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The Relationship Between Psychological Resilience and Perceived Stress in Adults: The Mediating Role of General Self Efficacy

Yetişkinlerde Psikolojik Sağlamlık ile Algılanan Stres Arasındaki İlişki: Genel Öz Yeterliğin Aracı Rolü

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ABSTRACT

In this study, it was aimed to examine the mediating role of general self efficacy in the relationship between psychological resilience and perceived stress of adult individuals. The participants of the study are 634 people, 362 women and 272 men, aged between 18 and 72. SPSS PROCESS macro plug-in was used to test the hypotheses using the data collected in the research and conditional process analysis was performed. Apart from this, the significance of the mediator variable was made using the bootstrapping method, which is considered a more modern approach today. First, Pearson product-moment correlation coefficient was calculated to determine the relationship between variables, and it was found that there were significant relationships between psychological resilience, both with perceived stress and general self efficacy. In addition, a significant relationship was found between perceived stress and general self efficacy. General self efficacy was found to have a significant partial mediating role in the relationship between psychological resilience and perceived stress. The fact that the mediating role of general self efficacy in the relationship between psychological resilience and perceived stress has not been examined in the literature is considered important for this study. All the findings obtained in this direction were discussed with similar studies in the light of the literature and some suggestions were made.

Article Information

Keywords

Psychological Resilience
Perceived Stress
General Self Efficacy
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Anahtar Kelimeler

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ÖZET

Bu çalışmada, yetişkin bireylerin psikolojik sağlamlıkları ile algılanan stresleri arasındaki ilişkide genel öz yeterliğin aracı rolünün incelenmesi amaçlanmıştır. Araştırmanın katılımcıları, yaşları 18 ile 72 arasında değişen 362'si kadın ve 272'si erkek olmak üzere toplam 634 kişidir. Araştırmada toplanan veriler kullanılarak hipotezleri test etmek amacıyla SPSS PROCESS makro eklentisi kullanılmış ve koşullu süreç analizi yapılmıştır. Bunun dışında aracı değişkenin anlamlılığı günümüzde daha modern bir yaklaşım olarak görülen bootstrapping yöntemi kullanılarak yapılmıştır. Öncelikle değişkenler arasındaki ilişkiyi belirlemek için Pearson momentler çarpımı korelasyon katsayısı hesaplanmış ve psikolojik sağlamlığın hem algılanan stres ile arasında hem de genel öz yeterlik ile arasında anlamlı ilişkiler olduğu görülmüştür. Ayrıca algılanan stres ile genel öz yeterlik arasında da anlamlı bir ilişki olduğu saptanmıştır. Genel öz yeterliğin psikolojik sağlamlık ile algılanan stres arasındaki ilişkide anlamlı şekilde kısmi aracı role sahip olduğu belirlenmiştir. Psikolojik sağlamlık ile algılanan stres arasındaki ilişkide genel öz yeterliğin aracı rolünün alanyazında incelenmemiş olması bu araştırma için önemli görülmektedir. Bu doğrultuda elde edilen tüm bulgular, benzer çalışmalar ile alanyazın ışığında tartışılmış ve bazı öneriler sunulmuştur.

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Ethical Statement: This research has been reviewed and given permission by the Marmara University Scientific Research and Publications Ethics Committee.

INTRODUCTION

While the literature on psychology and psychological counseling had generally focused on the problems and negativities present in individuals' lives through the modernist perspective until the end of the 20th century, emphasis under the influence of postmodernist thought in the 21st century has been made on individuals' strengths, potential, coping ability, emotions and personality traits through positive psychology. Positive psychology both reveals individuals' potential as well as shows them their strengths (Seligman & Csikszentmihalyi, 2000). Gable and Haidt (2005) also stated the aim of positive psychology to be having individuals be aware of positive life events. Positive psychology, which dates back to ancient times, is seen to have been studied much more in the last 20 years in particular. These studies frequently feature the concept of psychological resilience, one of the concepts of positive psychology.

Being a popular concept of positive psychology in recent years, psychological resilience is defined as individuals' ability to adapt to the negative life events they encounter by overcoming them and going back to living healthily (Kararmak, 2006). Another definition in the literature explains psychological resilience as adapting to the stressful and challenging events that occur in life by successfully coping with them (Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003). Gizir and Aydın (2006) stated psychological resilience to be the way individuals use protective factors to cope with the bad situations that emerge due to risk factors. When looking at the literature, even though many definitions have been made in regard to psychological resilience, three basic points are mentioned in the definitions: (1) risk factors or life challenges, (2) protective factors or coping skill, and (3) positive outcomes (Davydov, Stewart, Ritchie, & Chaudieu, 2010; Luthar, Cicchetti, & Becker, 2000; Öz & Bahadır-Yılmaz, 2009). These three common points can briefly be expressed as individuals having a negative experience, having the resources for coping with it, and their ability to adapt in this process.

