)" and "Psychological Resilience Scale" were used as measurement tools in the study. Detailed information about measurement tools is explained below. The demographic information form used in the study, it is aimed to reach information such as gender, age, and sports years of the students.

UCLA Loneliness Scale (ULS-8) used in the research was developed by Russell *et al.*, (1978). It was adapted to Turkish by Dogan *et al.*, (2011). The measuring tool is of 8 items, 4 pointslikert type. Higher scores on the scale indicate higher loneliness. The Cronbach Alpha coefficient of the scale was found to be .72 (Dogan *et al.*, 2011). In this study, the Cronbach Alpha (a) internal consistency coefficient of the loneliness scale was determined as .82.

The Brief Psychological Resilience Scale (BPRS) used in the research was developed by Smith *et al.*, (2008) and adapted into Turkish by Dogan (2015). The measuring tool is of 6 items 5 pointslikert type. High scores from the scale indicate high psychological resilience. The Cronbach Alpha coefficient of the scale was found to be .83 (Dogan, 2015). In this study, the Cronbach Alpha (a) internal consistency coefficient of the psychological resilience scale was determined as .69.

The data collected from the students were analyzed in terms of erroneous value, outlier, and normality, and it was determined that the data were suitable for normal distribution. The data were analyzed using Pearson correlation analysis in the SPSS program and path analysis technique within the framework of structural equation modeling in the AMOS program.

Results:

It has been observed that it is obtained within the limits as $CMIN=291.328$; $DF=75$. $p<.001$; $CMIN/DF=3.884$; $RMSEA=.088$; $GFI=.889$; $CFI=.865$ according to the results obtained in the structural model. the model fit index values are determined.

Table 1. Examination of the structural equation model

Model Item	Path	Factor	β_0	β_1	S.E.	C.R.	p
Lon. 1	<---	Lon.	0.595	0.63	0.058	10.824	<0.001
Lon. 2	<---	Lon.	0.572	0.585	0.056	10.382	<0.001
Lon. 3	<---	Lon.	0.232	0.266	0.064	4.177	<0.001
Lon. 4	<---	Lon.	0.781	0.845	0.059	14.212	<0.001
Lon. 5	<---	Lon.	0.813	1.091	0.074	14.715	<0.001
Lon. 6	<---	Lon.	0.427	0.502	0.065	7.735	<0.001
Lon. 7	<---	Lon.	0.598	0.753	0.069	10.897	<0.001
Lon. 8	<---	Lon.	0.744	1			
Psy. res. 1	<---	Psy. res.	0.554	0.637	0.075	8.453	<0.001
Psy. res. 2	<---	Psy. res.	0.446	0.565	0.08	7.064	<0.001
Psy. res. 3	<---	Psy. res.	0.405	0.52	0.08	6.485	<0.001
Psy. res. 4	<---	Psy. res.	0.623	0.798	0.087	9.173	<0.001
Psy. res. 5	<---	Psy. res.	0.374	0.471	0.078	6.021	<0.001
Psy. res. 6	<---	Psy. res.	0.731	1			
Lon.	<---	Psy. res.	-.368	-0.32	0.06	-5.368	<0.001

Lon- Loneliness; Psy res.- psychological resilience
 β_0 : Standard Path Coefficients; β_1 : Non-Standard Path Coefficients

Data analysis was analyzed with IBM AMOS V25. As a first step, measurement models of the dimensions are evaluated. It has been observed that it is obtained within the limits as $CMIN=291.328$; $DF=75$. $p<.001$; $CMIN/DF=3.884$; $RMSEA=.088$; $GFI=.889$; $CFI=.865$ according to the results obtained in the structural model. the model fit index values are determined. Also all path coefficients were found to be statistically significant. The path coefficient between psychological resilience and loneliness in SEM was found to be statistically significant ($\beta_1 = -0.32$. $p < .001$).

Discussion:

As a result of this study, it was found that there is a negative and significant relationship between psychological resilience and loneliness ($r = -.336$, $p < .001$). Also, the path coefficient between psychological resilience and loneliness was found to be statistically significant.

When the literature was searched, some studies were found that obtained similar results to the current research results. Tuğral (2020) found a negative, low, and significant relationship between psychological resilience and

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loneliness. Also, he concluded that loneliness is a meaningful explanation of 7.5% of psychological resilience. Kiliç (2014) found that as the psychological resilience of university students increased, their loneliness decreased. Yakici (2017) found a moderately significant negative correlation between psychological resilience and loneliness in his study on adult individuals. They also found that life satisfaction and loneliness variables explain 38% of the total variance in psychological resilience scores. Altundağ (2013) stated on adolescents whose parents divorced, life satisfaction, and loneliness together affect psychological resilience by 84%. Erözkan (2009) in his study on high school students; found that shyness, social anxiety, and psychological resilience were predictors of loneliness. Güloğlu & Kararmak (2010) reported on university students that a negative and significant relationship between loneliness and psychological resilience. Yardimci *et al.*, (2017) found that the relationship between loneliness and mental endurance in sports was negative and significant in their studies. Perron *et al.*, (2014) found a negative and significant relationship between loneliness and resilience in their study on homeless youth. However, taking psychological distress into account, it revealed that loneliness is not significantly associated with resilience among homeless youth. Rew *et al.*, (2001) found in their study that loneliness is significantly associated with psychological resilience. Gerino *et al.*, (2017) found the mediating effect of both endurance and mental health between loneliness and mental and physical quality of life.

When the findings obtained in this study and the results of the studies in the literature were examined, it was seen that psychological resilience had a significant effect on loneliness and the relationship between them was negative. Among the reasons for this situation, it is thought that protective factors have an important effect on psychological resilience (Gürkan, 2006; Masten, 1994; Masten & Reed, 2002). School support, which is one of the protective factors, is one of the most important factors affecting the psychological resilience of the individual (Werner, 2007). The individual spends a large part of his/her daily life at the school, and the school environment and school staff protect the individuals from the damaging elements of the outside world by assuming the protective role (Wright *et al.*, 2013). Therefore, the individual who realizes his psychological strength can lead a social life away from loneliness. Fry & Debats (2010) determined that people with high self-efficacy and mental resilience can mobilize emotional and psychological resources to face the stressful elements of their lives. As a result, considering that individuals' school environments are a part of their living space, this is thought to be a reason for the result obtained in the study.

Also, expressed as internal and external protective factors of psychological resilience; It is thought that

variables such as peer support, empathy, and willingness to fight to prevent loneliness from occurring, and thus affect the formation of a negative relationship. Again, it can be stated that having strong social relations with individuals with high psychological resilience (Gürkan, 2006) will prevent individuals from experiencing loneliness. Adams *et al.*, (2004) support our view by finding that individuals with a less comprehensive social network are more lonely.

The research was carried out only with university students studying at the sports science faculty. It is thought that conducting the study at different educational levels, different branches, and individuals with different sports backgrounds will help to better understand the relationship between psychological resilience and loneliness. Also, it is thought that working with people who have been doing sports for a long time and sedentary individuals will enable the mediation effect of sports to be measured.

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