Both personality traits and environmental factors play a significant role in whether individuals have high or low psychological resilience. The combination of personality traits and environmental factors has been identified in the literature to make up individuals' level of psychological resilience (Fraser, Richman, & Galinsky, 1999). Just as an individual's temperament affects their psychological resilience, so does their life experience determines the level of psychological resilience. The risk factors impacting individuals' psychological resilience include factors such as loss, crowded family life, stressful work or school environment, experiencing natural disaster, war, and direct or indirect exposure to a terrorist attack and reasons such as chronic/terminal illnesses, premature birth, neglect, abuse, lack of social skills academic failure, substance abuse, moving, or migrating (Gizir, 2007; Kararmak, 2006; Tugade & Frederickson, 2004). Certain protective factors have been mentioned in the literature for being able to cope with these risk factors (Baird, Lucas, & Donnellan, 2010; Campbell-Sills, Cohan, & Stein, 2006; Doğan, 2016; Eryılmaz, 2012); these have been identified as self-confidence, self-respect, self efficacy, flexibility, adaptability, sensitivity, intellectuality, strong interpersonal relations, autonomy, high awareness, academic success, having a sense of humor, having social skills, being hopeful and optimistic, having high religious beliefs, having positive expectations of the future, having supportive parents, having sincere relations with family and immediate surroundings, belonging to a close group of friends, being able to maintain friendships, and being a volunteer at an organization that benefits society. Preventing these risk factors and increasing these protective factors facilitates individuals' ability to cope quickly with back-breaking or stressful life events and to have a healthy adjustment process (Fergus & Zimmerman, 2005; Kirca & Saruhan, 2020). Similarly, the fact that Wang and Zhang (2015) mention emphasizing individuals'

strengths instead of negative and stressful situations reveals the importance of protective factors. In summary, protective factors can be said to function as a buffer against risk factors in people's lives.

Psychological resilience is a character trait that can be learned and developed. Accordingly, individuals can be said to possess a certain responsibility in having high or low psychological resilience. Individuals who are not resilient psychologically are found to have problems such as low self efficacy and inability to adapt to life (Kunseler, Oosterman, de Moor, Verhage, & Schuengel, 2016), getting frazzled and experiencing burnout due to stressful life events (Yörük, 2019), being isolated by not being able to communicate with one's social environment and continuing life with low motivation (Eraslan-Çapan & Arıcıoğlu, 2014), and experiencing problems such as having weak family relations and substance abuse (Gizir, 2007). Other studies that have been performed observed having high psychological resilience to play a decisive role in people being happier and having higher life satisfaction (Doğan, 2015; Short, Barnes, Carson, & Platt, 2020). Similarly, individuals with high psychological resilience have been identified as having beliefs and positive feelings about life (Atarbay, 2017), high levels of optimism (Orth & Robins, 2014; Parmaksız, 2020), social support (Kobau et al., 2011), high self-esteem (Kararımak & Siviş-Çetinkaya, 2011; Renati, Bonfiglio, & Pfeiffer, 2016), and sufficient levels of self efficacy (Benard, 2004; Drapeau, Saint-Jacques, Le'pine, Be'gin, & Bernard, 2007; Terzi, 2006). These findings obtained in many studies also carry significance for the model being established in the current research being conducted. Apart from this, studies are also encountered in the literature showing psychological resilience to also have an impact on individuals' state of stress (Calvete, Orue, & Hankin, 2014; Connor & Davidson, 2003; Turgut, 2015). These results obtained on the relationship between the stress individuals perceive and psychological resilience levels are also seen as important for the model being established.

The state of stress, which can be expressed as a risk factor for psychological resilience, is a reality present in individuals' lives. Stress, which challenges us in all areas of life, is defined as a phenomenon that occurs as a result of the changes individuals experience and creates a state of tension by threatening the individual both physically and psychologically (Greenberg, 2011). The literature contains many different definitions about the concept of stress. The common point that can be drawn from these definitions is that individuals experiencing stress are both physically and psychologically stressed by giving internal reactions and experience problems adapting to their environment as a result of these tensions (Durna, 2006). Performed studies have emphasized the need for individuals to be psychologically resilient in order to overcome the stressful events encountered in life and the problems adapting in this process (Özyıldırım, 2015). Individuals with high psychological resilience have been mentioned in the literature to also cope better with stressful situations and to be able to more easily get challenging life events under control (de Terte & Stephens, 2014; Jacelon, 1997). This finding indicates a relationship to exist between individuals' psychological resilience and the stress they experience.

Apart from low levels of psychological resilience, other factors have also been mentioned to trigger the stress present in people's lives. Having low self-confidence (Üstün & Bayar, 2015) and low self efficacy (Chen et al., 2020; Göger & Çevirme, 2019) are seen as other factors impacting stress. When examining these factors, researchers are seen to conduct studies on the many factors affecting stress. In particular, much research is encountered both in Turkey and abroad showing the impact having low self efficacy has on individuals' stress (Bandura, 2006; Choi, Kluemoer, & Sauley, 2013; Jimmieson, 2000; Newby-Fraser & Schlebusch, 1997; Sahranç, 2007). These research findings have shown self efficacy to be an important variable in coping with the stressful situations people experience.

The variable of self efficacy, which appears to be related to individuals' stress levels as well as psychological resilience, is thought to also be able to have a mediating effect on the relationship between psychological resilience and perceived stress. The concept of self efficacy, whose importance is seen in this regard, is expressed as an individual's awareness of their own ability and self-confidence on any topic (Bandura, 1986). Another definition describes self efficacy as an individual's ability to plan for arriving at their goals and possessing specific beliefs on this matter by knowing their own competencies and potential (Luszczynska, Scholz, & Schwarzer, 2005; Yıldırım & İlhan, 2010). Based on these definitions, an individual's belief in their potential and competencies rather than their abilities explains the concept of self efficacy.

Considering that the concept of self efficacy to be generalizable by not addressing just one area in an individual's life has allowed the concept of general self efficacy to emerge (Aypay, 2010; Scherbaum, Cohen-Charash, & Kern, 2006). Although many definitions occur in the literature on general self efficacy, it is in short defined as the belief individuals carry regarding trusting their self-potential in all areas and their ability to cope with stressful life events (Chen, Gully, & Eden, 2004). These definitions show general self efficacy to allow individuals to be addressed in a wider scope over their behaviors.

When examining the literature, research results are encountered showing individuals to need general self efficacy for coping with stressful life events (Luszczynska, Gutiérrez-Doña, & Schwarzer, 2005; Tong & Shanggui, 2004). Other studies are found in the literature to show strong self efficacy belief to be able to impact coping with challenging and stressful situations in life (Cziraki, Read, Laschinger, & Wong, 2018; Diehl & Hay, 2010). When considering that each stressful life event is a risk factor, general self efficacy is considered able have an impact on individuals being psychologically resilient. Many studies in both the domestic and international literature support this idea (Can & Cantez, 2018; Kılıç, Mammadov, Koçhan, & Aypay, 2018; Scholz, Gutiérrez-Doña, Sud, & Schwarzer, 2002). All the findings obtained in these studies prove general self efficacy and psychological resilience to have an effect on individuals' perceived stress levels. Bandura (1977) stated individuals with high general efficacy to try to succeed again by getting back on their feet when they are unsuccessful. This situation is consistent with the characteristics that are defined for people with high psychological resilience.

In the literature review, the concepts of psychological resilience, perceived stress, and general self efficacy are seen to have been generally studied with high school or university students (Akhunlar-Turgut, Sariot-Ertürk, Karşlı, & Şakiroğlu, 2018; Neff & McGehee, 2010; Pehlivan, 2019; Steinberg, 2007). At the same time, the studies in the literature review examining the perceived stress levels or psychological resilience of adult individuals are noted to few in number both abroad and in Turkey (Bonanno, 2004). Apart from this, examining not just children's and adolescents' but all individuals' psychological resilience levels and perceived stress levels is considered necessary due to the COVID-19 virus that has shown serious effects both in Turkey and in other countries. Considering all these reasons, the sample of the research has been identified as adult individuals.

Individuals possessing psychological resilience, namely the belief that they can cope psychologically with the restrictive epidemic period we are in, is thought to play a significant role in how they cope with the stress they perceive. This research is considered to be important as it presents findings that are considered notable for being able to increase individuals' psychological resilience levels and general self efficacy level and to keep their perceived stress levels under control during this pandemic within which we are found. Even though the relationship the three variables addressed in this research are seen to have been

examined in the literature binarily, no research is encountered to have addressed these three variables together. Based on this rationale, this study is believed to be able to contribute to the field of psychological counseling and guidance.

The aim of this research is to examine the mediating role general self efficacy has on the relationship between adult individuals' psychological resilience and their levels of perceived stress. A hypothetical model has been established in line with this objective. The perceived stress levels in this established model are thought to affect psychological resilience directly and general self efficacy indirectly.

The Study's Basic Hypotheses

The model tested in line with the aim of the research is presented in Figure 1:

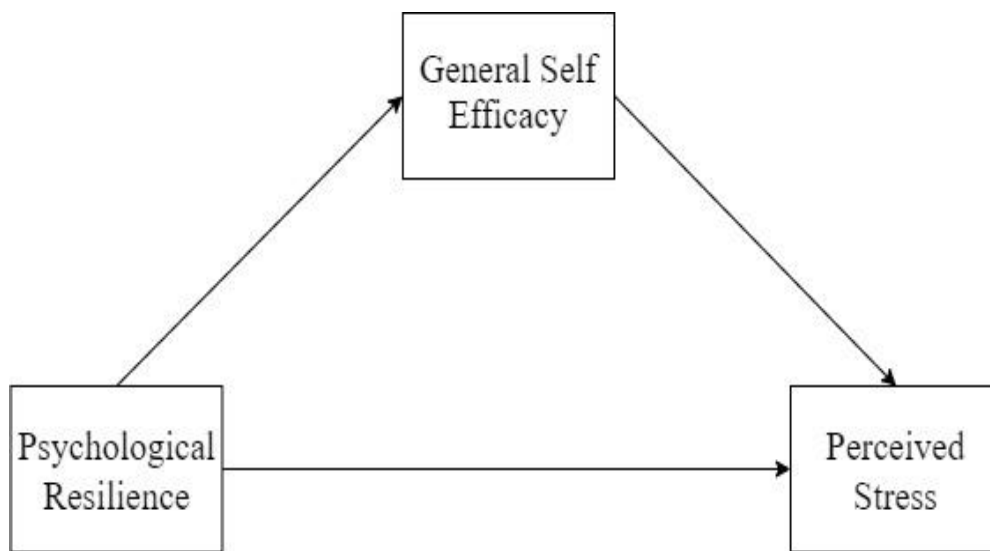


Figure 1. The suggested conceptual model for the mediating role of general self efficacy in the relationship between psychological resilience and perceived stress

The following hypotheses have been determined with the aim of testing the model shown in Figure 1:

H1: Statistically significant relationships are found between the variables of both perceived stress and general self efficacy by means of the variable of psychological resilience.

H2: Psychological resilience significantly predicts the variable of perceived stress.

H3: Psychological resilience significantly predicts general self efficacy, and the variable of general self efficacy also significantly predicts perceived stress.

H4: General self efficacy has a mediating role on the relationship between the variables of psychological resilience and perceived stress.

METHOD

Research Model

This research is a descriptive study based on the relational screening model and examines the mediating role general self efficacy has on the relationship between the participants' levels of perceived stress and

psychological resilience. The relational screening model is used for predicting the relationships among the variables (Burmaoğlu, Polat, & Meydan, 2013). The predicting variable (X) of the study is psychological resilience, the predicted variable (Y) is perceived stress, and the mediating variable (M) is general self efficacy.

Participants of the Research

The study group in this research is composed of individuals over the age of 18. Of the total of 634 participants between the ages of 18 and 72, 362 are female (57.1%) and 272 are male (42.9%). The average age of the participants has been calculated as 29.71. The performed analyses have determined the sample to consist of many different occupational groups.

Ethical Statement

The study's ethics committee approval was obtained from the Marmara University Scientific Research and Publications Ethics Committee on July 23, 2020 (Board Approval #2000223550/2020-7-16). The consent form was obtained from all participants indicating that they voluntarily participated in this study.

Data Collection Tools

Personal Information Form. In this study, a personal information form prepared by the researchers is used in order to determine the demographic characteristics of the sample and to define the study group better. This form requests information about gender, age and profession from the participants.

Brief Psychological Resilience Scale. The research uses the Brief Resilience Scale, developed by Smith et al. (2008) and adapted to Turkish by Doğan (2015), for the purpose of determining the participants' levels of psychological resilience. This scale, scored as a 5-point Likert type, is a one-dimensional scale composed of six items. Additionally, the scale has items that are reverse scored. High scores received on the scale after converting the reverse-scored items show the participants to have high levels of psychological resilience. The fit indices obtained as a result of the performed confirmatory factor analysis are seen to be sufficient. Cronbach's alpha had been calculated for the purpose of determining whether the scale is reliable or not and was found to be .83. Cronbach's alpha obtained in regard to the study group included in this research has been calculated as .84.

Perceived Stress Scale. Cohen, Kamarck, and Mermelstein (1983) developed the Perceived Stress Scale to determine participants' level of stress when they experience it in their lives. This scale's adaptation to Turkish was carried out by Eskin, Harlak, Demirkiran, and Dereboy (2013). Although the original scale has 14 items, the form adapted to Turkish has 10 items. As a result of the component analysis, a two-component structure with eigenvalues greater than 1 has been determined. In other words, the scale has two sub-dimensions. This scale is scored as a 5-point Likert type between 0 (never) and 4 (very often) with the lowest and highest scores able to be obtained from the scale being 0 and 40, respectively. Receiving high scores on the scale indicate participants have high levels of perceived stress. In the Cronbach alpha test performed for the scales' reliability, the internal consistency coefficient was reported as .82. The value of Cronbach's alpha of internal consistency in this study has been calculated as .83.

General Self Efficacy Scale. Although the scale, developed by Schwarzer and Jerusalem (1995) for measuring participants' ability to cope with new and difficult affairs, initially consisted of 20 items, it has been reduced to 10 items as a result of modifications. Aypay (2010) adapted this scale to Turkish and Turkish culture. The scale contains no reverse-scored items; it is scored as a 4-point Likert-type with two

sub-dimensions. The lowest and highest scores obtainable on the scale are 10 and 40, respectively. Obtaining high scores means individuals have sufficient self efficacy. For testing the reliability analysis of the scale, the test-retest reliability was reported as .80 and the Cronbach alpha of internal consistency as .83. In line with the measurements obtained from the participants, this study has determined the Cronbach alpha of internal consistency to be .84.

Data Collection

In order to carry out the research, the necessary permissions were obtained to measure the variables in the research by contacting the owners of the scale. The data of the study were collected using the easy sampling method on Google Forms due to the Covid-19 epidemic process in the second half of 2020. Then the collected research data were transferred to the computer environment.

Data Analysis

Preliminary preparations have been for being able to perform the statistical analyses of the data collected within the scope of the study. First whether or not improper or incomplete markings were present in the data set and extreme values were examined using the frequency table. In the data collected from a total of 681 adults in total, seven measurement data set were removed that were incomplete or incorrectly marked. Next, Mahalanobis distance values were calculated for the remaining 674 adults. By taking into account the significance level of .001 as stated in the literature (Büyüköztürk, 2016; Gürbüz, 2019), 40 more measurements with extreme values were removed from the data set, and the data set was formed with a total of 634 participants. Lastly, whether or not the variables had multicollinearity issues was also checked using the assumptions of normality and linearity. The values were determined to be within range (± 1.96) by looking at the skewness and kurtosis coefficients of each variable, and the null hypothesis is seen to be rejected (Kolmogorov Smirnov $p \geq .05$). These obtained findings indicate the data to show normal distribution. Apart from this, after seeing no problem to exist related to multicollinearity, the data analyses were begun.

The data analyses were started by calculating the descriptive statistics and internal consistency coefficients for each variable. The relationships among psychological resilience, perceived stress, and general self efficacy have been reported by calculating the Pearson product-moment correlation coefficient. Afterward, the PROCESS macro plug-in for SPSS developed by Hayes (2018) was used for testing the research hypotheses, and the conditional process analysis was performed. Conditional process analysis is expressed as a mediation model based in the literature on regression analysis and is an analysis that resembles multiple regression analysis and examines the level at which the relationships present among the variables are explained with respect to the established model (Gürbüz, 2019). Totan (2013) stated that mediation analysis should be used to test theoretical models. According to Gürbüz (2019), how the relationship between the predictor and predicted variables emerge is explained by the mediation effect. The predictor (independent) variable in this study is psychological resilience, the predicted (dependent) variable is perceived stress, and the mediating variable is general self efficacy.

Researchers, due to considering Baron and Kenny's (1986) method used in mediation analysis as a traditional but not very strong method, recommend the use of conditional process analysis, which is more contemporary these days and provides reliable results (Darlington & Hayes, 2017; Gürbüz, 2019; Hayes & Rockwood, 2017). Additionally, some researchers who find the Sobel test used for testing the significance of the mediating variable to be traditional (Sobel, 1982; Zhao, Lynch, & Chen, 2010) advocate

the need to choose the bootstrapping method in testing significance because it provides more effective and sturdier results (Hayes & Preacher, 2014; Rucker, Preacher, Tormala, & Petty, 2011). The bootstrapping method is a powerful statistical test called resampling and is used while testing the significance of the mediating variable (Gürbüz, 2019). Direct and indirect effects can be identified with a single process using this method without applying Baron and Kenny's (1986) 3-stage regression analysis. This study reports on whether the mediator variable is significant by looking at the confidence interval values obtained from the bootstrap test.

RESULTS

The first hypothesis of the research (i.e., statistically significant relationships are found between the variables of both perceived stress and general self efficacy by means of the variable of psychological resilience) has been tested first. While testing this hypothesis, the descriptive statistics of all the variables included in the research as well as their relationships with one another were examined. Table 1 includes the findings obtained as a result of the Pearson product-moment correlation coefficients analysis as well as the variables' standard deviation scores and averages.

Table 1. Mean, standard deviation and correlation values of the variables of the study

	Mean	Ss	(1)	(2)
Perceived Stress (1)	31.68	4.58		
Psychological Resilience (2)	19.92	4.35	.29*	
General Self Efficacy (3)	31.36	2.24	.23*	.45*

Note. * $p \leq .01$

According to Table 1, while the averages score and standard deviation for the variable of perceived stress have been found as 31.68 ± 4.58 , these values are 19.92 ± 4.35 for the variable of psychological resilience and have been calculated as 31.36 ± 2.24 for general self efficacy. When examining the binary relations between variables, the relationships psychological resilience has with both perceived stress ($r^2 = .08$) and general self efficacy ($r^2 = .20$) are seen to be significant ($p \leq .01$). Additionally, a significant relationship has been determined between perceived stress and general self efficacy ($r^2 = .05$; $p \leq .01$). The hypothesis H1, tested in line with the Pearson product-moment correlation analysis results, has been accepted.

When looking at the levels the variables in the research explain one another, psychological resilience has been determined to explain 8% of the perceived stress ($r^2 = .08$; $F_{(1, 632)} = 56.10$; $p \leq .01$), and this level is expressed as having a low explanatory level in the literature. At the same time, general self efficacy has been reported to explain 5% of the variance in scores perceived stress ($r^2 = .05$; $F_{(1, 632)} = 35.69$; $p \leq .01$). This explanatory level has also been determined to be at a low level in the literature. Lastly, psychological resilience can be said to explain 20% of general self efficacy ($r^2 = .20$; $F_{(1, 632)} = 158.14$; $p \leq .01$), and this explanatory ratio is mid-level (Leech, Barrett, & Morgan, 2008).

The remaining hypotheses of the research have been tested using conditional process analyses in line with the established model. The findings related to the conditional process analyses are presented in Figure 2:

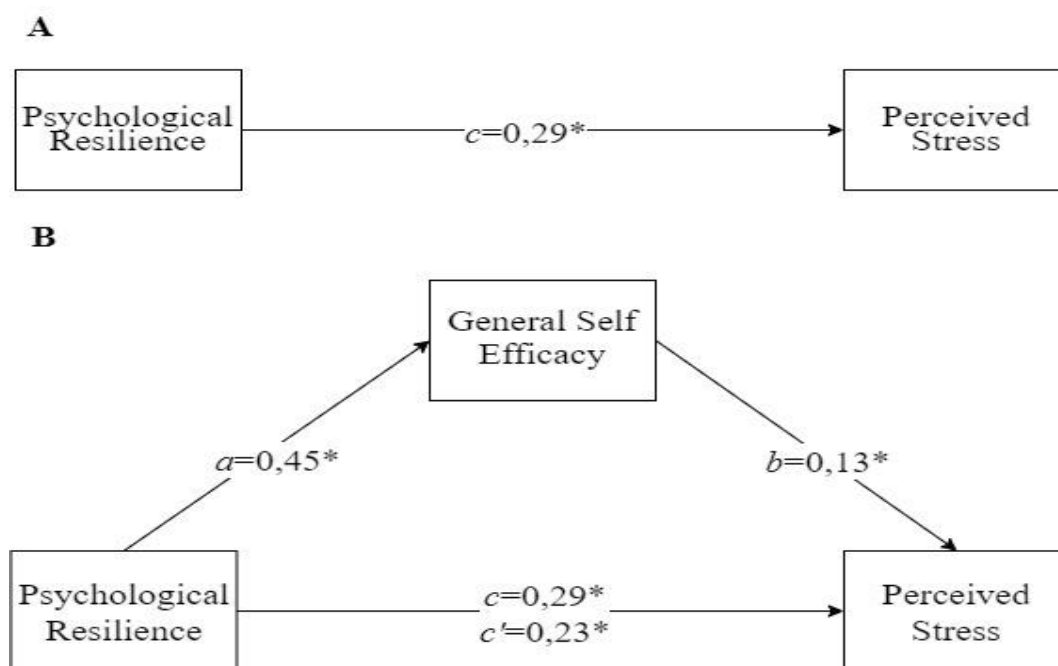


Figure 2. The mediating role of general self efficacy in the relationship between psychological resilience and perceived stress

The path coefficient (c) of psychological resilience (the predictor variable in the research) going to perceived stress (the predicted variable) has been determined in Figure 2-A as .29 ($p \leq .000$). This finding shows hypothesis $H2$ to be accepted. As seen in Figure 2-B, the path coefficient (a) going from psychological resilience to general self efficacy has been calculated as .45 ($p \leq .000$) and the path coefficient going from general self efficacy to perceived stress as .13 ($p \leq .002$). Through this obtained finding, hypothesis $H3$ of the research is also accepted. Again, when adding the mediating variable of general self efficacy to the established model in Figure 2-B, the path coefficient (c) between psychological resilience and perceived stress drops to .23. With the decrease of the path coefficient at the level of .06 ($c - c' = .06$; $p \leq .000$), general self efficacy is determined as having a partial mediating role on the relationship between psychological resilience and perceived stress. With this finding, the mediation model established on explaining perceived stress has been statistically verified, and the study's hypothesis $H4$ is accepted.

The bootstrap test has been used for examining the significance of the mediating role of the variable of general self efficacy. The significance level from indirect effects is determined using the bootstrap analysis (MacKinnon, Lockwood, & Williams, 2004). This study set the bootstrap value (resampling number) to 5000 in order to determine the significance of the mediation. In other words, the confidence interval values have been calculated over 5000 sub-samples. The bootstrap analysis, performed for the purpose of determining whether or not the partial mediating role of general self efficacy is significant on the relationship between psychological resilience and perceived stress, determined a non-zero value between the upper and lower limits at a 95% confidence interval. The result obtained in this regard shows general self efficacy's mediating role to be at a significant level (95% confidence interval [.02, .11]).

DISCUSSION, CONCLUSION & SUGGESTIONS

This research has examined the mediating role adults' general self efficacy has on the relationship between psychological resilience and perceived stress. Before examining the mediating role, the relationships among the three basic variables of the research were obtained. The first finding this research has arrived at is that individuals' levels of psychological resilience significantly and positively predict their levels of perceived stress. This obtained finding is seen to be inconsistent with the majority of previous research results. Although studies are detected in previous research where significant relationships have been found between psychological resilience and perceived stress, this significance is generally found to be negative (Bozdağ, 2020; Calvete et al., 2014; Rushton, Batcheller, Schroeder, & Donohue, 2015; Üzar-Özçetin & Erkan, 2019; Yağmur & Türkmen, 2017). Apart from these findings, studies are also found in the literature where no significant relationship exists between psychological resilience and perceived stress (Demir, 2018; Özyıldırım, 2015). Many factors can be mentioned in the emergence of many different results such as sampling traits, the conditions of the period when the data are collected, and differences in the characteristics being determined by the scales being used. Although the finding obtained in this study does not appear consistent with the literature, it has its own rationale. Psychological resilience is not about not experiencing stress or problems; it is about the power of being able to cope with these stresses and problems. Terzi (2006) expressed this concept as the power of self-recovery. The power of self-recovery is defined in the literature as individuals' power to be able to quickly return to their old self after stressful life events and to be able to adapt to what has happened after severely stressful life events (Garmezy, 1993; Masten, 2001). The research data have been gathered at a time when the pandemic has created a shocking impact on all people, the situation is yet to be able to be understood, and as a result people feel the need to use their psychological resilience more, namely the aspects regarding coping with the problem. Based on the definitions given above, the times when perceived stress is high can be assessed as times when individuals' psychological resilience also increases. In other words, the more intensely a person experiences the stressful situation, the more their psychological resilience also increases. Steinhardt and Dolbier (2008) have also made statements in the literature supporting this idea. Together with all these perspectives, the positive relationship between psychological resilience and perceived stress can be argued to be an expected finding.

Another finding of the research is that a positive and significant relationship exists between perceived stress and general self efficacy. Research is available in the literature where the results of some studies are consistent with these findings while others are not. When examining the literature, a positive significant relationship between perceived stress and general self efficacy is encountered in the study performed by Charoensukmongkol (2014). Other studies performed and examined in recent years, while seeing the relationship between these two variables to be significant, have determined this relationship to be negative (Chen et al., 2020; Choi et al., 2013; Cziraki et al., 2018; Göger & Çevirme, 2019; Sahranc, 2007). Again, the conditions of the time when the data have been collected may be considered as impactful on why the results obtained in this study do not appear consistent with the findings from other research. In other words, the concept of perceived stress should not always be considered negatively. Saying that individuals with high levels of general self efficacy will be able to cope with states of stress they perceive is possible when perceived stress is perceived realistically and positively. Explanations supporting this idea can also be encountered in research performed both in Turkey and abroad (Diehl & Hay, 2010; Özbay, Palancı, Kandemir, & Çakır, 2012). Based on these explanations, individuals with high levels of

general self efficacy are expected to realistically perceive the stressful life events they are found within before developing defense mechanisms.

The last findings obtained from the binary relations in the research is concernin to the relationship between psychological resilience and general self efficacy. A positive and significant relationship has been determined to exist between these variables. The results of research in the literature both in Turkey and abroad support this research result. When looking at related studies, Demir and Kabakçı's (2020) up-to-date research shows individuals with high self efficacy to also have high levels of psychological resilience. Apart from that study, Kılıç et al.'s (2018) study determined a positive and significant relationship to exist between the level of general self efficacy and the level of psychological resilience. A person having positive self-perceptions and thoughts increases their level of general self efficacy. Individuals with thoughts and perceptions like this have been proven in the literature to also have high psychological resilience (Eminağaoğlu, 2006; Luszczynska et al., 2005; Önder & Gülay, 2008). As a result of the literature review, only one single study was encountered to have a finding not resembling this result of the current research. This study was conducted by Garza, Bain, and Kupczynski (2014), in which they were unable to find a significant relationship between psychological resilience and general self efficacy. Apart from this, no other study is encountered that shows no significant relationship to be present between these variables.

The most basic and significant research finding is that the variable of general self efficacy has a significant partial-mediating role between psychological resilience and perceived stress. No study is encountered in the literature that shows general self efficacy to have a mediating role on the relationship between psychological resilience and perceived stress. While this study shows psychological resilience to have a significant effect on perceived stress, its impact on perceived stress shows variations when general self efficacy is included in the model. Although individuals' levels of psychological resilience again affect their perceived stress, the effect of general self efficacy on perceived stress must not be underestimated. In other words, general self efficacy has a significant impact on perceived stress. The variable of general self efficacy having a significant mediating role on this relationship has been assessed as an expected finding. This is because the literature has reported individuals with high levels of general self efficacy to recover faster after stressful or difficult life events (Cziraki et al., 2018), namely that their power of self recovery is high (Kılıç et al., 2018). Based on these references and the resultant research findings, general self efficacy is also a significant variable on individuals' levels of perceived stress just like psychological resilience.

Some limitations should be taken into account while examining these research findings. Firstly, life had been restricted in many areas and people were undergoing a psychologically difficult period due to the COVID-19 pandemic process at the time when the research data were being collected. This situation is assessable as a limitation by considering its ability to impact research results. Apart from this, another limitation has been the collection of research data using online forms and the inability to answer participants' questions. Lastly, because each scale measures different traits, the scales in this study are limited by the qualities they measure.

Certain recommendations can be made in line with the results obtained in the research. Primarily, one must not hesitate to get psychological support at a time when the presence of stressful life events is generally required to keep our level of psychological resilience high. Individuals' levels of perceived stress are considered able to change with the support they receive. When considering the variables of

psychological resilience and general self efficacy among the factors that impact the level of perceived stress, individuals' psychological resilience being supported, and levels of general self efficacy being increased will make a positive impact on the stress they perceive. Apart from this, forming psycho-educational programs related to psychological resilience, mentioning the protective factors preventing the risk factors in these training (Davydov et al., 2010; Gizir & Aydın, 2006), and making applications (Terzi, 2006) can positively impact perceived stress levels and levels of general self efficacy. Applications can be made in the educational fields to increase individuals' levels of general self efficacy. Revealing positive emotions and having healthy interpersonal relations can be stated as another recommendation. Apart from this, it can be thought that this research finding is important for psychological counseling. Considering the psychological resilience, perceived stress, and general self efficacy of the clients, especially in the psychological counseling process that has developed since 2000, may be effective in terms of the healthier progress of the process as well as other factors (Arslan & Sommers-Flanagan, 2018). For future research, the model is recommended to be repeated on different sample groups, as well as broadening the research by adding new variables or arriving at a variety of findings by using other analyses. Reexamining after the pandemic process by addressing these variables in new studies to be done is considered important in terms of determining the differentiation that the conditions of the period formed over the research findings.

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SO: Idea and design, data collection and analysis, interpretation of findings, reporting of the article.

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